

---

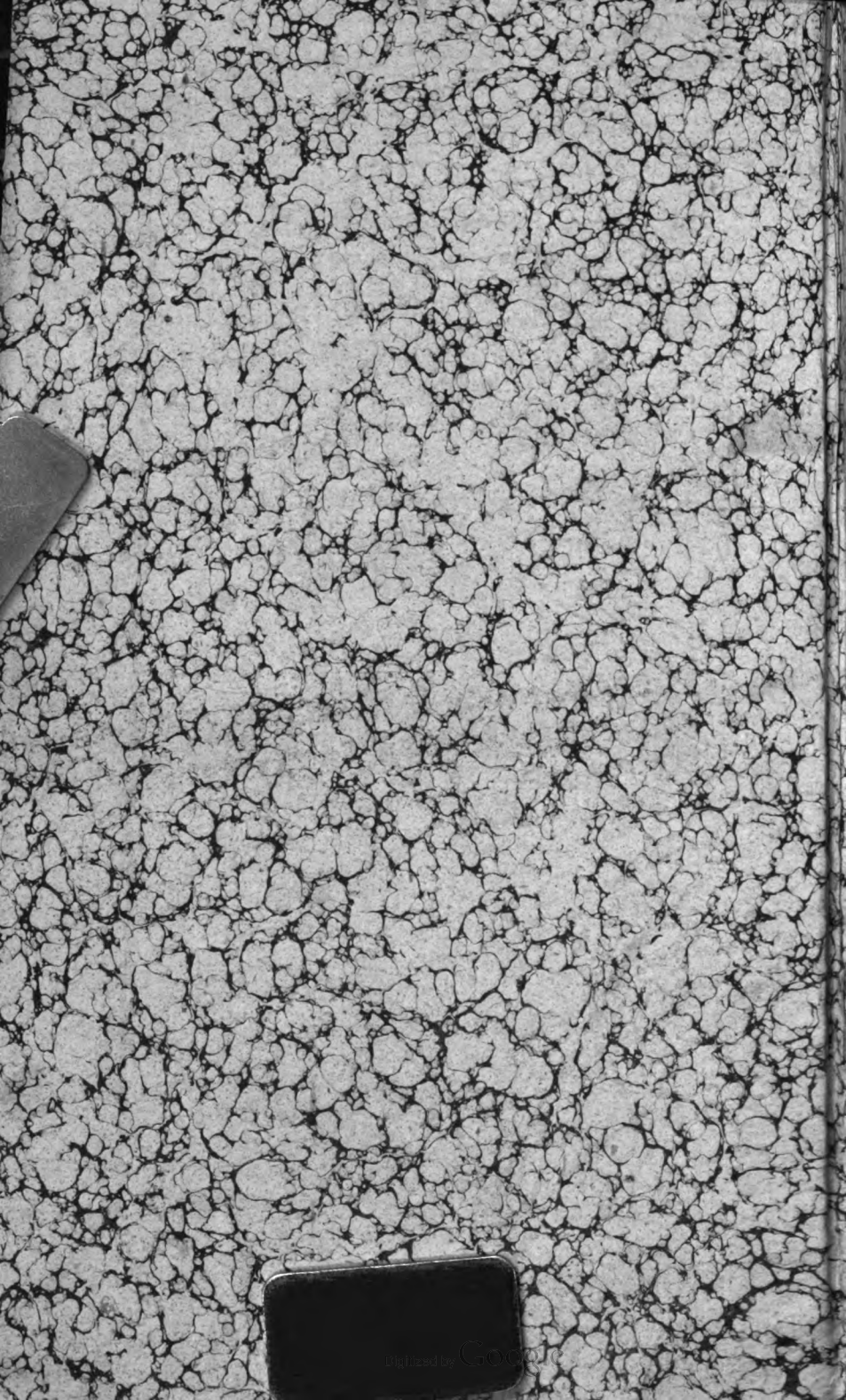
This is a reproduction of a library book that was digitized by Google as part of an ongoing effort to preserve the information in books and make it universally accessible.

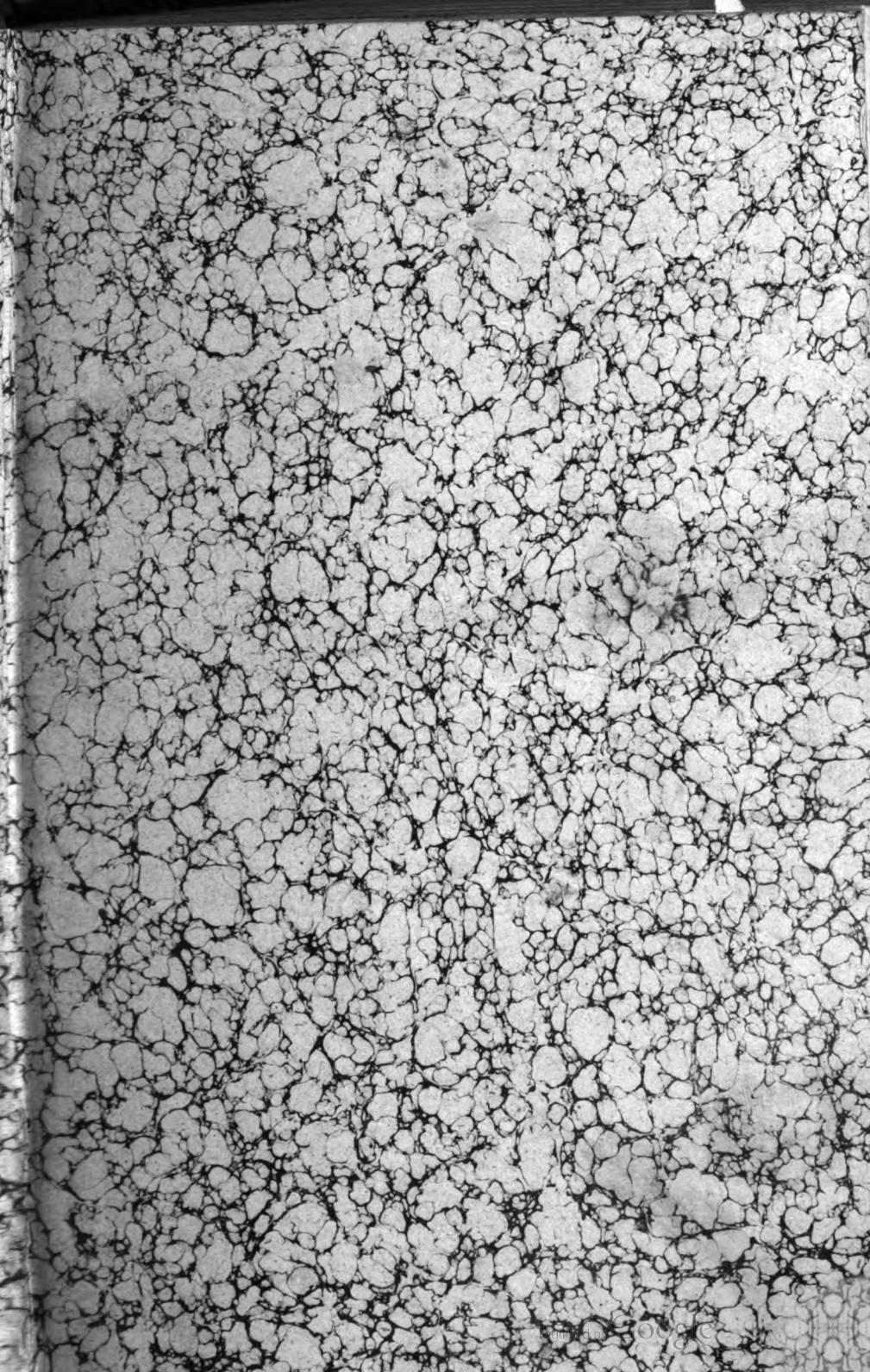
Google™ books

<https://books.google.com>









A. Lyon Magazine  
56<sup>th</sup>  
- 1851

**<36623542330016**

**<36623542330016**

**Bayer. Staatsbibliothek**



**THE**  
**NAUTICAL MAGAZINE.**





THE  
NAUTICAL MAGAZINE

AND

**Nabal Chronicle.**

FOR 1851.

A JOURNAL OF PAPERS

ON SUBJECTS CONNECTED WITH

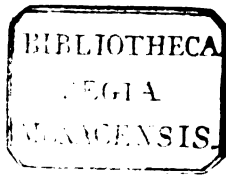
MARITIME AFFAIRS.



LONDON:

SIMPKIN, MARSHALL AND CO.,

STATIONERS' HALL COURT.



---

LONDON:  
HUNT & SON, PRINTERS, CHURCH STREET,  
EDGWARE ROAD.

---

## CONTENTS OF VOL. FOR 1851.

### ENLARGED SERIES.

---

- Admiralty circular, log books, 332.  
Advantages of screw steamers in the ice, 92.  
African information, 453.  
American nautical life car, 93, 439, 488.  
Antilles—Sombrero, Anguila, St. Martin, &c., 13, 140.  
Arctic Expeditions, 158, 385.  
Arctic searching Expedition, return route, 667.  
Atlantic Vigias, 614.  
Atlantic packet steamers, 99.
- Bosphorus, screw steamer, 211.  
Bottle tracks, 334, 386, 437.
- Cause and effect—allowance of grog in the Royal Navy, 279.  
Celebes, 208.  
Celtic Philosopher, 8.  
Challenge between the America and the Titania, 559.  
Commerce of Liberia, 145.  
Commodore Stockton on Africa, 210.  
Connexion of tidal streams with atmospheric influences, 191.  
Consular fees, 321.  
Cruise of H.M.S. Acheron on the coast of New Zealand, 282.

Description of the monumental tower in honour of Sir John Barrow, Bart., on the Hoad Hill, Ulverstone, 28, 145.

Description of Juan de Fuca Strait, 316, 374.

Destruction of the Ardaseer, 445.

Discipline in merchant ships, 427.

East India mail statistics, 372.

Eclipse of the 28th July, 481.

Edwards' patent preserved potato, 219, 441, 673.

Encounter of a ship with a whale, 333.

Enigma in navigation, 165, 207.

Ethnology of Eastern Asia and the Indo Pacific Islands, 19, 86, 132.

Examination of masters and mates, 37, 45, 442.

Extraordinary flight of carrier pigeons, 615.

Falkland islands, 505.

Forbes's new rig for ships, &c., 440.

Freak's hurricane, Pacific, 272.

Globular sailing, 517.

Hints to those who visit St. Michaels, 431.

Historical Notice of the progress of the Ordnance Survey in Scotland, 473.

H.M.S. Indefatigable, 111.

Horsburghs charts, and the Cargados Garajos shoal, 231.

Indian steam navigation, 387.

Insult to the British flag, and kidnapping a tailor, 387.

Investigation of the tides between the Owers and Portland, 393.

Iron Lighthouse for the American Government, 162.

Journal of a Russian privateer, 115, 185.

Judgments of the Sea, and the Isle of Oleron, 46, 96.

Julius Cæsar's expedition against England, 338, 607.

Late Captain Hewett's opinion of Redcar (intended) Victoria harbour, 278.

Lighthouse economy, 248, 333.

Liverpool life-boat establishment, 164.

Loseby's and Frodsham's Chronometers, 675.

Longest ship in the world, 558.

Loss of H.M.S. Flamer, 111.

Man afloat in the Mid Ocean, 220.  
 Management and mis management in hurricanes, 35.  
 Maury's wind and current chart, 220.  
 Meteorological register, 56, 112, 168, 224, 280, 336, 392, 448, 504, 560,  
 616, 688.  
 Models of Frigates, Yachts and Steamers, 221.  
 More about Tobacco, 76.

Nautical notices, 41, 102, 153, 213, 276, 327, 380, 437, 489, 680.  
 Nautical sayings and doings, 53.  
 Nautical treasure hunt, 509.  
 New books, 62, 108, 109, 166, 389.  
 Naval forces at home, 100.  
 Naval service obituary, 385.  
 New charts, 111, 168, 224, 335, 391, 417.  
 Nicaragua canal company, 279.  
 Nicaragua route from the Pacific to the Atlantic, 503.  
 Notes and observations on Greytown, Mosquita, 268.

Ocean soundings, 433.  
 Opening of the Portsmouth sailors' home, 322.  
 On transforming Plane to Mercator's charts, 424.

Pacific hurricanes, 610.  
 Pacific or great ocean, 225, 311.  
 Panama railroad, 51.  
 Plundering wrecks, 48.  
 Pirate slaver, 196, 242, 304, 650.  
 Piracy in the Mediterranean, 677.  
 Precious and inferior metals, 113.  
 Prince Albert's track through the ice of Baffin Bay, 169.  
 Proceedings of H.M.S. Sphinx, 561, 624.  
 Progress of sailors' homes, 430, 503.  
 Progress of harbours of refuge, 434.  
 Province of Suediah, 5.

Rambles in Western India, 221.  
 Remarks on a passage from Singapore to Shanghai, 449.  
 Renewed branch expedition in search of Sir John Franklin, 324.  
 Restriction on smoking tobacco, 209.  
 Return of the Arctic searching Expeditions, 569.  
 Review of the proceedings of the Arctic searching Expeditions, 529.  
 Run down the eastern shore of Palawan, 1.  
 Russian mariner's compass, 617.  
 Royal Yacht Squadron Regatta, 499.

Sailing vessels regulations, 49.  
Sailors' homes, 127, 205, 378, 602.  
Sailors' strike, 148.  
Salamander's visit to Formosa, 520.  
Screw steamers, 212.  
Search for Sir John Franklin, 218.  
Seizure of the Levenside merchant vessel by military passengers, 484.  
Settlement of Cresson Africa, 558.  
Shakings from Smyrna, 66, 121, 181, 237, 366, 467, 603.  
Sir John Ross' carrier pigeons, 615.  
Smoking ships, 438.  
Some thoughts on an efficient navy, 73.  
Steamers' lights and the laws of passing vessels, 591.  
Steam Navigation, 633.  
Suloo Pirates, 527.  
Summer's cruise on the coast of Labrador, 254, 287, 302, 403.

Tables of measurement, 44, 105, 163.  
Tabasco and its resources, 30, 81, 136.  
Tyne, a harbour of refuge, 686

Visit to Labuan on its becoming a British possession, 461.

Western Arctic Expedition, 108.  
Whale fisheries, 443, 496.  
Which is the best life-boat, 661.  
Widows pensions, 106.  
Wreck of H.M.S. Reynard, on the Prata shoal, 496.







*Memorial Tower*

IN COMMEMORATION OF SIR JOHN BASTARD, BART.

BY THE REV. JOHN BASTARD, D.D.

THE  
NAUTICAL MAGAZINE

AND

**Naval Chronicle.**

---

JANUARY, 1851.

---

A RUN DOWN THE EASTERN SHORE OF PALAWAN.\*—*Extract of a Letter from Com. Bate, R.N., H.M.S. Royalist, August 1850.*

WE sailed from Hong-Kong on the 3rd of April, and after obtaining some off-shore soundings to render more complete our survey of the Lema Group, and contiguous islands which front the Canton estuary, our course was shaped for Manila, where we arrived on the 11th. Our passage however was delayed for twenty-four hours by a gale from the north-east, which occasioned our being set in that time about twenty miles to the S.S.W.

In a Spanish chart of the Phillippine Islands, published in 1808, are two banks, laid down about thirty leagues to the westward of Cape Bólina, for the alleged position of which two ships, named the *Sta. Anna* and *St. Joaquin* are said to be accountable. As these banks lie very much in the track of vessels frequenting Hong-Kong and Manila, and no mention of them being made in Horsburgh's Directory, we passed over their reported position, obtaining no ground with 120 fathoms so

\* Our best charts afford us no kind of hydrographic description of the eastern shore of this island. Any account of its ports and bays, is yet as a sealed book to the navigator, and although it is occupied by a series of settlements, with a population of about 150 souls, each displaying the flag of Spain, we look in vain for that description in the Spanish chart of the Phillippine Islands that would enable him to visit them with confidence, and safety to his vessel. In this sad dearth of information, the following extract from an account of the *Royalist's* visit there in the course of last summer, under the command of Com. Bate, may prove useful to him, while the charts resulting from that officer's important surveys, as well as his sailing directions for them, are in course of preparation.—Ed.

NO. I.—VOL. XX.

B

there is something wrong there. Remaining at Manila until the evening of the 20th, we sailed for the north coast of Palawan.

After a succession of light airs, currents, and calms, we anchored on the evening of the 26th, off an island at the south-western extremity of the Linacapan Group, for the purpose of commencing our survey of the east coast of Palawan, which by the end of May we had advanced as far as the large island of Dumarran, having completely delineated the intermediate coast line, as well as the numerous islands that front it.

At various distances averaging about fifteen miles throughout, the extent of coast that we had surveyed, are situated small Spanish settlements; the population of each being about 150, some more, and perhaps some less. They are peopled by a kind of half-caste native and Manila people, speaking not very good Spanish, but acknowledging their allegiance to that country. These villages generally occupy a commanding position over the immediate neighbouring land, and are enclosed in a rude kind of stockade. A small portion of the ground is cleared, upon which rice, sweet potatoes, and tobacco is grown, although in quantities more than sufficient for their own consumption.

The people are employed collecting tortoise-shell, bees' wax, and trepang. A small traffic is carried on with the contiguous settlements by means of canoes, in the bows of which a brass swivel or 3-pound gun is generally to be seen to protect them, as they say, from the Moros, a piratical tribe which visits them now and then from the southward in large prahus; possibly they are Bornean pirates, who carry on a systematic course of plunder here, as elsewhere, for wherever we have been, the people have invariably expressed themselves as continually labouring under anxiety from them. The houses are constructed of trebong, and built upon piles raised eight or ten feet from the ground.

The two most important settlements on the coast, are at a place called erroneously Port Taitai in our charts, and on the Island of Dumarran. The former is situated in the south-west extremity of a deep and spacious bay, which is interspersed with numerous coral patches, and fronted by several remarkable high precipitous islands, of limestone formation; reefs extend from these also, upon one of which the *Royalist* struck on the evening of the 15th of May.

The Spaniards first planted themselves here, in 1600, and erected a stockade upon the right bank of what is now a diminutive mangrove creek. It was however after a few years abandoned, and a permanent fortress, built of madrepora, was raised half-a-mile to the eastward, upon the extremity of a narrow isthmus, which is nearly isolated at high water; but when the tide is out (which rises and falls seven feet,) the sand dries considerably beyond it. The fort is in rather a dilapidated state, its walls (thirty feet high,) are surmounted by a narrow parapet, in the embrasures of which, six pieces of brass and honeycombed iron ordnance of 12-pound calibre, are very indifferently mounted. The garrison, if it may be so termed, consists of 100 half-caste Spanish and Manila soldiers, but these may be regarded more as a militia.

The population is said to consist of 600 persons, many of whom live, as they term it "in the mountains," that is, in the interior, where they

cultivate the land and graze the cattle, the few they possess of the latter being from the Cuyos Islands, upon which place they depend for most of their articles of consumption. Pigs are plentiful, but poultry are scarce, and an exorbitant price is asked for them.

Water here, as elsewhere on the coast in this season, is by no means plentiful, that is to say, such as can with facility be got at. The inhabitants cultivate rice, maize, sweet potatoes, and tobacco, in small quantities, and in small fleets of canoes, are constantly in the search for tortoise-shell and trepang. The latter articles are sent to Manila.

During the absence of the Alcalde who was sick at Manila, the government was being administered by an inferior officer, who is a European Spaniard.

We were informed that an impost is laid by the Manila government of a dollar per man annually, upon all these settlements. At the entrance of this bay we communicated with an officer in the Spanish navy, in command of two gun boats, who I apprehend was employed collecting this tax. He was making a round of visits, and had instructions to contribute, as much as possible, to the little hydrographic knowledge his government possessed of the country.

Dumarran the second settlement in importance, is situated in the bottom of a small bay, on the south-west side of the large island from which it derives its name. The fort erected there stands upon a hillock. It is of very ancient date, and built in the form of a cross, the head and foot, upon which there had been embrasures, being circular. Three old iron pieces of ordnance are mounted behind the parapet of the transept, the terreplain of which, from the dilapidated state of the building, is partly constructed of plank, shored up by poles twenty-five feet from the ground.

It is ascended by a bamboo ladder, and the most nerveless person, on surmounting it, could not feel otherwise than apprehensive lest the platform, guns, and himself, should all fall through together. One face is entirely gone, and the deficiency supplied by a wooden stockade. The church is situated in the centre of the fort, close to the gateway, over which the arms of Ferdinand and Isabella, can be distinctly traced, carved upon a block of granite.

It is difficult to estimate the population of this place; the few untenanted houses would indicate a gradual diminution, but this perhaps is owing to the people migrating to the interior of the island where, from their isolated position, they are not, as in Palawan, apprehensive of any incursion by the Aborigines. There appeared to be a greater mixture of races here; and this admixture was traceable in their language, which is half Spanish and Bysian, with a little Malay. The women and children appeared in greater number than I had seen elsewhere. I counted forty-five of the former returning from morning mass, all very clean and decently clad after the fashion of the Manila people. There is a school for children, but of the nature and quality of instruction imparted we had not means of judging.

Rice, maize, sweet potato, tobacco, and cotton, are grown upon the island, and the hand-loom and spinning-wheel are to be seen worked by the women, manufacturing from the raw material, fabrics for the use of

their own household. The men are employed cultivating the land, and many parts of the island evince traces of their assiduity. Fleets of canoes are to be seen in many places, employed collecting the trepang and tortoise-shell. They are all armed with swords, spears, bows and arrows, and many of them mount a brass gun or swivel in the bow.

Of stock, &c., pigs and fowls are most plentiful. There was little disposition to barter, but perhaps this was owing to our own poverty, as the place was visited only by the two surveying boats. They had never seen a ship, and could not imagine how we managed to get there amidst so many reefs.

These settlements, by their own account, are exceedingly sickly in the rainy season; and at the change of the monsoon which occurs in June and July. By their description the disease appears to visit them, in virulence of form, somewhat analogous to that of cholera, and black vomit. The amount of mortality we could not satisfactorily arrive at, for it would appear they flee as fast as possible to some neighbouring country, perhaps the Cuyos, or large Island of Panang, as soon as the usual prognostics become evident. They have no one to officiate as a medical man; and on the question being put to the person administering the government at Taitai, how he managed when taken ill, carelessly replied "Oh! God is my doctor."

We returned to the ship, and endeavoured against light airs and calms to prosecute the survey to the southward, but on the night of the 11th of June we were overtaken by a gale of wind, which was the first decided evidence we had experienced of the change of the monsoon. At daylight we were compelled to seek shelter under a group of islands, called in our chart, Carandaga, anchoring in 30 fathoms, within two cables of the shore.

The wreck of a Spanish gun-boat was discovered lying broadside upon a sandy beach on the south-west side of this island; and 100 yards inshore of her lay an accumulation of articles (amongst which we picked up the Royal Arms, which one time had decorated her colours,) evidently marking the spot as the bivouac of the unfortunate crew. The number marked upon the stern of the wreck was eighteen.

Bad weather detained us at this island until the 18th when we departed and were fortunate in getting well to the southward, and anchored on the 20th in lat.  $10^{\circ} 25'$ , off a Spanish settlement, called Illan, situated half a mile from the entrance of a small fresh water river, navigable only by boats. The population of this place was about ninety. In other respects it differed little from those already described. It is subject to the Alcalde of Dumarran, and said to be a very sickly place in the month of August.

There is a similar settlement fifteen miles to the south-west of the above, called Barbacan, at which place we were told there were two others, named Baboyan and Bar-coo, still further south; but these perhaps are mere frontier stations, consisting of one or two houses, and at a greater distance inland, as in our subsequent visit we could discover no traces of them, whereas, one or two detached houses were to be seen crowning the spurs of some of the hills.

It is remarkable how gradual and almost imperceptibly, the tone of society altered and blended from one state into another, as we advanced southward, until at last not a trace of Spanish admixture could be detected, and we came entirely upon a Malay population. About the point of transition was almost evident by an entire absence of inhabitants, at least that we could see.

The coast, with the exception of the Archipelago, to the northward of Dumarran, as far south as  $9^{\circ} 50'$ , offers no very convenient anchorages. It has some deep bays, which are interspersed with low coral islands, surrounded by reefs, and many nuclei for the formation of more exist, almost awash, obstructing the channels between them, which, in some cases lead into very fair anchorages, but are in consequence rendered impracticable for the general coaster.\*

In the latitude however above mentioned, we discovered an excellent harbour, where a vessel can lay land-locked in 8 fathoms. The ingress and egress are at all times practicable, as the entrance, which is a strait, is two miles long and averaging one broad, lies nearly at right angles to the prevailing wind in both seasons.

Wood is plentiful, and good water can be procured from a small river called Ewig, emptying itself in the north-west corner of the harbour; but for which in the dry season a boat must ascend about three or four miles. By making a tank of the boat, the *Royalist's* pinnace brought alongside six tons and a half at one turn, and with considerable less wear and tear than is occasioned by adopting the casks.

Stock is not plentiful; the people who live in small detached houses scattered about the banks of the river, although very communicative, are in a wretched condition. They evinced every desire to give what little they possessed, and each woman who visited the ship, brought a fowl in her arms for a present.

The men's clothing consist merely of the chawat, but the person who styled himself chief, had on a Spanish shirt in addition. The women's attire is a coloured cotton garment passed tight round the waist, and reaching to the knees. They are remarkably plain, and their expression of countenance betokens a complete absence of intellectual endowments; they make themselves, if possible, more hideous, by the constant application of the beetle-nut. While some of the women in figure are most perfect, others again present an unsightly spectacle, arising from a scorbutic affection, which prevails greatly, and disfigures the whole frame. They speak Bysian, mixed with which a Spanish idiom can occasionally be detected. The average height of the male population is five feet two inches, the female four feet ten inches, and five feet; the weight of the former about 120 lbs.

We next proceeded on the morning of the 6th of July, to prosecute

\* The currents on the east coast are very mutable, and are greatly influenced by prevailing winds.

The flood sets along the coast to the southward, and the ebb to the northward.

The maximum velocity observed was 1.5 knots. Rise and fall seven feet, and the highest tides have always occurred in the daytime.

our investigation southward. When about two miles from the entrance of the harbour, the depth increases suddenly from 21 to 120 fathoms. This change is marked by a ripple line on the surface, and at certain periods no doubt the water breaks across the mouth of the harbour, and to such extent, as would probably deter a stranger from running his vessel through. The soundings on the east coast are very irregular; from 50 fathoms you go suddenly into 7, and just as quick again into deep water. If the sun is out, and weather clear, the shoal spots will always be discovered from the mast-head; recollecting however, a similar phenomenon will obtain, by the occurrence of floating patches of cirri. On one occasion, when about fifteen miles south of the harbour of Ewig we observed a change of depth from 120 to 9 fathoms, and this occurred while hauling the line in, and when the vessel had barely more than steerage way. We have not observed that the thermometer indicates the proximity of these sudden changes.

The whole island of Palawan, but more particularly in this neighbourhood is excessively mountainous, the peaks attaining an elevation of several thousand feet, and some of them are disposed very capriciously.

Advancing to the southward along a strait line of coast in some parts, and deep bays at others, the country assumed a somewhat different aspect. The high mountain ranges instead of sending their ridges and spurs close down to the sea, were generally fronted by extensive tracts of low alluvial land, and the numerous light green patches which stretched away up the hills, and park-like scenery that bounded their bases, bore testimony to the fact of our being in a very populous district. We did not, however, succeed in establishing a communication until our arrival on the 19th of July, off a place called Tak-boo-loo-boo, in lat. about 8° 40' N.

Here a slight mistake occurred which might have resulted unpleasantly, but by the judicious conduct of Lieut. Pasco, it served in effect, to open and establish a most friendly intercourse. This officer was inshore surveying while the vessel was doing some work further off, and when pulling along the coast, observed a party of armed natives on the beach. He immediately directed his course to close them, displaying at the same time (what to their limited ideas conveyed only one meaning, viz., that of determined hostility,) an English red ensign.

A very reserved and suspicious communication however was effected, but it was sufficient to rectify the mistake, and we yielded to their prejudices by substituting always a white ensign for the obnoxious colour red, which soon won upon their confidence, and a friendly intercourse ensued.

We were at anchor off this place ten days with two anchors ahead in 20 fathoms, and top-gallant masts on deck. The people informed us it was just the commencement of their bad season, and would all be over in one month. From what we could learn of these people, the majority of whom are Malays, we concluded the district for many miles in either direction, was in the jurisdiction of the Rajah of Sooloo. This again was divided into sub-districts, over each of which a Dattoo presided, all being independent of one another.

We visited the Dattoo of Tak-boo-loo-boo's house, which lay about one mile inshore, and is approached by a pathway cut through a thick jungle, crossed in several places by a meandering stream of clear fresh water; emerging from the jungle we opened into an extensive cultivated plain upon which was growing rice, Indian corn, water-melons, yams, and a variety of fruits and vegetables, in full realization of that which we had only hitherto been able to obtain glimpses of, through our telescopes, while passing along another part of the coast, whose inhabitants arising perhaps from the greater distance they were situated from the shore, were not so communicatively disposed as our friends at Tak-boo-loo-boo.

The Dattoo house was a complete specimen of the residence of a Malay chief. It was filled with warlike weapons of every description, even to a tower flint-lock musket.

The population of the neighbouring district amounted to upwards of 5,000 persons, and there were many instances of longevity among them. A few of the Bysians or Aborigines were living on terms of amity, and I think some are in the service of the Dattoo, but the tribe live in the mountains in a state of nudity, subsisting upon hogs or whatever they can find. They do not molest in any way the people below.

Those we saw, were short and thick set, having an oval face, but sharp features; and in colour approaching the negro. They worship a plurality of Gods. The Dattoo and his people are all Mahometans.

Their weapons, besides the spear and the kris, are the sumpiti, or blow-pipe, through which they project, by condensing their breath, small poisoned arrows. They are seldom to be seen unaccompanied by either one or the other.

On the 29th of July we weighed from this place and anchored off Rocky Bay (in the chart) on the 31st.

Having collected sufficient data for the survey of Rocky Bay, we proceeded to a small island situated about twenty miles to the eastward of the Northern Balabac Strait, from which we required observations. Bad weather, however, and short allowance of provisions, upon which the ship's company had been placed one month previous, owing to the salt meat boiling away two-thirds its original weight, obliged us most reluctantly to abandon the idea of completing the whole east side of Palawan this cruise.

With only ten days provision left, on the 3rd of August, we started for Labuan, where we arrived on the evening of the 10th of the same month, previously striking upon an unknown rock (off the north end of that island,) where we remained a week. We arrived at Singapore on the evening of the 31st of August.

Our crew, although they had been four months on salt provisions, and very much exposed, suffered but slightly; and we sustained no loss either by sickness or accident; a happy result which could have scarcely been anticipated, when there are so many, who, from long continuance in the country, have their constitutions greatly enfeebled. But not so with the officers, who have suffered more in proportion than the men, for with the exception of two they have been most tediously afflicted



with ulcers and boils. They prevailed greatly for the first two months with the ship's company as well.

It is satisfactory to know that the *Royalist's* visit to these unknown localities, has been productive of the greatest good feeling, and has left an impression upon the coast that cannot fail to be of advantage to any European ship that may hereafter visit, or be unfortunately wrecked upon it; and this success is mainly to be attributed to the judicious conduct of Lieut. Pasco and Mr. Calver, (second-master,) whose excellent example and tact in their dealings with the people, was successfully emulated by the rest of the officers of the ship.

---

### THE CELTIC PHILOSOPHER.

“One within whose subtle being,  
As light and wind within some delicate cloud  
That fades amid the blue moon's burning sky,\*  
Genius and youth contended.”

*Shelley.*

THE inquietude of man is observed every where under a variety of phases, extremely diversified in degree. But how few, comparatively speaking, reach the enviable point—contentment of mind, which, whatever may be the condition they find themselves placed in, can ensure to them the peaceful enjoyment of life.

Happiness—“our being's end and aim” is ardently sought for by all; but, how different are our ideas of what constitutes it! And how various are the paths which we follow to arrive at and secure the blessing! We fancy, if mankind all saw through the same medium, but one path to its consummation, how many millions would faint by the way, from the pressure, and find their hope and expectation scattered to the winds! That is indeed a fancy which we may trace to selfish avarice or foolish ambition. There is no mystery in this pursuit; nor is it paradoxical to affirm, that there is but one narrow path, by which happiness can be reached, and that all may pass through without the slightest fear of fainting by the way, that of virtue, wherein, with a due sense and observance of our duty to the Dispenser of all good, and to our fellow-men, as brothers of the same universal family, irrespective of condition, we shall find what we seek. The mistake which most of us make in the search, is in the means. We fancy that gold will bring to us the “summum bonum” for which we have been sighing; but find at last, even when that tempting talisman of Satan has been obtained, that happiness is not a marketable thing.

I presume to differ from the theory, that all men are born with the same capacity. Leaving aside accidents, if we take any number, having had the same advantages of education, shall we find the capacities alike.

\* The blue moon's burning sky.” Our eccentric young poet here, perhaps, alludes to the volcanic nature of the satellite. The moon however, appears to all other eyes of a silvery hue rather than of a “blue” colour.

To many, the axiom of "the more a man enquires, the more he'll know," is an essential ingredient in knowledge. The majority however, seem to feel that "ignorance is bliss;" and either from the actual poverty of condition, which cherishes in them no hope or prospect of advance, or from constitutional apathy, toil on through life, without an effort to quit the beaten track of habitual servitude which they follow, and their forefathers before them have trod:—

"Too weak to bear  
The insupportable fatigue of thought,  
And swallowing therefore without pause or choice  
The total grist unsoftened, husks and all!"

Amid the mountains of Wales, on the right bank of the Wye, is situated the small post town of Builth; at a short distance from this place is a field, through which the little river Ithen flows to meet this former stream. Tradition has assigned this meadow as the spot where Llewellyn ap Gruffydd, the last Prince of Wales, of the old British stock, was slain: a little farther on, in the direction which the Wye runs, lie the mineral springs known as the Park Wells; the waters are saline.

The scenery around is romantic, and beautiful, especially in the great valley of the Wye leading up to Combe-ellen, Rheyadyr, and the base of Plinlimmon.

"Here Melancholy, on the pale crag laid,  
Might muse herself to sleep; or Fancy come,  
Witching the mind with tender cozenage,  
And shaping *things that are not*; here all day  
Might Meditation listen to the lapse  
Of the white waters, flashing through the cleft,  
And gazing on the many shadowing trees,  
Mingle a pensive moral as she gaz'd."

*Bowles' Combe-ellen.*

In a small dell environed by knolls and a dense wood in front, and backed by a heathy hill, is a humble cottage, with attached rooms for visitors, and a detached octagonal building covering the springs. Here resided the widow Davies and her daughter, of the class of peasantry, every where in this mountainous and secluded country to be found, with little variation in manners, simple, and uninformed, but civil and obliging, yet easily excited into hasty resentment. In the octagonal building, immediately over the springs was a room scantily furnished; the only security to which, was a wooded latch of the most primitive kind; yet here I sojourned for several weeks, without losing a single article, although I often, on my return from a walk, found the room occupied by a dozen or two of the country people, looking over my drawings.

One fine day I strolled out with a party of lady visitors to a rising ground, commanding an extensive view of the vale and the river. Whilst conversing under the shade of a group of spreading beech trees, our attention was directed to a young Welshman, who was approaching our position with very hasty steps. When he arrived within a few paces of our resting place, he stopped short, as if to recover breath, and then

with a degree of vehemence that surprised my female companions, put the question abruptly to me:—"Are you an astronomer?"

I now, in my turn, felt surprised, but could not suppress a smile at the oddity of the interrogation, and answered, "No, I am not an astronomer; but, what gave rise to such an idea?" "Oh! I am sorry for it; I was told that there was a navy gentlemen at the Wells, who could explain the heavens to me, which I have long wished for some one to do; and therefore it was that I walked twelve miles with the hope cheering me all the way. I have set my heart upon it, and if you can otherwise, don't disappoint me."

Here is a genius, thought I to myself, like a dry sponge thirsting for moisture. My curiosity was excited, and I merely replied, "Ask." He then approached nearer, and began to question me about the real size of the planets, and their motions; what the sun and the moon were; whether the earth really turned round every day, as he was told was the case, and everlastingly continued to make a circuit round the sun; and many other particulars pertaining to the solar system. I gave him the best information I could, and was assisted by the ladies.

The youth listened with the most profound attention, drank in, as it were, the important truths which flowed from the fountain he had come to seek, and when we had ceased our lecture, seized my hand, and said emphatically, and with an emphasis, which seemed to come directly from the heart, "Sailor, I thank thee kindly!" then turned away as unceremoniously as he had come, to retrace his twelve miles jaunt!

It was altogether, place and circumstances considered, a curious, but not a trifling incident. It became a theme for comment to our party, for the rest of the day; and the opening of Dr. Beattie's "Minstrel," struck us all at the moment, as applicable to this singular case. The lines are so beautiful and so true that I shall make no apology for quoting them.

" Ah! who can tell how many a soul sublime  
Has felt the influence of malignant star,  
And wag'd with fortune an eternal war?  
Check'd by the scoff of pride, by Envy's frown,  
And poverty's unconquerable bar;  
In life's low vale remote has pin'd alone,  
Then drop'd into the grave, unpitied and unknown!"

How far the conclusion was likely, in our young Celt's case, to be realized, of course could not be predicted with any certainty; yet, shut out as he seemed to be from the open stage of the world, it appeared almost inevitable. I thought I had given our young mountaineer sufficient matter to occupy his inquisitive mind for some weeks; but we were again surprised one evening, by a second visit from him.

Chateaubriand says that—our immortal bard could with either hand have reached the extremes in the two sanguinary periods of Henry VIII. and Charles I.; and he adds: "supported on these tragic foreheads the great tragedian sunk into the tomb. He fills up the interval between, with his spectres, his blind kings, his punished ambitions, his unfortunate women; in order to connect by analogous pictures the reali-

ties of the past with the realities of the future." The span of our young mountain philosopher's life had scarcely reached that period when thought becomes a habit: he had not the early advantages of college lore, or of poetic inspiration of a Surrey, to burst the bud into the showy flower; with what incidents could he fill up his brief interval? His soul, his eyes, his thoughts, were lifted upwards; the bespangled canopy, the azure field above was his garden, his home, and his world! Did Shakspeare dream of the "immortality" of his name and of his compositions? What was to be the destiny of our incipient Ferguson, who practically, and theoretically indeed, with respect to the sphere, was as blind as the astronomer of that name was physically? Had any mountain sage read his horoscope? To have found a poet of nature amid the secluded forests and upland glens of Cambria, would not have been a very extraordinary discovery; but a 'Stellareen' a star-gazer, whose eyesight had reflected back into his innermost soul the light which told him of a universe he could not, indeed, comprehend, but which he seemed bent upon understanding by some means or other—was truly a novelty!

As our party was enjoying the cool evening breeze upon the knoll aback of the little dwelling of the Wells, our rustic youth came up, as he had done before, without introduction, and with the same ardour, expressed off-hand, his desire that I would point out and name the stars to him!

There was so much of genuine good-nature and intelligence in his countenance, and his address had something in it so unrestrained by the artificial forms of society—so naive and simply natural-showing the freeborn Briton, that none but a person of morose temper, could have felt displeasure at his importunity. As a recluse among the secluded woods of his native land, what did he know of the etiquettes and ceremonies which govern the manners of the denizen of the city and the town? nothing. He believed, and truly believed that, it was the duty of those who had acquired a certain amount of knowledge, to impart, without reserve, that knowledge to others willing and anxious to receive it.

The exemplification of the "pursuit of knowledge under difficulties" has been a theme of intense interest to the man of letters. But I venture to say that few geniuses whose souls have been imbued with the spirit of inquiry, have had to contend with circumstances so barren of encouragement; or whose field of action was so utterly devoid of those flattering helps which serve to keep alive the hopes of eventual success, than had our young rustic Welsh philosopher.

The ladies now became much interested, and as far as our joint acquirements, which however, did not amount to more than the names of a dozen sets of stars, the youth had the benefit. He next enquired if there was any reliance to be placed in Astrology; and on being told that it was no longer entertained, he exclaimed in a disappointed tone, "Then, there is no means by which a man's destiny can be foretold." The expression of his countenance seemed to say, "*Aut Caesar, aut nullus!*" It was evident that his mind was bewildered with vague and

visionary thoughts; and that whatever talents he may have possessed, his hopes and his wishes were struggling with the necessities of his condition.

Unquestionably, there was a spice of ambition in his enquiry respecting the means for ascertaining his future career; he aspired to something greater than that of tilling the land; was it the divinity stirring within him? His inquietude was apparent; but, with the characteristic impetuosity of his countrymen, he could not brook the delay of time to develop his fortune: he would fain consult the algebra of the heavens and read his entire fate at once!

The desire to know more than the present tells is common to all youth; but there seemed to be an avarice in this lad's wish that went beyond the result of a few days or weeks. In such a vein, it is probable that had a gipsy woman crossed his path, he would have bestowed all his ready money upon her for the idle gratification of having his fortune told.

After tendering his thanks, he quitted us in the same abrupt way he did on his first visit. We did not see him again, and quite forgot to enquire his name or his place of abode; neither our hostess nor her daughter knew who he was. More than thirty years have elapsed since; a period of time long enough, should he still be living, for diligence, *docere literas* (to instruct in good learning,) and experience to have made him familiar with the greater portion of his fortune. The lines of Shelly seem appropriate to our young *soi-disant* phil—No

“Evil joys which fire the vulgar breast  
And quench in speedy smoke its feeble flame,  
Had left within his soul their dark unrest:  
Nor what religion utters of the grave  
Feared he. Philosophy's accepted guest.

Fearless he was, and scorning all disguise,  
What he dared do or think, though men might start,  
He spoke with mild yet unaverted eyes.”

Two other curiosities I witnessed in the neighbourhood of the Wells. Looking from the hill, down upon the river, I saw a man lying at full length upon a flat rock on its bank. I watched him for half an hour, but he appeared motionless. Thinking he might have fallen asleep, and that his position was a perilous one, I descended; on approaching him, he waved one of his hands as a signal to me to keep back. In a short time I observed him drive a pole, which he held in his right hand, downwards into the water, the next instant he sprang up with a fine salmon transfixed by the spear. The incident proves how strong self-interest is, and that when that is in view, even the impetuous nature of the Welshman can be suspended: this Cambro-Briton had been patiently waiting his opportunity for five or six hours!

Passing the door of a chapel, my attention was arrested by the most discordant sounds issuing from it. Curiosity impelled me to look in: the whole congregation appeared raving mad, gesticulating, vociferating, screaming, at the top of their voices, I instantly retreated, and the first thought which passed across my mind was the question—“Am I in a

civilized land?" I was told upon inquiry that these religionists were called "Rantera," or "Howlers!" The orgies of the savages were as rational, compared with those of this sect, and of the "Jumpers!"

---

THE ANTILLES.—*Sombrero, Anguila, St. Martin, &c.*—Described by  
Capt. E. Barnett, R.N., late of H.M.S. *Thunder*.

(Continued from page 670, vol. for 1850.)

*Antigua* compared with other of the Antilles is of moderate elevation, its highest point being 1,339 feet above the level of the sea, and which is seldom obscured. It is thirteen miles and a quarter long from east to west, and nine miles and a quarter broad from north to south, it is nearly square, but deeply indented on all sides, particularly on its north and east, where there are many creeks and bays navigated by droghers; its north-east and east ends are low, its south-west and west sides of irregular height, several of the hills however are very remarkable and highly valuable to safe navigation, for the whole island is fringed with shoals, with the exception of the small space on the south side between the west side of Willoughby Bay and Old Road.

Commencing our description from the south-east end of the island, the east end is formed by Green Island, which terminates at Man-of-War Point, a bold, rocky headland and 170 feet in height, it is steep and bold to and may be rounded within a mile.

Nearly half a mile to the south-west of the point is Ten Pound Bay, unnavigable on account of the heavy swell always at the entrance of the cut.

Rickets Harbour at the south-west end of the island affords shelter to droghers.

*York Island*, a small round rocky islet is one mile and two-tenths to the south-west of Man-of-War Point, and which may be said to form the outer part of the eastern entrance to Nonsuch Harbour hereafter described. *York Island* is nearly connected by dry reefs to the shore of *Antigua*, which takes a south-west direction for the distance of a mile and a half, where it terminates in two bold precipitous rocky headlands 215 feet high, which are very remarkable, especially when the sun shines on the white cliffs in the morning. In this space are the two small bays *Marigalante* and *Exchange*, the shore is fringed with coral; but it may be approached within a mile in favourable weather.

From *Hudson Point*, the southernmost of the headlands above mentioned, the coast takes a sudden turn to the W.b.N. for two miles and a half, forming the northside of *Willoughby Bay*, which is a remarkable flat wooded table land 350 feet in height, the coast taking again a sudden turn to the S.S.E. for two miles and a half from the head of the bay, which is very low and sandy. The deep indentation readily points out the entrance to this harbour, more particularly as the south-west side is formed of irregular hills of much greater elevation.

*Willoughby Bay.*—Willoughby Bay although capable of affording safe anchorage to ships of large class, is so difficult and dangerous of access that it is seldom or never frequented, the produce of that part of the country being sent by droghers to St. John's. Its south-east side is protected by a coral ledge, dry in many parts, through which there are two narrow cuts leading into the bay. The north-east cut is only 220 feet wide, but has a depth of twenty-nine feet; the south-east one is nearly a cable's length in width, but so tortuous and intricate that no line of direction can be given for its safe navigation. To enter the north-east channel run down about a mile distant from the reef until the Chimney of Lyon's steam mill on the north shore is on with a bush on Delaps Hill; steer in on that line till the leading mark is visible, viz: Cochran's mill situated on the low land at the head of the bay in one with the rocky point, on which there is the ruin of a fort, scarcely however visible, which forms the south side of Christian Bay: this line will carry you through the opening, and when Fort Shirley comes on with the south point of the inner part of the bay, you may haul gradually up for the anchorage. With the prevailing winds, however, this mark would be useless in coming out, as a ship would not lay out, and as we can give no safe directions for the other channel, the anchorage is only free to steamers, and even to them our directions are useless without the assistance of an experienced pilot, more particularly as this bight is exposed to the full force of the sea and swell of the ocean, which makes it very dangerous to approach in strong breezes.

*Shirley Heights.*—Three and a half miles to the south-west of Hudson point, and five miles due west from the east end of the island are the Shirley Heights, a bold rocky promontory three-quarters of a mile in length, rising perpendicularly up from the surface of the sea to the height of 545 feet; on the flat summit of which may be seen the barracks and other buildings of the garrison, and at the western edge of the precipice a little more elevated, the two signal posts of Fort Shirley which point out the entrance to English Harbour. Between Willoughby Bay and the heights are two small inlets, Marmora Bay and Indian Creek, which will admit small vessels. The entrance of the former is obstructed by a bar on which there is only ten feet, and the latter has a dangerous shoal nearly in the middle of the entrance, which is little more than a cable's length in width: it generally however shows itself. From Indian Creek to Old Road Bluff the shore is clear, and so steep that you may pass within half a mile of almost all parts of it.

*English Harbour.*—English Harbour lies at the base of the Shirley Heights, the west end of the promontory forming the east point of its entrance, which between it and Fort Barclay is a cable's length only in width. The greatest depth in the narrows is twenty-four feet, and this only on one exact line of direction, the north end of the wall of Dow's Hill house in one with the low rocky point which forms the north end of Freeman's Bay, a very doubtful mark, from the wall being so greatly elevated above the point. In the very centre of the channel there is a small spot on which there is only 21½ feet, the twenty-four feet channel is therefore no more than 120 feet wide, and as no confidence can be

placed in the wind which baffles about in all directions, immediately after you come under the heights, no stranger can attempt to follow our directions without the assistance of a pilot. Should the wind be at north-east or even E.N.E. you will most probably have to anchor outside the narrows and warp in, and should it blow strong, the gusts rush through the valleys with such force, and the holding ground is so bad, being a flat rock, that a second anchor will be most likely required to bring you up, it is therefore, attended with some danger. A small fair way buoy is generally placed on the east or weather side of the channel. Intending to enter the harbour with the prevailing wind at east, stand boldly in under the heights a little to windward of Fort Charlotte Bluff (the east point of entrance,) and then keep the ship under full plain sail, trimmed by the wind; hug the shore close, giving the Bluff a berth of a cable's length; and having rounded the buoy close to starboard, keep the leading mark on until the Dockyard staff is on with the end of Fort Barclay, then luff close up, take in the courses, and if you have strong way you will most probably shoot round the point of Fort Barclay before the wind from the highlands comes off from the northern shore. If the ship loses her way and becomes unmanageable before this you must anchor immediately; if you succeed in shooting in, be prepared to wear short round, and when in the centre of the channel clue up, as you will most probably have sufficient way to carry you to anchorage off the Dockyard. If you intend going no further than the moorings in Freeman's Bay, you will of course keep your wind, and shoot up to windward as far as possible, that you may be able to drop your anchor in good holding ground, ready for warping. Boats from the Dockyard are generally in readiness with hawsers, but your own should be also ready to assist.

*Falmouth Harbour* lies a mile to the westward of English Harbour, and affords excellent anchorage to a few vessels of large class, there being twenty-four feet water in the centre, it is however rather confined; the entrance between Black and Proctor's Points, which are bold and steep to, is three cables' length wide. The harbour may be said to be divided into two parts, the eastern end being separated from the western by a spit, which extends from Blake Island to nearly the centre of the bay, where it terminates in a small shoal, on which there is only twelve feet; between it and the foul ground off St. Anne's Point, the channel leading to the inner anchorage is not quite a cable's length wide; too narrow for a sailing vessel to pass against the prevailing winds, but affording free access to steamers. The outer anchorage occupies a square of about two cable's length each way, the inner is more capacious, being about the same distance in width, and nearly half a mile in length from east to west. The leading mark into the outer anchorage is the east end of Blake Island Fort, on with a remarkable house on the western slope of Monk Hill, and having passed the Bishop Shoal, which always shews itself, you may anchor at pleasure according to your draft of water. We can give no good leading mark for the inner channel.

From Falmouth to the west end, is the highest part of the island, and in many places the base of the hills rest on the shore; in the imme-



diate vicinity of Falmouth, there are two remarkable elevations; Monk Hill on the north side of the harbour, is readily distinguished by the fort and signal staff, which crowns its flat summit, the south-east end overlooking a rocky precipice, 695 feet above the level of the sea. The other lies on the north-west side of the harbour one mile and a half to the westward of Monk Hill, and is a large isolated conical wooded hill, which rises to the height of 1,058 feet; when seen from the north-east or south-west, its summit terminates in a single peak, but from the north-west and north, it appears doubled or saddle shaped, from which it sometimes takes its name; but as there is another hill so called on the west side of the island, we have termed it the Falmouth Peak. These two hills are very conspicuous objects from the north side of the island, where they are of great value to safe navigation. They may both of them be seen from Barbuda in clear weather, at a distance of forty-five miles. The hills on the west side of them are more lofty but not remarkable to strangers, with the exception of Boggy Peak, the highest in the island, which is slightly elevated above the neighbouring hills, and 1,339 feet above the level of the sea, and is seldom obscured.

*Old Road Bluff*, two miles and three-quarters to the westward of Falmouth is a bold rounded headland 135 feet in height rising abruptly from the shore, and readily distinguished when seen from the east or west. We have observed before, that this part of the shore, although, skirted by a rocky ledge, in most parts may be safely approached to within half-a-mile.

*Ding a Ding Nook*.—Midway between Proctor's Point and the bluff, is Ding a Ding Nook, a small bay in which droghers find an anchorage.

*Old Road*.—The shore on the west side of the bluff, turns suddenly to the northward for half a mile, when it forms the Bay of Carlisle. The town of Carlisle, is situated at the west end of the beach, which is backed by an extensive fish pond, private property: an excellent spring of water runs through the valley, but loses itself in the swampy ground at some distance from the shore at the head of the pond.

There is a good anchorage with the prevailing winds about midway between the bluff and the south-west point of Carlisle Bay, on which there is an Old Fort; in 5 fathoms about a quarter of a mile from the shore, or more. A ground swell however, generally sweeps in from the southward which causes a ship to roll heavily, and landing is sometimes difficult, for the sea breaks a considerable distance from the beach.

*Goat Hill*.—A small rounded eminence 115 feet in height standing conspicuously on a projecting point, is one mile and a half to the westward of Old Road Bluff. Between Old Fort point and it are three sandy beaches, skirted by a coral ledge; from Morris' old mill which is a remarkable object, being the only one seen on this part of the shore, (Brook's being hidden in the trees,) to Goat Hill, the ledge extends off to the distance of upwards of a cable's length.

From Goat Hill to the west end of the island the shore is very low and sandy, with swampy ground at the back; to the foot of the highlands it is still skirted by a flat coral ledge even with the surface, in which

however there are one or two openings through which a boat may pass to good landing.

This part of the shore is also fringed by an outer solid reef, nearly dry in many places, the east end of which lies nearly three-quarters of a mile south of Goat Hill, from thence it extends in a westerly direction two miles, and at that end there is sometimes seen a small sandy cay, which is occasionally heaped up and washed away by the action of the rollers, its outer or southern edge is wall sided, and therefore dangerous to approach in the night, for the lead will give no warning whatever; and being under high land, no estimated distance can be depended upon. In the day time it is avoided by keeping Dow's House, on the Shirley heights just open of Old Road Bluff; within the outer barrier there is a second or middle reef running parallel with the shore at a distance of four-tenths of a mile, between which and the shore there is very excellent anchorage and a good watering place. At the eastern entrance there is not less than twenty-five feet water, the western entrance is however obstructed by a flat rocky bar on which there is not more than twenty-two feet, over which vessels must pass on leaving the anchorage, there not being room to beat through to the eastward.

Ships running for this anchorage from the eastward should haul close round Old Road Bluff, in towards Morris' old mill, passing Curtin Bluff which forms the east end of Morris Bay, within a quarter of a mile, when abreast the mill you will, if clear, see the discoloured water at the end of the reef, and the ledge which runs off from Goat Hill, which will enable you to direct your course in mid-channel, which is nearly a quarter of a mile wide. We can give no leading mark, and the above directions are not sufficient to guide a stranger without the assistance of a pilot. If beating up for the anchorage from the westward outside the reef, you will perceive over Goat Hill a rocky fork branching off to the southward, from the main or highest ridge of hills on which are three rather remarkable peaks; particularly the southern one, which is the lowest. When these peaks are in one with Morris' old mill, you will be to the eastward of the shoal ground off the east end of the reef, and may therefore stand on until you have reached the middle of the channel. The best or most convenient anchorage for watering, is with Morris' old mill, on with the south side of Goat Hill, and the Great House on Harvey's Estate, (called also Cades Bay,) which lies in the valley under Boggy Peak, bears about N.E.b.N., where you will be midway between the shore and middle reef. As before observed, you must leave the anchorage by the western channel, therefore when running down keep the shore on board, the edge of the ledge is in general distinctly seen, taking care not to open Morris' old mill to the southward of Goat Hill, until the leading mark for the bar (Ffry's mill just in sight to the westward of Crab Hill,) is nearly on, which will be known when Pearn's Hill is on with Ffry's Point, when the sails should be trimmed ready to enable you to haul up quickly upon the leading mark. This is a point which requires skill and great attention, to prevent your falling on the lee side of the bar, which is very dangerous. Should you however find that you have taken too great a sweep on rounding to, there is room to

make a small hitch provided it is done in time, but, as we have already said, a stranger cannot navigate these channels without the assistance of an experienced pilot. When Morris' old mill is just seen to the southward of Goat Hill, you are between the shoals on the bar, which are distant from each other three cables' length. Having passed the bar and bound to the eastward, do not haul up until Dow's House comes open of Old Road Bluff.

The south-west end of the island terminates at Johnson Point, which is low and rocky; on the point there is the ruin of a fort, the barrack is seen a little within it, a short distance from it is a small rocky islet of the same name, covered with brush wood, and eighteen feet in height, being however under the high land, they are not readily distinguished until on a north-west or south-east bearing. From hence the west side of the island turns sharply round, and takes a northerly direction for a distance of two miles and three-quarters to Reed Point; in this space are Picart, Ffry and Morris Bays, separated by bluff rocky headlands about 100 feet in height, rising abruptly from the shore; the highest part of the island may be said to terminate at Morris Bay. In the vicinity however there are several very remarkable heights, which are of great value to safe navigation, and become conspicuous objects immediately after opening out this side of the island. Six of these are situated close together on the south side of Five Island Harbour. The Saddle 590 feet, and Flat Top Hills 500 feet in height, are at once distinguished by their names, and being the westernmost of all. Leonard, Pearn, and Musquito Hills, are conical, with peaked summits, thickly wooded; the two former are nearly of the same elevation, the latter very much lower.

*Thomas Mount* or *Hound Hill*, situated on the north side of the same harbour, is a large rounded woody hill 547 feet in height, when seen from all directions but the N.N.W., when it appears more peaked at the summit; three-quarters of a mile to the westward of it, there is a narrow, irregular, table ridge of moderate elevation, but at its east end there is a small peak 463 feet in height, which may be seen from a long distance, and with a little local knowledge becomes a valuable land mark. Reed Point is at the foot of a wooded hill of moderate height, separated from the shore by a narrow neck of swampy land, forming the west side of Musquito Cove, which is four-tenths of a mile deep east and west, and three-tenths of a mile wide at the base of Musquito Hill; from thence the shore turns to the westward, and terminates a mile distant in Pearn Point, which is low and rocky. All this part of the coast is dangerous to approach, being skirted by a coral ledge, studded with rocky heads, some of which have as little as ten feet water over them. Three-quarters of a mile west of Ffry Bay there is one which generally shows itself: the outermost shoal lies two miles off shore, in the same direction.

THE ETHNOLOGY OF EASTERN ASIA AND THE INDO-PACIFIC ISLANDS.\*  
By *J. R. Logan.*

SPIRITUALISM.†

I would proceed at once to facts illustrative of the different forms of spiritualism which prevail in Eastern Asia and Asianesia, giving such explanations as seemed fitting of their nature and origin as each branch of the subject came under review, but I fear that I should not in this way succeed in presenting these facts in the light in which they have appeared to myself, for I believe that erroneous, or at least imperfect views, respecting the religions and supernaturalisms of human tribes are still widely prevalent, and that I could not advance one step without exciting misconceptions on the part of many readers. There is no work

\* Our readers may remember that our review of the *Ethnology of Eastern Asia and Asianesia* embraces four principal divisions.

A. A general account of the Ethnic characteristics arranged thus: I. The Individual,—Section 1. physical character; 2. mental character; 3. language; 4. religion; 5. arts; 6. food; 7. dress; 8. houses. II. The Family. III. The Village, Clan, or Society, both socially and politically,—including government, social grades, distinct professions, amusements, &c. IV. The Tribe or Nation, with its government, institutions, laws, war, &c. B. The Ethnic Geography of the region. C. The Ethnology of each people, including, in addition to the subjects contained in A and B, a section on the characteristics and influence of its location and on its numbers, and a section on its History, embracing an enquiry into the original seat of its primitive and secondary stocks, their migrations, intermixtures, engraftments of foreign people and ideas, affinities with other nations in form, customs, language and other characteristics. D. The Ethnology of the region as a whole.

We begin with the section on religion or spiritualism, because it embraces a large number of facts that are well fitted for Ethnic comparisons, and because it is desirable to place the less abstract sections between it and the most abstract of the whole, those on language and mental character. Along with these series of papers belonging to div. A we shall endeavour in each number to give one or more of those belonging to div. C., that is Ethnographical descriptions of particular regions and tribes. In the present number we intended to have given the Ethnography of Camboja and that of the island of Engano on the West Coast of Sumatra, but want of room compels us to postpone them.

† I have adopted this term in preference to Religion, supernaturalism or superstition, because it is more generic and most correct. Religion and superstition have a limited and relative sense. Supernaturalism suggests a false impression. The facts embraced by it are not above nature but in nature. Whether they have a real existence independent of the human mind or exist only in the mind, they are a part of nature. They are not supernatural but supersensual. The only sufficiently comprehensive and accurate distinction for my purpose is that of material and spiritual. Wherever the mind of a nation recognizes only matter with material properties and forces that is material or sensual to it. Wherever it superadds living consciousness, and will in any degree that is spiritual to it.

In this section I merely state facts presented by an observation and comparison of many races, and endeavour to refer to their true sources and thus reconcile to our common nature, beliefs which often tend to estrange races. There is no creed which is not based on something which exists in the nature of every human being. If we cannot perceive how a creed might appear to be true to us under different Ethnic circumstances, we have not understood the creed and we have not looked beneath the surface of our own nature. Praise

to which I can refer them for elementary views of the subject,† and it therefore seems indispensable to begin by enquiring what spiritualism is, whence it comes, why it assumes so many forms, and whether it is only a lingering vestige of primeval times, or is still a production of the earth, a perennial faculty or tendency of human nature. It will soon appear why I cannot here enter into these questions fully, but is necessary to state that I have not attempted to touch upon all the principal developments of spiritualism. My object has been to suggest what I conceive to be a correct method of investigating this subject, and with this end I have rather sought to illustrate a few aspects of it than to embrace a large number. Several important topics which are omitted or only glanced at under the first head will come under our notice in subsequent sections.

and blame are for individuals. National faiths must be taken as facts, and scientifically investigated and explained. We might as well blame the tropical sun for its excessive heat as a nation for any Ethnic characteristic. It is willed that it should be so, and it is also willed that it shall not always be so. It would be impossible to write on Ethnology if every investigator allowed his own religious creed to prevent him from candidly observing and recording the various conceptions of God and the lower forms of supernaturalism which his subject requires him to notice. In an age when religious and theological discussion is so rife, any expression of his own opinions, whatever they might be, would expose him to controversy. His business is not with the abstract truth or falsehood of creeds but with the fact of their existence, their connection with different Ethnic developments, their influence, and their origin. The opinions of an individual who is not proselytising but observing can be of no consequence to his readers so long as he writes honestly. To guard against all misconstruction I beg to state specifically that my subject is not revealed religion, but natural spiritualism, although I shall not hesitate, if occasion arises, to examine how far the phenomena of the latter are reproduced in the former. A true revelation goes beyond natural spiritualism, but it also embraces all that is true in it, and assumes it as a basis. There are no greater or more instructive phenomena in nature than Human Races. Their observation demands an entire freedom from preconceptions and an openness to receive true impressions, at least as much as any other natural science. My sole aim will be to give a true account of every religion as a natural fact, and, as far as I can, to understand how each faith and practice, however repugnant to the acquired feelings and creeds of Europeans of the 19th century, are rational and agreeable to the human mind, in a different stage of Ethnic development. The enquiry what is true, or has most truth, is a theological one. My business is to describe what is, or has been, believed to be true with human tribes. Ethnology deals with every human science and development, but it views them only as phenomena illustrating the comparative character and operation of each tribe, and the progress of man as a race.

† In Carlyle's Lectures on Heroes and Hero Worship, many important phases of spiritualism are illustrated with equal wisdom, and beauty. No work in the English language shews a deeper insight into the human soul or is pervaded by a finer spiritual sensibility.

## I. GENERAL ENQUIRIES INTO THE ORIGIN, DEVELOPMENTS AND CHANGES OF SPIRITUALISM.

### SECT. I. *Origin of Spiritualism.*

Spiritualism is not intuitive. It is primarily the result of experience

and reason like all other beliefs which man possesses, and it is therefore dependent like them on the character and development of the race. It is this which renders it simple or complex, rude or refined, mild or ferocious, puerile or sublime.\*

Everything is at bottom wonderful and mysterious to the human mind. It comes naked and sensitive into the world, and external objects are wholly strange to it, wonderful, quite alien to its nature,—supernatural. As its consciousness matures, its tender sensibility finds something transcendently glorious, loveable or dreadful in all that passes before it. But from the first it has begun to appropriate much of what it experiences. The bare chaotic soul takes to itself the forms, the order, the whole impress of external existence, and acquires a second or superadded nature, from which it looks out on the world. Cased in this armour it ranges calm and impassive amongst objects that were once full of power to disturb and excite it. Thus constant familiarity dulls and destroys the sense of the mystery of external things. Our own nature, and those outward things and events which are its daily food, become indissolubly united in our consciousness, and wrought into the very basis of our mundane being and development. But all that has not thus become part of ourselves continues to awaken the sense of the supernatural, which every new object excited in the mind of the infant.

\* We cannot sufficiently insist, on the threshold of Ethnology, that the mind has nothing but life when it comes into being. It is as empty of all knowledge and form as the lowest animal germ. It is impressible and excitable through the senses in a higher degree than the minds of animals, and it thus images nature, that is all things that affect its senses, in a more vivid and apprehensive manner. The images or ideas thus impressed on it are, from their greater distinctness and reality, attended with emotions of corresponding intensity and power. In this higher sensibility and activity lie higher memory, imagination and discrimination, and the action of these is reason. Between the mind of man and that of the lower animals there is probably no difference in kind but an enormous one in degree. The culture of both is physical, that is through corporeal sensation and action. But the minds of animals mirror little beyond the surface of nature, for they have little or no control over the current of their ideas and over their fresh impressions. That of man arrests, recalls, combines and compares ideas. But he can never go beyond physical nature. He has only spiritual truth in proportion as he has patiently observed nature. When the mind reflects sensible phenomena not only as they appear in space, but as they succeed in time, it has first fully imaged nature and apprehended it in its unity. Before this point in observation is reached all its conceptions of nature are necessarily partial and *pro tanto* false. As supernaturalism is always a spiritualisation of science, or a reference of all known natural powers to spiritual will, religion necessarily reflects the scientific culture of the race. The mind is formed in youth in conformity with the aspect in which nature presents itself to the race.

Until the conception of nature is freed from the many gross errors and delusions which attend it in all rude races, the national conception of the spiritual will on which nature reposes, must also be full of errors and delusions. A race in this state may be led to believe the tenets of a higher faith, whether supernaturally revealed or communicated by a more advanced nation or by native intellects of superior power and culture. But it cannot apprehend these tenets in their whole truth. They will be little better than formula to it. They will not prevent its retaining or receiving many notions totally inconsistent with them. Man's conception of nature and of the powers that dwell in nature must always colour his religion. He may indeed believe in a God who

There is no fixed boundary between the natural and the supernatural. It varies with the culture and experience of the mind. The only constant fact is the spiritual feeling itself, which must exist in every mind and in every race, because to all men some things are familiar and understood, and others strange and mysterious. What the rude man can familiarize to himself, and look upon as a possession of his mind, is natural. Such are all those ideas, born of his daily life and observation, that constantly recur in the endless and multitudinous trains and masses of ideas that momentarily bloom and vanish, filling the dim chamber of his mind with a spiritual coruscation that perpetually changes its character. These familiar inmates are felt to be part of himself almost as much as his own person. They come and go without disturbing his mental equilibrium. Whatever new objects and ideas resemble them, or harmonize with them, soon take a place with them as a possession or part of himself. All others,—the old that are inaccessible and mysterious to his nature, which he cannot make a part of his own possessions, subordinate to himself or reduce to his own level, and the new that are equally remote from self,—are supernatural to him. Thus a savage when first visited by civilised navigators sees the supernatural in the winged ship that has come out of the sky at the meeting of heaven and earth on the far horizon, in his visitors themselves with their marvellous attribute of dress, and in all their implements and other possessions, their arts and habits, which are entirely alien to his mind. They take a place as supernatural with the other things that he cannot reach or fathom. Although the Malgasis can now make cloth themselves, silk is still supernatural or a god to them.

If we look a little closer on the relation of the mind to the objects of its perceptions, it becomes obvious that the first impression it receives of something external to itself is necessarily strong and bewildering. The mere sense of something that is not us, that exists out of us, and

dwells apart from nature, and may then fill nature with powers that have no relation to God. But this is pure fancy, not religion. Every honest and healthy mind recoils from the attempt to give it dreams for facts, and the mind of man in all stages of culture is in the main sound and sincere. Every kind of interpretation of the great book of nature can be believed in the appropriate stages of human culture, but at the bottom of every faith must lie a recognition of that great natural reality in which we live and move and have our being, as the embodiment, the work, or the manifestation of the spiritual reality. If there is a professed creed that places a God without nature, we may be sure that in the mind of the nation there is another and more real faith that fills nature with spirituality. If there is not this, then there is materialism, and in the mind of the materialist matter is itself God, reason as he will. If our conception of God is free from delusion, in proportion as our conception of nature is free from delusion, it follows that there can be no real and thorough divorce between the mind of a rude uncultured tribe and its native superstitions, until there has been imparted to it a larger and truer knowledge of nature. The history of the world shews how little this has been attended to by propagandists, and the multitude of religions still existing in which ideas derived from the most heterogeneous sources are jumbled together without coherence and without reality, presents a commentary which may well startle those who think that the human mind can safely exclude the flood of spiritual light which flows from nature, when it is deeply and largely observed.

has an independent material being, must powerfully operate on the mind, which is primarily filled with a consciousness of itself only, and has not learned to discriminate between its own sensations and their external causes. The feeling with which the existence of outward and alien things is recognized and individuals successively distinguished, cannot be obliterated from the mind. It constantly returns into its brooding self consciousness, and every time an external object is presented to it, the sudden apprehension or discovery of its existence is attended with an instantaneous but hardly appreciable renewal of this feeling. If the object be unexpected, or the reality differ from the anticipation, a more sensible shock is felt.

Every object has two aspects. The first is purely physical, involving the notion of material existence independent of the mind, or the attribution of extension, resistance, form, colour, &c., to outward objects. This conception is in itself spiritual. It is the transfer by the mind of its own sensations, and the convictions acquired by its own experience, to every object that affects its senses. It cannot rest with the mere consciousness of sensations or a recognition of properties. The idea of cause and effect constantly rules it. With a rapidity that gives the process an appearance of intuition, but which is merely an instantaneous and confident acting on an experience that matured in earliest infancy, it refers each impression to an outward cause, and individualises that cause. Our first sense of individuality must arise when we find that we are ourselves distinct from the objects with which we are surrounded, and this origin of the sense of individuality probably tends to give a spiritual colouring to all other individualities. But the action of the mind does not stop with the mere recognition of individuality in external objects as the possessors of physical attributes. With this sense of their individuality are associated many emotions which give to each a specific character. Every object not merely impresses the mind with its physical attributes, but excites various emotions often delicate, complex and unnoted, but always necessarily present. These feelings, which are of infinite variety in their origin, combinations and power, are, by the strong objective tendency of the mind, transferred to the external object itself, and forms its character, which we describe generally as grave, sombre, grotesque, pleasant, melancholy, &c., but which is mostly far too subtle and complex and too intimately tinged in each mind by individual temperament, sensibility and associations, to be exactly analysed, or described, although some men of an extraordinary sensibility and fine discrimination can often awaken a sense of it in other minds by suggestive words, especially when by the musical accompaniment of verse they bring the mind into the same state of harmony and serene equilibrium which it possesses when fully influenced by natural objects.\* A

\* In tribes of which the religion has become dogmatic, formal or abstract, the individualising and spiritualising faculty chiefly works in poetry. In a healthy Ethnic condition the philosophy and poetry of the age are combined in its religion, for the philosophical and poetical aspects of nature are both necessary to a real and vital sense of divinity. The division is artificial. In nature and the Spirit of nature there are no compartments, and the mind of every race must be deeply tainted with error that has not a living apprehension and feeling of this unity.



kind of electrical or magical action and reaction takes place between the mind and nature when it is in this condition. Many different objects and ideas produce similar or closely allied emotions, and the shadows of impressions received from a hundred different sources may flit over the imagination and colour the object before us. So any feeling directly excited or momentarily suggested by the object or its associations, may be the parent of many different ideas. It is this transfer of the affections of the mind to the external objects that awaken them, that gives a human colouring to the spirituality of each. The more lively or powerful the feeling the stronger is the spirituality of the object. But all objects are and must be to man essentially spiritual, for he can have no knowledge of anything save in and through his own spiritual being. The sense of this universal spirituality of things may become weakened, like any other feeling, by the culture of a philosophical or dogmatic belief in matter as something entirely distinct from spirit, or by an acquired indifference and insensibility. In the mind that has been taught constantly to recognize nothing in the outer world save physical objects and forces, an antagonism will be established between its instinctive spiritual impressions and its reason or creed, and its consciousness will cease to dwell on the former as realities because it will consider them as unworthy of its regard, mere weakness or sports of the feelings and imagination. But whatever change takes place in man's view of these emotions, and in the philosophical conclusions which he may draw from them respecting nature and the human soul, the emotions and their transfer to external things never cease to exist. What is a living spirit, a god, to the rude man may cease to be so to the cultured man, but it has still a spiritual character. By the one sided cultures that prevail amongst modern civilised races, men's minds may be led to ignore the spirituality of nature. Ample experience proves that men may bring themselves to believe or disbelieve anything, if they only brood with sufficient devotion and intensity on particular ideas, and cease to observe and analyse the actual impressions made by nature. But the religious and poetic phases of the mind are indestructible. Whatever man's philosophical system of nature may be, its spiritual basis, remains untouched though the mind may cease to dwell upon it.

The main elements of spiritualism are thus: 1st, the selfism and absolutism of the mind, which tends to appropriate all things, or subordinate them to its own intelligence, power and desires, which can never understand *how* anything exists external to itself or independent of it, which refers all things to self, and consequently divides nature into what harmonises with it and what is inexplicable to it; 2nd, its seeking of a cause for everything, and its consequent inability to rest short of a first spiritual cause, akin to its spiritual nature but induced with creative power; 3rd, its strong objective and individualising tendency and the transfer to outer objects of its own sensations, emotions and convictions. Under all changes in the philosophical aspect of nature brought about by larger observation and severer habits of reasoning, spiritualism appears to depend chiefly on these necessary and inalienable elements of the human mind. It can no more be displaced than thought itself. But

upon this everlasting basis, deep seated in its very essence, the mind may rear any creed whatever, and will in all times and races, in each national and in each individual culture, entertain one conforming to the phases which science has assumed to the nation or to the individual. The spiritual sense irradiates whatever forms of belief the reason, the imagination, and the feelings fashion to themselves as true, or have derived from former times. Give the mind a reason, adapted to its culture, why spirituality dwells in large measure in a particular object, and it will believe that object a god, be it a stone, an onion, a beetle, a cat, a man, the sun, or any other real or imaginary substance.

I have considered spiritualism in its innermost and most abstract power, as capable, of presenting all existence to the understanding as one living spirit, or of restricting itself to particular objects of any kind. Thus waiting ever on the reason and imagination of the race and the individual, it might appear an endless task to trace it in all its forms. But amongst its more limited aspects there are some of peculiar importance. Perhaps the most interesting amongst those which are not merely superficial and evanescent, is that which arises from the double aspect of nature, as purely physical and as organic. If all matter were induced, to the senses, with organic form and life, it is doubtful whether the spiritual sense would be developed as it is until mental culture acquired a certain degree of abstractness. The perpetual presence and predominance of the solid amorphous material mass on which we and all things rest as on the foundation of being, and into which all things seem to return, must tend more than anything else to renew and vivify our sense of the wonderfulness and spirituality of organic objects. There is in our own minds too, something corresponding with the inertia of matter; a tendency to relapse into a passive, stagnant, non-inventive state, which is in strong opposition to the unresting energies and exuberant productiveness and metamorphoses of nature. Viewed from this material and mental basis of inertia, not only the animal and vegetable worlds, but the less solid forms of unorganic matter, are transcendently wonderful, mysterious and miraculous: for the mind in vain labours to find a cause in matter, for its transformation into a tree or a bird, or its assumption of such forms and powers as water, wind, flame or lightning. There is nothing which the mind may not feel to be miraculous and spiritual when it considers it in relation to itself or to the idea of inert matter. The idea of void space must also be amongst the normal and unconsciously ruling possessors of the mind, and when it is filled with the sense of vacuum and inanity, or when its consciousness rests on its own dim, shadowy and boundless universe of thought, matter itself assumes a strange and supernatural character.

[The Journal of the Indian Archipelago, a periodical published monthly at Singapore, may not be known to many of our readers. Its papers are remarkable for very interesting information relating to the East, and the foregoing from the pen of its talented editor is a good sample of the rest.—ED.]

*To be continued.*

## REMARKS ON THE NAVIGATION OF THE YANG-TSZE-KEANG.

THE directions given by the surveying officers are, I think, too vague to be of much use in practice to strangers; particularly, in giving courses and distances to be made good, when there are no marks available, and the strength and direction of the tide are constantly varying.

The Admiralty Chart of 1843, drawn from Collinson's survey, is very correct; and every vessel bound to Shanghai, should be provided with it.

The following remarks, I think may prove of service, as the result of several years acquaintance with the place, in all weathers.

Vessels bound to Shanghai, should make the Barren Islands or Saddle Group, in the northerly monsoon, as being the most weatherly land-fall; but in the south-west monsoon, it is more advisable to steer for Monte Video, a bold precipitous island, about forty miles more southwards.

If late in the day, anchorage should be caught under the Saddle Islands, which afford shelter in both monsoons.

Leaving the Saddle Islands, keep the North Saddle bearing about S.E.b.E., to pass Gutzlaff, at a distance of about fifteen or sixteen miles; and no stranger ought to enter the river, without seeing Gutzlaff, until some mark be erected for the North Sand Head.

Thus far the tide sets N.W.b.W., and S.E.b.E., from one and a half to three-and-a-half knots; but it is affected greatly both in direction and velocity, by the prevailing wind.

Steering on to the north-westward, bring Gutzlaff to bear S.S.E., and sink it on that bearing, which will be at a distance of about twenty-two or twenty-three miles; after which steer N.W.  $\frac{1}{2}$  W., and if the low land is not soon seen on the port bow from the mast head, keep more westerly by the lead, which is here a safe guide. The deepest water is near the north bank, which should always be approached with caution, as it shoals very suddenly. When the first point bears W.b.N. or W., the water deepens to 6 fathoms; this point should be passed about two miles off, as the bank extends a long way out, and there are several knolls off it, on which ships have touched.

Having passed the point, gradually close with the shore to a mile, and keep it about that distance, until the beacon at Woosung is seen.

If working up from the Saddle Islands, do not bring Gutzlaff to the eastward of south, until fifteen or sixteen miles to the northward of it, when it may be brought to bear S.S.E., and you will then be on the edge of the south bank.

You may now stand to the westward, nearly into the vessel's draught, bearing in mind, that the flood sets W.S.W., round the south-east edge of it, and the ebb contrary.

All vessels should keep as near as possible to this bank, and not wait for a shoal cast to tack, when standing to the north-eastward.

I think the defect in the directions hitherto given, is chiefly that vessels are not advised to get hold of the south bank as soon as possible.

From the Saddle Islands to Woosung, the tide generally sets N.W.b.W.

and S.E.b.E., when fully made, if no cause, such as north-east gales or heavy rains interfere; but the flood makes first to the southward, then south-west, and north-west at the entrance of the river; the ebb making north, passing by north-east to south-east, and it is at turn of tide, that most caution is necessary to avoid being set out of the channel: I have found the set of the ship pretty correctly by the deep-sea lead, and have on several occasions gone up the river at night by its guidance. Having passed the first point, which the "*Conway's*" surveyors, mention to be distinguishable by a large tree (although I could never make out any tree there sufficiently remarkable,) work up from three-quarters of a mile to two miles off shore, and do not wait for a second shoal cast on the north side. The narrowest part of the channel is where the house on Blockhouse Island bears N.E.b.E. It is here about one mile and a quarter wide.

When the ships at Woosung are open, a peaked tower, near the town of Poushan, will be seen to the westward; and on the embankment in front of it a beacon, which must be kept a little open to the southward of the tower, until another large beacon, at the entrance of the Shanghae river is on, between two Joss poles behind it, painted red, and bearing W.S.W. This last is an excellent mark for the channel, which is very contracted. The beacon may be brought a little open on each side of the poles, and the water shoals gradually on each side; but the tide does not set exactly fair through.

Chinese pilots are in attendance here in sanpans, although with a fair wind they are not required, as Collinson's Chart of the Shanghae river is very good.

The foregoing remarks apply to vessels of a heavy draught, say eighteen feet. Small craft may use much more freedom, closing with the south bank when Gutzlaff is twelve or fifteen miles off to the southward, and working up with the lead for a guide, never coming over half 3 fathoms to the north-eastward. The southern shore is to be depended on all the way; but when within ten miles of Woosung, the bank is very steep, and should not be approached under three-quarters of a mile.

I offer the following suggestions for rendering the navigation of the Yang-tsze-keang comparatively safe and simple, which may be effected at a trifling cost, considering the valuable trade of Shanghae.

There is, off the southern end of the North Sand, a spit or patch, having 4 or 5 fathoms close to, on each side, which is the principal danger on entering the river; and every vessel wrecked hitherto, with one exception, has been on this spit. I would therefore recommend that a *light* vessel should be placed in the bight, between this spit and the main bank, where, with good heavy ground tackle, she would ride out any weather. A vessel of 120 tons, strongly built, on the principle of the *light* vessels at the sand heads of the Hoogly, would be large enough. She should be fitted with a light, to be distinguishable from a ship's light, or those that the fishermen often show, and visible at least seven miles distant. She should be supplied with two good coir cables, as well as with chains, in order to enable her to ride to the high sea that sometimes occurs; and she should also be provided with a life boat, and a European

should continually be on board, sufficiently acquainted with the river and with the indications of the weather to warn vessels, by signal or otherwise, of approaching danger.

In addition to the light, I would place a buoy off the north-west end of the spit, and another off the south end, which I think is all that would be necessary in any ordinary weather; but in standing in from sea, I am decidedly of opinion that a stranger should not attempt to run in, unless certain of getting within the bar if there are indications of bad weather; but rather, he should seek anchorage among the islands, or else put to sea for the night; the former would be preferable in heavy weather, for, unless a good sailer, a vessel would not fetch up again, in the north-east monsoon. The tides are so strong, and at times so uncertain in direction, that the best acquainted persons cannot hope to keep a correct reckoning at night; and it would prove very rough riding, should a ship attempt to anchor between Gutzlaff and the North Sands in a gale.

I think it quite useless attempting to erect a beacon on the Sand with the means that would be available here, as the tide runs with great velocity, and I am not aware that any part of the patch has less than nine feet water on it. The flood often comes in with a heavy bore or roller, when a southerly wind is blowing; and I do not think that a sufficient foundation could be formed, to justify the expectation of a beacon standing the combined action of the wind and tide.

No doubt a beacon might be placed on the North Sand itself, where it dries in many ways; for instance, by sinking a foundation in iron tanks; but it would be at a greater distance from the channel; it would cost more to keep a light on it, and altogether it would be less useful than a floating light.—*Hongkong Register.*

A YOUNG SALT.

---

#### DESCRIPTION OF THE MONUMENTAL TOWER IN HONOUR OF SIR JOHN BARROW, BART., ON THE HOAD HILL, ULVERSTONE.

[Our last volume contains an account of the ceremony which took place on laying the first stone of the edifice which is now completed and known as the Barrow Tower. The Architect, Mr. A. Trimen of the Adelphi, London, has favored us with the following description to accompany the view of it in our present number.]

The plan of the tower is circular, with a spreading base, the general form being similar to the Eddystone; the lantern however in this case is of the same material as the general structure, and forms a consistent architectural feature.

The structure is based on the solid limestone rock, of which the Hoad Hill is composed, and which was found immediately under the turf at the summit.

The ring immediately above the surface is 150 feet in circuit, being in wrought stone, and forming a set off or base, two feet in width, from

which the surrounding panorama, one of the most beautiful in England, may be contemplated in all directions.

The thickness of the wall at the surface is twelve feet six inches, intersected with a dry chamber five feet at the base. The wall diminishes in thickness from twelve feet six inches, to two feet at the cornice, which is formed of massive wrought limestone.

The whole of the lantern and dome, is formed of the same material, being wrought within and without.

The steps, the door, and window jambs, the several rings of set offs, are all in the durable wrought limestone of the neighbourhood. The general walling is in the same stone, and hammered to a sufficiently correct form. The lime of the mortar is from the same material, and set so hard, that, as the whole is compactly built (every stone being completely bedded in the mortar, and every joint completely flushed or filled,) in a short time the walls will form one thickness, of a most strong and lasting character.

Probably no stone and mortar with which we are acquainted, is better calculated to resist all influences of weather, than that of Furness, and this monument bids fair to stand as lasting to record, as any in the island, an event of the age.

The interior is approached from due south by a wide flight of steps, and over the entrance door is cut in bold relief, the words:—

IN HONOUR OF SIR JOHN BARROW, BART.

ERECTED A.D. 1850.

The saloon or principal floor is elevated about seven feet from the summit of the hill, thus furnishing a basement beneath.

This apartment is eighteen feet nine inches in diameter, having deeply recessed windows to the cardinal points, the view from each of which can be scarcely equalled, either for sublimity or variety of beauty. A stove and range are formed in the recess of the west window, and a circular pedestal, with circular shelf table will mark the centre.

The several floors and lantern are gained by a solid flight of stone stairs, protected by an ornamental iron balustrade, cast on the spot from the valuable ore procured from the base of Head. The pattern is of the fifteenth century, and each exhibiting the initials J. B.

Iron girders form the skeletons of the several floors (the whole being fireproof,) and the visitor while winding the surface of the interior of the cone, is cheered by an occasional peep from the several windows with which the sides are pierced, and reminded of the reward of the beautiful prospect that awaits him at the summit.

The interior of the lantern is nine feet four inches in diameter, and perforated with eight circular openings, the same number of pilasters support the entablature and dome; around the interior are graven the words *Soli Deo Gloria*.

A flag-staff of due proportions will be securely fixed to the base and cornice of the lantern, from which the flag of the nation, (a line-of-battle ship's Union Jack, which, together with the flag-staff, was presented by the Lords of the Admiralty, as a mark of their respect to the memory of Sir John Barrow)—wafted by his native mountain breezes, will an-

nounce to generations yet unborn, that the day of the birth of true greatness excites a nation's joy, while that of his death is felt with a nation's regret; and the tower beneath will stand as a monument of the events of a life passed in the service of his country, and extending over every hemisphere, honoured and appreciated by all classes of his fellows.

---

**TABASCO AND ITS RESOURCES.**—*From a paper translated from the the Spanish, by Lieut. Mooney, R.N.*

THE waters which descend from the mountains lose their force at the commencement of a gently inclined, slightly sloping plain, and deposit the soil which they have dislodged in their passage. By this constant occurrence nature has in the lapse of ages, gained from the ocean all that region in which is situated the state of Tabasco, a plain between the margin of the ocean and the torrents of the mountains. Many rivers and rivulets intersect it in various directions, which form a delta, affording the greatest facilities for the furtherance of agriculture, such is the fertility of the soil and the cheapness and commodiousness of transport, for in all the newly formed lands, the first strata are composed of vegetable earths or alluvium deposited by the waters which cover the greater part of the surface, and renovate its productive faculties.

But these stimulants so propitious to the development of plants, are unfortunately deleterious to the human race; inasmuch as the excess of heat and moisture engender, remittant fevers, diarrhœas, and diseases more or less dangerous: to all of which the inhabitants of this part of the republic are obnoxious.

These endemic diseases will always be an obstacle to the progress of agriculture in Tabasco, being opposed to the increase of population, either by producing more mortality than without this cause would occur, or by discouraging emigration, or finally by causing the loss of much time and labour to those suffering from their effects. Notwithstanding, I think that the insalubrity of the climate of Tabasco is exaggerated, and that it is not greater than the ordinary proportion awarded to human nature, which I have arrived at by the experience of many years, and the comparison of data of different countries, the facility of acquiring such information in Tabasco being taken into consideration.

The abundance of the first necessities of life, and the fertility of the cultivated soil ought to give us hopes of a more rapid increase of population, if means were adopted to give exit to the stagnant waters, to eradicate the jungles near the towns, and drain the marshes; in fine to diminish the causes of these diseases.

In the rainy season the rivers overflow, and the face of the country seems as a large lake, studded with islets, on which are situated the villages or estates. At times so great is the rise of water, that many of these islets disappear, as happened last year in the district of Choutalpa, its inhabitants were obliged to fly to higher situations, to save their lives,

and as much of their provisions and goods as possible. However, there was a great destruction of cattle and domestic animals, and loss of seed and storehouses, and nearly all their furniture.

Fortunately these great inundations are neither frequent nor periodical, as is the case with the ordinary floods. During the inundations, communication by land is rendered extremely difficult, or more correctly speaking impossible; but in exchange they can pass in their boats much easier everywhere, and it is then they carry their log-wood timber, and other articles, difficult of transport; in the same manner as, according to Storch, the Russians do in the season of frost. Regularly there is a periodical inundation at the end of June, which is called that of St. John, and later, from October to February, the floods succeed according as the winter rains are more or less abundant.

Perhaps on this account, due attention has not been given to the construction of good roads. They would be ministering to luxury, rather than satisfying necessity, as there are so many excellent aquatic roads in existence, which fully answer all purposes of transport, or communication; they would also be very expensive, because the lowness of the land, compared with the level of the waters in the floods, would render it necessary to construct them on high causeways, and build numerous bridges. The roads which do exist are some mere paths or footways, opened by the neighbours of the villages or estates, who then bring pieces of timber laid transversely for bridges, which they call balustrades, when the passenger has need of both nerve and equilibrium. In like manner Tabasco is possessed of a great amount of water power at the falls of the mountain torrents or in their vicinity. There is a majestic cataract in the Usumacinta; another in the Busuji or San Pedro, besides an immense number of rapids of great velocity. Nevertheless not one of these spontaneous gifts of nature has been turned to account. Hereafter great advantages can be reaped from these motive forces, hitherto so lavishly squandered.

Nothing so explicitly proves, the imperfect state of agriculture in this part of the world, as the total ignorance of the plough, the first instrument of tillage, the introduction of which is called for by the softness of the soil, its level character, and presenting neither rocks nor other obstacles, for all the plain of Tabasco is devoid of them. If the population increases, necessity itself will without doubt introduce this invention.

The extension of cultivated land, with respect to the number of labourers, and the capital employed is now great, and the rent being little or nothing, it is optional to change their grounds after every harvest—leaving it to nature to renew the productive qualities of the land, which the use of the plough would accelerate.

Although agriculture is the chief occupation of the inhabitants of Tabasco its progress has been very slow since the conquest, and still the methods are in vogue in the cultivation of cereals, which obtained in the time of Cortes. The labourers in general have not swerved from the routine handed down by their predecessors, and even to this day have lost the immense advantages, which the discoveries in the arts and sciences have secured to other nations—at all events the improvements and cultivation which have elevated people of an analogous climate (as



Cuba) to the highest pinnacle of prosperity—have not been introduced here to which island the land of Tabasco does not yield, either in fertility, cheapness, or facility of transport, only in wages.

The Cacao of Tabasco, forms the most important branch of the agriculture of this soil, and some particular care has been taken in its cultivation, improving on the lessons of experience; but there are many adverse causes, which would by degrees induce the abandonment of its cultivation or at least paralyze its reproduction. It is known that the Cacao is fruitful only in virgin soils, or those of alluvium, and that its bearing diminishes as the soil becomes exhausted, not being able to recover its primitive vigour by natural means, and cumbering land useful for other purposes.

The lands which are periodically invigorated by the alluvium deposited by the floods, are too small to contribute to constant progression, being those on which the water has risen much, or remained a long time stagnant, useless for the Cacao seed, whose plant perishes in either case. Also the excess of heat, cold moisture, or south winds, is prejudicial, the labourer not being able to count his harvest till it is dry and stored, for oft-times he sees his most golden hopes disappointed. Whilst the bean does not keep well, not being found good in six months in this hot climate, which renders speculations in this article hazardous—in fine its consumption is now reduced to the nation, where the versatility of financial laws and continual political changes, which paralyze commerce, benumb speculation, and force the consumer to seek Cacao from other countries, or substitute tea or coffee, the consumption of which articles is much on the increase.

The greatest recommendation of the Cacao of Tabasco, is its brilliant red colour, and on that account the labourer takes the greatest pains to produce that appearance. After the beans are taken from the pod, they are allowed to lay in a shallow wooden vessel for about thirty hours, and then are taken in baskets to the river, and rubbed gently between the hands, but so as not to break them. They are then spread out to dry in the sun on grass or cotton cloths, taking care to regulate the amount of heat every day, and keep continually turning them. This operation is extremely delicate, since if the bean remains unmoved for only half an hour whilst it contains moisture, all that part immediately exposed to the rays of the sun, turns black, which is termed being burnt, (*requemades*); if after having podded the bean, the sun does not shine for two or three days, which is frequently the case in this climate—the bean remains black, and is said to be sodden (*Palanque*).

It appears that this red colour, so greatly prized in the Cacao, is caused by the chemical action of the acid contained in the medulla, which encompasses the bean, on the tannia, which is one of the component parts of the seed, and when a bean of good colour, has become black by any excess of moisture, the chemical action can be restored by exposing it to the sun, and gently rubbing it with a cloth soaked in the juice of the sour orange, when it resumes its beautiful colour.

Perhaps the only reason that this colour is preferred by the market of the interior, is the security which it gives, that the fruit has not been

damaged by salt water in its transit; far from the fruit being benefitted, it is injured by the operation of washing, which is necessary to acquire this colour. Because, by wearing away too much of the outer rind, the bean does not retain sufficient strength, and is easily cracked, permitting the essential oil to evaporate by the action of heat, and as it has not undergone any strong fermentation, is more likely to germinate, and does not keep so well in the stores. Every country which produces Cacao, treats the fruit differently, but the most approved method is— to throw the fruit, immediately upon being taken from the pod, into a pit and cover it with fine sand until it has undergone a slight fermentation. According to Lieut. Garnier this operation rids it of a portion of its acidity and natural bitterness, darkens it, renders it lighter, and by depriving it of its germinating power contributes to its preservation. This fruit being the principal article of agriculture in this state, all the different known methods ought to be essayed, to benefit it, by giving the preference to that which unites the greatest advantages.

I am not aware that there is any register kept of the Cacao plantations which exist in this state, and as in general amongst us, such registries are productive of evil, that is to say, they generally overload property with new imports, it is very difficult to get farmers to give a true return of the number of trees they possess. The general calculation is, that 100 Cacao trees, produce £60 in the year, and although there are some who think this too much, nevertheless for want of better data let us take this as the basis, and adding to the 127,997 quintals exported, which appear in the eight years indicated by the letter A, the fourth part, or 31,999 quintals, for the consumption of Tabasco and the exports which do not appear in the maritime custom-house, from which the information is gleaned, there result 159,996 quintals, which give an average for every year of 19,999 quintals, and in the before-mentioned proportion of 100 trees to £60, there will be a total of 3,333,250 trees in bearing. There are no data to calculate the number of small plants which do not bear, but it is evident that the increase of this branch of agriculture can be counted, as more than the fourth part of the expressed quantity.

The cultivation of rice, coffee, sugar-cane, and cotton, would afford a more certain and durable produce, and would command a more extensive market, inasmuch as these articles are consumed by foreign countries. I am not aware that any comparison has been instituted as to the comparative produce of these plants that some index may be found, of use to the former, because in all agricultural matters, experience is the best guide.

For a length of time sugar-cane has been cultivated in Tabasco, the juice being extracted by small wooden mills, which still are very general. Within the last few years iron ones have been introduced in these parts. However they produce sugar more adapted for home consumption. There are also some works for making sugar cakes or small loaves, in Yucatan. Sugar is still too dear, never being cheaper in the market than eighteen or twenty reals, the arroba (9s. 6d. or 10s.) for 25lbs.

The coffee is reduced to a few bushes, which are sown in the Cacao plantations, more as a matter of taste than speculation.

Also rice, although, its return is extraordinarily abundant, is not sown in sufficient quantities to meet the consumption of the state; on that account we receive the overplus of the harvest of Campeche. These two last articles are cultivated in a rude and imperfect manner, and the return would be much greater if simple machinery, and the usages of other countries were introduced. There have been some happy results from the planting of cotton, and although the frequent rains to which Tabasco is subject, are opposed to its success, there being no sensible winter here, the autumn can be chosen for sowing, that the plant may bear in spring, when generally speaking it is temperate and dry.

In order to obtain a true result from these experiments, it will be necessary to make them on an extensive scale, and with means adequate to the development of the products; which could not have taken place for many anterior years, there being no large amount of capital embarked in agricultural speculations.

There are other plants, which could give occupation to the farmers of Tabasco, and their products are noted in the statement of exportation.

The allspice of Tabasco, is an uncultivated product of the woods of this state, and is of the same species as that of Jamaica (*Myrtus Pimenta*): however it is less aromatic, less piquant, larger and whiter than that. Its production could be extended to exportation, if the trees were more numerous in the country; but their paucity renders it very dear, and its consumption is limited to the interior of the state and Yucatan, although small quantities are exported by foreigners.

The Achiote or Anato (*Anotto* or *Anotta*), which is the pulp of the *Bixa Orellana*, is also a product of this state, and although there is a wild genus, very abundant, which is called *Achiotillo* (little Achiote) and gives the same, but an inferior article, its consumption is the same as the pepper, limited to the state and Yucatan, where it is used to colour meats, or sometimes is put in chocolate. Its price, which commonly is six or eight reals the pound, is very exorbitant, compared with that of Brazil or Cayenne, which in England does not fetch more than two or three reals, and at present renders its exportation impossible. This article is used as a dye, and gives a beautiful orange colour, however it is evanescent and requires strong sizes. It is also used in colouring butter and cheese, and it is said that 25lbs. of Gloucester cheese are dyed by one ounce of achiote.

The Pita or Ixthe (*Aloe*) grows admirably in the soil of this state, and its filaments are soft and tenacious, which gives it a superiority over that of other countries. However a great part of that which figures in the market comes from Guatzacualcos in the state of Vera Cruz. Here there is a fixed aversion to the cultivation of this plant, on account of the shelter it affords to vipers. I do not know how well founded this dread is, and it is a question if by clearing away, and other operations, the danger could not be avoided, because this plant requires little care, serves as a hedge to the fields, and yields a product very useful, and recognized in commerce.

(To be continued.)

## MANAGEMENT AND MISMANAGEMENT IN HURRICANES.

MR. EDITOR.—The *Penang Gazette*, of the 13th of April last, contains a long letter from Capt. Stuart, of the ship *Mooltan*, describing a very severe hurricane, into which, though fully aware of its approach, he wilfully (but in sheer ignorance,) ran his vessel, and he himself avows that nothing but her strength saved her from foundering, and that she was finally left by it in the utmost distress, and altogether in a perfect state of wreck.

This is a misfortune which, unless for the interests of science and humanity I should be the last man to notice, unless an opportunity occurred to me of pointing out to Capt. Stuart privately where his error lay, and how to avoid such mistakes in future, as I have done to many commanders. But Capt. Stuart, though evidently ignorant of the science, has taken advantage of the opportunity of printing his letter to throw doubt and discredit upon the Law of Storms, writing with the tone of an old seaman so perfectly satisfied with his own opinion of the matter, that his mischievous paragraph may deter the indolent minded from studying the principles of the science, and life and property may thereby be brought into jeopardy.

Capt. Stuart's letter is very long, and occupies two or three columns of the *Penang Gazette*. I have therefore abridged it as follows for your pages, putting Capt. Stuart's opinion into italics.

*Penang Gazette, April 13th 1850.*

"Ship *Mooltan*, Sunday, 24th February, 1850, lat. 18° S., long. 89° E. Strong trades at E.S.E., barometer 29.90, barometer falling slowly, upper clouds moving from N.W., 8h. A.M. increasing, barometer 29.70; noon (no position but that above,) barometer 29.55, 5h. P.M., heavy sea and increasing gale. All precautions had been taken; stood away north-west, determining to run the ship, in hope that we should keep clear of what now appeared to be an approaching hurricane. At this time the barometer was below 29 inches. At midnight the glass was at 28.90, with the wind E.S.E. Having experienced a hurricane in 1831 in H.C.S. *Reliance*, in lat 18° S. and long. 36° E., in which she suffered severely, and a staunch ship, the *Galford* foundered, was seriously apprehensive for the future, but could only hope that by steering away W.N.W. we should keep clear of what is now evidently an approaching hurricane.

"Monday, 25th February.—At noon, barometer 28.55 hurricane increasing, getting the top-gallant-masts down, &c.

"It now became a question whether the ship should be rounded to, the storm raging with great fury, and a fearful sea. Theorists may after a hurricane is over, by comparing the logs of different vessels, point out what each should have done to avoid the greatest strength of the storm, but I question much the possibility of putting such knowledge to much use in practice, and at all events on this particular occasion.

"At 4h. P.M. determined at all risks to round the ship to, hauled the fore-sail up; foretop-mast-staysail blew away. As a heavy sea striking the ship she broached to, let fly maintop-sail sheets to save the main mast. Maintop-sail and fore-sail blown away. Storm now terrific, evening barometer 28.50, and continued so during the night. The ship's head steady at N. to N.N.W.

"26th.—At noon next day moderated to a gale; barometer still at 28.20 and we were assured the worst was yet to come. At 5h P.M. hurricane recommenced at E.S.E., with redoubled violence, baffling all description, and the greatest fears were entertained for the safety of the vessel. Another

awful night was passed without abatement, expecting constantly to have to cut away masts. Barometer steady at 28·20, and it was not till Wednesday the 27th, that it showed any inclination to rise. I do not think the hurricane of 1831 could be compared with the present one. Nothing but the extreme goodness (strength) of the *Moolan* and the strength of her fastenings, saved her from inevitable destruction, and time will show how weaker ships may have fared.

"During Wednesday 27th, the mercury was steady at 28·40, but there was no perceptible decrease of the storm. Cargo had settled to leeward, an anchor was cut away, spars launched overboard, &c. Hurricane continued up to the morning of the 28th, when at noon there was an abatement, though it was still a severe gale; ship finally left by it in the utmost distress, and altogether in a perfect state of wreck."

Capt. Stuart is not aware that he has described here the most complete case of blundering that it is possible to invent! for with the wind at E.S.E., in the Southern Hemisphere, as he will find by looking at a storm card, he had the centre of the cyclone bearing N.N.E. from him, and if he will refer to the works of Reid, Thom, Piddington, or Bousquet on Storms, he will find that the usual track of the cyclones in 89° E., and 18° S. is to the W.S.W. When therefore Satan whispered to him to steer north-west and he did so, he was exactly doing his best to keep way with the cyclone, and cut it off in its course, as if he was chasing and wanted to capture it! His falling barometer and the wind gave him ample indications of which way the cyclone was travelling, and accordingly we find that unable to keep the ship up north-west, as he neared the terrific centre, he kept W.N.W., which was the course to sheer gradually into it, and to get as much buffeting from it as possible before he reached it.

We see subsequently that he did so, and just placed himself in a position to meet the southern part of the centre, when he had the weather moderating a little, and then being carried probably by the storm-wave onwards with, or close to the vortex, he had another day and night's buffeting before he finally drifted out of the cyclone, or rather before the cyclone left him. His data, as usual with persons wholly uninformed in the science, are altogether imperfect towards the latter part of his report; but I presume that writing for a newspaper he thought it necessary to omit the only details which would really make his communication useful to his brother seamen, for the sake of those which appear so awful to the landsmen. There is however enough, as every scientific seaman will see, to shew the absurd error which nearly occasioned the loss of this fine ship.

Capt. Stuart may be assured that the science of storms has now for some years passed that stage of its growth, at which "Theorists, after a hurricane is over, may, by comparing the logs of different vessels, point out what each should have done, &c.;" but if he visits the port of Calcutta at a proper season, I undertake to show him one ship at least, and I doubt not there are more in the same employ, in which even the midshipmen and junior officers can produce their logs, and show *why* they have to, to avoid the cyclone of the Bay of Bengal in October, 1848. I mean the *Barham*, Capt. Gimblett, commanded then by her chief officer Mr. Vaile, and I believe I can at any season find commanders and officers in the country service sailing out of Calcutta who will furnish him with examples, or explain his error to him. If he will farther take the trouble to become a little better acquainted with the science he now so much doubts of, he will learn that we count not by single ships, but almost by hundreds, those who have escaped the fury of cyclones, not by after wisdom, as he supposes, but by a little attention to a few common sense rules and simple calculations, which every man who can work, a day's work, can understand.

He will no doubt enquire then, how he should have managed. It is, I am sorry to say, a piece of after-wisdom, but he may be assured that it was not necessary for him to have told us what had happened, for any tyro conversant with the law of storms would have informed him that in the Southern Hemisphere, as I have already said, the wind E.S.E. with a falling barometer, showed that there was a cyclone with its centre to the N.N.E. of him, coming down to the W.S.W. or south-west. He should therefore have simply run off about S.S.W. or S.b.W. if his ship steered well, so as to have made fifty or 100 miles of southing, by which time he would have found his barometer had risen again, and that he had regained the trade, when he should have stood to the N.E. again, allowing the cyclone full time to pass him, which his barometer would always have shewn; and he would probably have crossed the next day the heavy sea which is always left in the path of the cyclone, or he might have even hove to where he was, if the wind shewed any disposition to haul to the east and E.N.E., so as just, as it were, to stop on his road till "the enemy" ran past him; but to stand to the southward out of the influence of the cyclone circle, till he got a fine weather barometer was the safest course.

I must apologise, Mr. Editor, for occupying so much of your space, and taxing I fear the patience of many of your readers; but for a man first to commit an egregious blunder, and then to argue from the consequences of his own errors, that the men who for years have been labouring to build up our science are mere theorists, palming off some meagre scraps of after-wisdom as a true guide to the seamen, is too grave and too mischievous an imputation, though made I dare say in perfect innocence and good faith, to be passed over in silence; and I have thus thought it my duty to refute it as publicly as it was made, in my own behalf as well as on those of my fellow-labourers. If Capt. Stuart desires higher authority than mine, I beg to refer him to Sir John Herschel, in the Admiralty Manual of Scientific Research, p. 304 to 309, with which I trust he will be quite satisfied.

H. PIDDINGTON.

---

NOTICE OF EXAMINATIONS OF MASTERS AND MATES, *established in pursuance of the Mercantile Marine Act, 1850.*

AFTER the first day of January, 1851, no Foreign-going\* vessel will be permitted to clear out from any Custom-house in the United Kingdom without the masters and mates respectively being in possession of Certificates, either of service or of competency.

The Certificate of service entitles an officer, who has already served as either master or mate, to go in those capacities again, and may be had by application to the Registrar-General of Seamen, Custom House, London, on the transmission of the necessary certificates and testimonials.

Certificates of competency will be granted by the Board of Trade to all mates and masters who have passed examinations, whether under the old or the present regulations, and also to all Officers who have passed Lieutenants', Masters', and Second Masters' examinations, in the Royal Navy and East India Company's service, unless special reasons to the

\* By a Foreign-going vessel is meant one which is bound to some place out of the United Kingdom, beyond the limits included between the river Elbe and Brest.

contrary exist; and any person desirous of exchanging a passing Certificate—obtained under the former Boards of Examiners—for a competency Certificate, should send it to the Registrar-General, as before mentioned, with a request to that effect, and state the Port to which he wishes it to be sent, where it will be delivered to him by the Collector of Customs.

All other Officers, entering for the first time upon their duties, whether as mate or master, will be required to undergo an examination before one of the Local Marine Boards before they can act in either of those capacities.

For the convenience of such persons, Examiners have been appointed under the Local Marine Boards, and arrangements have been made for holding the Examinations at the undermentioned Ports upon the days specified against them; and these days are so arranged for general convenience, that a candidate wishing to proceed to sea, and missing the day at his own Port, may proceed to another Port where an Examination is coming forward. The days for commencing the Examinations at the various Ports are as follow:—

PLACES.	DAYS.
Aberdeen . . .	Fridays and Saturdays in first week in each month.
Belfast . . . . .	1st and 3rd Tuesday in each month.
Bristol . . . . .	1st Tuesday in each month.
Cork . . . . .	4th Monday in each Month.
Dublin . . . . .	1st and 3rd Thursday in each month.
Dundee . . . . .	Saturday in each week.
Glasgow* . . . . .	1st and 3rd Thursday in each month.
Hull . . . . .	2nd Tuesday in each month.
Leith . . . . .	2nd Tuesday in each month.
Liverpool* . . . . .	2nd and 4th Tuesday in each month.
London* . . . . .	Tuesday and Wednesday in Navigation; Thursday, Friday, and Saturday, in Sea- manship.
Newcastle* . . . . .	1st day of each month.
Shields* . . . . .	10th day of each month.
Sunderland* . . . . .	20th day of each month.
Plymouth . . . . .	3rd Wednesday in each month.

The Examinations required for qualification for the several ranks under mentioned, are as follows:—

A SECOND MATE must be seventeen years of age, and must have been four years at sea.

*In Navigation.*—He must write a legible hand, and understand the five first rules of arithmetic. He must be able to correct the courses steered for variation and lee-way, and find the difference of latitude and departure therefrom; be able to correct the sun's declination for longitude, and find his latitude by meridian altitude of the sun; and work such other easy problems of a like nature, as may be put to him. He must understand the use of the quadrant, and be able to observe with it, and read off the arc.

\* At these places only Extra Examinations are held.

*In Seamanship.*—He must give satisfactory answers as to the rigging and unrigging of ships, stowing of holds, &c.; must understand the measurement of the log-line, glass, and lead-line; be conversant with the rule of the road, as regards both steamers and sailing-vessels, and the lights carried by them.

**AN ONLY MATE.**—Must be eighteen years of age, and have been four years at sea.

*In Navigation.*—In addition to the qualification required for a Second Mate, an only Mate must be able to find the place of his vessel at sea by the observed altitude of the sun, comprising the latitude by meridian altitude, and longitude by chronometer, and also by his courses and distances run from the place of departure. He must work a day's work complete, including the bearings and distance of the port he is bound to. He must be able to observe and calculate the amplitude of the sun, and deduce the variation of the compass therefrom. He must know how to lay off the place of the ship on the chart, both by bearings of known objects, and by latitude and longitude. He must be able to use a sextant and determine its error, and adjust it.

*In Seamanship.*—In addition to what is required by a Second Mate, he must know how to moor and unmoor, and to keep a clear anchor; to, carry out an anchor; to stow a hold, and make the requisite entries in the ship's log.

A **FIRST MATE** must be nineteen years of age, and have served five years at sea, of which one year must have been as either Second or only Mate, or as both.\*

*In Navigation.*—He must be able to calculate the time of high water, from the known time at full and change; to observe azimuths and compute the variation to compare chronometers and keep their rates, and find the longitude by them from an observation by the sun; to work the latitude by single altitude of the sun off the meridian; and be able to use and adjust the sextant by the sun.

*In Seamanship.*—In addition to the qualification required for an only Mate, a more extensive knowledge of seamanship will be required, as to shifting large spars and sails, managing a ship in stormy weather, taking in and making sail, shifting yards and masts, &c., and getting cargo in and out; and especially heavy spars and weights, anchors, &c.; casting ship on a lee-shore; and to secure the masts in the event of accident to the bowsprit.

A **MASTER** must be twenty-one years of age, and have been six years at sea, of which one year must have been as First or only Mate, and one year as Second Mate; or two years as First and only Mate.\*

In addition to the qualification for a First Mate, he will be enquired of as to the nature of the attraction of the ship's iron upon the compass and as to the method of determining it. He must possess a sufficient knowledge of what he is required to do by law; as to entry, and discharge, and the management of his crew; as to penalties and entries to be made in the official log. He will be questioned as to his knowledge of invoices, charter-party, Lloyd's agent, and as to the nature of bottomry.

He must be acquainted with the leading lights of the channel he has been accustomed to navigate, or which he is going to use.

**AN EXTRA MASTER'S EXAMINATION** is intended for such persons as are desirous of obtaining command of ships and steamers of the *first class*.

*In Navigation.*—As such vessels frequently make long voyages, to the East Indies, and the Pacific, &c., the candidatee will be required to work a

\*Service in a superior capacity is in all cases to be equivalent to service in an inferior capacity.



lunar observation by both sun and star, to determine the latitude by the moon and star, and also by double altitude of the sun.

He must understand how to observe and apply the deviation of the compass ; and to deduce the set and rate of the current from the D. R. and observation. He will be required to explain the nature of great circle sailing and know how to apply practically that knowledge, but he will not be required to go into the calculations. He must be acquainted with the Law of Storms, so far as to know how he may probably best escape those storms common to the East and West Indies, and known as hurricanes.

*In Seamanship.*—The Extra Examination will consist of an enquiry into the competency of the party to heave a ship down, in case of accident befalling her abroad ; of getting lower masts and other heavy weights in and out ; how to construct rafts, and as to his resources for the preservation of the ship's crew in the event of wreck, and in such like operations as the examiner may consider necessary.

The candidates will be allowed to work out the various problems according to the method and the tables they have been accustomed to use, and will be allowed five hours to perform the work ; at the expiration of which, if they have not finished, they will be declared to have failed.

It will be seen that at certain of the above-mentioned ports, First Class Examinations will be held ; and at these alone can be procured extra Certificates of competency.

Applicants for Examination are required to give their names to the Shipping Master, or to the Local Marine Board at the place where they intend to be examined, on or before the day of examination, and to conform to the regulations in this respect which may be laid down by the Local Marine Board, and if this be not done, a delay will be occasioned.

The Examinations will commence early in the forenoon on the days before mentioned, and be continued from day to day until all the candidates whose names appeared upon the Shipping Master's list on the day of examination are examined.

Testimonials of character, sobriety, and trustworthiness will be required of all applicants, and without which no person will be examined ; and as testimonials may have to be forwarded to the office of the Registrar General of Seamen in London for verification, before any Certificates can be granted, it is desirable that candidates should lodge them as early as possible. Upon application to the Shipping Master, candidates will be supplied with a Form, which they will be required to fill up and lodge with their testimonials in the hands of the examiners.

The Fee for Examination must be paid to the Shipping Master or the officer appointed *pro tem.* by the Local Board to receive it. If a candidate fail in his examination, half the fee he has paid will be returned to him by the Shipping Master, on his producing a document which will be given to him by the Examiner.

The following are the fees to be paid by applicants for examination :—

	£	s.	d.
Second Mate . . . . .	1	0	0
First and only Mate, if previously possessing an inferior certificate . . . . .	0	10	0
If not . . . . .	1	0	0
Master, whether Extra or Ordinary . . . . .	2	0	0

Any one who already possesses a Master's 1st Class Certificate granted by one of the former Boards of Examiners, or an Ordinary Master's Cer-

tificate of competency granted under the present examiners, may pass an Extra Examination, and receive an Extra Certificate in exchange for his former one, without payment of any fee.

If the applicant passes, he will receive a document from the Examiner which will entitle him to receive his Certificate of Competency from the Shipping Master at the port to which he has directed it to be forwarded. If his testimonials have been sent to the Registrar to be verified, they will be returned with his Certificate.

As the Examinations of Masters and Mates are now, for the first time, made compulsory, the qualifications have been kept as low as possible; but it must be distinctly understood that it is the intention of the Board of Trade to raise the standard in the course of time, whenever, as will no doubt be the case, the general attainments of officers in the merchant service shall render it possible to do so without inconvenience; and officers are strongly urged to employ their leisure hours, when in port, to the acquirement of the knowledge necessary to enable them to pass their examinations; and Masters will do well to permit apprentices and junior officers to attend schools of instruction, and to afford them as much time for this purpose as possible.

F. W. BEECHY,  
W. H. WALKER.

T. H. FARRER, *Secretary*.

---

### NAUTICAL NOTICES.

---

#### BAR OF THE COLUMBIA.—*Extract of a letter from Lieut. W. A. Bartlett, U.S.N.*

The U. S. schooner *Ewing* crossed the bar of the New South Channel, under charge of Capt. White (the discoverer of the channel), on the 19th April last, and so perfectly plain and accessible did this new route appear, that we could scarcely believe that we had beat into the Columbia river, or over its bar, so famous for the last half-century, for difficulty and delay, as to be a place of terror to all seamen and underwriters. Since the date referred to, now over two months, I have witnessed almost daily the passage of the bar of the 'New South Channel,' by vessels of all classes, trading into the Columbia river, crossing at pleasure, with or without pilots, and without danger.

Since Mr. White left duty at the bar (I hope, however, only temporarily), five sail have crossed the bar without pilots, viz: the brig *Seguin*, barques *Ann Smith* and *Eliza*, and the U. S. schooner *Ewing*, under my direction, twice; so that I can state from my own knowledge that any observing seaman can cross, in or out, over this bar safely and certainly without an hour's delay, after having once crossed in order to observe the ranges, which are well defined, and certain to lead over in good water. We have not yet sufficiently surveyed the bar to state how much water there is at all stages of the tide, but the least water I had in crossing with the *Ewing* yesterday (with two careful leadmen) was 16 feet at half-tide (flood), running in on a straight range of Pillar-hill-tree (a very remarkable landmark) just shut on over point Adams, still I deepened to five fathoms, inside the Point

of Breakers (on north side of channel), and hauled up for the 'Beacons,' on Sand Island (wind, N.W.  $\frac{1}{2}$  N.), having from six and seven to nine fathoms up to Sand Island Beacon, two miles inside the bar. Time from the five fathoms outside to Sand Island Beacon, twenty minutes. A vessel goes out from the anchorage at Sand Island into open ocean in from thirty to fifty minutes. There is abundant room for any vessel to work in or out with the wind from any point of the compass, and as the tide ebbs fair through the channel in the best water it greatly facilitates both ingress and egress. The ranges for turning Clatrop spit are (by my own verification) 'Point Ellice,' with 'Pillar-hill' just shut in behind it, and Point Adams in one with the highest 'pass' of the mountains in the Fast C., in eight fathoms. A vessel passes clear, either in coming in or going out. As that leading 'pass' has no name, I propose to distinguish it as the 'Ewing Pass.'

We have built a beacon on Sand Island, on which is a white flag, 80 feet above the island, and 85 feet above the high-water mark. Around the base of the flag-staff is a block-house, 35 feet high and fifteen feet square; it can be seen plainly, in good weather, 12 miles at sea. By bringing the beacon flag directly under the centre of the highest peak westward of Chinook peak, and Point Adams just open south of Pillar-hill-tree, a vessel will be in  $12\frac{1}{2}$  fathoms, in a fair way to the bar, with bar ranges on, viz., Point Adams and Pillar-hill. And the usual wind from north-west, or anywhere on the western board, is fair for crossing. Vessels cross the bar of the New Channel under all steering sails, or beat up the channel, as the case may be. It is not necessary to tack ship on the bar, in any wind. A sailing vessel can run to sea from Sand Island, or come in, in less time than she can run to Baker's Bay, after which (if in Baker's Bay) she must take her chance for wind and tide to get to sea. The anchorages at Astoria, Sandy-point (east end of Clatrop beach), and Sand Island are good, with abundant room for getting under weigh at any stage of the tide.

**CORAL REEF.**—The following notice of a coral reef existing in Dampier Straits, with which we (*Singapore Free Press*), have been favoured, will be useful to mariners having occasion to pass through the passage:—Extract from the log book of the *Sophia Fraser*. "Friday, September 9th, 1850. At 10 A.M., while steering to the south-west through Dampier Straits, on a passage from Shanghai to Singapore, grounded on a coral reef that appears to be detached from Pidgeon Island. On one side of the vessel the jolly boat could not float, and on the other side we had 8 fathoms, under the bow 2 fathoms; let go the anchor, when she instantly tailed off to the southward, veered out 8 fathoms cable and had soundings 57 fathoms. Bearings taken when aground: Western extreme of King William Island N.W.b.W.  $\frac{1}{4}$  W., Pidgeon Island just visible well open of the western end of King William Island. Hump Island N.b.E.  $\frac{1}{2}$  E. and Foul Island S.S.E. Hove up and steered to the southward until the south-west point of Battanta bore W.b.S.  $\frac{1}{2}$  S., then steered mid channel S.W.b.W.  $\frac{1}{4}$  W. This reef lies by my bearings about six miles E.b.N. of Pidgeon Island, and is of very small extent, as the chief officer pulled almost round it, and could get no bottom with 30 fathoms on one side of the boat, while on the other side the oars were touching the coral. The coral appears to be in an active state of growth, as it could be easily pierced with the oars. I can find no account of the reef in any of my books, nor is it laid down on any of Horsburgh's charts, for all our bearings were clear and distinct.

D. M'KELLAR, *Commander*.

*Extract of a letter received from H.M.S. Resolute, at sea.*Lat.  $74^{\circ} 5' N.$  long.  $58^{\circ} 30' W.$ 

In the hurry of forwarding my report it had almost escaped me to state, that on the 1st inst., when proceeding in tow between Horse Head and an island, the *Pioneer* and this ship, struck on the pinnacle of a sunken rock, having 14 fathoms water by the side of it; but I am happy to say that they were not brought up, and both glided off again immediately without sustaining any damage.

H. T. A.

*Admiralty, Dec. 3rd, 1850.***BELL BUOY AT THE ENTRANCE OF THE NEEDLES CHANNEL, ISLE OF WIGHT.**

The Lords Commissioners of the Admiralty hereby give notice that in compliance with the proposal of the South Western Steam Navigation Company, a Bell Buoy has been moored at the south-west end of the Shingles Shoal, near the outer end of the tail of the Shingles, in lieu of, and in the position formerly occupied by the Red Beacon Buoy off that shoal, and which Beacon Buoy has been removed.

*H.M. Surveying Vessel Royalist, Labuan,  
August 12th, 1850.*

On the evening of the 9th inst., when N.  $29^{\circ} E.$ , distant two miles from the north extremity of Labuan Island, (Bethune Head), and steering south for an anchorage off Koubony Bluff, the *Royalist* going at the time five knots, struck upon a rock which is not laid down in the chart.

It was nearly low water, and the vessel drawing a little under twelve feet, her keel gave two bumps, and she then passed clear.

The following bearings will place you upon the rock.

Tarras Point S.  $0^{\circ} 30' E.$ , and in line with a conspicuous ebony tree, in the body of Pappan Island.

A small tree upon an isolated rock, which lies close off Luke Point, a little open of Heath Point, S.  $44^{\circ} W.$

Lookdan Islet, on the Borneo Shore, S.  $69^{\circ} E.$

It is an isolated coral patch, upon which the sea is said to break occasionally at low water spring tides. One cable south of it there is  $2\frac{1}{2}$  fathoms, but the contiguous depths are  $4\frac{1}{2}$  and 5 fathoms.

Vessels should not pass inshore, that is, to the south-westward of it, as the ground is evidently foul. A good mark to clear it to the eastward, is keeping Tarras Point open of the western extremity of Pappan Island.

In the chart, there is a 4 fathom bank (of about half a mile in its longest diameter), laid down E.N.E., four cables from the position of the above rock.

Upon examination however, I think it must have disappeared, as the least water found upon the same spot was 6 fathoms.

I am, &amp;c.,

WILLIAM THORNTON BATE, *Commander.*

Mr. Reed, master of the brig *Emma*, at San Francisco, from Tahiti, reports, Oct. 8th, in lat.  $37^{\circ} 24' N.$ , long.  $137^{\circ} 27' W.$ , discovered two rocks not laid down in the chart, running north-east and south-west, one 150 fathoms long and 66 wide, the other about 100 fathoms long and 38 wide; on sounding, 5 fathoms was got on one part, and 3 fathoms alongside the rock. Mr. Reed is of opinion that in heavy weather the sea would break over it. — *Shipping Gazette, Dec. 23rd.*

TABLE LXXV.

*For converting English fathoms into French Metres, and Metres into Fathoms.*

1 English Fathom = 1·82876696 Metres.  
1 French Metre = 0·54681653 Fathom.

Eng. Fms. or Fth. Metres.	Fr. Metres and Dec. parts.	Eng. Fthm. and Dec. parts.	Eng. Fms. or Fth. Metres.	Fr. Metres and Dec. parts.	Eng. Fthm. and Dec. parts.	Eng. Fms. or Fth. Metres.	Fr. Metres and Dec. parts.	Eng. Fthm and Dec. parts.
1	1·829	0·547	40	73·151	21·873	79	144·473	43·198
2	3·658	1·094	41	74·980	22·419	80	146·301	43·745
3	5·486	1·640	42	76·808	22·966	81	148·130	44·292
4	7·315	2·187	43	78·637	23·513	82	149·959	44·839
5	9·144	2·734	44	80·466	24·060	83	151·788	45·386
6	10·973	3·281	45	82·295	24·607	84	153·616	45·933
7	12·801	3·828	46	84·123	25·153	85	155·445	46·479
8	14·630	4·375	47	85·952	25·700	86	156·274	47·026
9	16·459	4·921	48	87·781	26·247	87	159·103	47·573
10	18·288	5·468	49	89·610	26·794	88	160·931	48·120
11	20·116	6·015	50	91·438	27·341	89	162·760	48·667
12	21·945	6·562	51	93·267	27·888	90	164·589	49·213
13	23·774	7·109	52	95·096	28·434	91	166·418	49·760
14	25·603	7·655	43	96·925	28·981	92	168·247	50·307
15	27·431	8·202	54	98·753	29·528	93	170·075	50·854
16	29·260	8·749	55	100·582	30·075	94	171·904	51·401
17	31·089	9·296	56	101·411	30·622	95	173·733	51·948
18	32·918	9·843	57	104·240	31·169	96	175·562	52·494
19	34·746	10·389	58	106·068	31·715	97	177·490	53·041
20	36·575	10·936	59	107·897	32·262	98	179·219	53·588
21	38·404	11·483	60	109·726	32·809	99	181·048	54·135
22	40·233	12·030	61	111·455	33·456	100	182·877	54·682
23	42·062	12·577	62	113·384	33·803	150	274·315	82·022
24	43·890	13·124	63	115·212	34·449	200	365·753	109·363
25	45·719	13·670	64	117·041	34·996	250	457·192	136·704
26	47·548	14·217	65	118·870	35·543	300	548·630	164·045
27	49·377	14·764	66	120·699	36·090	350	640·068	191·386
28	51·205	15·311	67	122·527	36·637	400	731·507	218·727
29	53·034	15·858	68	124·356	37·184	450	822·945	246·067
30	54·863	16·404	69	126·185	37·730	500	914·384	273·418
31	56·692	16·951	70	128·014	38·277	550	1005·822	300·749
32	58·521	17·498	71	129·842	38·824	600	1097·260	328·090
33	60·349	18·045	72	131·671	39·371	650	1188·709	355·431
34	62·178	18·592	73	133·500	39·918	700	1280·137	382·772
35	64·007	19·139	74	135·329	40·464	750	1371·575	410·112
36	65·836	19·685	75	137·158	41·011	800	1463·014	437·453
37	67·664	20·232	76	138·986	41·558	850	1554·452	464·794
38	69·493	20·779	77	140·815	42·105	900	1645·890	492·135
39	71·322	21·326	78	142·644	42·652	1000	1828·767	546·817

## EXAMINATION OF MASTERS AND MATES OF MERCHANT SHIPS.

A List of the Masters in the Merchant Service, who have voluntarily passed an Examination, and obtained Certificates of Qualification for the Class against each assigned, under the Regulations issued by the Board of Trade, to the 25th of October.

Those marked thus [m] served last as mates.

Names.	Class.	Date of Birth.	Present or last Service.	No. of Register Ticket.	Where Examined.	When.
Cayzer, H. C. . . . .	2nd	1820	Honduras, 393 tons . . . . .	179001	London	Oct. 10th
Perkins, E. J. . . . .	2nd	1825	Hebe, 124 tons . . . . .	74531	Yarmouth	—
Barron, J. . . . .	1st	1825	Berwick Castle, 342 tons . . . . .	180268	Durdee	— 11th
Murray, G. . . . .	2nd	1820	Caroline, 397 tons . . . . .	500500	Gloster	—
Granger, W. S. . . . .	2nd	1816	Dale Park, 402 tons . . . . .	500500	—	— 12th
Simpson, J. . . . .	2nd	1816	Dale Park, 402 tons . . . . .	244505	London	— 14th
Trenaman, R. H. . . . .	2nd	1822	Mount Edgcombe, 100 ts. . . . .	52400	Flymouth	— 15th
Wilson, T. . . . .	2nd	1829	Orion, 261 tons . . . . .	161499	S. Shields	—
Smith, R. G. . . . .	2nd	1828	Jane, 295 tons . . . . .	104066	—	—
Marienburg, J. . . . .	1st	1802	Tam O'Shanter, 271 tons . . . . .	—	Liverpool	—
Escott, W. . . . .	2nd	1815	Nerelde, 672 tons . . . . .	—	London	— 17th
Selby, P. . . . .	2nd	1827	David Lyon, 476 tons . . . . .	225526	—	—
Cox, T. . . . .	3rd	1817	Velocity, 148 tons . . . . .	503508	—	—
Leath, J. . . . .	3rd	1815	Mary & Caroline, 233 tons . . . . .	164425	S. Shields	—
Biacey, J. . . . .	2nd	1129	Earl of Leicester, 214 ts. . . . .	254972	Yarmouth	— 18th
Guttrie, J. . . . .	2nd	1821	Sovereign, 272 tons . . . . .	55294	S. Shields	—
Paul, W. . . . .	1st	1818	Vigilant, 134 tons . . . . .	—	Glasgow	—
Hood, T. . . . .	2nd	1813	Josephine, 332 tons . . . . .	121028	—	—
M'lr, D. . . . .	2nd	1825	Clutha, 498 tons . . . . .	248309	—	—
Midleton, J. . . . .	2nd	1823	Cornelia, 387 tons . . . . .	—	Dundee	—
Stubbs, F. D. . . . .	1st	1809	Palatine, 507 tons . . . . .	279883	Liverpool	—
Lawson, W. . . . .	2nd	1822	Blake, 731 tons . . . . .	—	—	—
M'Minn, P. . . . .	1st	1805	Xerezano, 149 tons . . . . .	—	—	— 19th
Wilson, J. . . . .	2nd	1816	Gossypium, 745 tons . . . . .	413661	—	—
Halcrow, W. . . . .	2nd	1815	Garland, 1050 tons . . . . .	—	—	—
Gillespie, D. . . . .	1st	1824	Lord Nelson, 260 tons . . . . .	70570	Dundee	—
Huist, J. T. . . . .	2nd	1822	London, 611 tons . . . . .	32023	London	— 21st
Billing, W. . . . .	2nd	1817	Himalaya, 477 tons . . . . .	323756	—	—
Grey, G. . . . .	2nd	1821	Gipsy, 890 tons . . . . .	17513	—	—
Wecka, J. . . . .	2nd	1811	Pacla, 650 tons . . . . .	242426	—	—
Burgoyno, M. H. . . . .	3rd	1815	Rambler, 189 tons . . . . .	259563	—	—
Cubitt, G. . . . .	1st	1808	Janet Muir, 314 tons . . . . .	—	Newcastle	— 22nd
Currey, H. T. . . . .	1st	1817	Henry & Ann, 276 tons . . . . .	—	—	—
Hall, W. . . . .	1st	1823	Utania, 260 tons . . . . .	50832	—	—
Petrie, J. B. . . . .	3rd	1817	Robert & James, 181 tons . . . . .	45336	S. Shields	—
Wigham, W. C. . . . .	2nd	1823	Raven, 283 tons . . . . .	99570	Newcastle	— 23rd
Kerr, H. . . . .	1st	1824	Epaminondas, 1172 tons . . . . .	—	Liverpool	—
Murray, W. H. . . . .	2nd	1816	Albatross, 800 tons . . . . .	103165	—	—
Jones, W. H. . . . .	1st	1812	Galatea, 310 tons . . . . .	—	Gloster	—
Lay, F. . . . .	1st	1826	Tudor, 1064 tons . . . . .	33873	Lon-ton	— 24th
White, J. . . . .	2nd	1801	Harmony, 252 tons . . . . .	134089	—	—
Rolt, J. H. . . . .	2nd	1824	North Star, 384 tons . . . . .	328492	—	—
Fell, R. S. . . . .	2nd	1828	Alpha, 317 tons . . . . .	224278	—	—
Pryce, C. E. . . . .	2nd	1819	Havering, 907 tons . . . . .	27414	—	—
Peake, G. R. . . . .	2nd	1824	Caroline, 229 tons . . . . .	22002	—	—
Marshall, T. . . . .	3rd	1808	Lord Stanley, 655 tons . . . . .	34986	—	—
Latto, A. . . . .	2nd	1824	Berwick Castle, 342 tons . . . . .	104493	Dundee	—
Turner, W. . . . .	1st	1803	Gratitude, 221 tons . . . . .	—	Liverpool	—
Watts, W. . . . .	2nd	1820	Hellespont, 550 tons . . . . .	—	—	—
Crockett, J. . . . .	2nd	1820	Royal Victoria, 315 tons . . . . .	33872	—	—
Hodge, J. T. . . . .	3rd	1816	Arthur, 148 tons . . . . .	21291	Plymouth	— 25th
Bloomfield, J. L. . . . .	2nd	1824	Trinity Yacht, 141 tons . . . . .	503887	London	—
Leeds, E. M. . . . .	2nd	1824	Minerva, 1310 tons . . . . .	323926	—	—
Clark, T. J. . . . .	2nd	1822	Halifax, 399 tons . . . . .	503887	—	—
Lilley, T. . . . .	2nd	1811	Childs, Harold, 463 tons . . . . .	—	—	—
Hood, J. . . . .	1st	1808	Flora, 230 tons . . . . .	—	Dundee	—
Irwin, J. . . . .	2nd	1828	Morgiana, 407 tons . . . . .	324346	—	—
Appleton, H. G. . . . .	2nd	1828	Nelson, 106 tons . . . . .	320561	Yarmouth	—
Lay, R. . . . .	2nd	1828	Rapid, 179 tons . . . . .	468792	—	—
Boyce, J. Jun. . . . .	3rd	1824	Cygnat, 112 tons . . . . .	86063	—	—

Names.	Class.	Date of Birth.	Present: o. last Service.	No. of Register Ticket.	Where Examined.	When.
Darnell, J. A. . .	3rd	1829	Earl of Leicester, 194 ts. . .	49851	Yarmouth	Oct. 25th
Goodwin, E. B. .	3rd	1825	Firefly, 146 tons . . . . .	139027	—	—
Jamleson, W. . .	1st	1816	William Stewart, 576 tons . . . . .	—	Glasgow	— 26th

## MATES.

McKenzie, T. G. .	2nd	1917	Matrona, 287 tons. [seaman	27594	London	Aug. 1st
Purchase, E. . . .	2nd	1827	Morayshire, 420 ts. [seamn.	30446	—	—
Bristow, F. . . .	2nd	1830	Joseph Somes, 774 tons. . . .	1237	—	—
Murray, W. B. . .	3rd	1816	Hannah, 966 tons. . . . .	246919	—	—
Pearce, R. . . . .	2nd	1828	Devonshire, 713 tons . . . . .	83159	—	5th
Grav, J. . . . .	2nd	1828	Sir E. Parry, 575 tons . . . .	28249	—	—
Whittingham, H. .	2nd	1828	Lady of the Lake, 160 tons . . .	4651	—	—
Minchell, J. . . .	2nd	1821	Rhine, 506 tons . . [seaman	27227	—	—
Browne, G. . . . .	2nd	1829	Maldstone, 976 ts. . . [app.	29180	Gloster	—
Grant, J. . . . .	2nd	1829	Menam, 472 tons . [seaman	293044	London	— 12th
Cooper, R. . . . .	3rd	1800	Cholea, 312 tons . . . . .	25786	—	—
Ford, W. H. . . . .	2nd	1826	Lord J. Russell, 333 tons . . . .	148696	—	19th
Thornton, J. . . .	2nd	1827	Andromache, 468 tons. . . . .	14140	—	22nd
Newson, W. O. . .	2nd	1826	Harpley, 574 tons. [seaman	272529	Yarmouth	— 20th
Mann, E. . . . .	3rd	1827	Victoria, 165 tons . . . . .	14211	London	— 29th
Harriss, B. W. . .	2nd	1831	Regina, 223 tons. [seaman	211349	Millford	— 31st
Wylde, C. S. . . .	2nd	1826	Manchester, 824 tons. . . . .	414289	Liverpool	Sep 2nd
Jones, G. H. . . .	2nd	1831	Jane, 328 tons . . . . .	22015	London	— 9th
Sutherland, J. . .	3rd	1822	Hydrabad, 815 tons . . . . .	223995	Leith	— 12th
Whyte, J. . . . .	1st	1829	Bowling, 253 tons . . . . .	262628	Liverpool	— 14th
Calver, J. A. K. .	3rd	1829	Pestonjee Bomanjee, 594 ts. . . .	225497	London	— 16th
* Dryden, C. . . .	3rd	1830	Clarence, 475 tons . [app.	344248	—	—
Cadenhead, A. F. .	3rd	1803	Lord Duncan, 350 tons . . . . .	111066	—	— 17th
Hutton, A. . . . .	2nd	1828	Pekin, . . . . [quartermaster	142926	Leith	Oct. 2nd
Elve, J. W. . . . .	2nd	1820	True Briton, 685 tons . . . . .	82999	London	— 7th
Willson, R. G. . .	1st	1825	Naomi, 710 tons . . . . .	258051	Liverpool	— 8th
Ferguson, W. . . .	1st	1827	Sandford, 624 tons . . . . .	258486	—	—
Clark, D. . . . .	1st	1820	Isabella, 350 tons . . . . .	451281	Glasgow	—
Hill, W. R. . . . .	2nd	1829	Sovereign, 243 tons [seaman	401800	Liverpool	— 10th
Whitton, J. . . . .	2nd	1826	William, 252 tons. . . . .	107907	Dundee	— 11th
Taylor, C. . . . .	2nd	1828	Severn, 1800 tons. . . . .	454289	London	— 14th
Millard, J. . . . .	2nd	1829	Martha, 160 tons. . . . .	406628	Liverpool	— 15th
Banks, J. M. . . .	1st	1830	Berwick Castle, 342 tons. . . . .	95408	Dundee	—
Jameison, J. . . .	1st	1828	Brant, 960 tons . . . . .	499223	Liverpool	— 16th
Glennie, S. . . . .	3rd	1829	Alert, 171 tons . . . . .	107409	London	— 17th
Johnson, W. F. . .	2nd	1825	Rapid, 179 tons. . [seaman	225173	Yarmouth	— 18th
Chlene, W. . . . .	1st	1829	Medora, 297 tons . [master	76527	Glasgow	—
Cobu, J. . . . .	2nd	1830	Laura, 238 tons . . . . .	335406	London	— 21st
Bryce, J. A. . . . .	2nd	1828	Madrid, 500 tons . . . . .	265473	—	— 22nd
Edwards, H. B. . .	1st	1829	Havering, 906 tons . . . . .	88107	Newcastle	—
Tutt, C. . . . .	2nd	1831	Geraldine, 83 tons . . [app.	42651	Plymouth	— 24th
Prout, O. . . . .	2nd	1829	Lady Vallant, 700 ts [seamn.	17989	London	—
Carter, D. D. . . .	3rd	1820	Rumbold, 94 tons . . . . .	241369	Yarmouth	—
Gaggs, T. E. . . .	2nd	1830	Chance, 551 tons. . . . .	216477	London	— 25th

\* Qualified for Steam only.

**THE JUDGMENTS OF THE SEA, AND THE ISLE OF OLEBON.**—*For the Regulation and Government of Merchants, Owners of Ships, Part-Owners, Masters of Ships, and common Marines in all Maritime affairs.*

When a ship or other vessel, whereof a master is made, belonging to several part-owners, and departing from her own port, arrives at Burdeoux, Rouen, or such like place, and is there freighted to sail for Scotland, or

Skipper's sale, without special procuration, not good.

Ship-tackle pawned for ship necessities, good

2. If a ship

Skipper not to quit a port without advice of his mariners.

or other vessel be in a port or haven, waiting for her freight, therewith to depart; the master, before he depart thence, ought first to consult with his company, and say, (sirs,) we have now an opportunity to set sail; some of them possibly will say, the weather as yet seems not good enough, the wind being but now newly changed, and we ought to see it somewhat settled; others of them possibly will say, the weather is good and fair: In this case the said master is to concur with the opinion of the major part of his company; if he does otherwise, and the vessel happen to miscarry thereby, he is obliged to make good the same, according to the value upon a just appraisement.

3. If any vessel through misfortune happen to be cast away, in whatsoever place it be, the mariners are bound to use their best endeavour for the

Mariners in case of that like wreck, to save what may be saved.

saving as much of the ship and lading as possibly they can; and if they preserve part thereof the master is bound to allow them reasonable consideration, whereby to get home to their own country, and in case they save so much as whereby the

Skipper's sale, in case of disaster, not good without special procuration.

4. A vessel laden, departing from Rochel, or some other place, happens in the course of her voyage to be rendered unfit to proceed therein, yet the mariners save

Part of freight to be paid for part of a voyage.

as much of the lading as possibly they can; the merchants and master are at variance, requiring to have their merchandise or the lading from the master; they ought indeed to have them, paying freight for so far as they made the said

The Skipper, to hire another ship to finish his voyage, in case of disaster to his own.

please the master. But if he will, he may repair his vessel, if so be she be in such case as that readily she may be repaired; but if otherwise, and he cannot hire another vessel to finish his

The reward of salvage not to be paid according to promise made in time of distress but as the court of Admiralty shall determine according to equity.

said voyage, then the master shall have his freight for so far of the said voyage, and for so much of the lading as is there saved. And the freight of the goods that are saved, ought all of it to be reckoned *liver by liver*, and the saved goods to pay the costs of their salvage, according as they shall happen to be. And in case it happens that the master, merchant, or mariners promised the people of the country, where such misfortune is, a third or one moiety of what by their help should be saved of the ship and lading, out of the dangers they were in; in that case the justice of the country, where such misfortune happens, ought well to consider what pains they bestowed, and what hazards they did run in the saving thereof, and to reward them accordingly, notwithstanding what promise in such distress so made them as aforesaid by such master, merchant, or mariner.



5. If a vessel depart from any country laden or empty, and arrive at any port, the mariners ought not to leave the ship, or to go out of her without the master's leave or licence; for if otherwise, and the vessel should happen to be lost, or by any misfortune be damaged, they are obliged to make satisfaction for the same. But if the vessel was in such a place, as wherein she was anchored and moored with two or three cables, they may then lawfully go out of her without the master's licence, provided they leave behind them on ship-board such a number of the ship's company, their fellow mariners, as is sufficient to keep the decks, and the merchandize or the lading of the ship, provided also that they return again in due time and season to their said ship. For if they make unnecessary delays, or stay from the ship longer than is meet, they ought to make satisfaction, if they have wherewithal.

6. If some of the mariners, that hired themselves with the master, go out of the ship without his leave, and drink themselves drunk, or the like, whereby there happens contempt to their master, besides debates, fightings, and quarrellings among themselves, whereby some happen to be wounded; in this case the master is not obliged to get them healed, or in anything to provide for them, but rather to discharge them of the vessel, and to turn them out of the ship, both them and their comrades. But if by the master's order and command any of the ship's company be in the service of the ship, and therein happen to be wounded or otherwise hurt, in this case they ought to be healed and provided for at the costs and charges of the said ship.

Mariners [with out the leave of the Skipper] may not go out of the ship, when arrived at a port.

In some cases some of them may.

Mariners drunk ashore, & wounded, not to be healed at the ship's charge.

Mariners wounded in the ship's service, are to be healed at the ship's charge.

#### PLUNDERING WRECKS.

In the *Shipping and Mercantile Gazette* of Friday last, we gave a tolerably full statement, from the *Limerick Reporter*, of certain proceedings of a very extraordinary nature, before a bench of magistrates assembled at Kilkeel, in that county. We call those proceedings extraordinary, because they amounted to a charge against a gentleman, and a magistrate of that county, of being engaged in a crime which, in the opinion of every well-minded person, is held to be one of the most disgraceful and demoralising that can be committed—namely, that of plundering a wreck: or, if not actually plundering, at least of being possessed of and concealing property which had been plundered. Our duty to the shipping interest of the country will not allow us to pass over this case without some notice, particularly from the recklessness, the violence, and the inhumanity with which the peasantry of Ireland—particularly on the west coast—invariably assemble on every occasion of wreck, looking upon the property which may come within their reach as their own, to deal with as they please.

The case to which we are referring is that of the melancholy loss of the emigrant ship *Edmond*, at Kilkeel, in the county of Limerick, where so many human beings lost their lives, and on which occasion Mr. Jonas Studdard, a county magistrate, was accused by Mr. Wilson, master of the *Edmond*, with being engaged in plundering the wreck, and in removing to his own premises and there concealing, some of the property—spars and sails so plundered. As the magistrates acquitted the party thus accused, we, of course, conclude that he was not guilty of the offence with which he was charged; but the case still calls for some comment.

The first thing that strikes us as remarkable is that, of five magistrates on

the bench, two of them were nephews of the party on whose case they were sitting in judgment: this is, to say the least of it, *unseemly*. Were it to occur in this country, it would, we think, be subject to a harsher expression of feeling. We shall, of course, not enter into the details of the case, as we have reported it, with the leading evidence on both sides, and as the bench of magistrates, including the two nephews of the accused, pronounced Mr. Jonas Studdart not guilty. In all such cases there is a great deal of conflicting evidence, and on going through the whole proceedings which we have carefully done, and maturely considered—we are of opinion that it is one of those cases wherein a Scotch jury *might possibly* have returned a verdict of *not proven*. But this, at least, was proven, that Mr. Studdart was on the beach as a magistrate, assisted by the police and coast-guard—or he might have been assisted, had he required it, by those organised bodies, when 500 men or upwards were assembled for the purpose of plunder; and we cannot discover that he took any means to stop the plunder, or to disperse the plunderers. It was also proven that some of the parties who were arrested, and brought before this magistrate on the occasion, were released by him. It was also stated by Capt. Wilson, that Mr. Jonas Studdart, the magistrate, required him [Capt. Wilson] to sign an agreement that they would get paid for the labour of guarding the property. And when and where did this consideration occur to the magistrate? On the beach at Kilkee, which was strewn with the wreck of the unfortunate vessel, and when its victims who had been drowned were every moment washing on shore.

These facts are given, in evidence, and although Mr. Studdart was acquitted on the criminal charge, it is difficult to exculpate him in his capacity as a magistrate. He was a resident gentleman of the neighbourhood, and probably every one of the plunderers was known to him by name. A magistrate in such a situation, at the head of ten policemen [there were twenty on the beach], might and *ought* to have dispersed the five hundred plunderers who were there assembled. Yet, it was distinctly proved that the plunder was carried on in the presence of the magistrates, including Mr. Jonas Studdart and his nephews—and of the police, without the slightest remonstrance, on the part of either.

There have been many disgraceful occurrences connected with wrecked property on the coast of Ireland; but we doubt not if we ever heard of one so disgraceful in its whole character as the plunder of the *Edmond* at Kilkee. *Shipping Gazette*.

---

#### ❖ SAILING VESSELS REGULATIONS.

11, Notre Dame Street, Quebec,  
Sept. 26th, 1850.

Sir.—The mercantile marine bill having now passed into a law, by which the masters and mates in the merchant service are liable to be tried by a competent board of examiners and deprived of their certificates, and thus prevented from obtaining further employment, if any blame attaches to them in consequence of any accidents which may happen to their vessel by a collision with other vessels or by shipwreck; it therefore, becomes the duty of every seaman, for the benefit of all, to furnish any information he may possess, for the establishment of a code of rules and regulations for sailing vessels or steamers, to avoid accidents by collisions which too frequently take place, owing to one party not knowing how the other will act to avoid the danger.

It is a well-known fact that the rules and regulations promulgated by the Trinity Board, London, have done more harm than good; owing to the

NO. 1.—VOL. XX. H

ambiguous manner in which they are drawn up, a vessel may be placed in such a position as to render a collision certain by following their rules.

I have, therefore, to request as a favor that you will insert the following rules taken from various authorities, in your valuable journal. They may afford useful information to young officers or pilots, and may draw forth some better arranged plan from the proper authorities than those which are at present in force in the merchant service.

Sir,

I have the honor to be,

Your obedient servant,

JOHN McDUGALL.

1. When sailing vessels are under weigh, beating to windward on opposite tacks, and are compelled to pass near to each other, that which is on the starboard tack must stand on close hauled or to the right, and the one which is standing on the port tack must bear away so as to pass astern of the other, so that each vessel may have the other on the left or port hand; but if the vessel standing on the port tack cannot pass astern of the other which is on the starboard tack, in consequence of the proximity of some shoal or other vessel, she must then go about; and if in this case the two vessels should come in contact, the one standing on the port tack shall in any event be adjudged in fault.

2. When two vessels beating to windward in opposite tacks in thick foggy weather, or a dark night, approach so near to each other as that the one which is on the port tack, cannot pass astern of the one on the starboard tack, in this case both vessels must tack, and if notwithstanding the two vessels should come in contact, the damage cannot be laid to the charge of one or the other. If the wind should be so strong as to render it impossible to tack, in this case the vessel running on the port tack must heave all aback to let the vessel on the starboard tack pass.

3. When two vessels on opposite tacks are approaching towards each other with the wind abeam or free, they must observe the same regulations as when beating to windward, and each vessel must leave the other on the left or port hand.

4. When a vessel standing close hauled on a wind is approached by another vessel running with the wind free, steering across her course, the vessel going free must in all cases give way to the vessel on the wind, whether she is on the starboard or port tack, and pass under the stern of the vessel close hauled; if the two vessels should come in contact the one running with the wind free shall be considered in fault.

5. When two vessels are standing on the same tack and the one astern in the wake of the other is coming up fast, being the better sailer, she can pass on either side of the vessel ahead, which must keep on without changing her course until the other has passed; but in case the two vessels should come in contact, the one which has fore-reached on the other, shall under any circumstances be considered in fault.

6. When in tacking to windward a vessel may have approached a shoal or other vessel and be therefore compelled to put about to get clear, and should another vessel be standing towards her and come in contact, the latter will be adjudged in fault, whatever tack the one or the other may be on.

7. If in consequence of a fog, thick weather, or a dark night, two vessels, the one standing close hauled and the other running with the wind aft should get so near to each other that it is not possible to avoid a collision, the vessel with the wind aft must endeavour to haul round on the same tack with the other vessel to weaken the shock of the collision as much as possible; under such circumstances, if either of the vessels be damaged, the fault shall not be attributed to either one or the other.

8. During the night all vessels must observe the same regulations as by day, and when approaching each other must show a light.

#### REGULATIONS FOR STEAM VESSELS.

1. In all cases of wind, weather, currents, or tide, steam vessels, when approaching towards each other in opposite directions, shall keep towards the starboard side and leave each other on the port hand, also, when passing another vessel going in the same direction.

2. When a steam vessel may have to pass a sailing vessel or sailing boat, the steamer must in all cases yield to the sailing vessel or sailing boat, by stopping her engines or altering her course, whatever may be the state of the wind, weather, or tide.

3. In passing any small sailing vessel or rowing boat, every steamer shall, if necessary, stop her paddles or slack them, so as not only prevent the danger of a too near approach, but even so as to avoid giving their passengers or crew any just cause of alarm.

4. For the more effective execution of these regulations by night every steamer should carry two lights, one on the fore part of the fore-mast, and the other on the fore-part of the stem, in a line with the steamer's keel, so that other vessels approaching may ascertain the course she is steering, as a guide to avoid coming in contact with her, and the steamer must also stop her engines and reverse them if necessary, to avoid a collision, if she cannot clear the other vessel by altering her course.

---

THE PANAMA RAILROAD.—The *Panama Star* in speaking of the Panama Railway says, "We are very happy to inform our contemporary of the *California Courier*, that the railroad is being built, and it is the confident expectation of those who have its management, that by the 4th of July next, it will be ready for the transportation of passengers and merchandize from Limon Bay on the Atlantic to a point on the Chagres River, between Palanquilla and Gorgona, say about ten hours travel from this place,

"Some two miles of the road is already laid with rails, and we see no reason why the expectations of the engineers should not be fully realized. As to the plank road, that project has been entirely abandoned, and the whole energies of the railroad company are now directed towards the early completion of their more permanent and useful project. We learn that between 300 and 400 men are now engaged on the work, and that within a few days several hundred more labourers will be put on it. The distance from Limon Bay to the point where the road will strike the Chagres River, is between twenty-seven and thirty miles only. The following circular has been addressed by the directors of the Panama Railroad Company, (at New York) to the stockholders:—

"The directors have much satisfaction in laying before you the new contract, negotiated with the republic of New Grenada, at the last session of its congress, containing important alterations and amendments and giving great additional facilities for the railroad enterprise. In laying this before you, they avail themselves of the opportunity to contradict formally, and in the most positive terms, the reports which have been circulated through the newspapers and otherwise, of their intention to abandon the work of the railroad, and to say that there is no foundation whatever for any such reports; on the contrary, they have the satisfaction of assuring you that the road is progressing under circumstances which induce them confidently to expect

that it will be opened for travel from Navy Bay to Gorgona (about twenty-seven miles) by the first day of July next. The remainder, about nineteen miles, and extending to the Pacific, it is their intention to make passable for locomotives by the first day of July next, 1852. Any information respecting thier plan and proceedings will be communicated on application at the office of the company, 78, Broadway.

The Admiralty have appointed a Commander (Commander Wolrige) as the Agent to the first Cape Mail Packet, instead of a Lieutenant, as in all other Mail Steam Packets: and we understand that in these packets their Lordships have determined to appoint all Commanders, in order that they may have an opportunity afforded them, in the voyages to the Cape of Good Hope in these screw vessels, of making themselves thoroughly acquainted with that principle of propulsion which there is not the slightest doubt will in a few years be applied to every ship of war in the Navy.—*U. S. Gazette.*

**TRAITS OF CHARACTER, (Capt. Cook).—By the Rev. John Penrose: Murray, London, 1850.**

The following extract from a work entitled the "Life of Capt. Trevenen," speaks of our great navigator, p. 196, with reference to an excursion in the third voyage, related in page 280 line 3, of the 2nd volume,

"I" says Mr. Trevenen, "with several other of our midshipmen attended Capt. Cook in this expedition, in which we rowed him not less than thirty miles during the day. We were fond of such excursions, although the labour of them was very great, as not only this kind of duty was more agreeable than the routine on board the ships, but it was also another very principal consideration, that we were sure of having plenty to eat and drink, which was not always the case on board on our usual allowance. Capt. Cook also on these occasions would sometimes relax from his almost constant severity of disposition, and even descend now and then to converse familiarly with us, but it was only for a time."

In a book of scraps which seems to have been written as late as 1787, we find

"O genius superior, informing whom, Nature  
Had an eye to the moulding a great navigator,  
And though toward thy mids, thou wert not very nice,  
Declaring thou'dst have 'no more cats than catch mice,'  
Not here do you come to see fashions, or folly, but  
To hold on the nippers, and row in the jolly boat;  
And though still thou wouldst send me, when by the wind steering,  
To haul out the weather mizen topsail reef earing,  
Yet not now I'll remember thy wholesome severity,  
Or remember 'twas meant but to give me dexterity.  
No! rather I'll think on that happier season,  
When turn'd into thy boat's crew without rhyme or reason,  
But proud of that office, we went a marooning,  
And pulling 'gainst tide, or before the wind spooning,  
Sometimes we were shooting, and sometimes surveying,  
With pleasure still watching, with pleasure obeying.  
Till pleased with our efforts, thy features relax,  
And thou giv'st us thy game to take home on our backs.  
O day of hard labour, O day of good living,  
When Tootee was seized with the humour of giving,  
When he clothed in good nature his looks of authority,  
And shook from his eyebrows their stern superiority."

"Tootee was the name given to Capt. Cook. by the natives of the South Sea Islands."

## NAUTICAL SAYINGS AND DOINGS.

Falmouth, at length, as a packet establishment, is doomed. Already have two of the packets been paid off, and the other four, as they return from Brazil, are ordered to Devonport to be paid off, their services being superseded by the Contract Mail Steam Packet Company. Their lordships have also ordered the store ship *Astrea*, at Falmouth, to be removed to Devonport and paid off, together with Mr. Yeames, the master in charge, and the men forming the establishment there, namely, 1 master, 1 gunner, 1 boatswain, 2 carpenters, 1 petty officer, 4 A.B.'s, 2 boys, and a purser's steward. Thus, in a few days, the once famous port of Falmouth, as a packet rendezvous, will not have a single pendant, either as a stationary ship or a visitor.

December 16th, witnessed the dawning of a new era to Devonport, and we have too high an opinion of the enterprising spirit of the inhabitants of Plymouth, Devonport, and Stonehouse, (consisting of upwards of 100,000), to suppose for one moment that they are not alive to the boon which has been conferred upon their district, in its selection by the Admiralty authorities, at the particular suggestion of James Laming, Esq., the managing director of the company which has taken the contract to convey the mails and passengers to Madeira, the Cape de Verd Islands, and the Cape of Good Hope, as the point from which a monthly departure will take place to these ports; and in due time we have every reason to believe the communication will be extended to the Mauritius, Ceylon, India, China, New South Wales, and New Zealand. The mails were embarked on board the *Bosphorus*, at noon of Monday, and placed in charge of Com. Wolrige, R.N. A procession of the local authorities of the three towns was formed, and were present on board the ship at the time of the embarkation, when congratulatory speeches were delivered. The ship, however, was detained from proceeding until Wednesday. During Monday afternoon a deputation from the Plymouth Chamber of Commerce, headed by the Right Hon. the Earl of Morley, waited upon the Directors, Mr. Laming, and Mr. Fox, M.P. for Longford, to welcome them at the port, and to assure them of their hearty interest, co-operation, and support in the service; and in the evening about 150 of the principal gentlemen of the three towns assembled at the Royal Hotel, and entertained Mr. Laming and Mr. Fox in a most handsome and gratifying manner.

Capt. Hall, R.N., late of H.M.S. *Dragon*, a gentleman well known in the nautical world, to whose liberality the establishment of a sailors' home in Dublin is mainly attributable, he having contributed the sum of £200 to the foundation of such an institution there, and by his exertions collected an equal sum, has arrived in Belfast for the purpose of founding there a similar refuge for seamen. To a mercantile community like that of this town, whose marine transactions exceed in amount those of any other port in Ireland, the importance, both to employer and employed, of an association based on the principles upon which the Dublin society is conducted, will at once be apparent. A meeting of the council of the Belfast Chamber of Commerce has been held, to receive Capt. Hall, and further the object he has in view.

From the published log of the first voyage across the Atlantic (i.e. Liverpool to New York), of the new 2,000 ton and 800 horse-power paddle-wheel steamer *Africa*, carrying the English mails, we find that she ran in the course of seventy-two successive hours, no less than 950 miles, the greatest distance in twenty-four hours being 329 miles. The prevailing weather was moderate, hazy, and fine.

The bark *Emerald*, of London, arrived in the Downs on Monday last, having on board a sailor who was picked up at sea, floating on a piece of cork, off Cape Finisterre. It appears that the sailor with two others, was swept overboard from the deck of a Portuguese schooner in a storm. The other two were drowned; but the survivor got hold of a sheet of cork (which was washed from the deck of his vessel at the same time), to which he clung for nearly two days. On the night of the day he was washed overboard a schooner passed close to

him; but from the darkness and not hearing his cries, it did not go to his assistance. On the following night, however, he was picked up by the *Emerald*, Cadiz trader, very much exhausted; but by the kind and humane treatment he received on board that vessel he soon recovered.

Capt. John Innes, the captain of the ship *Kelso*, has sent an account to the owners of a shocking affray, which took place on board that vessel on her voyage from California to Hong Kong. It appears that on the 17th of August, the captain was informed that some of the crew had entered into a solemn agreement to murder him and the steward that night, to seize the persons of several others on board, and to run the ship to the Columbia River. He, with five others, accordingly very quietly made preparations to resist any violence which might be attempted, each being armed with pistols. He sat down at the door of his cabin, anxiously awaiting the attack, when about three o'clock in the morning he saw two men take their stations on the quarter-deck, and another man crawl into the cabin door upon his hands and knees, having a bayonet in his hand. He ordered him to stand, and as the man still came on, he fired and shot him dead. On going on deck he found that the mutineers had got possession of the ship, and changed her course. He then called them to come aft to him, when they obeyed and threw down their arms, excepting one man, armed with a bayonet and bowie-knife, who, on being ordered to do so, also refused and rushed upon the captain, who fired his pistol, which he had re-loaded, and shot him through the body. The ringleaders were then put in irons, and though only seven effective hands now remained, the ship made a safe passage to Hong Kong, where she arrived on the 14th of September, and the mutineers were committed for trial before the Supreme Court of the colony.

CAPT. COLLINSON'S BEHRING STRAITS EXPEDITION.—The only additional intelligence received of this expedition is the following, dated

“Honolulu, June 30, 1850.

“Here we are after a tedious passage of 175 days from England. We did not see the *Investigator* after the 21st April. We sail on the 30th (this day) for Behring Straits. We are too late I fear to effect the object of our cruise this season, but cannot help it, so hope for the best.

“*Herald*, Capt. Kellett, left here six weeks since for the Straits, so we expect to meet her, as well as the *Plover*, Commander Moore.

“We have not spared the canvas on our way here.

“We find this place destitute of refreshments, and everything is monstrously expensive on account of the Californian business. There are about fifty ships in the place, all eager for provisions, and the Government has not made any preparations for our departure.”

Other letters announce the departure of Capt. Collinson, and that his last words were that he intended to join the *Plover*, take her under his order, and push for the ice at once, keeping the *Plover* in reserve to fall back upon.

The *Investigator*, Com. McClure, had also sailed from Woahoo, July 4th, but it was expected that on joining the *Enterprise*, Capt. Collinson would send her to Valparaiso for provisions and stores.

Capt. Collinson and his crew were left by Com. Aldham, of the *Swift*, in good health and spirits.

On the 29th of October, the anniversary of the birth of the Queen's cousin, *Dona Fernando*, Capt. d'Assis e Silva made arrangements to give a party on board his ship, the *Donna Maria II.*, of 32 guns. A number of civilians from Macao, and the officers of the United States sloop *Marion* were invited. At noon the *Donna Maria II.* fired a royal salute, shortly after which several of the invited civilians went off to the vessel, which was then lying at anchor in the Typa. At half-past two o'clock, p.m., the ship blew up with a fearful explosion, entirely destroying the vessel, and all aboard, except the Captain's son and some twelve or thirteen men, who were taken out of the water by the boats of the United States sloop of war. The crew consisted chiefly of Lascars, natives of Goa, with European mariners; the number on board at the time of the catastrophe could not have been far short of 300 souls.

Mr. H. D. P. Cunningham, s.n., late Secretary to Rear Admirals Reynolds and Moresby, has invented a contrivance for reefing topsails from the deck,

without sending men aloft. The plan has been fitted on board of a Peninsular and Oriental Company's vessel, *Iberia*, and has been found to answer admirably. The sail reefs itself, and from the time the yard is lowered it is close-reefed in two seconds. The reefs may be again shaken out, and the topsail at the mast-head in twenty seconds. The invention is not expensive, because the present sails and topsail yards can easily be altered at an expense not exceeding £15 per yard and sail.

**THE LOSS OF THE ORION, AND TESTIMONIAL TO CAPT. HAWES, R.N.**—We learn from the *Glasgow Herald*, that a meeting has been held for the purpose of rewarding the Portpatrick boatmen, who saved the lives of the passengers at the wreck of the *Orion*. Dr. Robertson, who attended personally and professionally was presented with a silver snuff-box, with a suitable inscription, and £10.

Capt Hawes, having respectfully, but firmly, declined to accept anything for his gallant and humane services, the meeting, in consideration of the position he holds in the service of his country, resolved not to press him, but requested the Committee to present him with the following letter, expressive of the sentiments entertained by the survivors, and the public generally, of his valuable and disinterested services.

“To Commander Edward Hawes, Esq., R.N., General Superintendent of Portpatrick Harbour.

“Dear Sir.—The committee of subscribers to the fund to reward the boatmen and others in Portpatrick, who were instrumental in saving life at the wreck of the *Orion*, in June last, were anxious to show to you the appreciation in which your valuable services on that occasion and afterwards are held by the public generally, by presenting you with some substantial token of their regard.

“But being prevented from this by your generous self-denial, embrace this only other method left them to thank you for your valuable and disinterested services.

“The circumstance that the first man who discovered the danger of the vessel ran directly to you, speaks much for your character, and the cool foresight with which you made your arrangements and gave your orders, and the intrepid conduct you displayed on board of the boats fully justified the confidence placed in you, and has made it a matter of thankfulness to the survivors, and to the public generally, that an officer of your presence of mind and influence was so near at such an emergency.

“May you be long spared, and increasingly useful, to an obliged and grateful country.”

To which Capt. Hawes replied as follows:—

“Portpatrick, Nov. 29th, 1850.

“Dear Sirs.—I have sincere pleasure in receiving the document you have done me the honour to present to me, expressive of the sentiments of the survivors of the wreck of the *Orion*, for the part which, under Divine Providence, it was my happiness to take in the assistance rendered them in the hour of peril. This public testimony of regard for my services on that occasion, added to that received by letter from many of the survivors, is indeed most gratifying.

“In abstaining to partake of the awards from the donations of the survivors and the public, I have the satisfaction to see the boatmen enjoy the full benefit of the subscribers' generous liberality towards them—a liberality that testifies to all on our coasts the value set upon prompt assistance.

“I am, dear Sirs, yours sincerely,

(Signed) “EDWARD HAWES, Commander R. N.

“To the Committee acting for the Survivors of the *Orion*.”

We may add that Mr. Thompson, one of the Committee, in presenting the letter to Capt. Hawes, said “We have been requested to present you with this letter, expressive of the sense which the survivors, and the public generally, entertain of your valuable services, at and since the wreck, and while they respect your generous refusal to partake of their bounty, they hope that, that branch of the government under which you serve, will find some means to show you and the gentlemen of your profession that they are not unmindful of such services as yours.”



VANCOUVER ISLAND.—By the last advices from Vancouver Island, the Hudson's Bay Company have been informed of a discovery of the capability of that colony for producing hemp, which may have an effect on its prosperity almost as important as that from its coal mines. In some of the works of the early voyagers, there are notices that the natives were found to be possessed of tackle of remarkable strength, and it was now ascertained that the plant from which this was prepared was the nettle hemp, which is indigenous, and which is found scattered over various localities of the island. Specimens of rope roughly made from it have been received in London, and it appears that it will bear a strain of 2lb. above the Admiralty standard of 84lb. The material has also been examined by competent dealers, and its value estimated at £30 per ton.

THE LIVERPOOL SAILORS' HOME.—A magnificent building was opened on Monday for the transaction of the business hitherto conducted in the temporary offices, Bath Street.

METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory. From the 21st of November, to the 20th of December, 1850.

Month Day.	Week Day.	Barometer.		Thermometer				Wind.				Weather.	
		In Inches and Decimals.		In the shade.				Quarter.		Strength.			
		9 A.M.	3 P.M.	9AM	3PM	Min	Max	A.M.	P.M.	A.M.	P.M.	A. M.	P.M.
21	Th.	In Dec 29.04	In. Dec 29.66	45	45	44	46	N	NW	5	2	qbc	bcm
22	F.	29.66	29.66	46	52	39	53	S	S	2	2	op 2)	ogr 2) (4)
23	S.	29.38	29.52	54	51	50	55	SW	SW	4	3	or 2)	bc
24	Su.	29.38	29.12	48	54	40	55	S	S	7	9	qor 1) (2)	qor (3)
25	M.	29.12	29.14	46	51	44	52	SW	SW	3	5	b	qbc
26	Tu.	29.40	29.40	41	44	36	46	SW	S	2	1	or 2)	og
27	W.	29.60	29.73	42	40	38	43	N	N	4	5	o	qop (2)
28	Th.	30.17	30.34	34	38	32	40	N	NE	2	2	bc	b
29	F.	30.31	30.26	39	37	29	41	NE	E	2	2	bc	b
30	S.	30.12	30.08	34	37	28	39	NE	NE	1	1	o	og
1	Su.	30.11	30.21	35	38	33	39	E	E	1	1	o	o
2	M.	30.23	30.28	42	45	36	46	S	S	1	1	o	o
3	T.	30.20	30.14	42	42	38	44	S	S	1	2	o	o
4	W.	30.06	30.10	46	49	32	50	S	SW	1	2	o	o
5	Th.	30.30	30.33	51	33	46	54	S	SW	1	1	o	bc
6	F.	30.40	30.38	37	45	36	46	SW	SE	1	1	bf	bf
7	S.	30.38	30.35	44	44	42	46	SE	E	1	1	ogf	bc
8	Su.	30.36	30.34	36	38	34	40	E	E	1	1	of	of
9	M.	30.32	30.29	33	37	32	38	E	E	1	1	of	of
10	T.	30.24	30.28	34	35	33	36	SE	SE	1	1	of	of
11	W.	30.02	29.95	28	41	32	42	SE	S	1	1	o	o
12	Th.	29.95	29.95	46	48	39	49	SW	SW	2	1	or (2)	o
13	F.	29.85	29.74	44	46	38	47	SW	SW	1	2	or (2)	o
14	S.	29.78	29.62	42	50	40	51	SW	SW	2	7	b	qor 4)
15	Su.	29.46	29.31	43	45	38	55	SW	SW	3	6	o	qor (3) (4)
16	M.	29.30	29.14	40	44	41	46	SW	SW	2	6	h	qop 3
17	Tu.	29.31	29.10	38	41	35	42	SW	SW	5	5	qbc (2)	qbc
18	W.	29.38	29.42	33	39	32	40	W	SE	1	1	bc	bc 4
19	Th.	29.26	29.46	34	36	32	38	N	NE	1	1	bcm	ora 3
20	F.	30.08	30.18	32	36	28	38	NW	N	2	2	bcm	b

November, 1850.—Mean height of the barometer 29.853 inches; mean temperature = 46.1 degrees; depth of rain fallen = 2.47.

Hunt, Printer, Church Street, Edgware Road

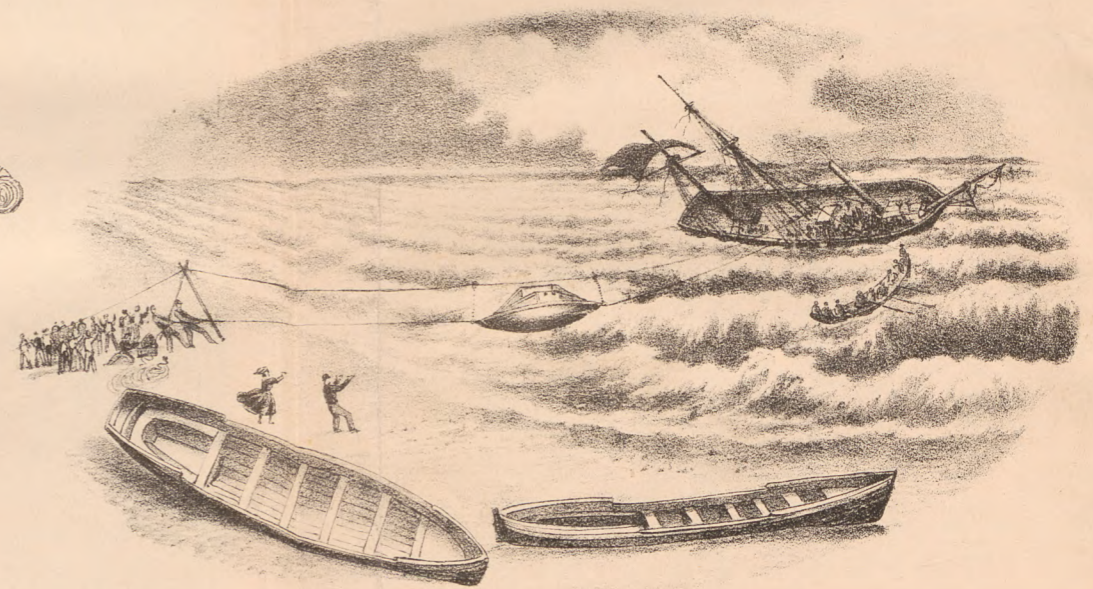
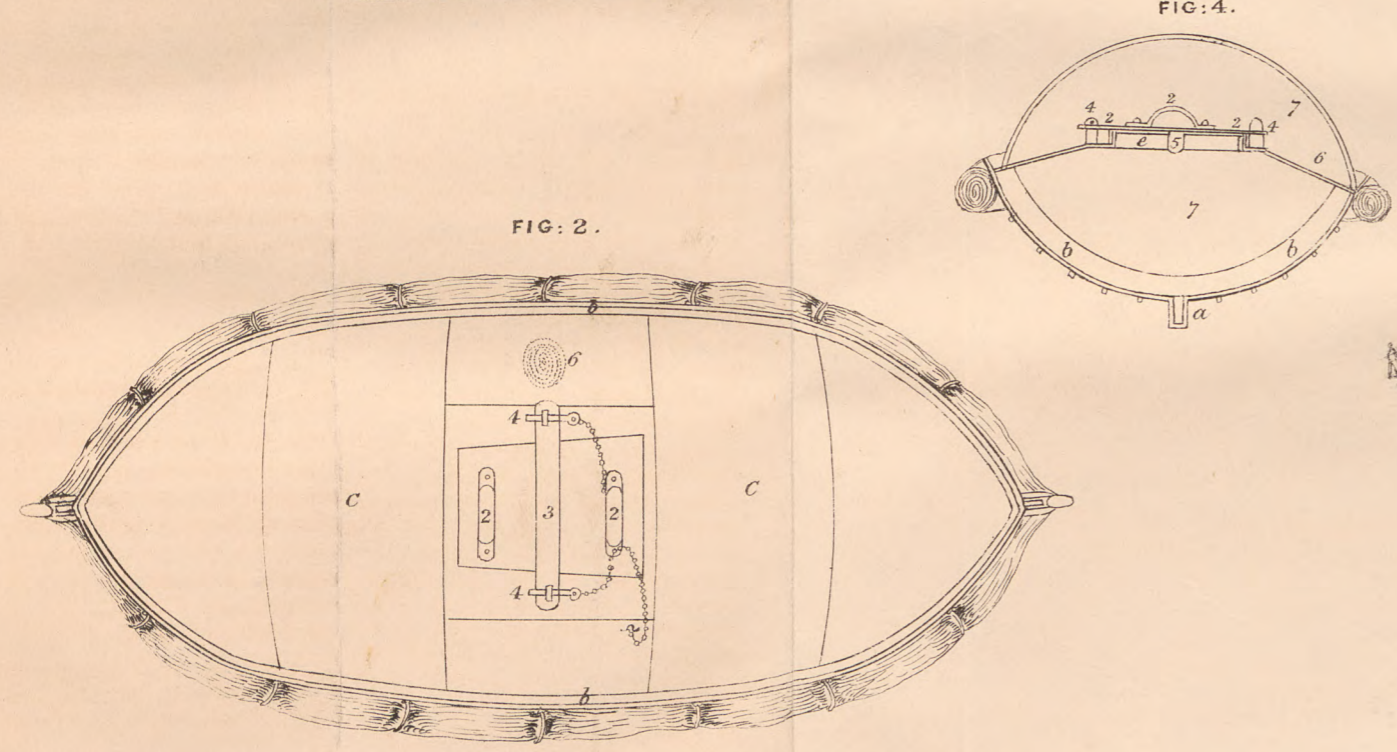
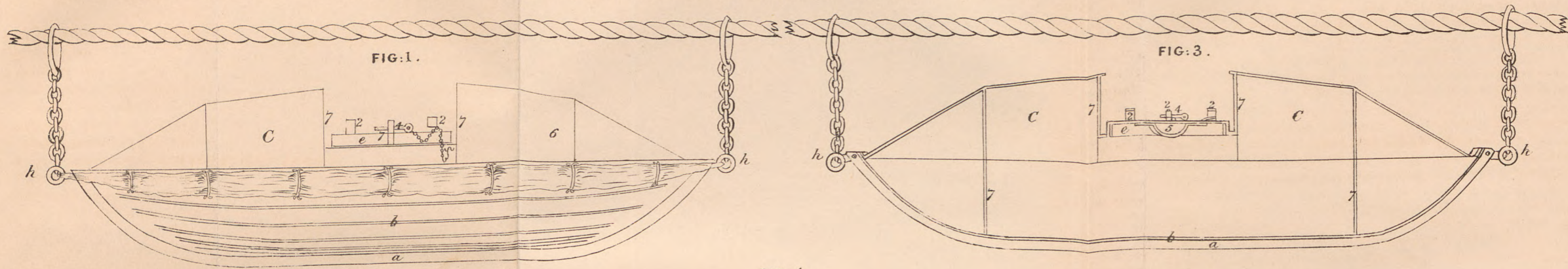
ouwer Island, the Hal-  
of the capability of the  
on its prosperity almos  
the works of the ear  
to be possessed of talia  
at the plant from whic  
ous, and which is feat  
s of rope roughly mak  
at it will bear a strand  
has also been examini  
er ton.  
ilding was opened a  
ducted in the tempo

n, Royal Observat  
ember, 1850.

Weather.	
A. M.	P. M.
qbc	bc
op 9)	op 11)
or 2)	bc
qor 1) (2)	op 7)
b	bc
or 9)	op 7)
o	bc
bc	bc
o	bc
o	bc
o	bc
o	bc
bf	bc
ogf	bc
of	bc
of	bc
of	bc
o	bc
or (2)	bc
or (2)	bc
b	bc
o	bc
h	bc
cp (2)	bc
cm	bc
cm	bc
cm	bc

temperature = 40°

FRANCIS'S PATENT METALLIC LIFE CARS.



Landing of 201 Persons from the Wreck of the Ship Ayrshire, in a terrific Snow Storm, 12<sup>th</sup> January, 1850, on the Coast of New Jersey, by the Metallic Life Car. This Boat is one of those furnished by Act of Congress to the Life Saving Benevolent Association.

THE  
NAUTICAL MAGAZINE

AND

**Naval Chronicle.**

---

FEBRUARY, 1851.

---

THE PROVINCE OF SUÉDIAH.—*By William Holt Yates, Esq., M.D.*

It has been said that on the coast of Syria, there is a great want of ports and harbours. There is at present, I believe, only one that may be considered available and safe, viz. that of Alexandretta or Scanderoon; but its remote position and insalubrity are great inconveniences. The other ports, so called, which are usually frequented, viz. Jaffa, Khaifa, Beyrout and Tripoli are open roadsteads; Latichia is perhaps somewhat better, but not much.

There are two places which it has always struck me (one particularly) are of the greatest importance on many accounts, viz. Suédiah in the Bay of Antioch, at the embouchure of the Orontes, and the Island of Ruad, a little to the North of Tripoli.

*The Bay of Antioch* extends between the Ras el Khanzer and Cape Posidium, a distance from point to point of about eighteen or twenty miles. The valley of Suédiah, the ancient Seleucia, occupies the hollow or centre of the bay, beginning at the base of Mount Cassius, (a picturesque mountain which tapers to the height of 6,400 feet,) and terminating at the old port and city of Seleucia, where Mount Rhossus reaches the sea. It is in long. 36°, and includes the beautiful valley of the Lower Orontes, which, after collecting the water from the Turcoman plains, here falls into the Mediterranean.

*Posidium of Soldini.*—In the angle formed by the shore and Mount Cassius, stood formerly an important city, believed to be the Posidium of the Romans, the Soldini of the Saracens, from an Arabic word

NO. 2.—VOL. XX.

I

signifying "power," "royal, &c;" and as in the plain on the other side, here also ancient tumuli are to be seen, commonly called the Tombs of the Kings or Giants. It is probable that this formed a suburb of the same city. Moreover, close at hand, there is a small lake which some imagine to be the remains of a harbour, which, from neglect, has been gradually filling up, and is now shut out from the sea by the shore. Beneath Mount Cassius, where the road leads up to the mountain pass, are some leech ponds, and the remains of an aqueduct or water course, which having been allowed to go to ruin, the water which still flows out of an adjacent rock, and is as clear as crystal, cool and delicious, escapes, and mingling with other springs, floods the low ground between it and the sea, where, it is not improbable, there was once a harbour in front of the town, yet within the outer wall, and corresponding in position to that of the old port which may still be seen. This spot is now overgrown with canes and rushes, which constitute an article of commerce, quantities thereof being exported annually for the manufacture of baskets.

The casual observer might suppose that this is an insalubrious marsh; but as the water is never stagnant, it never becomes a source of malaria. The ground adjacent is also well cultivated, the soil is rich and productive, and the inhabitants of the village (which is now called Karajak) enjoy excellent health.

The shore of Suédiah is composed of a firm sand, like that of Worthington, and there is good and safe anchorage in the entire length for more than two miles out. There are no sunken rocks, and the officers of the *Spartan*, the *Harlequin*, and others in H.M. Service who have been there, all speak well of it, and infinitely prefer it to Beyrout and other stations on the Syrian coast. On one occasion the Pacha of Egypt's fleet rode out the gales of an entire winter there, under the shelter of Mount Cassius and the promontory of Possite, or Cape Posidium.

The men of war find it most convenient to anchor from half a mile to a mile off shore, between the embouchure of the river and a small white building with a cupola, which is seen near the beach, to the north. In a line with these marks, some distance inland, will be observed a cluster of poplars which mark the situation of the British Vice Consulate, and beyond those on an eminence, the chateau Ruaicy, the residence of Dr. Holt Yates. A ship of the line might ride there securely, she would have plenty of sea room and nothing to fear in summer, and in winter would be better off than at Beyrout or any other place between Mount Cassius and Alexandria; for if it came on to blow hard, she might either take shelter, like the Pacha's fleet, under Mount Cassius, or run for the Gulf of Iskenderoon or Cyprus, as circumstances directed. But, all with whom we have communicated, agree that the anchorage is good, and that they prefer riding there to Beyrout. Even while I now write, we have accounts of shipwrecks and the loss of several lives at Beyrout, further illustrating the importance of, if possible, finding some harbours of refuge on this coast.

I am not aware that the Bay of Antioch has ever been surveyed. If not, it certainly should be, as the time may come when British ships of

war, as well as merchantmen, may be called on to anchor there, and make the best they can of it.

The practicability of navigating the Orontes, at least as far as Antioch, if not to the rich districts of Hamah and Homs, is another important subject for enquiry.

*The Old Port*, or harbour of Seleucia too should be well examined. If it depended upon Englishmen it would doubtless be cleared out and restored, but Turks have neither money nor enterprise. Its basin is capacious; it is enclosed by thick and lofty walls, and well defended both by nature and art. The city is in ruins; the mouth of the harbour is obstructed by sand from the sea, and the interior is overgrown with vegetation, among which are springs of running water, as on the site of what I believe to have been the harbour of Posidium above mentioned. The entrance was formerly defended by massive towers, the greater part of which remain; and there are two piers or jetties, built of enormous stones from twenty to twenty-five feet, by five feet wide, and five feet deep. It was at this harbour that St. Paul embarked for Cyprus, after leaving Antioch, *see Acts.*, XIII. v. 4. There are few things that cannot be accomplished in modern times, when the importance of the object justifies the expenses; and were Suédiah in the hands of Europeans, it would, I feel assured, be restored, and another harbour would perhaps also be made at or near the mouth of the Orontes for steamers and smaller craft navigating the river; for we must not overlook the fact that the day will come, (and is probably not distant,) when Suédiah will again become the high road to Persia and India. In spite of all that was said by those who preferred the route by Egypt and the Red Sea. Col. Chesney, and Lieuts. Lynch, Campbell, and others, subsequently clearly demonstrated the practicability of navigating the Euphrates. The obstacles which exist, so far from being insurmountable, would only be named by a great nation, because it might not be convenient to undertake the work.

A canal between the Orontes and the Euphrates might soon be cut, or the transit be completed by a railway, for the distance is only fifty miles for the former, the ground is level, and there are many tributary streams on the line which might be turned to account. As it is, many travellers proceed by this, the shortest route to Mossul and Nineveh; and we are visited by officers on leave from India, who prefer coming by Bagdad and Aleppo. Some who are on furlough for their health, and who find it inconvenient to go to England, would do well to remain at Suédiah for a season, as they would not then lose their Batta, as they do when they visit England or the Colonies, for Suédiah is within the prescribed limits. And if a school were established there, the children of European families settled in India, might conveniently be sent there. I shall be pardoned for this digression, as it shews how many and great advantages may hereafter open to our countrymen, in connexion with this interesting and healthy spot.

At the mouth of the Orontes there is a bar of sand, over which there is I believe from four to twelve feet of water, according to the season of the year; but this requires confirmation.

*Query.*—Is this bar formed by the sea, or by deposits from the river? Could it be got rid of, and how? Or, could the inconvenience to which it gives rise be obviated?

The favourable solution of this question, would render essential service to the present inhabitants.

I have mentioned that a short distance from the mouth of the Orontes, there is a small lake with springs in it; might not this be made available for the excavation of a harbour? and if so, would it be necessary to lead a canal into it with a sluice gate, as a backwater? Can it be determined whether there ever was a harbour at Posidium, where the reeds now grow? and if so, could they be cleared away, and a harbour formed there under Mount Cassius?

These are all important questions, and it is not irrelevant to British interests to consider them. Already one English factory has been built at Suédiah, and others of our countrymen have evinced a disposition to settle there, on account of the salubrity of the climate.

That there was once a harbour of some kind at the mouth of the Orontes, we know from this, that when Godfrey de Bouillon and Tancred, were besieging Antioch, they were supplied with stores and provisions by the Pisans, who landed the same at the port of Antioch, and this was long after the destruction of the old port of Seleucia; (*see Milman's History of the Crusaders, &c.*)

If then there was formerly a harbour here, why should there not be again? I insert the following extract from Lieut. Lynch's narrative of the United States expedition to the River Jordan, and the Dead Sea.

"In the hollow of the hills near the Jaffa is a circular plain, where Ibrahim Pacha contemplated making a harbour, to be connected with the Mediterranean by a canal.

"At the request of our vice-consul, who had come to meet us early in the day, we examined it carefully, and felt satisfied that the work could be done at little cost, compared with the immense benefit that would be derived from it. The duties of the customs 12 per cent. amount to £10,000 sterling per annum, and twice that sum or two years duties appropriated to the purpose, would accomplish it. Vessels not exceeding 160 tons burthen, can anchor near the town in the summer, but in winter, they must keep in the offing.

P. 441.—"There were some thirty or forty small polacre vessels in the port, which is protected by a reef of rocks to the westward.

"This reef is generally supposed to be the remains of a breakwater, built by the Emperor Adrian; but to me the reef presented a natural aspect.

"I could detect no vestiges of an ancient mole, and have not been able to find any historical account of an artificial harbour being formed here. On the contrary, Josephus speaks of the dangers of the anchorage caused by a number of rocks off the town".—p. 446.

If then, I would ask, a harbour could be formed at Jaffa at an outlay of £20,000 where a canal from the sea would be requisite, are not the facilities greater at Suédiah? and if the export duties at Suédiah do

not at present equal those of Jaffa, would they not become so, seeing that the silk reeled at Suédiah, and other valuable property from Antioch and Aleppo, which is now sent for exportation to Alexandretta or to Latichia at a great expense, would then be shipped at this port?

Moreover, if greater facilities were afforded for landing merchandise, fresh branches of commerce would spring up, especially if Europeans settled in the country; to wit, the growing of wool and the breeding of cattle, the exportation of butter and cheese, the cultivation of opium, scammony, senna, jalap, castor oil, rhubarb, galls, and other medicinal plants, all indigenous in the land; cotton too, and rice, sugar, indigo, flax, and even the tea plant, if the secret of preparing it afterwards could only be got at—not to mention the probability of a new market for English cutlery, hosiery, Manchester prints, and other manufactured articles.

The steepes of Mount Rossius are covered with the celebrated Syrian oaks, pines, magnificent box, walnut, sycamore and other forest trees. Mohamed Ali built the greater part of his ships of war of the oaks grown here, and when Capt. Symonds of the *Spartan*, came to Suédiah (in October, 1847,) he took away specimens of them, as he thought the subject worthy of attention. Any one is at liberty to cut them, and they are brought away for the expense of removing, and I believe the *exclusive right* of hewing timber in these forests, might be purchased or farmed of the government by paying an annual rental were any objection started to cutting timber on a large scale. There is great facility for removing the trees when felled, and they would be best shipped at *Arssoos*.

This district should be visited, and my agent, Mr. Bennett, will be happy to accompany the party to the spot.

I would farther call attention to the Island of *Ruad*, situated a little to the north of Tripoli; it is the ancient Arodus, and was an important station of the crusaders. Between it and Tortosa on the main, there is deep water, and I understand good anchorage with, under certain circumstances, protection for ships of any size in bad weather. If it has not been surveyed it would be worth while to send a boat in and take a look at it. Its position is important, as there is an opening in the mountains which communicates with well watered and fertile plains, which form the connecting link between north and south Syria, with the ancient cities of the upper valley of the Orontes, and those of the Lebanon.

The island itself is small, but would serve as a depôt of coal and stores. It is well supplied with water and building material. There are the remains of fortifications both there and at Tortosa, where also may be seen some fine ruins of a christian church, built by the crusaders. The inhabitants of Ruad are all moslems, pilots, ship-builders, and sailors; and the native coasting vessels, are either built there or at Tripoli. I believe the whole island might be bought up for a few thousand piastres, for the proprietors of the land are all poor.

The importance of Suédiah in a political and commercial point of view, cannot be doubted. Situated at the very gates of Asia Minor, in



a fine bay at the mouth of a large river which communicates with an extensive fertile country abounding in silk, grain and fruits, flocks and herds, sheltered by lofty mountains which are well wooded, and shew indications of coal, copper, and iron ores, with plenty of lime and stone for building, an abundance of running water, and a fine climate. It attracted the notice of the ancient Romans who, as long as they held possession of Syria, made Antioch the seat of government. The ancients well knew the value of its position, for it was the great highway between Europe and Asia; then, as now, it commanded the road to the northern and western nations. So strongly was it fortified by Nature, that its ruler held as it were the key, and without his permission none could pass the gates; whilst those who could approach it from the east, must first traverse a parched and sandy wilderness. On the south it was defended by the sea, and judging from the stupendous ruins which we now behold, it was inhabited by a people of no ordinary talent; their maritime defences were equal to those inland; their fortifications were carried over the tops of mountains: we find watch towers at intervals along the coast, and although little is known of Suédiah in the days of the Selencidæ, and the cause of their final overthrow, we see enough to convince us that it contained every thing essential to a great maritime and commercial people. That they were wealthy and prosperous during a long series of years, appears from an inspection of their works, to wit, the building of their city, which, it is said at one period contained no less than 600,000 persons—its beautiful ports and mole, and its still more astonishing tunnel which extends more than a mile in length along the heights, and collects and conveys the water from the mountains to the sea,—a work which is only equalled by that of Mr. Brunel, beneath the Thames in London: the catacombs also, causeways, castles, excavations and numerous other objects.

Whether their prosperity excited the cupidity of the Romans, or whether they fell from other causes, history is silent. But one thing is certain, Suédiah has been regarded in every age as the key of Syria, which as I have stated, could only be entered by one of the three passes of Mount Amanus. And the crusaders it is well known, had to fight their way through them and to subdue the city of Antioch before they could approach the Holy Land. For they had no ships, and in the present day, none but a superior maritime power could hope to enter by any other route. It was to this point that Alexander marched to meet the host of Darius. It was here too that the Emperer Aurelian encountered the armies of Queen Zenobia; and we may rest assured that if ever Syria is conquered it will be by this same route and no other. Those therefore who would prevent it will do well not to lose sight of Suédiah and Antioch. They are no longer fortified as they once were, but the localities remain the same. Many of the munitions of war are close at hand, and under the direction of England or France this district might soon be made to form an impassable barrier. Perhaps I, ought not to allude to these matters. But it is impossible for a person who is familiar with these localities to pass them over in silence. We live in stirring times and witness great events. All imagine that we are on the eve of

important changes, and that the tide is running in that direction. Who can observe the signs of the times with indifference? As then a child may puzzle a philosopher, so may an individual gifted with common sense and ordinary powers of observation let fall a hint which abler and more experienced persons may turn to advantage. I have resided at Suédiah three years, and (D.V.) shall return to it. I know it well, and the character of its people, and it has always struck me that if it be really an object of policy to sustain the Turks and uphold the integrity of the Ottoman empire; and, as seems now to be the case, to prevent the aggression of others, means should be taken to strengthen this very important district.

In Syria the merchants are often put to inconvenience for want of the floating medium. There is little coin because there are not enough people to cultivate the soil; and large districts lie dormant which might easily be made to bring forth a hundred fold. There are mines too, but they are not worked, and no encouragement is given to labour. Just so it was formerly in Egypt, but what a change took place in that country when Mohamed Ali encouraged European settlers! Why does not the Sultan imitate his example in regard to Syria and Asia Minor. Redschid Pacha is an enlightened man it is said, and if the subject were properly represented to him in private, as means of giving stability to the empire, surely he would see the advantage of it, and a firman would be granted to permit Europeans to purchase and hold land and other property in their own names, cultivate the soil and establish factories, paying to the Porte, the same taxes and dues as the Rayahs or natives, as in fact they do now, viz.; a tenth part of all the produce of their estates either in kind or money, as they prefer. Those who are settled in Syria do not complain of any want of protection, as far as the Turks are concerned; but as they are not allowed to purchase property in their own names, comparatively few venture to invest capital. But were it otherwise, and it were known that there was a mutual understanding and treaty between the Porte and their own government, confidence would be established, and numbers would immediately flock thither.

The hands of the Porte would thereby be strengthened, for large tracts of land now lying waste would be thrown into cultivation, the exports and imports would increase, and a large revenue would flow into their coffers.

But all property held by Europeans should be registered at their respective consulates, and efficient means should be determined on for the settlement of disputes without delay; and also for the prevention of bribery.

If I mistake not, it is for the promotion of commerce as well as the safety of our ships, that surveys are taken of the coasts and ports of the Levant. Surely then it is legitimate in us to encourage our countrymen to settle where they can do so with advantage to themselves and the government of the land they select; especially when, as in the present case, the said government may be said to depend upon the active cooperation of England for its existence, and ought to increase her resources by all the means in her power: how else is she to repel the aggressions of her enemies and maintain her position as a nation?

Within a few years Beyrout and Alexandria have become prosperous, entirely in consequence of European enterprize. Civilization is progressing, thanks to the powerful influence of steam, which induces many to lay aside their ancient prejudices. But Turks have not yet learned to encourage their benefactors to settle amongst them because they are of a different religion, otherwise the means would speedily be found for restoring many of their ancient ports in Asia Minor, as well as in Syria. Boats would again appear upon the Orontes and introduce the arts of civilized life to the cities of the interior. Homs, Hannah, Damascus, Antioch and Aleppo, the plains of Mesopotamia would again flourish, new cities would spring up, and the Ottoman empire would become the richest in the world. But the die is cast, her sun is set, her glory has departed.

A more healthy place than Suédiah it would perhaps be difficult to find. There are no malignant fevers; consumptions, asthma, and bronchites, are unknown. We never see sickly children, or paralytics. Let the weather be what it may a cough is seldom heard, and a cold rarely lasts more than twenty-four hours. Death is really an *event* in Suédiah, except from accident or age; for we are not often visited with epidemics, and we breathe a pure and invigorating atmosphere; we have no heavy dews or fogs; the temperature is equable, neither too hot nor too cold; the air is balmy and agreeable; the sirocco is not felt as at Malta, Egypt, and other parts of the Mediterranean, consequently our spirits are always good. In the summer there is generally a refreshing breeze from the sea, and the nights are beautiful; and though there are fresh gales in winter, the wind is never cutting or irritating, and we very rarely see snow in the plains. We are too near the mountains to feel the effects of the snow, which collects on their lofty peaks. We always know what the weather is to be, and can depend upon it, and dress accordingly; for it is remarkable with what precision the seasons return. We have the early and the later rains, as mentioned in Scripture; but we can calculate almost to an hour when the change is to take place. I have kept a register of the temperature and atmospheric changes, and I can truly say, that the climate fully justifies the practice of the ancient Greek and Roman physicians, in sending their consumptive patients to Suédiah; and if the advantages to be derived from a residence there, were more extensively known, it would soon be resorted to by invalids as formerly. Mrs. H. Yates went there on account of ill health, having lost all her brothers and sisters of this insidious disease. She had not been there a month before she entirely lost her cough, and began to gain flesh and strength, she was soon able to take walks and rides like other people, and she is no longer like the same person; but she owes much to regular hours, and gentle horse exercise, diet and repose. She seldom had recourse to medicine.

We regret not having an English clergyman. A gentleman whose health does not permit him attending to his duties in Europe, would do well to go there. An income of £150 per annum, would suffice for every thing. He might do much good, and would pass his time agreeably. He is quite welcome to go to my house during my absence, and my agent, Mr. Bennett, whom I have left in charge of my servants, and

who speaks Arabic, Turkish, Italian, French, and English, will render him every assistance. I shall be happy to reply to any question, if he, or others, will address me under cover to W. Stuart, Esq., 6, Grays Inn Square, London. An English steamer touches at Alexandretta, and at Latichia, which is within nine or ten hours of Suëdiah. There are also two English schooners, and many boats of the country, which are safe, and tolerably commodious, and Mr. Bennett will, I am sure, feel great pleasure in procuring travellers accommodation, if they will apply to him on their arrival.

The people are well disposed, industrious, civil, and friendly. They belong chiefly to the Antioch, Greek, or Armenian church. There are about twenty Turkish families, some Ansayrees from the mountains; but no Roman Catholics or Jews. We walk out at all hours alone and unarmed; and when we go to bed at night, we do not think it necessary to fasten either windows or doors: yet we have neither police, workhouses, nor soldiers; not even a beadle to frighten the boys into good behaviour. Still we have no beggars, and no one can say that the people are oppressed; they have few taxes, have always enough to eat, and appear contented and happy. The necessaries of life are abundant and cheap; the roads are good, and for the most part overshadowed with hedges of pomegranate, myrtle, and other evergreens; also the fig, the wild grape, poplar, plane tree, the scented willow, clematus, convulvulus, and other creepers; the wild verbenia, liquorice, thistles, roses, squills, and a variety of elegant little flowers decorate the banks; we grow oranges, lemons, apricots, peaches, nectarines, plums, cherries, strawberries, the Indian medlar, apples, pears, the randingan or egg plant, potatoes, and a great variety of other plants, shrubs, and vegetables; asparagus, and celery grow wild. There is a fine field for the sportsman, the naturalist, the historian, the antiquarian, and the astronomer.

We lead a sort of patriarchal life, which I would not change for all the luxuries and gaities of Europe.

The habits of the people are simple, for they have not yet been corrupted by the inhabitants of cities. A spirit of enquiry has lately sprung up among the christians. They evince a desire for improvement, but they have no teachers or schools which are worthy of the name. The priests permit the circulation of the bible, but few can read or write their own language.

They work from sunrise to sunset for two piastres (5*d.*), most of them have a little farm or garden, cultivate the mulberry and rear silk worms, reeling off the silk in the season, that constitutes the great wealth of the country. The goats, sheep, and cattle are driven out to pasture in the morning and home again in the evening; and the sheep follow their pastor and come at the sound of their names, and it is delightful as the purple shadows of the declining sun fall upon the mountain sides, to hear the peaceful tinkling of the sheep's-bell as they wind their measured way through the dells and along the shaded lanes, and crop the herbage on their banks. Early marriages are encouraged, and few that are married are without families: this prevents immorality.

A father delights to have his children and grand-children under his

roof, and at his death the elder brother is regarded as the patriarch of the house, and he is looked up to as such. Parental authority is absolute: a son never questions the will or opinion of his father, and great reverence is paid to age, all rising on the approach of an old man, and conducting him to the seat of honor. The coat of many colors presented to Joseph is still the national costume, and we are continually reminded of the days of Abraham, of Isaac, and of Jacob. But these things must be seen to be understood, and a tranquil and reflecting mind is necessary to appreciate them. A hurried glance is not sufficient, we must reside amongst these people to discover their feelings. It is a retired pastoral life, but need not be a lazy or unprofitable one, if we have only the heart to do good; for there are numerous ways in which an intelligent European may be useful to those around him, and those who find it necessary to add to their resources, need not be at a loss: they may do so without risk, and with a moderate capital. I can say with great truth, that we scarcely find twenty-four hours in the day enough, and do not know what it is to be troubled with *ennui*. We have a good library and newspapers, and never lack occupation or amusement. We make excursions to the more interesting spots, and return with a new zest to our peaceful abodes: all that is wanted is an English Protestant Minister, and a few true English hearts to co-operate with us in works of usefulness. All other things which we fancy might add to our convenience, when the proper time arrives, if they are for our own good, will doubtless be given to us.

I have only to add, that these remarks have been hastily set down, whilst H.M. steam ship *Odin* was under sailing orders, which must plead my excuse for all blunders. I shall be happy if they may prove useful or interesting to any whom they may concern.

WILLIAM HOLT YATES, M.D.

Malta, March 30th, 1850.

---

“SHAKINGS” FROM SMYRNA.—By *Mahmouz Effendi*.

WE have often heard skippers express their astonishment that the *Nautical Magazine* does not occasionally touch upon scenes in Smyrna and Salonica; seeing that little is known of the latter place by tars and not too much of the former. Perhaps the best pen to describe Salonica, or Selanik, as it is called by the Turks, would be found among the officers who served recently in H.M.S. *Beacon*, *Volage*, *Magpie*, *Auxiliar*, or *Research*. Some of them must have been engaged in the “Survey of the Gulf of Salonica,” or have some time or other paid a visit to its celebrated chief town out of commendable sailorlike curiosity. Trusting therefore, that by and bye, certain of their notes and observations will grace the pages of the *Blue Magazine*, we shall not ourselves pay any present attention to the claims of the unnoticed and neglected Salonica, but confine our scribbling to the Anatolian City of Smyrna. And even in regard to Smyrna we do not here attempt to place before the

reader anything like a systematic account, such as might be expected within the red covers of a *Murray's Handbook*, but simply a few pages of odds and ends, or as Jack terms them "*Shakings*".

Having premised thus much, stirred up our sea-coal fire, snuffed the candles, (we cannot afford wax,) and pressed a bran-new goose-quill into the service, we sit down satisfied to proceed with our task.

Sultan Mahmoud the Second, celebrated as the destroyer of the Janissaries\* had been dead a year or two, and his elder son Abd-ul-Medjid, seated in quiet possession of the Ottoman throne, when one fine morning the number of English Merchant-shipping at Smyrna, the second-best port of the Turkish Empire, was increased by the arrival of the Sunderland-built brig *Saucy Fanny*; a vessel which had then the good fortune to be commanded by one Nicholas Collier, master mariner, and manned by as sturdy and steady a crew as ever spliced the main brace in honor of her Majesty Queen Victoria. Master Nick was proud of his ship, and proud of his men; and his men were proud of him and of the barkey too. The whole kit of them hailed from the Wear; a North Sea locality, second to none in its sailors, as many a foreign fleet has found to its cost, in times past, and yet may again. The crew of the *Saucy Fanny* had now, however, no thought of wars and press-gangs, or naval victories, in their minds; but were at the time our sketch commences, comfortably lounging in a group on the fore-castle of the brig, and gazing towards the hill-backed city off which they were at anchor.

The mate, Mr. Surtees, stood a little apart from the men, pondering on the second chapter of Revelations, which he had read twenty times over during the passage out, and seemed now to glory in the opportunity afforded him of "seeing with his own eyes," as he said, "one of the seven churches addressed from Patmos by St. John;" and then he repeated to himself the verses from the Holy Book.

"And unto the Angel of the Church in Smyrna write; these things saith the first and the last, which was dead and is alive.

"I know thy works and tribulation and poverty (but thou art rich) and I know the blasphemy of them which say they are Jews, and are not, but are the synagogue of Satan.

\* The Muslim insurrection against the conscription at Aleppo in November, 1850, during which the native Christians were fiercely attacked and plundered, but no Europeans injured, was without doubt mixed up with a *Janissary movement*; the almost total destruction of which formidable body was effected by force in 1826, the year before the Battle of Navarino. For an account of this sanguinary affair, taken from Turkish sources, see Knight's "*Oriental Outlines*," published by Sampson Low, of Fleet Street. Prior to the account of these riots at Aleppo reaching London, a report was circulated that the Sultan had fallen by poison; a report to this extent happily unfounded, but still the *Times* of Dec. 17th, 1850, had a subsequent account from Pera of the discovery of a conspiracy, and the arrest of thirteen dignitaries connected with the Imperial Seraglio. So that Abd-ul-Medjid really appears to have been in some personal danger in 1850; and his young brother put forward as a claimant to the Ottoman Throne on the ground perhaps, that Abd-ul-Medjid is the favourite of progress, while Abd-ul-Aziz is said to be a supporter of the *ancien regime* or orthodox Janissary system.

“Fear none of those things which thou shalt suffer; behold the devil shall cast some of you into prison, that ye may be tried; and ye shall have tribulation ten days; be thou faithful unto death, and I will give thee a crown of life”.

It is a strange thing, that even at the time of which we write (that is, the commencement of the reign of Sultan Abd-ul-Medjid) Smyrna should have been without an English protestant church or chapel! The British factory in that port had very properly a chaplain up to the time of its dissolution; and the city is now seldom without a stray protestant missionary; and a church was once commenced at Bougia, a little Frank village close to Smyrna; but still in 1851 we believe, there is no actual entire building open for divine service under a protestant English minister, either in Smyrna or its hamlet-abounding environs. A make-shift room in a consul's, or a missionary's house may suit *some* persons, anythingarians; but in these days protestants in a city of 140,000 souls, which Smyrna is, should not be without an edifice devoted solely to their religion. To the Turks, a stone church would be an “outward and visible sign,” that English merchants and sailors are of a religious nation, and have a national and state creed, which is not Papist; a ceremonial religion the Turks detest.

The Roman Catholics possess two or three churches, of some size and pretention too, in Smyrna, and of course the Greeks and Armenians have many also. But the Protestants *none*.

Refraining, however, as, perhaps out of place, from further notice of these religious points, we may at once call the readers attention to the cabin of the *Saucy Fanny*, in which were seated after dinner her captain and supercargo and the Smyrniote merchant to whom the brig was partly consigned. Wine was on the table, for a vigorous attack upon viands and vegetables had just ceased.

Yet master Nicholas touched neither port nor sherry; grog was his favorite, and to that he “stuck.” The supercargo followed suit, having by some means acquired a taste for spirits on the voyage. But the merchant never having kept a wet watch in his life, eschewed vulgar rum and brandy, *et hoc genus omne*, and patronized, though cautiously, the gout-producing juice of Portugal. All the incidents of the *Saucy Fanny's* log since leaving England having been at length discussed, and the brig declared on all hands to be an out-and-out clipper, (what craft is not so in her owner or captain's estimation?), the supercargo purposely led the conversation to the “Lions” of Smyrna.

“Well,” said he to the merchant, “as we are not to break bulk till Thursday, we shall have a vacant day to-morrow, and I propose to take your advice on our sight-seeing, as this is my first visit to Smyrna, and the skipper's too.”

“I believe you, my boy,” interrupted master Nicholas, putting down his glass emphatically, so that it rang again. “We should like,” continued the supercargo, not noticing the interruption, “to see as much as possible, and in a short time.”

“To-morrow, of course,” cried the captain; “To-morrow, of course”; echoed the supercargo.

"Be it then to-morrow," said the merchant "when I shall hold myself disengaged to do the honors, of the 'fairest city in Ionia.' "Here's a pleasant ramble to us!" The toast was duly honored.

"We can cut out our work at once," said the captain, "by a little conversation; reconnoitre the ground as it were by tongue and ear, talk over what we are to see, and 'all about it'".

"With all my heart," chimed in the merchant.

"I have a famous map here, published in 1829," said the supercargo, "charts I of course leave to the captain. This map of Turkey—"

"Let me look at it," cried the merchant anxiously.

"Here it is," said the supercargo, pulling the map forth from a little book-shelf just behind him, fixed indeed at the foot of his berth, and holding some twenty volumes, the most conspicuous being *Macculloch's Commercial Dictionary* and *Walpole's Memoirs relating to Turkey*. "This map," continued the supercargo, "cost me several guineas, which you may guess by its size, for its case contains no less than twenty-one separate sheets, each just about two feet long, as you shall see."

"We are now in Asia", observed the captain, "and this of yours is a map of European Turkey."

"It contains part of Asia Minor, nevertheless," replied the supercargo; "here in the corner of part 21, which delineates the eastern half of Candia, we have a square, sliced economically out of the sea, and devoted to a neat little plan of Smyrna. Look at it, merchant. I must myself thank the author, Franz Von Weiss, for having inserted such an outline of the place, although I confess I should never have expected to find it in the Candiote division of his labours. But I suppose he had no room for it elsewhere."

The Smyrniote consignee here looked at the map, and declared it to be very accurately drawn; but he remarked that, being a German production, it was not so intelligible to him at a glance as it might have been in almost any other language, from the German orthography employed, being not so simple as that of the French or Italian, or English.

"We speak almost all tongues here in Smyrna" continued the merchant. "The language of society is French or Italian; we pick up Romaic or modern Greek from our domestic servants; and our commercial dealing with the Jews, gives us a knowledge of Spanish, a tongue which all Hebrews hereabouts seem to prefer to their own. But German very few Smyrniotes understand. Of course we acquire a little Armenian and Arabic, and much Turkish, from hearing these spoken every day, but still with all these opportunities we generally, it must be confessed, content ourselves with being able to speak, and don't attempt to learn to write all the languages."

"I regard you," said Master Nicholas, "as miracles of learning in being able to speak half a dozen languages, let alone the writing of them. As for me, I find it quite enough ashore to tackle my own tongue sometimes, especially in the newspapers, where they *do* print such plaguey long words, all from the Latin and Greek they tell me; and dash my buttons if they go on coining new terms in this way for every new sort of carriage, and coat, and building, and invention, and



discovery;—dash my buttons, I say, but Johnson's Dictionary must come out every year as regularly as the London Post Office Directory. But, beg your pardon, merchant, here's the super, pointing out another bit of his map. Fill up your glass, man, here's, "Success to navigation."

This toast being also duly honored, the supercargo and the merchant fell into talk over the map relative to the two harbours of Mitylene, and the anchorages of Scio, the latter island claiming attention as being so famous for its sakiz or mastic gum; but with all this "confab" we don't intend to trouble the reader.

Master Nicholas after resignedly discussing another glass of grog, and keeping a quiet tongue for some period, thought it at length high time to talk about the ramble fixed for the morrow, and to leave Scio and Mitylene to take care of themselves for the present. He, therefore, at last broke in upon the conversation of his two companions with the question.—

"Are we to walk to-morrow, or to ride?"

"A horseback up a hill perpendicular; like Hotspur," quoted the supercargo from Shakspeare, and then pointing through the stern window, at the mountains behind Smyrna, he declared his vote in favor of a walk; not being quite so good an equestrian as the border-hero to whom he had just referred.

"If you intend to walk," said the merchant "we had better visit the ruins of the old castle you see yonder, on the summit of Mount Pagus; the adjacent site of the Roman theatre; and the Stadium where St. Polycarp, the Bishop of Smyrna, was, it is said, burnt A.D. 167; and then descend to the Caravan bridge\*, over the river Meles, where I will initiate you at the kav'haneh into the mysteries of our Turkish pipes, both tchibouk and narghileh, and tempt you with coffee sweetened with Dutch sugar and flavoured with goats' milk. There are more goats and camels than cows in this part of the world I assure you."

"'Twould be a lighter task to me," said the captain, "to run half-a-dozen races to the mast-head, than to walk up those confounded hills yonder. Why the heights of our English Dover are nothing to your Mount Pagus."

"I doubt that; but once at the top," suggested the supercargo, "would not the view repay you for your pains."

"Aye, the view indeed," said the merchant, "is magnificent in the extreme."

"And the view," added the supercargo, "from this cabin is splendid enough, as the breeze has now swung our stern towards the town. What a subject for an artist! our own group of ships in the foreground; then

\* A faithful sketch of the Caravan bridge is given in p. 15 of "Fellow's Journal in Asia Minor," published by Murray, in 1839. We have drunk many a cup of coffee at the foot of the very tree on the left of the river, the Meles, where Fellows has introduced a native playing on a sort of guitar, between his two smoking companions. The foreground of the sketch is above bridge; no boats are ever seen in the stream, although once upon a time a midy and his party rowed or carried a kaik from the bridge to the sea.

an esplanade, and a long line of stone and brick built mansions, and consulates; and rising above their roofs, the domes of mosques, and a score or two of taper minarets, and each end of the city flanked by a whole forest of cypress trees, and all those rows of picturesque houses climbing up the hill, terrace above terrace, and street above street, like the seats of an amphitheatre; and then the upper half of the hill without trees, but bare as Salisbury Plain, forming an indescribable contrast to the woods below it; while on the summit, the very tip-top, the walls and towers of the old castle frown down upon us like the darkening brow of an angry Genius. Truly, merchant, this Smyrna seems not only a large place, but is excessively pleasing to the eye, and I have no doubt a capital spot to reside in."

Here the cabin boy entered, and announced that a boat was alongside, and that a gentleman named Tomkinson wished to see the captain.

Master Nicholas Collier thereupon went on deck, but speedily returned with Mr. Tomkinson and also his own mate, Mr. Surtees. "Now gentlemen"; said he; "know one another"; and he introduced them all by name. Tomkinson and the consignee of the *Saucy Fanny* were of course already acquainted, each being a resident of Smyrna, and the *Super* and Mr. Surtees were not the men to hold themselves strangers anywhere. They had seen too much of the world for that, and now a round or two of the decanters put all hands at their ease.

"We are planning an excursion for to-morrow," said the consignee; "my friends here want to see something of Smyrna. Can you assist them"?

"In some measure I may," replied Tomkinson, "for just now I boarded the Plymouth schooner *Hospodar*, one of the fastest craft by the bye out of England, and her captain returned me a book I have recently been compiling for the special use of visitors to this port. He has now done with it, and it is therefore at the service of the *Saucy Fanny*. You must not expect to find all you want, but you may possibly light on a few of its contents that may interest you."

"We are much obliged;" said Mr. Surtees and the supercargo.

"This is the volume;" continued Tomkinson, drawing it forth from the pocket of the shooting jacket he wore. "You will find it unfinished and arranged with little method; but still, as there is no such published work as a 'Smyrna Guide Book,' even this my imperfect MS., may not be unacceptable."

"We are first to visit the castle yonder," said the captain, "our good friend here is to be our companion and commanding officer for the occasion." "I shall also be happy to be of the party"; said Tomkinson, "and as I suppose Mr. Surtees cannot well in your absence leave the ship to-morrow, I hope he will dine ashore with me on Sunday."

"That arrangement will just do," said the captain, "for I want to remain on board myself on Sunday, and I have no doubt Mr. Surtees will gladly accept your invitation."

"And the supercargo and I," said the consignee, "have an engagement for Sunday at Bougia."

"Well then," continued the captain, "now all that is settled, what time are we to meet ashore to-morrow."

"9h. A.M. punctually," replied the merchant; "on the esplanade, at the entrance to the English consulate."

"Very good," observed the captain. "I shall leave everything to you, and you must do the best to amuse us. Pass the Wine. Is there much to be seen in Smyrna, Mr. Tomkinson?" "I think I may say there is," replied Tomkinson; "yet travellers scarcely ever take time to view our pleasant city and its environs, yet hurry on to Constantinople or elsewhere, by the very first steamer after their arrival here, which is very foolish, for Smyrna certainly improves on acquaintance, and at all events is not to be seen in a day."

"I should think not indeed," added the consignee, "a hundred and forty thousand souls cannot be housed in a nutshell. Certainly there is much to be seen in Smyrna."

"What?" enquired the supercargo.

"Oh!" rejoined the consignee "there's fig-packing, *that's* an interesting sight: and fig-drum-making, *that's* another, tho' rather a noisy one, and then there's the Howling Dervishes."

"And Kara-Gueuz," cried Tomkinson, "a saucy fellow, that beats Punch and Judy hollow."

"And then we have churches and hospitals," continued the consignee, "and barracks, and bazaars, and a black slave market, and a Bishop or two, and a Cadi, and baths, and cemeteries, and a casino, and a custom-house, and mosques, and caravanserais, and subterraneans, and hundreds of camels, and women, and—"

"Hold hard," cried the super, "don't tell us any more, lets pause till we get ashore to-morrow,"

"Especially as we shall study the book to-night;" added the captain.

"By the bye did the steamer that left to-day for Southampton carry a full cargo? These 'smokers' play old Harry with our mere sailing craft, running away with goods that would otherwise fall to our share. But they buy our Sunderland coal though, and that's a satisfaction."

Our cabin party of five here joined in such a purely mercantile and business conversation, that we forbear to pen it. But, if any of our readers wish to study the imports from Turkey we advise them to read the *Times* or *Daily News*, about the sixth of each month, a date on or near which a steamer arrives regularly at Southampton\* from Constantinople, and the nearer scene of our present sketch the City of Smyrna.

(To be Continued.)

\* January 7th, 1851—The *Sultan* steamer from Constantinople, Dec. 19th and Smyrna Dec. 22nd, arrived this day at Southampton with the following cargo:—5,973 boxes of raisins; 316 bales and cases of silk; 156 cases of opium; 617 bales of goats' and sheep's wool; 200 cases of sponge; 224 boxes of oranges; 18 bales of carpets; 76 barrels of raisins.

## SOME THOUGHTS ON AN EFFICIENT NAVY.

**FLAG OFFICERS.**—The list of admirals amounts to 150; among the veterans who compose it, there are few probably that are not aged or infirm, and unequal to the duties of an active command. These exalted officers receive their flag promotion at that period of life when the physical power is on the wane, and both body and mind require relief and repose from active pursuits.

In the general system there seems to be a superabundance of the various grades of officers, the necessity for which during a period of peace is not apparent; and although this fact was understood at the conclusion of the last war, and endeavours made to rectify it, we still find the lists over crowded. A long period of war, and its consequences, which made it a point of duty in the authorities to encourage the officers in emulation, were no doubt the main causes.

To obtain middle-age flag officers is a desideratum; but how to manage without selection from the captains' list seems to be a difficult matter. There are such serious objections to the placing of a junior captain over the head of a senior that, selection could not be adopted without creating a moral revolution in the Service that would mar its efficiency. Some plan is, however, imperatively called for; I offer the following with becoming diffidence, but with the conviction also that, its tendency would in a great measure meet the desired end, and if an excuse should be required, all I can say is *vincit amor patriæ*.

Do away with the rank of commander on the active list; that intermediate grade seems to be superfluous, though the individuals composing it are eminently useful; its effect is to create aged flag officers; the truth of this will not probably be disputed.

Among the 831 commanders at present on the list, there are perhaps, about 500 incapable of active service afloat; remove these, and give them the rank of retired captain, with a suitable increase of half-pay; and place all the younger and healthy upon the active captains' list; the mere change of title would not incapacitate them for the command of sloop-of-war. Extra expense need not be incurred; the pay and half-pay remaining as at present; the difference would be, under such a change, that the captains' would have four instead of three rates of half-pay; the the juniors, lifted from the commander's list, to receive the higher rate of that grade, *i.e.* 10*s.* per diem.

The system of retirement is obviously a wise one; but it seems incomplete, as it does not include the admirals. A becoming delicacy has, perhaps, been the cause of this omission. There surely would be no disrespect in remedying it; when an officer becomes incapable of serving his country we may suppose that the relief afforded in the enjoyment of the '*otium cum dignitate*' would be most agreeable to him. It would be gratifying to him as a patriot and a man to know that his presence was not a bar to the efficiency of his noble profession; for unless the stream be free at both extremes there must be necessarily a bar at the top.

Some individuals, it is true, retain their vigour to patriarchal age, but there are few seamen, I imagine, who have undergone the ordeal of long sea life, who are found equal to the bodily and mental exertion required in a commander-in-chief, when arrived at the age of seventy or eighty years; and who, therefore, should not have their patriotism and *esprit de corps* put to the test by an invitation to command a fleet in war time. The retired lists should be entirely separated from the active lists in the blue book.

The separation of the inefficient officers from the efficient among all grades should follow. The retired lists would be very much increased no doubt, but it is necessary, whatever the expense might be; and it would have the good effect of encouraging the exertions of the active young men. What of the sonorous growls of the Cobdenites, or the amazed looks of a chancellor of the Exchequer to Mr. Bull? when to have an efficient navy to fight his battles and preserve his shores from invasion becomes a necessity to ensure his own safety.

I have a distaste to touch on £. s. d.; but to place this subject in a clear light take the following reflection: that state of slavery which existed in our tropical possessions, did not involve our existence as an independent nation; yet, we paid twenty millions of money to effect the good of emancipation: an inefficient navy stakes that existence, and we begrudge even the annual outlay that is to constitute it an efficient service in times to come, and absolutely shrink from the thought of advancing a sum to place it beyond dispute!

*Eligibility for the Flag.*—Having but one step from the lieutenants' list to the captains', it would become desirable that every captain to be promoted to the flag, should be enabled to hoist it at any subsequent time. For this purpose it would be necessary to alter the length of time which he has now to serve in a rated ship before he becomes eligible for command afloat or at the ports.

The object of the present regulation, it is presumable, when established, was to afford the officer experience in fleet or squadron manœuvres; but if no other reason existed, surely intelligent captains did not require five or six years to learn the evolutions of a fleet.

The period may be very profitably reduced to three years at most; but the captains on the first columns of the list should, each in his turn, be sent in command of a ship of the line or a large frigate, (to be included in the line-of-battle for practice only) to the Mediterranean station, where alone in peace ships of the line congregate.

Once a month for as many days as the circumstances of the times admit, the Admiral commanding should exercise the ships and steamers in the various tactics which embrace the whole of the evolutions of a fleet in line-of-battle, &c. In initiatory practice it would be advantageous to number each evolution, and to commence with one as a lesson, and continue the exercise until every captain became perfect, before proceeding with the next. The experimental squadron should follow the same course.

From the wide spread distribution of our ships of war, it would seem obvious that, the majority, at least of the peace-promoted captains,

unless they have theoretically studied the subject, can have but an imperfect knowledge of the manoeuvres of a fleet. If, therefore, that be correct, it would appear equally obvious that some plan should be adopted to afford each and all, opportunities of perfecting theory by practice; and if after a year and a half, or two years practical instruction, the captains were to pass an examination, or otherwise receive a certificate of qualification from the Admiral commanding, the rest of the time might be remitted, in order that some other captain should qualify himself.

Indeed, the economy of time in this matter would be of such advantage to the service and to the officers that, captains on half-pay might be allowed to volunteer—say three to each ship—for the purpose of gaining instruction. Thus, in a few years, we should have captains who, on obtaining their flag, would feel competent to the very important and responsible charge of commanding with confidence a fleet in action. No doubt the smaller classes of vessels could go through the whole of the routine, with as much practical utility in the teaching as ships of the line; but the difficulty is that they cannot be spared in any collected number from other imperative duties on the different stations: indeed, boats may be made instrumental in conveying this portion of professional knowledge to the junior classes of officers.

I have met with some veterans of the war, who have a great aversion to innovation. The established laws and rules of their day they consider, like those of the Medes and Persians, should know no change! In those so tinctured, the altered condition of the world does not revolutionize their ideas; the inveterate habit of usages, which scarcely varied in the minutest particular, has stamped them with the character of men of abstract opinion: the expansion of the human mind and the progress of knowledge are phenomena which, to their natural and steady reason, appear as so many fallacies in the philosophical deductions of the age; their mental sun (professionally considered) conformable with that of the Pythagorean system, stands still, and they seem to be as unconscious of the inevitability of progress, as any man is physically of the earth's orbital rotation!

Chateaubriand has justly observed that, in politics finality is impossible; it is absolutely necessary to advance along with the human intellect. The exemplification is in many things even pertaining to navies. Leaving out steam, take two, which the force of external circumstances has compelled us to adopt—larger sized ships, and greatly larger cannon.

Let these suffice to prove that the systems of 1793, cannot be applied in 1850, without manifest danger, and that the remodeling of the navy is a duty imperatively called for.

In conclusion: the old apothegm of the schools that, "practice makes perfect," is as applicable to any other species of knowledge to be attained, as it is to that which is to be learned within the walls of a seminary. And if the measure of the amount of honour attached to diligence in literary pursuits be held in estimation, that which pertains to skill in naval tactics, embracing as it does the principle of patriotism, must to all who are imbued with the love of their profession, and with regard for their country's welfare be a strong incentive to the desire of excelling.

It is this high and noble sentiment, which I am happy in believing pervades the 'morale' of the Service, that stamps a character of worth upon our navy.—*Esto perpetua.*  
STORMY JACK.

---

### MORE ABOUT TOBACCO.

[In our volume for 1842, will be found some interesting particulars about the "weed." Another recognition of it from its native land may not be out of place here, though it is transplanted from a Canadian Journal.—Ed.]

MR. EDITOR.—It has often occurred to me during the last few weeks, that some account of the history of the Tobacco plant, now in such general and extensive use on this continent, might not prove uninteresting to many of your readers; few of whom, while on some cold winter evening cosily enjoying at their own fireside, the comfortable and luxurious languor, which the fumigation of the weed so gently diffuses, are aware of how strange and eventful a history, and through how many vicissitudes, exultations, proscriptions, extravagant eulogies, and unqualified condemnations, that wonderful plant the *Nicotiana Tabacum*, a nauseous, poisonous weed, of acrid taste and disagreeable odour, has during the lapse of a few centuries forced itself into every corner of the inhabited globe; and instead of being the insignificant production of some uninhabited forest or obscure district, has succeeded in diffusing itself throughout every climate, and in subjecting the inhabitants of every country to its dominion.

Aye! Far amid the icy deserts of the frigid zone, as our adventurous navigators have found upon the snow the footsteps of the Greenlander, the Laplander, and Esquimaux; there also have they found the name of this astonishing plant known and valued by these hardy wanderers of the north, far beyond the hard-earned trophies of the chase or the spoils of the sea.

But it is not in the frozen regions alone that we find it thus valued and sought for. The Arab tills the burning sands of the desert, that it may yield him tobacco; and the sable monarch of an hundred wives on Africa's burning shore, freely consigns annually thousands of his subjects to slavery that he may obtain tobacco; and where amongst the various tribes of swarthy warriors, who roam by mountain, forest, river and prairie, over this vast continent, from the golden sands of California to the lonely waters of the far Slave Lake, from the miserable root-digger who gains a scanty and precarious living upon the rugged and barren steeps of the Rocky Mountains, to his more manly and warlike brother who sweeps like the desert storm, and not less wildly, o'er the far rolling waves of the boundless prairie;—where, I ask, amidst them all, will you find one, whom this mighty magician does not count his slave, and who does not own himself obedient to his sway?

Nor is it alone over the minds of savages that tobacco thus reigns triumphant. The civilized world is no less its slave. The tired soldier

on the long march, or worse, on the weary and harrassed retreat—when every article that might lighten his road or add to his fatigue, food, raiment—aye! even his arms, in an enemy's country, are cast away, still in some snug corner of his bosom will be found the bosom friend with whom he hopes to lighten the dreary watch, or mend the scanty repast—tobacco. The sailor, give him but this and he will cheerfully bear all other privations; he will brave the fury of the raging elements, dare all hardships, dangers and misfortunes, or rush cutlass in hand, upon the point of a pike, or into the cannon's mouth! and in the higher walks of civilized society, at the shrine of fashion, in the palace and in the cottage, the fascinating influence of this singular plant commands an equal tribute of devotion and attachment.

"A pipe," says Bulwer, "is a great soother! a pleasant comforter! Blue devils fly before its honest breath! it ripens the brain; it opens the house! and the man who smokes, thinks like a sage, and acts like a Samaritan."

With regard to the origin of this plant. Humboldt states in his personal narrative, that it had been cultivated from time immemorial by the inhabitants of Oronoco. And from various accounts of the discovery of America, we learn that it was in general use among the aboriginal inhabitants of this continent, and that the practice of smoking was common to all the tribes, who professed to cure many formidable diseases by it. Many authors have considered it probable, that it was known and used by the inhabitants of some parts of the continent of Asia, long before that period: however this may be, it is certain that from the western hemisphere it was first introduced into Europe, and thence at a later day into many parts of Asia. Columbus and his brave and adventurous followers, were the first Europeans who, after stemming for months with their frail barks the stormy billows of the broad Atlantic, at length on arriving at the island of Cuba in 1493, first beheld the practice of smoking. In 1559, the plant was first introduced into Spain and Portugal from this island, by a Spanish gentleman, Hernandez de Toledo; and Jean Nicot, from whom the plant obviously derives its generic name, being at that time ambassador at the court of Lisbon, from Francis II, either carried or transmitted the seed to Catherine de Medicis.

Monardes tells us, that the priests of the American Indians, whenever they were consulted by the chief persons, or Caciques, took certain leaves of the tobacco, and cast them into the fire, and received the smoke which they thus produced in their mouths; in consequence of which they fell down to the ground, and that, after remaining some time in a stupor, they recovered, and delivered the answers which they pretended to have received, during their supposed intercourse with the world of spirits.

Coming as it did from that vast and almost unknown continent, from whose distant and shadowy shores, mysterious tales had been wafted by the adventurous travellers who had reached them, of the wonders worked through its agency by the red savage of the western wilds; at that time, when the wildest and most incredible tales regarding them, were received with greedy and credulous avidity throughout Europe, we cannot be



surprised to learn, that tobacco, which in reality possessed powers of a very extraordinary nature, should have been regarded as one of the wonders of the new world, and valued accordingly. "In 1589," says Paris, "the Cardinal Santa Croce, returning from his nunciature in Spain and Portugal to Italy, carried thither with him tobacco; and we may form some notion of the enthusiasm, with which its production was hailed, from a perusal of the poetry which the subject inspired. The poets compare the exploits of the holy Cardinal, to that of his progenitor, who brought home the wood of the true cross.

"Herb of immortal fame,  
Which hither first with Santa Croce came,  
When he, his term of nunciature expired,  
Back from the court of Portugal retired,  
Even as his predecessor great and good,  
Brought home the cross."

At this time its application on the continent of Europe, had been confined almost solely to the manufacture of snuff, and it was not till many years after its general use in this form, that the practice of smoking the leaf commenced in England. Accounts vary as to the exact period of its first introduction into England, some authors asserting that it was first used by Sir Walter Raleigh, others maintaining that we owe its introduction to Sir Francis Drake, when he returned with the colonists from Virginia, in 1586, and that being adopted by Sir Walter Raleigh, and other courtiers, it soon became common. About this time tobacco was sold in England for its weight in silver, and Aubrey says, "I have heard some of our old yeomen say, that when they went to Malmsbury or Chippenham Market, they called out the biggest shilling that lay in the scale, against the tobacco." Camden, in his "Elizabeth," also writes as follows, "From the time of the return of Sir Francis Drake and his companions, it (tobacco) began to grow into very general use, and to bear a high price; a great many persons, some from luxury, others for their health, being wont to draw in the strong smelling smoke with insatiable greediness, through an earthenware tube, and then to puff it forth again through their nostrils, so that tobacco taverns are now as generally kept in all our towns, as wine houses, or beer houses."

In the year 1600, the French ambassador in his despatches, represented the peers on the trial of the Earls of Essex and Southampton, as smoking tobacco copiously while they deliberated on their verdict, and Sir Walter Raleigh was accused of having sat with his pipe at the window of the armoury, while he looked on at the execution of Essex in the Tower. However untrue these stories may be, the fact of their being mentioned by the writers of the day, shews that they were not considered incredible, and proves how general the practice of smoking then was among the higher classes of society.

In 1603, James I. finding that the use of tobacco was proceeding to an extravagant and alarming extent amongst his subjects, many of whom he assures us expended as much as £500 annually on this article, (an enormous amount, when we consider the relative value of money at that period,) dipped his royal pen in ink, and came out with a philippic

entitled "A Counterblaste to Tobacco." In this celebrated paper he informs his loving subjects that, "smoking is a custom loathesome to the eye, and hatefull to the nose, harmful to the braine, dangerous to the lungs, and in the black stinking fumes thereof, nearest resembling the horrible stygean smoake of the pit that is bottomlesse." Finding however in 1704, that his "Counterblaste" had not put out all the pipes of his subjects, this monarch endeavoured by the imposition of heavy duties, to abolish altogether its use in his dominions; and a few years afterwards he commanded that no planter in Virginia, should cultivate more than 100 lbs. In 1724, Pope Urban VIII, published a decree of excommunication, against all who took snuff in church. Ten years later, smoking was forbidden in Russia, under pain of having the nose cut off. In 1563, the council of the Canton of Appenzel cited smokers before them, whom they punished, and they ordered all inn-keepers to inform against such as were found smoking in their houses. The police regulations of Berne made in 1661, were divided according to the ten commandments, in which the prohibition of smoking stands immediately beneath the command against adultery. In 1690, Pope Innocent XII, excommunicated all those who were found taking snuff or tobacco in the church of St. Peter at Rome, and even so late as 1719, the senate of Strasburg prohibited its cultivation.

But notwithstanding the outcry raised against it by church and state tobacco grew and flourished; and the very prohibitions and admonitions which were intended to have banished it from the earth, fell around it only like showers upon the parched ground, rendering it more fertile and prolific, until now at the present time it holds undismayed sway, alike over the civilized and uncivilized world. Nor do I believe that another plant exists, unless it be the potato, the absence of which would now be more severely felt by the great bulk of mankind. It is true that many important articles of food are derived from the vegetable kingdom, while this is but a luxury; but this is only one of the few, if not the only luxury, which is permitted to be enjoyed alike by the rich and the poor—the man of refinement and the savage. It soothes the long, dreary, wintry solitude of the Laplander and the Esquimaux, no less than it cheers the fireside of the cottager, or lends serenity to the vacant hours of the voluptuary.

The enormous increase in the use of this drug, may be easily estimated from the fact, that for the year 1836 *the duty alone on tobacco imported into the United Kingdom of Great Britain and Ireland for home consumption*, amounted to £3,354,594 sterling!

Having said this upon the natural and political history of this plant, I shall proceed before I close to say a few words concerning its action upon the human frame, according to the manner in which it is taken, either snuffed, smoked or chewed. A very celebrated medical writer of the present day (Prout) thus alludes to it: "Although confessedly one of the most virulent poisons in nature, yet such is the fascinating influence of this noxious weed, that mankind resort to it in every mode they can devise to insure its stupifying and pernicious agency. Tobacco disorders the assimilating functions in general, but particularly, as I

believe, the assimilation of the saccharine principle. I have never been able, indeed, to trace the development of oxalic acid to the use of tobacco; but that some analogous and equally poisonous principle (probably of an acid nature) is generated in certain individuals by its abuse, is evident from their cachectic looks, and from the dark and often greenish yellow tint of their blood. The severe and peculiar dyspeptic symptoms sometimes produced by inveterate snuff taking are well known, and I have more than once seen such cases terminate fatally in malignant disease of the stomach or liver. Great smokers also, especially those who employ short pipes and cigars are said to be liable to cancerous affections of the lips. But it happens with tobacco as with deleterious articles of diet, the strong and healthy suffer comparatively little, while the weak and predisposed to disease fall victims to its poisonous operation."

This latter remark is evidently one reason why the use of tobacco, in so few instances, appears to produce any very marked deleterious effect; but there is another reason, viz: that the use of tobacco to become a habit, must, like that of all other narcotics, be slowly acquired. No one can at once begin and continue the use of tobacco in any considerable quantity. Nature gives notice when she will be tampered with no longer, and the slightest excess in a young beginner is productive of such deadly nausea, sinking and general prostration, that it will be long ere he attempts the experiment again. But while its use to any extent must be slowly acquired, that the system may become gradually inured to it, so the poisonous and deleterious effects which proceed from it, are yet produced so slowly and insidiously, that the unhappy victim, who has for years been binding himself more firmly in chains of slavery to his pipe, his quid or his snuff box, can hardly believe, when his health, and the powers of his mind begin to decline, that these untoward effects are to be ascribed to the idol he has worshipped in confidence so long. The idea of the friend and social companion of his life being in reality his worst and deadliest enemy, never for a moment enters his head; he applies for aid to his physician, who too seldom makes the use of tobacco a point of enquiry.

The fact is, that the first symptoms arising from the abuse of this drug are such as might, and do arise, from other and different causes also. Thus dyspepsia, hysteria, and hypochondriasis, are found dependant on other causes besides the abuse of tobacco, while the symptoms are only the results of such effects having been produced, without pointing in any way to the cause which has given rise to them. Thus the unfortunate applicant for relief is dieted, i.e. half starved, and dosed with tonics of all descriptions, not only without advantage, but often with a marked aggravation of his symptoms. And why? because being debarred from using the articles of food for which he has the keenest relish, he retires like a suffering martyr to some corner to solace himself with his pipe:— and thus while the doctor is racking his brains for some new and more effective remedy for his indigestion, the submissive patient swallows all his infernal combinations, and wanders like an uneasy spectre over the face of the earth, bearing about with him, as his only consolation, the pipe of his afflictions, or the snuff-box of his woe!

Snuff taking is probably less injurious than smoking, and chewing the leaves appears to be the most pernicious practice of the three. But in all when carried to excess, the same symptoms will be likely to arise in proportion to the strength of the patient, and his susceptibility to the peculiar effects of the poison.

Amongst the various effects produced by the inordinate use of tobacco are, mental indecision and infirmity of purpose, obtuseness of the several senses, irritability, loss of courage, weakness of muscular action, and depraved secretions. Under its long continued use, the strongest and most courageous man has been rendered weak and timorous as a child. Of the symptoms produced by its abuse the most prominent are, pains in the stomach, all the long trains of dyspeptic symptoms, hypochondriasis, wakefulness and restless unrefreshing sleep, loss of appetite, languor and debility; mental inactivity and obstinate constipation: it produces on the mind a feeling of deep despondency amounting in some extreme cases, almost to mental aberration.

I cannot better conclude these remarks than by quoting a short paragraph from Burton's *Anatomy of Melancholy*. This old writer seems to have comprised in a few quaint words nearly all that may be said on the subject.

“Tobacco, divine, rare, super-excellent tobacco, which goes far beyond all other panaceas, portable gold and philosophers stones, a sovereign remedy for all diseases. A good vomit I confess; a virtuous herb if it be well qualified, opportunely taken, and medicinally used; but as it is commonly abused by most men which take it, as tinkers do ale, 'tis a plague, a mischief, a violent purger of goods, lands, health. Hellist, devillist, and dammed tobacco, the ruin and overthrow of body and soul.”

A. J.

---

TABASCO AND ITS RESOURCES.—*From a paper translated from the Spanish, by the late Lieut. Mooney, R.N.*

(Continued from page 34.)

THE Tuca or Manioc (*Jateopha manihot* of Linneus) grows also in exuberance here: in many of the cacao estates they plant it by the side of the young trees, that it may shade them in their first stages; and it is called the lover or nurse: thus it is that each year, as many stems of tuca are planted as there are new cacao trees; as soon as the young tree has acquired sufficient strength, the shade of the tuca is dispensed with, and it is cut down. When it is sown with this object, the cuttings are planted perpendicularly, and then they do not produce; at least not with any abundance; its tuberculous root, which is its useful part, only grows well when the cutting is planted horizontally. I cannot divine the reason that this root so much esteemed in the Antilles as a food, should be wholly useless in this State, where it is only used

NO. 2.—VOL. XX.

M

to make starch, and even that in very small quantities. The sweet caisaoe, tapioca, cipipa, and other valuable products of this plant are totally unknown here.

Sarsaparilla grows very well here; and also the marshy lands on the banks of the rivers are favourable to its production. In former years there was a considerable export of this article, but latterly it has been abandoned, on account of its depreciation in the market.

Excellent vanilla is also found in the forests, but not very abundant; this product as well as the former, the timbers, and dye-woods, which grow spontaneously, can best be classified amongst those of industry, although, they do not require the toil of the labourer, in their natural state. In case the population increases, and wages become lowered, and the more productive branches of agriculture decrease, these plants, which now are only met in the wild state, can be cultivated.

The tobacco of this State is of a very superior description, and is called, "de corral", because it is grown on lands where cattle have been herded, and of course has been well manured: it is held in high estimation at home, as well as abroad. But the laws which have allowed the general government to monopolize this article, have had the effect of materially diminishing its cultivation, and now it is very nearly confined to the demands of internal commerce; although here, monopoly has not had effect, the laws which prohibit its cultivation, and export, are in force, and even if these are tolerated, the ministers of finance refuse to issue permits for its transit or export.

This product might be made to form one of our most important branches of agriculture, and industry, if the foregoing restrictions were removed.

Neither is there much improvement in preparing pastures, so necessary to the breeding of cattle, which, if they are not useful in tilling the land, because as has been before stated, the plough is not used here, at least they are so for food, and other indispensables of industry. Whilst the chief occupation of the labourer of Tabasco, is to rid the soil of superabundant vegetation, this extreme fertility is not turned to advantage in the produce of herbs fit for cattle, and on that account those dreadful famines, and mortality occur in the seasons of the inundations.

It is true that in those lands where no rent is paid, or where it is moderate, the cattle roam over an extensive region, abounding in pasturage, and although this is the case in Tabasco for some part of the year, there are times when all the land is inundated, and there is nothing left for the cattle, but to climb up the heights, where there is scarce footing for them; and if the waters remain for any number of days, they perish for want of food, and those that do not die, are in such bad condition that they cannot withstand the purgative effects of the new vegetation which succeeds when the waters subside: thus it is that the formation of pastures on the higher lands, would be very advantageous in the preservation and multiplication of cattle. The low-lands being preferred for breeding, because they preserve their moisture, and consequently, their vegetation in the summer, is also the reason why all

the farms formed for this object, are scattered over them, and as they are covered with water in the inundations, they have always some hill or high land near, sufficiently large to receive the stock of the farm. The cultivation of these hills is confined to clearing them of roots of trees, shrubs, and brambles, only leaving some high palms, of which there are many, and very beautiful varieties; and to take care that no other herb grows, but a small grass which does not occupy more than three or four inches of soil; it is called grama. These are the artificial pastures of Tabasco, they alternate with the marshy lands, which in the dry season are covered with an herb, very nutritious, and to which the cattle are very partial: they are the natural pastures. The propagation of Guinea grass, which is now being introduced on the high lands, will be a favourable change, and very beneficial to the cattle, which feed on them during the floods. In the provincial language they call the pastures, *Sabanas*, and the low lands *Playas*, if they are open; but if enclosed *Potreras*, and the hills *Lomas*.

The Tabascans solely pay attention to the raising of horses and horned cattle; sheep do not thrive, although there are a few kept as a luxury on several farms—goats are kept for no other object than to clear the land of weeds.

As water, both running and stagnant, is abundant throughout the extent of the State, during the whole year, it is not necessary that tanks or reservoirs be built to assuage the thirst of the animals, nor to protect them from the fierce rays of the sun, which they avoid by retiring into the woods, nor to shelter them from the cold which is never very great, either during the dry or rainy seasons. They are abandoned to the care of provident nature, and certainly the cattle thrive so well, and breed so fast, that if they were not decimated every time the rivers overflow—(as well because they have not time to reach the higher lands, as that they cannot obtain pasture in them)—they would now amount to an immense number; they would be half or a fourth of their present value, and their produce would become an article of foreign export, the total of which is now a few hides, as is shewn in the sheet of exports of this port. The location of the cattle farms, is generally on an extensive hill or loma, with a sabana or open plain. That which renders them more agreeable and wholesome than the cacao plantations or other rural habitations is, that the cleared and elevated land, favours the circulation of air. It consequently follows that the dwellings are sweeter, and free from insects, not forgetting the extensive prospects which they command: eternal verdure clothes the Tabascan land, its atmosphere is temperate, its vegetation vigorous, its fertility such that it will produce at any season of the year. The beautiful succession of hill and dale, river, rill, and lake, forms a landscape abounding in the picturesque. Nature which seems to delight in mixing evil with good, has made this climate excessively rainy, which circumstance coupled with the plague of mosquitos, in a great measure outweighs the pleasures of a Prairie life. This plague is greatly diminished in the elevated situations, where the climate is altogether softer, and consequently more adapted for habitations. It is the general opinion in Tabasco that the

inhabitants of the Haciendas (or Estates) are healthier than those of the towns or villages.

The process which Nature employs to elevate the land, by depositing on its surface the debris, with which the waters come charged from the feet of the mountains, continues palpably to raise the plains and pastures, on which the cattle graze, and therefore with very little help from man, could ameliorate the soil, by hastening the effects which this natural cause would necessarily produce in the course of time. The labourers profit by this process, to raise the low lands which they wish to cultivate, as the Egyptians do on the banks of the Nile, by establishing a communication with the river by means of a canal, or ditch, lower than the level of the water in the floods, at which time they are overflowed as soon as the slopes of the river and the waters deposit the mud with which they are loaded, and afterwards subside clear and limpid in the bed of the river.

One of the most powerful auxiliaries to agriculture is machinery, for it supplies the absence of animal force, so necessary in the operations of cultivation, and to the preservation of its primary products. Nevertheless this auxiliary, which in no part of the world, would be of more advantage than in Tabasco, on account of its thin population, is almost unknown, with the exception of some small mills for grinding sugar-cane, a machine to separate the seeds from cotton, which, nevertheless is not used, some hand-mills to clean rice, and two mean horse-presses for the same purpose, even these are I believe in disuse; not even cars, carts or hand-barrows are in use, unless it be in some cane plantation; all is done by hand in the rural farms. There is no doubt, but that economy of labour and perfection in the preservation of the crops, would give a stimulus to the progress of agriculture. An idea of its imperfect state in this part of the nation can be gained from the adjoined statement (letter A) of the export of agricultural produce within the last eight years, produced from the maritime custom-house. It shews that the value amounts to 2,153,201 dollars, giving an average for each year of 269,150 dollars, to which must be added a fourth part for the land trade (which does not appear in the custom-house, as they pass without documents, or with passes given by the subordinate officers,) 67,287 dollars, 336,437 dollars after supplying the cereals, and other vegetables for the consumption of the State. Considering that this is from 66,000 inhabitants, it is proved from the above data that Tabasco, is in proportion, one of the richest States in agricultural produce on account of the natural fertility of her soil, and the facilities with which Providence has blessed her.

Agriculture cannot arrive at the height to which the natural advantages of the soil would elevate it, whilst public tranquillity is not established on a solid and enduring basis; the whole nation deplores the fatal effects of the revolutions, and ardently desires to see them terminated. Tabasco for some years has been their cradle, and has suffered from their destructive effects; for here generally speaking, those who raise tumults have no other object in view than pillage, and rapine. These are the first to decide on the questions which agitate the republic, when prudence

would advise that Tabasco should be the last to mix herself up in political troubles; as well, because her agricultural and commercial interests, bind her with an adamant chain to the rest of the nation, from which, she cannot for a moment separate herself without serious detriment, as because her isolated situation guards her from collision with opposing parties, and the necessity of taking the part of one or the other, as is the lot of the interior States through which the belligerents pass. Frequent political apostacies engender immorality, breed distrust, interrupt the operations of farming, and dissipate industrial capital, under which adverse circumstances, it is impossible that agriculture should prosper, which naturally is the most peaceful occupation of man. Revolutions are inevitable evils, emanating from the passions of men or the fault of principles, or institutions; tending to assimilate society with the necessities, education, and customs of a people. All men aspire to the tranquil enjoyment of social happiness, and there must exist grave motives, to move the masses, and launch them into the revolutionary arena; these motives can be no other than those which affect their interest and well-being; the fostering these tastes, and securing to every individual the fruits of his labour, are the only means of avoiding political disturbances. To this end all those obstacles to agriculture, industry, and commerce, ought to be removed, that the more immediate use of their liberty be secured to the Mexicans, in many efficacious manners; the first of these ought to be that which would conduce to the increase of population. Men are the prime necessity of agriculture, and it would be absurd to hope for progress in this branch without them. I do not suggest that artificial stimuli be employed to effect this object, the result of which is always contrary, as Malthus and other modern economists have demonstrated. The faculty of producing in abundance the first necessities of life, on account of the natural fertility of the soil, and the insignificance or non-existence of rent, would tend in an extraordinary degree to the increase of the population of Tabasco, if the deaths by endemic diseases, to which it is subject, did not overbalance the increase. It is well known that these diseases are engendered by the excess of moisture, and putrid exhalations from the marshes, or overflowed lands, where the vegetation is for a long time submerged. It will not be difficult by continued exertions to diminish the quantity of stagnant water, and ameliorate the climate, by withdrawing from the atmosphere those poisonous gases with which it is impregnated. These are the means to which science points.

That inequality in the distribution of property which afflicts other nations, does not exist in Tabasco, on the contrary, she can boast of a more equable allotment of territorial estate, than almost any other; which also ought to tend to the increase of population. A numerous population is of very little value to society, unless it is endued with habits of industry and addicted to labour, as is the case with our Aborigines, who, content with collecting sufficient food to subsist on from season to season, pass the remainder of their time in idleness: to enlist these men in the cause of agriculture, is the same as increasing the population. With the system which is in vogue in this State, of advancing money on account of wages, they will gradually enter into the service of the farmers as



their necessities compel them; every day they will become more and more useful, and acquire better habits, and finally become truly useful to their country.

Another method of increasing the population, is, by encouraging the immigration of foreigners; it will be very difficult to reap the full benefit accruing from such a measure, whilst the uncertain state of our government does not afford security to either person, or property. Much could be attained under the protection of the colonization laws, and by having societies formed to attend to their first wants upon their arrival. They have many anxieties who leave their native land, ignorant of the laws, customs, usages, religion, and language of the country of their adoption; and it is necessary to remove these fears, by helping them in their first efforts. In the extensive and fertile lands which Tabasco possesses on the banks of the Usumacinta, and on the borders of Chiapas, and Yucatan, far removed from the habitations of men, colonies could be established of immense value to the country.

(To be continued.)

## THE ETHNOLOGY OF EASTERN ASIA AND THE INDO-PACIFIC ISLANDS.

By J. R. Logan.\*

(Continued from page 25.)

### SECT. 2.—*Progress from Naturalism or Naturolatry (i. e. the spiritualism and worship of particular natural things) to Pantheism and Monotheism.*

THE history of the development of natural religion is the history of the feelings of man towards nature, of his consciousness of his relation to nature, including his fellow men. It therefore necessarily embraces the history of the development of intellect and science. As the object of a feeling varies, so does the feeling itself. Nature is one thing to the mind of a Humboldt, and another to the mind of a savage of the Andamans. The impression left on the one mind by the contemplation of nature is widely different from that left on the other. Where the one sees harmony, serenity and beneficence, the other sees caprice, violence and malignity. The religion of the one is love and awe, that of the other is distrust and fear, often mingled with hate. The emotions wait upon the intellect. True, the whole mind sympathises with every impression made upon it, and an impaired nervous system, by rendering the feelings morbid, clouds the intellect. But in a sound mental and bodily constitution the state of culture of the intellect determines the feelings that dominate in the mind.

The scientific observation of nature is the culture of the intellect. In the lowest stage of culture the mind is rapid in its deductions. It has no distrust in its own feelings and imaginations. It springs at once from effects to causes. As yet it knows not a state of philosophical

\* From the Journal of the Eastern Archipelago, published at Singapore.

reticence and suspense. It cannot remain in doubt. The ample magazine of forces with which observation and fancy have filled its memory, and which form the body of its knowledge, supplies causes sufficient to account for all phenomena. Every individual action is referred at once to an individual first cause. The idea of secondary causes, and of a sole first cause, has not yet dawned. The divorce between religion and science has not taken place. Science and supernaturalism are one. In the supernaturalism of each tribe is embodied the manner in which nature presented itself as a living reality to the greatest intellects, the spiritual leaders of the tribe. It is by the study of this phasis of ethnic development, the elements of which must be chiefly sought for in a knowledge of the language of each tribe, that the primordial history of the growth of the intellect, science and religion can alone be restored.

Every peculiarity in the character of a tribe is imaged in its supernaturalism, for this is not a reality existing without the mind. It is only an attribute of the mind. At every step which the national mind takes in advance of its first position towards nature, a change comes over its supernaturalism, until at last through a higher development of intellect, consequent on a bolder, deeper and more extended observation of nature, the permanence and regularity of all its grand phenomena are clearly perceived, and they are referred to One living will. Thus it is only after struggling through a long series of partial and timid deductions, that the human race arrives at the conviction that there is only one God. Unless miraculously illuminated it cannot attain this belief earlier. It necessarily attains it ultimately unless its intellectual progress be obstructed, and it remains stagnant.

The ethnic progress of the mind with relation to supernaturalism is the gradual establishment of harmony between itself and nature, embracing the reconciliation between the selfishness and absolutism of the individual and those of each of his fellows, through the recognition and dominion of the great ethical truths. In the lowest stage the more material minds are possessed by a dull, sensual selfishness, that sees nothing in life but animal wants and the means and obstacles to their gratification. In the more imaginative organisms all nature is still viewed through a medium of selfishness, but of a less sensual kind. It is full of spiritual powers that love or hate mankind, and work him good or ill. Far from thinking himself the dominant and sole rational being, he sees in the measureless earth many beings and powers surpassing him, and full of mystery and vague terror for him, because between his soul and theirs there is no communion. He is a small, naked, feeble biped. A tree, a river, a rock, a mountain, the sea, the wind, lightning and thunder, the sun, the moon, the starry night, nearly all animals, are infinitely greater than he. As yet his spiritual sense only serves to fill him with a consciousness of his own insignificance in nature, with love for what is pleasing and innocuous, awe for all else, and with dark and shapeless images and feelings of nameless dread that crowd on his mind when, in solitude and in the black night, his imagination labours with the ideas of the great and incomprehensible powers, visible and invisible, which environ his existence.

The man of a civilised community living in a cultivated country must beware of measuring the feelings of the wild man towards nature by his own. To the former most terrestrial objects are viewed as subordinated to the power and convenience of himself. The face of the country is parcelled out and carved, the very vegetation that covers it is his, and exists because he wills it, the larger animals are his domestic slaves. Everything has passed under his dominion. But the savage is lost amidst the grandeur and wilderness of nature. Every single tree of the myriads amongst which he wanders, far transcends him in power as in bulk, and the notion of being able to destroy it never crosses his imagination. As yet unarmed with implements, and unconscious of the latent power of the race, the sense of his feebleness constantly attends him, colouring all his observation and all his philosophy. He is one of the weakest animals of the forest. The foot print of the tiger, the elephant, the rhinoceros, the bear fill him with dread. He listens alarmed to every unusual noise. It is in this lowest ethnic stage that naturalism has its greatest sway, and the powerful and deep rooted feelings and beliefs which then originate, long survive the condition of existence in which they take their earliest forms. All gods are then dread realities. No imagination is needed to clothe them with awe. They who have once seen a tiger seize its human prey, and are totally incapable of devising or conceiving any means of protection from a being so terrific, are filled for ever after with feelings towards it which the dread of imaginary demons in other tribes cannot exceed in intensity.

It is not till man has gained courage through art, has learned to conquer other powers by his implements, his arms, his observation and his intellect, that he can view nature unperturbed and unblinded by his personal feelings. It is not till he has raised himself victoriously above his selfishness, and stands god-like on the serene height of pure intellect, that the scales fall from his eyes and he first sees the world as it really is, and understands the true position of his race. That which in the microscopic vision of each man's individuality, abounds in evils, antagonisms and perplexity, when viewed through the race is straightway resolved into harmony and unity. But this highest truth has also two forms dependent on the character of the mind. In the one, supernaturalism is vanished altogether, and nature is self-developed and purely physical. There is matter and nothing else. Organism is a property of matter, mind a property of organism. In the other, every thing is harmonised by the belief in a single spiritual unity. God exists and nothing else. This idea often emerges with great slowness from the forms of the primitive naturalism, and there is a conflict between the notion of an absolute and immutable spiritual power, and the old notions according to which the events which bring us good or ill were special acts of benevolent, irate or malignant gods.

The reconciliation is attempted by the belief that natural laws and forces, although God-created, yet, when created, have a certain existence external to God, and that he can and does specially direct them according to his feeling towards individual men. Left to itself nature would not fully work his will, but would sometimes oppose it. Hence he inter-

feres miraculously to protect and benefit some men, and cause suffering or death to others. But to the mind differently cultured the notion of the possibility of any antagonism whatever between the laws of nature and God is a contradiction in terms. Such notions are allied to the extramundane conception of God. An idea of an opposite kind identifies him with matter. A more advanced belief is that God is not matter, nor is matter external to him: He works and reveals himself in matter. Whether matter has any existence save as a vesture or manifestation of spirit, is a question which human science is inadequate to solve. But we see that all matter is constantly imbued with certain forces and properties, and that it is by the action of these that God manifests himself in the wonderful forms of organised nature. If we refer life and its organisms to God, the physical properties of matter, which evince the same intention and will, and matter itself, which we only know through its properties, must also be mere shows of the Spirit. Although the earth is a unity, not only physically, but in its organic phenomena, matter with its physical properties alone cannot convince the mind of God, because all matter is at all times instinct with these properties.

Where there is universal uniformity, reason cannot conclude that it ever has been, or ever can be, otherwise. But when we look up from the dead physical level of matter, every organic being appears as a special miracle, disturbing the order of nature. Physical and chemical properties are of the essence of matter. In them matter is, and it is inconceivable without them. But every organic being is limited in time and space. The material world is neither lessened nor increased by it. Take it away and matter remains as before. It is not matter, but an invisible miraculous force that animates and shapes it for a time, and then lays it down. It is not the result of the inherent and universal forces of matter, a necessary form of matter. In its adaptation of matter, and to matter it exhibits intellect, will and power, and this is especially shewn in the harmony and consistency which pervade the multitude of allied types, and forms of the same type, presented by the organisms which cover the surface of the earth as with a perpetual efflorescence. Matter does not spontaneously take organic form and vitality, nor can any combinations of matter by the highest natural intellect produce conditions under which matter exhibits will and organism. Man cannot cause matter to take life, much less can matter vivify itself. Wherever, therefore, we see an organic being we see a sole universal spirit working and revealing itself in matter. Without speculating on the intention of nature, this great fact is very plain, that man sees in nature a Spirit whose action is a perpetual material self development in a vast, and apparently boundless, variety of organic forms that array the earth in a living garment of every colour, shape and texture. The gradual change that is taking place, especially in and through the highest organism, man, shews that individuals and even races are but evanescent forms, no ways necessary to the Spirit, and which it lays aside after a time. Before the single organism man, most of the larger land animals will probably pass

away. Thus the organism of the earth is a slowly changing and growing development of the Spirit. Individuals perpetually perish. Races have vanished and are progressing to annihilation. But as yet the human race, the most perfect and most powerful mundane incarnation, advances; and we cannot conclude from nature that it will not be immortal.

It is certain, that the advance of science does not render spiritualism more uniform. The ethnic character of the mind of the human race, can never attain fixity. It must change for ever, and so must all its forms, external and internal. Monotheism is as many coloured as naturalism. Hitherto it has fluctuated chiefly between two extremes, the one, that the universe is the necessary and eternal body of the Spirit, and the other, that the Spirit is a metaphysical abstraction of human faculties transcendent and infinite. The more abstract and metaphysical or subjective races and minds have tended to the latter conception; the more objective and sensuous to the former, or to other material notions. Between them lie many forms of monotheism, such as the following.—All creation is an emanation of the Deity, and is reabsorbed in him. The succession of phenomena, and even of universes, is but the endless pulsation of his life. They have no reality in themselves, but are mere apparitions. Or, the universe has an external reality, but as it arose at his word, so will it vanish and leave not a wreck behind. The active life of the Deity is in the universe, in its forms and motions he works and delights. He dwells apart in a material Heaven, and thence controls and directs the events of the world, either immediately or by subordinate spirits. Such are a few of the aspects under which the Deity appears to the monotheistic intellect. Those that have most influenced the Ethnology of Eastern Asia and the islands, will be considered in the section on Monotheism.

The only safe and broad division of natural religions or supersensual beliefs is, into those which are scientific and those which are not. It is only in the lowest tribes, that we can correctly speak of the religion of a race as a unity. Whenever scientific minds have arisen in a race, the religious beliefs cease to be uniform. In most, if not all European nations at this moment, every kind of spiritualism may be found, from the purest and truest, down to superstitions as gross as any which prevail in the Indian Archipelago. Whole classes of men belonging to the most civilized races, still cherish naturalism under christian forms, or blend the lower with the higher faith in a mode of which we have many examples in the mixed religions of Eastern Asia. A man's religion it is evident must always depend on the character of his mind. By scientific minds, I mean minds which, from nature or culture, are thoroughly imbued with the first principle of all spiritual truth, renunciation of self. From this comes faith in God, and in nature, as God revealed in action. From this come freedom from human authority and prejudices, and a rooted conviction that to every mind truth exists only so far as it has observed nature in a spirit of reverence and humility, and that all notions of God not directly derived from the observation of

nature are necessarily imperfect.\* All minds, whether in barbarous or civilized races, that are not, consciously or unconsciously, imbued with this sense of the relation of nature to the human soul, are unscientific. Between them and the open day of nature, there is a veil of fears, aspirations, and imaginations, centering in self. It is necessary to distinguish between a scientific mind, and a merely intellectually disciplined mind. An open, candid, self renouncing man, taking nature as a great fact through which he looks upon God, and finding nothing in himself greater than this wonderful God given, and more than magical capacity of spiritual vision, possesses the true scientific mind in a greater degree than many men of science.† However advanced a national faith may be, its existence as a reality never ceases to be dependent on this scientific spirit. Whenever it is, or becomes, feeble, the religion is degenerated. Thus as the Hindu race lost this spirit, the simplicity

\* "Christ and the Prophets always send us back to nature. In the Bible and especially in the words of Christ, the deepest truths of nature are not merely recognized, but earnestly inculcated as the very basis of religion or spiritual knowledge."

† In the exclusive prosecution of particular sciences or culture of particular intellectual powers, there is as much danger as in any other one-sided habit of the mind, that it will become inordinately attached to its own acquisitions and views, and lose the susceptibility of receiving impressions from nature as a whole. In periods when men pride themselves on an eager and incessant devotion to the methodising of one class of natural facts, it is only by getting below our superadded nature, to the pure human perceptions and sensations that lie at the bottom of it, that we can understand our true position in relation to nature. We must go back in the history of the mind, till we have reached the time when she was not yet habituated by things external, if we would see all that material nature is to the soul. This needs neither the analysis of the philosopher nor the imagination of the poet. The mind, from early receiving a true direction or from the natural strength of its sensibility, will, and sincerity, may escape the ossifying influence of a narrow culture, and much of the prejudice which necessarily results from an implicit surrender of itself to the ethnic mould of its time and tribe. The man, however unlearned, whose mind has retained its own independence of feeling and vision, may see in any weed miraculously unfolded from dead earth into a perfect living creature, clothed with beauty and grace, and yet devoid of all consciousness or faculty, all self-assertion or self-action, a spirit which is in the weed, of which the weed is, but which is not the weed, and as in one creature, and that creature in it, so in all material things or nature and all in it, and yet not nature but invisible, spiritual substance, self existing, eternal, whereof nature is but the mystic, evanescent, spirit-woven garment. The unconscious lily, which all may see can neither toil nor spin, a creature entirely mute, motionless, powerless, helpless,—whence that magical growth of it? Whence that beauty far transcending all human glory? Yesterday there was nothing seen here but the bare earth. To day we are startled by this wondrous apparition. To morrow it is not. What and whence was it? How came it? Whither has it vanished? The ignorant man who has kept his intellect pure and open, can well understand that the flower so beautiful, so perfect, so harmonious in itself, and in such harmony with all nature, was an object of deepest sacredness, was God revealing his being, his eternal power and godhead to sense. The lily was a word written before his eyes by the Invisible Spirit, and whereby the invisible attributes of the Spirit were shewn to him.

and truth which distinguished their faith to a great extent 3,000 years ago, were lost also.

From the most elevated Monotheism to the rudest fear of natural powers, there are numberless varieties of supernaturalism, all tinged by the character, culture, habits, and locality of the race in which it is manifested. The tribes which we are investigating present many of these varieties, but they belong far more to the lower than to the higher kinds of faith, and it is therefore necessary to examine the former more closely.

(To be Continued.)




---

EXTRACTS OF LETTERS, RESPECTING THE ADVANTAGES OF THE SCREW STEAMERS IN THE ICE.

FROM Lieut. Sherard Osborne, commanding the *Pioneer*, to Mr. Barrow.

"The *Pioneer* cuts through ice six or seven inches thick, with the greatest facility, and we worked a lane in the land floe yesterday: although it was nearly two feet thick. Our bows are just the things no check, no thumping, the screws do not catch the ice, whether it be loose or fast, so long as we go ahead. With stern way, a little caution is necessary. I have now on board more than forty days fuel, and expect to bring some back to England. The next expedition should be all screws."

From Lieut. Sherard Osborne:

"Arctic voyagers seem to have had an extraordinary fancy for a Bow formed thus  and the one I daily tow astern is according to rule. We of the new school, screws, &c., have the Bows thus  and you would smile could you see us slip through the ice without  a shock, whilst our big friend astern ploughs all up before her, and bumps as if to try wood against ice. Our commodore shakes his head, and says the screws are only an experiment, nevertheless, in the same breath, assures me that we are his right arm."

From Lieut. Bertie Cator, of the *Interpid*, to Mr. Barrow.

"Osborne's vessel is the only one that has been regularly beset. She was ordered to try and make a way through about 400 yards of stuff, but could not get through more than 150. The ice closed in on her, I tried to tow him out, but could not. A more powerful screw would have gone through like a knife. Any more expeditions must be done by steam. Had we not been tied to the ships we should have been in Lancaster Sound almost by this."

Extract of a letter from Captain Austin, dated 5th July.

"It affords me much pleasure to state that the performance of the ten-  
ders has been very satisfactory, they have now remaining on board coals equal to full thirty days steaming."

## THE AMERICAN NAUTICAL LIFE CAR.

In our number of this month, we have a lithograph of "The American Life Car," a sort of life boat, which has been used with signal success in the United States, particularly in the case of the emigrant ship, *Ayrshire*, when upwards of 200 souls, were safely landed by its agency, through a surf where no open boat could have lived.

Where a communication can be opened between a stranded vessel, and the shore, it is evident that such a life car, is invaluable, and the inventor, Mr. Francis, of New York, considers that for landing valuable goods, specie, and despatches, through surfs, when no other means of communication can be had, these life cars will come into common use.

In our advertising columns, will be found various testimonials from officers of the United States Navy, and others, of the advantages of the Patent Metallic Life Boat, and we would wish to draw the attention of our professional brethren, particularly to the letters from that accomplished officer Lieut. Lynch, who surveyed the Dead Sea in two of these boats.

To all first lieutenants, the fact that a twenty-five foot metallic cutter, weighs under 10 cwt., that she is not affected by the sun or the rain, and is always ready for service, is a sufficient recommendation.

The United States government has stationed two life cars with the needful apparatus of mortars, lines, &c., together with metallic life surf boats, on all the dangerous parts of their coast, from Nantucket to Texas; and the secretary of the treasury, we perceive alludes to them in his last report to Congress.

"Measures have been taken promptly to execute the design of Congress, in providing for the security of life and property on the sea coast. Metallic life boats, with the usual fixtures, designed for five points, on the coast of Florida, and three for the coast of Texas, have been contracted for. Like facilities, with the addition of mortars, shot rockets, and station houses, have been authorised along the shores of Long Island, including a station at Watch Hill, in Rhode Island."

From private information we may state, that the revenue department of the United States, (corresponding to our coast guard here), have decided to adopt metallic life boats, in place of their present wooden ones, and that all the ships commissioned in the United States Navy, are now supplied with at least one copper life cutter.

It is curious that *metallic* life boats, should originate in the country that levies a duty of 15 per cent. on the raw material (Morewood and Rogers' Galvanized Iron,) of which they are constructed. Still more extraordinary, that the beautiful adaptation of the principle of corrugation, in the construction of these boats, should not have been applied by some of our steam-boat builders to river steamers, where lightness and draught of water are so essential. In our next number, we hope to be able to give the stations upon the coast of the United States, where metallic life cars, and surf boats, are placed and supported by the American Government.



*Description of Francis' Patent Metallic Life Car Boats,  
Enrolled 24th December, 1850.*

Fig. 1, is a side elevation. Fig. 2, a vertical longitudinal section. Fig. 3, a plan, and Fig. 4, a cross section of this improved life boat, which may be about ten feet long, four feet wide, and one foot three inches deep in midships, the floor or bottom flat to give stability in the water and set upright on the beach; the ends sharp but buoyant and formed to move either end foremost, so as to form a car or vessel shaped like a boat. A, is the keel. B, the sides, air tight bulkheads; 1 1, are placed across about two feet from each end, so as to leave about six feet of space between them, these may be termed "reserve chambers." The collective quantity of water they displace, being more in weight than the weight of the car boat, she cannot sink even when filled by accident with water. Over this an arched deck, C, is placed rising from the gunwale towards the centre, both lengthwise and across. E, is a hatchway and hatch, made narrower at one end than the other, expressly that the hatch may not be put on wrong end first. 2 2, are two bow handles to move the hatch, and on each end is a hasp 3 taking the staples 4, in the deck, with pins that are secured to the hatch by a small chain. Beneath the hatch is a handle, 5; and on the opposite side of the hatchway, at 6, are air holes, for ventilating the boat when in use.

F, is a chain, with a large ring to slide on the hawser G. A, is a ring to take a rope to a stranded vessel; and on the other end a rope to the shore.

These car boats are to be used as follows: a hawser thrown by any competent means to reach from a stranded vessel to the shore, is to have the shore end attached by some secure means, after it is put through the larger rings on the car boat, and ropes from the shore to the vessel are to be attached to the smaller rings: one or two men now get into the car boat, the hatch *e* is put over them and they hold it down by the handle 5, the car boat is launched, the people on the stranded ship, hauling her to them. On coming alongside the wreck, the hawser raises the car to near the vessel's gunwale, the men inside move up the hatch and put the passengers and crew of the stranded vessels into the car boat, say four adults, or two or three adults with children.

The hatch is then put on and *pinned* down, and the car boat hauled to and up on the shore, on the hawser by the small ropes; the inside freight permitted to quit by removing the hatch. This is then replaced and the operation repeated until all the human beings are saved, after which she can be used to land any portion of the cargo, that can be got at, and that she can contain. In any case the last person who quits a wreck, will place the hatch *e* over the hatchway and hold it over himself by the handle 5.

Galvanized iron is preferred for the material to build these life cars as being lightest in proportion to strength, elastic and durable; copper or yellow metal can also be used. Fenders of cork or other light elastic material are used on the gunwale, and the size of the boat may be varied, though ten feet long is considered to combine portability, lightness, strength, and efficiency in an eminent degree.

Boats of this description for landing cargo, dry and safely through surfs, can of course be built of much larger dimensions to suit particular trades.

*National Hotel, Washington, Dec. 14th, 1850.*

SIR.—In answer to your inquiries as to my observations on the character and performances of your Metallic Boats on the coasts of California and Oregon, and of their general value as compared with wooden boats of like capacity, &c., &c., I have to state that,

There is a very large number of your boats in use in California and Oregon, in every possible variety of employment to which a boat can be put, from the largest to the very smallest; and of their ability to endure hard service beyond that of a common boat, no one could doubt, after seeing the rough handling they get there. In no instance have I seen one out of repair.

The two that I purchased of you have done all they were expected to perform, and both were so much in favor with others, that they were often stolen from their moorings, and for this reason they were sold to avoid the annoyance of seeking for them; they are still in use in the Bay of San Francisco.

At the mouth of the Columbia the Pilots have one of your small size, which they keep as a *safety boat*—and in one of the same size, Major Hathaway, U.S.A., with a party of seven persons, crossed the North Breakers of the Columbia River Bar—accidentally going to sea in a dark night, and recrossed the Breakers the next day, *without shipping water*. This was a feat for a *landsman* to perform, of no ordinary character!!!

The large boat which you furnished to my friends who went round the Cape, left the ship with a party of nine persons, when seventy miles distant from the Island of Juan Fernandez, and in a gale which, the same night, reduced the canvass of the ship to a close reefed top-sail, causing those on board the ship to despair of ever seeing them again, the little Metallic Boat rode it out in safety, and the whole party safely landed the next morning, while it blowed so hard the ship could not approach the shore. I have used your boats with great satisfaction.

I know that in the Tropics, where there is a great shrinkage, and where boats of wood so soon become "nail-sick," and where the worm is so destructive to wood, *your boats are always ready for service*, without the necessity of repair, while they will endure without injury an amount of thumping on rocks and beaches which will destroy an ordinary boat.

The boat you supplied to the U.S. ship *Vincennes*, Capt. Hudson, was in daily use, and, for lightness, speed and safety, the favorite boat of the ship. The first Lieutenant stated to me that her performance was admirable—that she did all the work of the ship. Such a boat, where an economy of men is desirable, is of the first importance in the equipment of a ship.

Having some years since seen your first essay in the construction of the Metallic Boat, both for ordinary use, and for Life Boats, I have, with no little interest, watched the progress you have made in overcoming prejudice and opposition, and consequently, wherever I have been, when meeting with "Francis' Metallic Boats," I have been particular to inquire into their performance, more especially among seamen; and I have found in the last two years, whether from actual trial, or the widely disseminated testimony of intelligent seamen, who have fully proved their merits, that there is now little opposition to them, in any quarter, their superiority for durability and safety being generally admitted.

For my own part, in fitting out a vessel for any service, I would not fail to supply her with your Metallic Fire Proof Boats, both for safety and economy.

Yours, very truly,

(Signed) WASHINGTON A. BARTLETT,  
Lieut. U.S. Navy, Ass't Coast Survey.

To Joseph Francis, Esq., Washington.

---

*Extract from the Annual Report of the Secretary of the Treasury to Congress, 1850.*

"Measures have been taken promptly to execute the design of Congress in providing for the security of life and property on the sea coast. Metallic Life Boats with the usual fixtures, designed for five points on the coast of Florida, and three for the coast of Texas, have been contracted for. Like facilities, with the addition of mortars, shot rockets, and station houses, have

been authorised along the shores of Long Island, including a station at Watch Hill, in Rhode Island."

The Metallic Boats referred to are to be similar to those now on the coast of New Jersey and Long Island, provided for by Congress under an appropriation in 1848.

THE JUDGMENTS OF THE SEA, AND THE ISLE OF OLERON.—*For the Regulation and Government of Merchants, Owners of Ships, Part-Owners, Masters of Ships, and common Mariners in all Maritime affairs.*

(Continued from page 48.)

7. If it so happens that sickness doth seize on any of the mariners of the ship, while he is in the service of the said ship, the master ought to set him on shore, and to let him have candle-light, and to provide him a lodging, as also to spare him one of the ship-boyes to look to him; or hire a woman to attend him; likewise to afford him such diet as is usual in the ship, that is to say, so much as he had a ship-board in his health and nothing more, unless it please the master to allow him more; and if he will have better diet, the master is not bound to provide it for him, unless it be at his own costs and charges. And if the vessel be ready for her departure, she ought not to stay for the said sick party; if he recover, he ought to have his full wages or competent hire, rebating or deducting only such charges as the master hath been at for him; and if he dyes, his wife or next of kin ought to have it.\*

8. A vessel is laden to sail for *Rouen*, or some other place; it happens that a storm overtakes her at sea, and so violent that she cannot escape without casting some of her lading and the merchandize over board, for lightning the said vessel, and preserving the rest of the lading, as also of the vessel itself; in this case the master ought to say, *Sirs*, it is fit and expedient to cast over board some part of the lading to save the vessel; and if there be no merchant that answers his pleasure herein, or accords and approves thereof by his silence, then the master ought to use his discretion, and to do what in him lyes, and to cast part of the lading over board; and if this please not the merchants, but that they gainsay or contradict it, yet the master, notwithstanding this, ought not to forbear casting out so much goods as he shall see may be for the common good and safety; he and the third part of his mariners making oath on the Holy Evangelists, when they arrive at their right port of discharge, that he did it only for the preservation of the vessel, and the rest of the lading that remains yet in her. And the wines (or other goods) that were cast over board, ought to be valued and prized according to the just value of the other goods that arrive in safety. And when these shall be sold, the price or value thereof ought to be divided liver by liver among the merchants; and the master ought to make the division, and to compute the damage of the vessel, or the freight at his own choice for the recovery thereof, and the mariners also ought to have one tun free, and another divided by cast of the dice according as it shall happen, if he make it appear he did the

In case of storm Skipper to use his discretion in casting goods over board to lighten the vessel, and to preserve the same.

What the Law is in the case of Averidge.

\* Executors of a deceased mariner ought to receive the wages due to him.

part of an able seaman. But if he make not this to appear, then he shall have nothing freely; and the merchants in this case may lawfully put the master to his oath.

9. If it happen that by reason of much foul weather the master is like to be constrain'd to cut his masts, he ought first to call the merchants, if there

What the Law is in case of cutting Masts or Cables in a storm.

be any aboard the ship, and such as have goods and merchandise in the vessel; and to say unto them, Sirs, It is requisite to cut down the masts, to save the ship and lading, it being in this case no more than becomes my duty; and oft-times it comes to pass that they also cut their mooring cables, leaving them their cables and anchors to save the ship and her lading. All these things are reckoned and computed liver by liver, as goods are, that were cast over-board; and when the vessel arrives in safety at her right port of discharge, the merchants ought to pay their shares or proportions without delay, or sell the goods and pledge the money thereof proceeding to satisfy the same before such time as the said goods may be unladen out of the said ship. And if the vessel be such as usually is let out for hire upon freight, and there happen controversies and debates touching the premises, if the master observes collusion therein, he ought not to depart, but is to have his compleat freight as if his tunnage were full.

10. When a master arrives in safety at the right port of his discharge with his vessel, he ought to show his merchants the cordage, ropes, or slings, wherewith he intends to hoist the goods over-board; and if they find that

The ship-ropes or slings to hoist out goods withal, to be viewed before used.

they need mending, he ought to mend the same: for if a pipe, hogshead, or other vessel, should happen by default of such cordage, or slings, to be spoiled or lost, the master and mariners ought to make satisfaction for the same to the merchants, so also if the ropes, or slings break, the master not foreshewing them to the merchants, he is obliged to make good the damage. But if the merchants say the cordage, ropes, or slings, are good and sufficient, and it notwithstanding happen that they break, in that case each of them ought to divide the damage, that is to say, the merchants to whom such goods belong, and the said master with his mariners.

11. A vessel being laden with wines, or other goods, hoyses sail to transport the same to Brest, or some other place, but the masters and mariners turn not their sails so as they might or ought to have done, and it happens that ill weather overtakes them at sea, and so as that the main-yard shakes or strikes out the head of one of the pipes, or hogsheads of wine; this vessel being in safety arrived at her port of discharge, the merchant says to the

Goods damaged at sea whether by the ships tackle or not, to be purged and cleared by the Oath of the Skipper, & part of his company.

master, that by reason of his main-yard his wine was lost; the master replying, says, it was not so. In this case if the master and his mariners will make oath (be it four or six, and such of them as the merchant hath no exception against) that the wine perished not by the main-yard, nor by them, or through their default, as the merchant charges them, they ought then to be acquitted thereof; but if they refuse to make oath the effect aforesaid, they are then obliged to make satisfaction for the same, for that they ought to have ordered their sails aright before they departed from the port, where they took in their lading.

12. A master having hired his mariners, he ought to keep the peace betwixt them, and to be as their judge at sea; so that if there be any of them

The law in case of the lye, or stroak given by or to the Skipper or his Mariners.

that gives another the lye, whilst they have wine and bread on the table, he ought to pay four denieres; and if the master himself give any the lye, he ought to pay eight denieres; and if any of the mariners give the master the lye, he also ought to pay eight denieres, and if the master strike any of his mari-

ners, he ought to bear with the first stroak, be it with the fist or open hand; but if the master doth fiercely assault him with more stroaks, the said mariner may defend himself; but, and if the said common mariner doth first assault the master, he ought to pay five solz, or lose his hand.

13. If a difference happen between the master of a ship, and any one of his mariners, the master ought three times to take away from him, or lift up before the said mariner the tawel, ere he turn him out of the ship, or discharge him thereof; but if the said mariner offer in the presence of the rest of the mariners to make the master satisfaction, and the master be so resolved that he will accept of no satisfaction from him, but notwithstanding such offer of satisfaction will put him out of the ship, in such case the said mariner may betake himself to follow the said vessel to her port of discharge, and ought to have as good hire or wages as if he had come in the ship, or as if he had made satisfaction for his fault in the sight and presence of the ship's company, and if the master take not another mariner into the ship in his stead as able as the other, and the ship or lading happen thereby to be through any misfortune damnified, the master is obliged to make good the same, if he hath wherewithal.

The laws in case of difference between the Skipper & any of his Mariners.

Skipper to take an able mariner in the absence of another or to make good the damage if any there by.

14. If a vessel lying at anchor be struck or grapled with by another vessel under sail, that is not very well steered, where by the vessel at anchor is prejudiced, as also wines, or other merchandize; in each of the said ships damnified; in this case the whole damage is to be in common, and to be equally divided, and appraised half by half; and the master and mariners of the vessel that struck or grapled with the other, are bound to swear on the Holy Evangelists that they did it not wittingly or wilfully. And the reason why this judgement was first given, was, that an old decayed vessel might not purposely be put in the way of a better, which will the rather be prevented when they know that the damage must be divided.

15. Suppose two or more vessels in a harbour, where there is but little water, so as that the anchor of one of the vessels lyes dry; the master of the other vessel ought in that case to say unto him whose anchor lyes dry, master, take up your anchor, for it is too nigh us, and may do us a prejudice; if neither the said master nor his mariners will take up the said anchor accordingly then may that other master and his mariners (who might be otherwise thereby damnified) take up the said anchor, and let it down again at a farther distance from them; and if the others oppose or withstand the taking up of their anchor, and there afterwards happen damage thereby, they are bound to give full satisfaction for the same, in like manner it is, if they neglect the placing of a boy to the anchor, and damage happen thereby, they are obliged to repair the same;

What the law is in placing of anchors in harbours specially where there is but little water as also of boys to the said anchors.

and so also it is in case damage so happen in a haven at low water, for they ought to fasten such buoys or anchor marks, and such cables to their anchors, as may plainly appear and be seen at full sea.

16. A vessel going to seek a freight, arrives at her place of lading in England, or elsewhere; the master ought then to say to his company, sirs, will you freight by yourselves, or be allowed at the freight of the ship? They are to answer which of the two they intend, if they take as the freight of the ship shall happen, they shall have proportionably as the ship hath, and if they will freight by themselves, they ought to freight so as that the ship be not impeded or hindred thereby, and if it so happen, that freight may not be had, the master is blameless, and he ought to shew

What the mariners immunity or privilege anciently was in freight, which is now grown obsolete

them their ship-fare, which he may weigh out to each of them, and if they will there lade a tun of water instead of so much wine, they may, and in case there should happen at sea a casting of goods overboard, the case is the same for a tun of water as in a tun of wine, or other goods, liver by liver, and if so be that merchants do freight the said vessel for transportation of goods, what freedom and immunity the said mariner hath, the said merchant shall also have.

17. The mariners of Britain ought to have but one meal a day from the kitchen, because they have beverage or drinkings out and home, but those of Normandy are to have two meals a day, because they have only water at the ships allowance, only when the ship arrives at a wine country, there the master is to procure them wine to drink.

It seems in those days this was the Law, now no such thing in use.

The Skipper may compel the mariner to com- plete the ships voyage.

18. When a vessel doth discharge or unload, and the mariners demand their wages, whereof some have neither bed, chest, nor cabin aboard, the master may lawfully retain part of their wages till they have brought back the ship to the port from whence she came, unless they give good caution to serve out the whole voyage.

(To be continued.)

#### ATLANTIC PACKET STEAMERS.

In an age like this, when the real rivalries and contests of nations are carried on not so much by regiments and frigates, as by means of the shuttle, the railway, and the steamboat; it is curious and important to note the progress of different countries in those partial arts and sciences which more immediately promote these friendly national contests. European statesmen have all watched with wonder, and not a few of them with alarm, the tremendous accession of power which the rapid development of railways, telegraphs, and steam navigation in the United States has given to the people of North America; an accession of political and material influence in the affairs of the world which seems to stand in almost startling disproportion to the mere weight of the masses of population.

The Brazils, by nature far richer than the northern states in all the raw materials of power, have no more voice in determining the direction of great historical events than a petty German or Italian principality. Belgium, covered with railways and dotted with manufactories, has already more active influence in Europe than the once powerful and magnificent kingdom of Spain. Science, multiplies the resources of nations in an extraordinary degree; and older games of ambition are so far gone out of modern fashion, that statesmen with the true instincts of the future about them, care less and less about drilling regiments, and more and more about promoting science. The trials of strength in this noble contest lie at present chiefly between the two great divisions of the Anglo-Saxon race. England by insular position, and America by her geographical remoteness, stand tolerably free from the wear of intellect and waste of material means, which are daily seen in the political struggles of continental Europe; and they are as regards each other, therefore, on equal and fair terms of competition. With the shuttle England might be conquered, even while her hearts of oak defied the world. A French army on the coast of Devonshire or Kent might prove a passing evil; but a combina-

tion of natural and mechanical advantages secured to the workshops of the United States would be utter and irretrievable ruin. Thus far, the shuttle of Manchester beats the shuttle of Lowell; hitherto, the steam vessel of Liverpool has outsped that of New York. But the forces are so nearly matched as to lend all the charm of an uncertain issue to the struggle. Especially is this the case with the ocean steamers. In rivers, lake, and coast navigation, America has long carried away the palm of victory. The boats on the Rhine, the Elbe, the Clyde, the Thames, and the Scheldt are not for a moment to be compared with the "floating palaces" on the Hudson, the Delaware, and the Potomac, either for rate of sailing or for magnificence of fitting up. We have been credibly told of vessels steaming down the Mississippi at the rate of twenty-five miles an hour! But in ocean navigation, longer practice and equal enterprise still keep us slightly ahead of our energetic descendants.

We are proud of our rivalry. To the general reader at home, it is next to impossible to convey an adequate idea of the interest which the contests between the English and American mails excite in Boston, New York, and Philadelphia. Each run is carefully noted and compared, fears are excited, hopes raised by every voyage, and half a dozen hours in the length of a trip of three thousand miles is thought a considerable variation. The struggle for mastery at this moment lies between the English Mail *Asia* and the American Mail *Atlantic*; and the recent voyage of the *Asia* was the quickest ever yet performed. This passage from New York to Liverpool was made in ten days, four hours, and five minutes; being four hours and fifteen minutes less than the best voyage eastward made by the *Atlantic*. The New Yorkers are building still more powerful vessels for this line of Service. The prize is a great one. The fleetest vessels must carry out letters, orders, news, government despatches, and, having the prestige of scientific excellence and success, will generally command a choice of the passenger traffic.—*Athenæum*.

### NAVAL FORCES AT HOME.

[From the United Service Gazette.]

#### DEVONPORT.

*Commander in Chief*—Admiral Sir Wm. Hall Gage, G.C.B.—*Commander of Ordinary*.—Commodore Lord John Hay, C.B.

<i>Ships.</i>	<i>Gns.</i>	<i>Men.</i>	<i>Commanders.</i>	<i>Service, &amp;c.</i>
Impregnable .....	78	207	Capt. Sir T. Maitland ...	Stationary Flag Ship.
St. George(120).....	10	554	Capt. Nias, C.B.....	Depot of Ordinary (flag)
Bellerophon .....	71	303	Capt. Lord F. Paulet ...	Refitting.
Indefatigable .....	50	500	Capt. Smart, R.N.....	Refitting.
Calliope .....	24	200	Capt. Sir E. Home .....	Fitting for New Zealand
Penguin .....	6	76	Capt. Etheridge .....	For Coast of Africa.
Pandora .....	6	60	Com. B. Drury .....	For New Zealand.
Nautilus .....	6	150	Lieut. Dolling .....	Apprentices' Tender.
Sylph .....	4	20		Tender to flag ship.
<i>Steamers.</i>	<i>h.p.</i>			
Sampson .....	467	6	210 Capt. L. T. Jones .....	Fitting for C. of Africa.
Volcano.....	140	4	80 Com. Rivers .....	For Coast of Africa.
Bloodhound.....	150	1		Tender to Sampson.
Confiance.....	100	1	20 Master Martin (a) .....	Tender to Flag ship.
Avon .....	160	1	20 Second Master A. Veith	Tender to Flag ship.

## PORTSMOUTH.

*Commander-in-Chief*—Admiral the Hon. Sir Thomas Bladen Capel, K.C.B.  
*Commander of Ordinary*—Rear Admiral Superintendent Prescott, C.B.—*Superintendent of the College*—Capt. Chads, C.B.—*Superintendent of Packets, Southampton*—Capt. A. L. Corry.

<i>Ships.</i>	<i>Gns. Men.</i>	<i>Commanders.</i>	<i>Service, &amp;c.</i>
Victory (104).....	22	176 Capt. F. P. Blackwood...	Stationary Flag ship.
Britannia (120).....	10	482 Capt. R. A. Yates.....	Depot flag ship.
Excellent .....	46	693 Capt. H. D. Chads, C.B.	Gunnery ship.
Amphitrite .....	25	240 Capt. C. Frederick .....	Fitting.
Vengeance.....	84	330 Capt. Lord E. Russell ...	Ready in harbour.
Seaflower .....	6	28 Lieut. Fletcher .....	Tender to Cuckoo.
Rolla .....	6	150 Lieut. W. H. Fenwick...	Apprentices' tender.
Fanny.....	4	19 Master J. Scarlett (a) ...	Tender to flag ship.
Fantome.....	12	125 Com. E. H. Gennys .....	For New Zealand.
<i>Steamers. h.p.</i>			
Victoria & Albert	430	2 118 Capt. Ld. A. Fitzclarence	Royal Yacht.
Blenheim (sc) ...	450	60 293 Capt. Henderson, C.B. ...	Harbour.
Arrogant (sc) ...	360	46 450 Capt. R. S. Robinson ...	Do.
Cuckoo.....	100	2 34 Com. Lefebvre.....	Chaunel Islands.
Hecate.....	240	6 135 Com. W. S. Hand .....	Ready.
Fairy (st).....	128	Master D. N. Welch .....	Royal Yacht Tender.
Elfin .....	40	Master A. Balliston (a) ...	Royal yct. despatch tdr.
Sprightly.....	100	29 Master J. Allen (a) ...	Tender to flag ship.
Echo.....	104	Master Hardman (a) ...	For New Zealand.

## FALMOUTH AND BRAZIL PACKETS.

<i>Ships.</i>	<i>Gns. Men.</i>	<i>Commanders.</i>	<i>Service, &amp;c.</i>
Linnet.....	6	44 Lieut. T. James.	Left Falmouth for Rio.
Peterel .....	6	44 Lieut. T. Creser.	Do.
Seagull .....	6	44 Lieut. J. Smail.	Do.
Astrea.....	5	13 Master W. Yeames.	To be paid off.

## SHEERNESS.

*Commander-in-Chief*—Vice Admiral the Hon. G. Elliott, C.B.  
*Superintendent of the Packets at Dover*—Com. T. Baldoock.

<i>Ships.</i>	<i>Gns. Men.</i>	<i>Commanders.</i>	<i>Service, &amp;c.</i>
Ocean (80).....	46	160 Capt. Greville .....	Stationary Flag ship
Monarch.....	84	300 Capt. M. Seymour .....	Depot ship of Ordinary
Trafalgar .....	120	372 Capt. M. Stopford .....	Ready.
Hercules .....	12	140 Master R. Fulton .....	Greenhithe.
Hart .....			Tender to Flag ship.
<i>Steamers. h.p.</i>			
Trident .....	350	2 65 Lieut. Risk.....	Scotch fisheries.
Garland .....	17	1 128 Lieut. E. Wylde .....	Refitting at Woolwich
Vivid .....	17	1 128 Master L. Smithett (a) ...	Dover.
Violet .....	17	1 128 Master R. Sherlock (a) ...	Dover.
Undine .....	5	1 106 Master Warman (a).....	Dover.
Princess Alice...	16	1 120 2nd Master W. S. Rutter	Dover.
Myrtle .....	50	25 2nd Master G. Bourchier	Tender to Flag ship.
Wildfire .....	75	2 23 2nd Master Brockman...	Tender to Flag ship.
African .....	90	2nd Master Gill .....	Tug tender, Woolwich.

## CHATAM.

*Commander of Ordinary*—Capt. Peter Richards, C.B.

<i>Ships.</i>	<i>Gns. Men.</i>	<i>Commanders.</i>	<i>Service, &amp;c.</i>
Boscawen .....	70	317 Capt. Richards, C.B. ....	Depot ship of Ordinary.
Cumberland .....	70	650 Capt. G. H. Seymour ...	Fitting for West Indies.
Spy .....	3	65 Lieut. Hill.....	Fitting for Africa Coast.



## COAST OF IRELAND.

Rear Admiral—Manley Hall Dixon.

<i>Ships.</i>	<i>Gns.</i>	<i>Men.</i>	<i>Commanders.</i>	<i>Service, &amp;c.</i>
Sparrow .....	4	42	Com. Fraser .....	Queenstown.
Wizard .....	4	100	Lieut. Barnard .....	Apprentices' tender.
Gipsev .....	1	11	2nd Master J. North ...	Tender to Flag ship.
<i>Steamers. h.p.</i>				
Hogue .....	450	60	500 Capt. M'Dougall .....	Waiting orders
Ajax (sc).....	450	58	250 Capt. M. Quin .....	Flag ship, Queenstown
Advice (sc).....	80	1	12 Lieut. Munton .....	Tender
Shearwater.....	160	4	50 Lieut. E. E. Turnour ...	Queenstown.
Lucifer.....	180	2	55 Lieut Jackson .....	Galway.
La Hogue (sc) ..	450	60	500 Capt. Macdougall.....	For Queenstown.

## WOOLWICH.

Commodore—Henry Eden.

<i>Ships.</i>	<i>Gns.</i>	<i>Men.</i>	<i>Commanders.</i>	<i>Service, &amp;c.</i>
Fisgard .....	26	188	Commodore Eden .....	Flag ship.
Crocodile .....		26	Lieut. Greet .....	Receiving ship, Tower
Apollo .....	8	116	Com. Rawstone .....	For West India.
Athol .....	2	60	Lieut. W. A. R. Pearse	Loading at Deptford.
Resistance .....	6	60	Master M. Bradshaw ...	Malta, Dec. 8.
<i>Steamers. h.p.</i>				
Lightning .....	100	2	12 Master J. E. Petley .....	Tender to Fisgard.
Black Eagle ...	260	38	Master S. B. Cook .....	Admiralty Yacht.
Monkey .....	80	2	2nd Master.	Tender to Fisgard.
Tigmy .....	80	16		Tender at Deptford.

## NAUTICAL NOTICES.

## DEEP SOUNDINGS.

SIR.—When in 1837 or 1838, Sir John Ross took his voyage to the South Seas it is stated in his book, that in south lat. 20°, and west long. 20°, or thereabouts, they sounded to the depth of 4,600 fathoms and found no bottom. In your next number will you be so obliging as to give some information of this extraordinary statement, or if it has been done before will you refer us to the volume of your Magazine. We have not the book—"Ross's voyage to the South Seas," in this library. It must have been a powerful apparatus to have got to such a depth.

Your obedient,  
Of the Hull Mechanics Institute.

To the Editor of the Nautical Magazine.

[On several occasions, in the progress of this Journal, we have given accounts of deep water soundings obtained by H.M. ships in different parts of the world, but it is not many years since the process was adopted which has been so successful. The difficulty was first to get a line down to a great depth, owing to friction and resistance arising from increased density in the depths below, which required a considerable weight to overcome. We have ourselves witnessed the loss of many hundred fathoms of whale line in attempting to recover a lead after it was down arising from those causes. The process at present adopted was devised by Admiral Sir Francis Beaufort the Hydrographer to the Admiralty, and was first employed by Sir James Ross by his direction in 1840, an account of which and the method pursued will be found in our volume for that year, p. 507. It will be found that the depth he then measured was 2,677 fathoms, above two miles and a half. In our volume for 1843 (p. 471) will also be found another attempt at deep soundings by Sir James Ross when 4,000 fathoms found no bottom. Similar attempts have

been made by Capt. Sir Edward Belcher and Capt. Barnett, which will be found recorded in our later volumes. The weight used was generally a broken pig of ballast, and the line three or four yarn spunyarn.—Ed. N. M.]

**HENDERSON BANK, Atlantic.**—In the December number of the *Nautical*, 1850, we repeated an important communication, made to that valuable Journal the *Shipping and Mercantile Gazette*, reporting Soundings in the Atlantic to the northward of the Azores. We noted at the time an ambiguity in the account, and have since received the following letter from the Commander, by which we are enabled to secure an authentic statement of an interesting piece of Hydrographic information. The fact of two soundings of 48 and 50 fathoms being obtained at three miles distance apart, and again 70 fathoms at another three miles distance, would imply a bank of considerable extent on which there may be even less than these depths. We trust that some favourable opportunity will be taken for extending these soundings, and in the meanwhile the following is the letter of the Commander to which we have alluded.

*Leith, 30th December, 1850.*

That the soundings I reported were accurately taken may be relied on, as I have had much practice, and as to their positions I can only say that they were as carefully found as my means could afford.

During my passage from Port Louis to St. Helena, I had frequent opportunities of finding the longitude by Lunar observation, and found fair agreement between the results, and the longitude per chronometer, and both at St. Helena and at Ascension found that the chronometer had kept to the rate. On the 23rd October, I made Fayal, when having good observations I found the rate unaltered.

On 28th October, at noon, we were in lat.  $42^{\circ} 41' N.$ , and long.  $28^{\circ} 45' W.$  steering N.W.b.W. (true); with light variable winds from the eastward, and fine clear weather. Having previously observed that the water had changed colour about 10 A.M., and since that there was a sensible ripple, at 2 P.M. I sounded, and found hard bottom at 48 fathoms: the distance run since noon about six miles.

At 4 P.M., having steered same course in lat.  $42^{\circ} 49' N.$  and long.  $29^{\circ} 4'$  sounded and found 50 fathoms, and at 6 P.M. having steered same course and run about six miles found 70 fathoms, rocky bottom.

From observing the change of colour and ripple at the surface of the water at 10 A.M., and having sailed from that time up to 6 P.M. nearly north-west, the bank may probably extend considerably to the south-east of the position where I took my first sounding at 2 P.M.

Not having seen either of the publications you allude to, I have not the means of obviating the alleged discrepancy, which being well aware of the importance of accuracy in such statements I would most willingly have done.

Your most obedient servant,

ROBERT HENDERSON.

*To the Editor N. M.*

**MORE ATLANTIC VIGIAS**—*The Leontina and Anfitrite Breukers.*—A correspondent has sent us the following translation from a page pasted into the third edition (1837) of the "Derrotero de las Antillas." "Hydrographic Direction."

*Notice to Captains of Vessels*, using the General Chart of the Atlantic Ocean, published by this establishment in 1837.

They should insert in it a Shoal or Vigia, discovered at 3h. P.M. on the 21st May 1846, in fine steady weather by D. Gabriel Perez, Captain of the Spanish merchant ship, *Leontina*, in lat.  $38^{\circ} 27' N.$  and long.  $31^{\circ} 39' 37'' W.$  of Cadiz, [and allowing a difference of longitude of  $6^{\circ} 17' 33''$  in long.  $37^{\circ} 57' 10'' W.$  of Greenwich—*Translator*] having observed a short time

after seeing the rock (*escollo*), and deserves confidence from the accuracy which the chronometer showed in making Graciosa (Azores); and though well founded reasons incline us to suppose this danger to be the same which is inserted in the same chart in the same latitude, with the name of Chantereau's Vigia, or the Princess Isabella Shoal, 1721 and 1828, it (*i. e.* Chantereau's Vigia) is retained in the chart, adding, *situation uncertain*, to insure the necessary vigilance and caution in that vicinity, until we obtain better authority, to expunge it from the chart, or to continue it as certain.

*Madrid, 4th July, 1846.*

After the preceding note was printed we have received an official notice, that from the 10th to 12th of May of the same year, the Spanish merchant ship *Anfitrite*, sailing from Havana to Cadiz, discovered a breaking of the water of about a cable's length in extent from N.E. to S.W. which they placed in lat.  $35^{\circ} 50' N.$ , and long. by observation  $59^{\circ} 46' 38'' W.$  of Cadiz, [Or  $66^{\circ} 04' 11'' W.$  of Greenwich—*Translator.*]

**THE PORGAS BANK.**—This bank which has been continued in our charts from days of yore, lying between the Cape Verd Islands and the African coast, and searched for in vain by the *Leven* in 1819, has been accidentally saved from disappearing from the chart entirely, by the *Birkenhead* steamer, Mr. John Aylen, on her late voyage to Ascension. We understand Mr. Aylen obtained soundings at 86 fathoms on it, the position of which we shall give in our next.

**FLORIDA LIGHT SAND CAY.**—It is stated by a correspondent of that valuable seaman's paper, *The Shipping and Mercantile Gazette* of the 15th inst., that the revolving light of Sand Cay is now a temporary fixed light, moved three-quarters of a mile further to the east, and *cannot be seen until close to.*

**ADMIRALTY CIRCULAR, No. 69.**—*Entry of men from Merchant Vessels.*—The following Circular has been issued to all Commanders-in-chief, and Captains of Her Majesty's ships and vessels:—

*Admiralty, September 4th, 1850.*

My Lords are pleased to direct that in future, whenever the Captains, Commanders, and Commanding Officers of Her Majesty's ships, enter men from merchant vessels, they shall report the same to the Commander-in-chief or senior officer; which report is to contain the following information, so far as it can be obtained:—

1. The name and tonnage of the ship, the name of her owners and master, and the voyage on which she is employed.
2. The regular number of her crew.
3. The number of the men, and their ages, who volunteered for Her Majesty's Service, and whether they had previously served in the Navy.
4. The cause of their leaving the ship; whether the master made any objection to their leaving, and if so, on what grounds; and whether men could be obtained at the place to fill up the crew.
5. Whether the men on joining Her Majesty's Service received their arrears of pay and clothing; and the amount of their pay, per month, to be stated.

The report forwarded to the Commander-in-chief, or senior officer, is to be transmitted, with his observations thereon, to the Secretary of the Admiralty.

By command of their Lordships,

J. PARKER.

## LXXVI.

*For converting Geographical Miles of 6080 feet into Kilometres, and  
Kilometres into Geographical Miles.*

1 Geographical Mile = 1·85315049 Kilometres.  
1 Kilometre = 0·53962158 Geographical Mile.

Geo. Mile of Kilometres.	Kilometres and dec. parts.	Geo. Miles and dec. parts.	Geo. Mile of Kilometres.	Kilometres and dec. parts.	Geo. Miles and dec. parts.	Geo. Mile of Kilometres.	Kilometres and dec. parts.	Geo. Miles and dec. parts.
1	1·853	0·540	40	74·126	21·585	79	146·399	42·630
2	3·706	1·079	41	75·979	22·124	80	148·252	43·170
3	5·560	1·619	42	77·832	22·664	81	150·105	43·709
4	7·413	2·158	43	79·685	23·204	82	151·958	44·249
5	9·266	2·698	44	81·539	23·743	83	153·811	44·789
6	11·119	3·238	45	83·392	24·283	84	155·665	45·328
7	12·972	3·777	46	85·245	24·823	85	157·518	45·868
8	14·825	4·317	47	87·098	25·362	86	159·371	46·407
9	16·678	4·857	48	88·951	25·902	87	161·224	46·947
10	18·532	5·396	49	90·804	26·441	88	163·077	47·487
11	20·385	5·936	50	92·658	26·981	89	164·930	48·026
12	22·238	6·475	51	94·511	27·521	90	166·784	48·566
13	24·091	7·015	52	96·364	28·060	91	168·637	49·106
14	25·944	7·555	53	98·217	28·600	92	170·490	49·645
15	27·797	8·094	54	100·070	29·140	93	172·343	50·185
16	29·650	8·634	55	101·923	29·679	94	174·196	50·724
17	31·504	9·174	56	103·776	30·219	95	176·049	51·264
18	33·357	9·713	57	105·630	30·758	96	177·902	51·804
19	35·210	10·253	58	107·483	31·298	97	179·756	52·343
20	37·063	10·792	59	109·336	31·838	98	181·609	52·883
21	38·916	11·332	60	111·189	32·377	99	183·462	53·423
22	40·769	11·872	61	113·042	32·917	100	185·315	53·962
23	42·622	12·411	62	114·895	33·457	150	277·973	80·943
24	44·476	12·951	63	116·748	33·996	200	370·630	107·924
25	46·329	13·491	64	118·602	34·536	250	463·288	134·905
26	48·182	14·030	65	120·455	35·075	300	555·945	161·886
27	50·035	14·570	66	122·308	35·615	350	648·603	188·868
28	51·888	15·009	67	124·161	36·155	400	741·260	215·849
29	53·741	15·649	68	126·014	36·694	450	833·918	242·830
30	55·595	16·189	69	127·867	37·234	500	926·575	269·811
31	57·448	16·728	70	129·721	37·774	550	1019·233	296·792
32	59·301	17·268	71	131·574	38·313	600	1111·890	323·773
33	61·154	17·708	72	133·427	38·853	650	1204·548	350·754
34	63·007	18·347	73	135·280	39·392	700	1297·205	377·735
35	64·860	18·887	74	137·133	39·932	750	1389·863	404·716
36	66·713	19·426	75	138·986	40·472	800	1482·520	431·697
37	68·567	19·966	76	140·839	41·011	850	1575·178	458·678
38	70·420	20·506	77	142·693	41·551	900	1667·835	485·659
39	72·273	21·045	78	144·546	42·090	1000	1853·150	539·622

## WIDOWS PENSIONS.

[From the Naval and Military Gazette.]

Rank of the Officer.	Widow's Pensions.	Widow's Pension.		Compassionate Allowances to Legitimate Children.		Aggreg. Allowances to Family of any one officer not to exceed	
		If Husband killed in action.	If drowned or other violent death.	If Officer was killed in action.	If Officer was not killed in action.	If killed in action.	If not killed in action.
	£	£	£	£	£	£	£
Flag Officer .....	120	Accegd. to the case.	Ditto	25 to 40	16 to 20	500	300
General Officer .....	...						
Captain .....	90	200	120	18 to 25	14 to 16	350	The amount of the half-pay of the rank and standing of the officer, at the time of his death, to be in these cases maximum of the allowance to his family.
Colonel .....	90						
Capt. under 3 yrs. stand	80	120	90	16 to 20	12 to 14	250	
Lieutenant-Colonel .....	80						
Commanders .....	70	90	80	12 to 16	9 to 12	150	
Majors .....	70						
Med. Ins. of Hos. & Fl.	60	80	70	8 to 14	5 to 10	100	
Sec. to Com.-in Chief...	50						
Deputy Medical Insp...	50	70	60	...	...	90	
Lieuts., Masters R.N. ...	50						
Captains R.N. ....	50	60	50	...	...	...	
Chaplains .....	40						
Junior Secretaries .....	40	...	...	...	...	...	
Surgeons .....	40						
Paymaster .....	40	Nil	Nil	...	...	...	
Naval Instructors .....	40						
Mates R.N. ....	Nil	60	50	8 to 14	5 to 10	100	
First Lieutenants, R.M.	40						
2nd Masters, Pas. Clks.	Nil	50	40	Nil	Nil	Nil	
2nd Lieutenants R.M. ...	36						
Assistant Surgeons R.N.	36			5 to 10	5 to 10	100	
						90	

THESE pensions and allowances are taken from the *New Navy List* of November, 1844, and February, 1845, which published them from the Queen's Naval Regulations. "Tristram," here asks an interesting question: who supports the "Admiralty *Navy List*?" The Navy and Marines. "What is the price of the monthly *Army List*?" One shilling and six-pence "Are not the Military pensions and compassionate allowances occasionally published therein for the general information of widows, orphans, mothers, and sisters of Military officers?" Yes. "Then why are not the similar pensions and allowances published in the *Navy List* "by Authority," which costs *two shillings and six-pence*, for the Navy's reference?" Because that would be the fair play of equity itself, which "Murray" does not so liberally promulgate for the interest of the Navy as Parker and Co., for the Army.

The third column, "If drowned, or other violent death in an immediate act of duty," in the Naval scale of widows' pensions, is filled up in the Military scale by *special pensions* "To the Mothers or Sisters of officers killed in action," of equal amount to widows' ordinary pensions, which might tend to illustrate the nation's benevolence and succour to these relatives of Military officers, which are withheld from those of Naval and Marine officers, except under such extraordinary cases of bereavement that may not arise in a succession of generations; therefore, the clauses relative to the pensions of

mothers and sisters of Military officers should have been published in the *Army List* of October, last, to show that the pensions of the relatives of Naval, Marine, and Military officers are equalized.

“Mothers.—Where an officer is killed in action, and leaves no *widow* nor legitimate child, but leaves a mother who is a widow in distressed circumstances, and who was dependent upon him, the mother shall receive a pension equal to the ordinary rate of widow's pension attached to the rank which her son held at the time of his death; but if such mother shall herself be in the receipt of a pension as an officer's widow, or shall have any other provision of any kind from the public—in that case no allowance will be made to her on account of her son, unless she gives up the other pension or allowance, and the pension given to a mother on account of her son will be forfeited on re-marriage.”

“Sisters.—Sisters of officers are not eligible to any allowance, unless under very special and extraordinary circumstances, to be judged of by the Lords of Her Majesty's Treasury. The allowance will not exceed that which would be given to a mother, and will not be given in any case unless the officer shall have fallen in action, or shall die of wounds received in action within six months after being wounded, and shall have no widow, legitimate child, nor mother; nor unless the sister shall be an orphan, having no surviving brother, and shall have been dependent for support upon the officer killed. Every pension so granted will cease when the person receiving it shall marry, or be in any other manner sufficiently provided for.”

By article 4. “The widows of officers (except Chaplains) who shall have married after the 31st of December, 1830, are only entitled to the pensions of their respective classes in the event of their husbands having been on the list of Commission or Warrant Officers, or on the list of Naval Instructors, ten complete years, except the husband be killed in action, or lose his life in the execution of the service.”

“Tristram,” in the *United Service Magazine*, had the honour of addressing the ladies of England (because “the gentlemen” were, as adders, deaf to the claims of the widows of Naval officers) on the dire and singular of hardships—that of depriving the widows of Captains, Commanders, Lieutenants, Masters, and Purser, of pensions unless their husbands had been ten years “commissioned,” or “warranted.” As their subordinate ranks of mate, second master, and passed clerk were not “commissioned” until late years, their widows were in many instances, and under the most afflicted cases of bereavement, left destitute, with their children, in that country in whose defence and glory their husbands and fathers, in superior rank, had fought and bled—when the widows of the Marine Subalterns and Naval Assistant-Surgeons were enjoying pensions of comparative independence, because their husbands were *commissioned* or warrant officers from the first dates of their appointments.

The Navy are indebted to their Sovereign Lady Victoria, for redressing this peculiar naval grievance, by creating the naval subordinates “commission officers,” who, dying in the superior rank of captain, commander, lieutenant, master, or purser, after *ten* complete years from their first commission as mate, second master, or passed clerk, their widows will be entitled to pensions, and their orphans to compassionate allowances, by virtue of the true intent and meaning of the “4th article of the rules and orders for granting pensions, to the widows of commission officers of the Royal Navy,” as proved in late cases of Naval lieutenants dying of less than ten years' seniority in their superior rank. “God save that Queen,” of the ladies of England, who has bestowed the country's *mile* equally on the sailor's as on the soldier's widow, is the prayer of

FRIEND TRISTRAM.

*Navy Club, 1765, January 6th, 1851.*

## THE WESTERN ARCTIC EXPEDITION.

Accounts have been received from the *Enterprise*, Capt. Collinson, to the end of August, in Bhering Strait. It appears that leaving Honolulu on the 30th of June, the *Investigator* was off Cape Lisburne looking for the *Plover*, on the 9th of August, and without seeing her, stood on for Point Barrow. From thence Capt. Collinson took advantage of a favourable opening in the ice, and stood to the northward, when on the 19th of August, in lat.  $72\frac{1}{2}^{\circ}$  in the meridian of that point he was obliged to retrace his course and having rounded a compact mass of ice to the westward, he again penetrated to the north, as far as lat.  $73^{\circ} 20'$ , when his progress was again prevented by the ice on the 23rd of August; this being the furthest northern latitude attained by any ship from Bhering Strait. The season was advanced, and Capt. Collinson could find no wintering place for the *Investigator*, east of Kotzebue Sound, owing to her draft of water. On arriving again off Clarence Harbour near Cape Lisburne, Capt. Collinson was much surprised to find that the *Investigator*, Capt. Maclure, had passed Cape Lisburne before him, and had been seen by the *Plover* off the Seahorse Islands, to the westward of Point Barrow, on the 4th of August; Capt. Maclure's intention being to press on to the eastward for Cape Bathurst, at the mouth of the Mackenzie River to winter. From this wintering position, he intends next summer to make the best of his way to the north-east for Banks Land, close to which is Melville Island. This is a bold measure and well deserves success, but one which will be found easier to project than to execute. Still the chances of fair wind, and fair leads in the ice may be found, and should Capt. Maclure be successful in reaching Melville Island, he will have performed a feat not hitherto done, and the first appearance of his ship, by Capt. Austin's party, will be mistaken in all probability for one of Franklin's.

Returning to Capt. Collinson, on the 31st of August he was off Cape Lisburne in Bhering Strait, intending to go next day to Icy Cape and then make the best of his way to Hongkong, for the winter months. From thence he would return in the spring to Bhering Strait. The *Herald* was at Honolulu on the 16th of October, to sail about the end of the month for Hongkong and England. The *Plover*, Com. Moore, remained in Bhering Strait, and had found a secure wintering place in Grantley Harbour near Cape Clarence.

## NEW BOOKS.

VOYAGE OF THE PRINCE ALBERT IN SEARCH OF SIR JOHN FRANKLIN.—By W. Parker Snow.—London: Longman, & Co.

The voyage of this little vessel seems by almost universal consent to be considered one of the most remarkable in the annals of Arctic navigation. The season was unusually open, and Capt. Forsyth made the best of it, handling his craft with boldness, skill, and judgment.

Mr. Snow's volume, abounds with interesting anecdotes of the several expeditions under Capts. Austin, Ommanney, Penny, De Haven, and though last, not least, the gallant old Sir John Ross, that "ancient mariner" as he has been aptly termed, and gives us an interesting narrative of "every day life in the Arctic Seas." It is, however, confined to the summer months, as the *Prince Albert*, was absent only four months, and did not winter there, finding all the harbours at the entrance of Prince Regent Inlet, entirely blocked with ice.

Capt. Forsyth's object was to explore the lower or southern part of the inlet, and to send boat parties round to Cape Bird, the point whence Sir James Ross was compelled to return to his ships, after performing by far the longest and most fatiguing journey, that has hitherto been attempted on foot in the Polar Regions.

It is much to be regretted that the *Prince Albert* unavoidably failed in her object, as it is impossible for any one to dispute the arguments advanced by Lady Franklin, in support of the necessity of searching in that district, and it would appear from the narrative, that she is likely again to send forth her little vessel next spring to make another attempt, when we hope Mr. Snow will accompany her.

In our limited space we cannot now quote from Mr. Snow's book, but we can strongly recommend it, as a work of much interest and considerable merit.

Capt. Forsyth took his vessel as far as Fury Beach, where he found the inlet blocked with impenetrable masses of solid packed ice, stretching across it. As he could not proceed further south, he returned north for Barrow Strait, crossing to the entrance of the Wellington Channel, and brought home from Cape Riley, those deeply interesting relics of Franklin's expedition, with which every one is now familiar, and which have kept alive the hopes of many warm hearts, and relieved them from their fears that the ships had prematurely foundered in Baffin Bay. The voyage of the *Prince Albert* has at least brought information which totally *disproves* this; and she has given us all that is known of the progress of Capt. Austin's squadron, as well as that of De Haven, Penny, and Ross. But for him we should have been in ignorance of their whereabouts, the *North Star* not having gone anywhere near the Wellington Channel. We ought not to omit to mention, that the services of Capt. Forsyth, on this short but anxious and hazardous cruise, were rendered gratuitously; but we trust he will meet with his reward.

**NARRATIVES OF THE SHIPWRECKS OF THE ROYAL NAVY; BETWEEN 1793 AND 1849.**—*Compiled principally from Official Documents in the Admiralty by W. O. S. Gilly:—Parker, London.*

Although not an attractive book, this is at least a useful one. We can turn to it for historical (and by this we mean correct) information on the unwelcome subject of the losses by wreck, which our Royal Navy has sustained; and we can depend on the information when we have it as proceeding from an official source, the records of those wrecks in the Admiralty. If it reveals many a painful tale of suffering and endurance, accompanied by gallant deeds of daring,—if here we find the well known spirit of the British seaman tried to its utmost bearing, too often to be quenched for ever, sad and melancholy though it be, we find recorded with all this suffering, traits of his character, sparkling like gems with brilliant light, and reflecting those virtues, which with all his faults he is well known to possess.

Mr. Gilly has performed his task with credit. Under the able superintendance of his father, the Vicar of Norham, it could not well be otherwise; for this gentleman's predilections as well as nautical experience had well adapted him for such work. In the introduction with which Dr. Gilly has prefaced the book he takes a masterly view of the whole subject before him. And if he has done justice to it, in pointing out the noble traits of character in our seamen, he has done himself no less credit in tracing back to its source the cause, of that self devotion which is the admiration of every one. The contrast he has drawn between the wrecks of the *Medusa* and the *Alceste*, is a picture not to be surpassed by any hand. But we must leave this, and the rest of the interesting narratives which it contains for the present, satisfied that this useful little book will soon find its way into all libraries that have any pretensions to naval matters.



REMINISCENCES OF A NAVAL OFFICER DURING THE LATE WAR:—*With Sketches and Anecdotes of distinguished Commanders, by Capt. A. Crawford, R.N.*—2 vols., Colburn.

A Naval Officer's recollections of events during the late war, of which he was an active witness, cannot be otherwise than stored with histories of daring adventure and achievements, highly interesting and illustrative of that kind of life in a man-of-war, to which the Naval service has long been a stranger.

Those excellent officers, the late Sir Edward Owen, and Sir Benjamin Hallowell Carew, gave ample opportunity to the author for storing his mind with such scenes in the Channel and Mediterranean, during the protracted struggle, which France maintained with this country, when she was ruled by Buonaparte. They are related with all the fervour of one who took his part in them, and anxious to leave on record his tribute of respect for the noble commanders under whom he served. In this, Capt. Crawford has well succeeded, and he can look with satisfaction on the result of his labours. Here is one of those scenes which he relates, and of which the science of Sir William Harris has happily prevented the recurrence.

"In October the *Sultan* was sent to Mahon to water, and during one of the few days we remained there she experienced one of those fearful visitations that are calculated to arrest the attention of the most thoughtless and unreflecting, and strike every beholder with wonder and with awe. The early part of the morning had been wet, but the rain ceased in the course of the forenoon and the sails were loosed to dry. The boats had returned from watering, and the ship's company were at dinner, when heavy clouds to the south-east warned the first lieutenant to furl. My station was the poop, and the more than common blackness of the cloud, which was right ahead, and its threatening aspect, rivetted my attention.

"The men had been a short time on the yards, and were on the point of laying in, when from it came one bright and dazzling flash, followed as quickly as the report follows the discharge of a gun, by a loud and deafening peal of thunder, reverberating from shore to shore, so that the ship actually shook and trembled beneath the concussion. Attracted by the head spars the lightning followed the direction of the jib-booms and bowsprit, without touching them, exhausting its force in the head and forecabin. But though it left the spars uninjured, its flight was marked in other respects with the most heart-rending and appalling consequence. Not one of the men that were furling the head sails escaped without a wound. In an instant of time the living spirit of nine human beings was quenched for ever, and more than that number were seriously injured. Four of the killed dropped without a struggle into the water, and the remaining five, that a moment before were fraught with animated exertion, now lay black and stiffened corse, their feet resting on the horses, and their chests pressed against the jib-booms as if still in the act of furling sails. For one moment, the twinkling of an eye it might be, a spot, the size of a large metal button, burned on the breast of one of the unhappy sufferers, with white heat intensity, and then became extinct.

"When the bodies of the men that were killed were brought on deck, they were found discoloured almost to blackness, and swollen to double their ordinary size. Those which fell into the water rose to the surface on the following morning, so soon had decomposition set in."

Such events as these are no more heard of in Her Majesty's ships: from such scenes and wholesale destruction of life the excellent lightning conductors of Sir William Harris, (the first account of which found its way into the world through the pages of this journal), have exempted all ships since they have been adopted. And it is only in mercantile shipping that we hear of such events being perpetuated. But a disciple of the great lightning protector of our ships would ask, what had the "head spars" of the *Sultan*, to do with "attracting" the lightning? which "followed the direction of the jib-

booms." No more attraction for it he would answer, than the trough on the house that carries off the rain water, because it lies in its way—and the head spars of the *Sultan* were in the way which the lightning pursued from the cloud of "more than common blackness," approaching from ahead!

Capt. Crawford's "Reminiscences," are full of interesting and historical anecdote, relating to the most eventful time England ever saw.

**LOSS OF H. M. S. FLAMER.**—We regret very much to learn that the *Flamer* steam-vessel, Com. St. Leger, was lost on the coast of Liberia, in November last. It appears that she had left Princes Island for Monrovia, and from mistaking a native light for the light of this place, was steering for it, when she found her mistake out too late, and took the ground before it could be remedied. The current setting down the coast from the north-west appears to have been one principal cause of this disaster, and by which she was drifted about twelve miles to the eastward of her destination.

The *Indefatigable* appears unfortunately to be troubled with a restive and disorderly crew. Sometimes an excuse is found for an irregular crew in the severe conduct of the commander, or the inferior qualities of the ship as a sailer, or the station to which she is destined. In the present case, however, none of these evils are alleged, but from some cause not satisfactorily explained, upwards of 100 of the crew have come ashore within the last week, on what is nautically termed "the new act," and have been indulging in a state of beastly drunkenness, and disturbing the peace and quiet of the town. Some of them, however, have been apprehended by the police constables, to whom the full descriptions of all the deserters have been forwarded. A rumour is in circulation that the dissatisfaction has arisen from the Government regulations coming into operation on the 1st inst., respecting the allowance of grog. It is evident, however, from the satisfaction these regulations have given to the well-disposed, that this desertion has not arisen from any necessity there is for the use of grog on board ship, but simply an excuse which the dissolute will always have recourse to in order to gratify their cravings for that which has been the source of so much misery in the Navy. We believe the new regulations will be looked upon by the majority of seamen as a great boon, the Government actually allowing them more money than the spirit would cost them. We should have supposed that the increased comforts which a seaman will be enabled to render his wife and family from the increase of 3s. 6d. per month to his pay (no small addition to a seaman's half pay) would have afforded him great gratification. But from the known character of the men of the *Indefatigable*, it is evident that this dissatisfaction will only arise among the dissolute and most degraded of their class. On the police attempting to take some of the deserters into custody a day or two since, they all drew their knives, and swore they would murder them if they touched them; some of them, however, were secured. The sailing of the *Indefatigable* is, therefore, delayed, and damage to the country sustained by the determined drunken habits of those seamen, a strong proof that the present alterations are much needed.—*Plymouth Journal*.

#### NEW CHARTS.

Published by the Hydrographic Office, Admiralty, in January, 1851, and sold  
by J. D. Potter, 31, Poultry. s. d.

ENGLAND, WEST COAST, Sheet 2, Capts. Denham and Williams, R.N. 1846. 2 6  
IRELAND, DITTO. VALENTIA HARBOUR, Capt. Wolfe, R.N. 1849. 1 0

		<i>s. d.</i>
IRELAND, WEST COAST, PORT MAGEE, <i>Capt. Wolfe, R.N., 1849.</i>		1 6
SCOTLAND, PORT PATRICK, <i>Capt. C. G. Robinson, R.N. 1850.</i>		1 0
CARDIGAN BAY, (PRINCE EDWARD ISLAND,) <i>Capt. H. W. Bayfield, R.N. 1844.</i>		2 6
MABOU HARBOUR, (CAPE BRETON ISLAND,) <i>Ditto.</i>		1847. 1 0
FALMOUTH AND ENGLISH HARBOURS (ANTIGUA, WEST INDIES,) <i>Capt. E. Barnett, R.N. 1847.</i>		1 6
MATHEW TOWN, (INAGUA ISLAND, WEST INDIES,) <i>Lieut. Lawrance, R.N. 1850.</i>		1 0
ALFRED SOUND, <i>DITTO,</i>	<i>Ditto,</i>	1 0
PANAMA RAILROAD, <i>Col. G. W. Hughes, United States Engineer, 1849.</i>		1 6
WANGARURU HARBOUR, (NEW ZEALAND,) <i>Capt. I. L. Stokes, R.N. 1849.</i>		1 0
TIDE TABLES for 1851.		1 6
EDWARD DUNSTERVILLE, <i>Master, R.N.</i>		
<i>Hydrographic Office, January 22nd, 1851.</i>		

METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory  
From the 21st of December, 1850, to the 20th of January, 1851.

Month Day.	Week Day.	Barometer.		Thermometer				Wind.				Weather.			
		In Inches and Decimals.		In the shade.				Quarter.		Strength		A.M.	P.M.		
		9 A.M.	3 P.M.	9 A.M.	3 P.M.	Min	Max	A.M.	P.M.	A.M.	P.M.				
		In Dec	In Dec	°	°	°	°								
21	S.	30.23	30.23	26	36	24	38	S	S	1	1			bc	or 4)
22	Su.	30.43	30.48	31	37	30	38	W	NE	1	1			bf	bm
23	M.	30.57	30.56	30	36	28	38	W	SW	4	4			bc	bc
24	Tu.	30.43	30.55	34	35	30	36	SW	SW	1	1			od 2)	o
25	W.	30.00	30.04	37	39	34	42	NW	NW	2	2			b	b
26	Th.	30.16	30.14	36	42	32	46	SW	W	1	2			o	op (3)
27	F.	30.23	30.17	42	44	41	46	W	W	1	1			o	b
28	S.	30.28	30.25	35	44	34	45	SW	NW	2	2			b	o
29	Su.	30.24	30.14	39	46	34	47	W	SW	2	2			bc	o
30	M.	29.99	29.94	43	48	41	50	SW	SW	2	3			bc	o
31	Tu.	29.82	29.76	48	51	47	52	SW	SW	5	5			qop 2)	qop (3)
1	W.	29.74	29.73	52	53	50	54	SW	SW	6	6			qod (2)	qo
2	Th.	29.76	29.81	51	52	51	53	SW	SW	6	6			qbc	qo
3	F.	29.99	29.96	44	45	44	46	NE	NE	2	2			od 2)	or (3)
4	S.	29.87	29.79	39	45	38	46	S	S	2	4			bc	bc
5	Su.	29.59	29.55	42	43	42	44	SW	SW	1	1			bc	bc
6	M.	29.57	29.59	21	40	30	42	SE	E	1	1			bcf	bc
7	Tu.	29.57	29.50	40	46	35	47	SE	S	1	2			o	or (4)
8	W.	29.53	29.49	36	46	34	48	SW	SW	1	4			bc	o
9	Th.	29.83	29.93	36	42	33	43	SW	SW	3	1			b	bm
10	F.	29.99	29.97	43	47	33	49	S	SW	4	2			or (2)	or (3)
11	S.	30.15	30.13	48	49	46	50	SW	SW	1	2			o	od (4)
12	Su.	30.02	29.98	47	49	46	50	SW	SW	3	2			o	od (3)
13	M.	29.88	29.78	46	47	46	46	SW	SW	3	3			o	og
14	Tu.	29.58	29.43	45	44	44	46	SE	SE	2	2			bc	bc
15	W.	29.15	29.23	45	50	39	51	S	S	6	6			qbc	qo
16	Th.	29.76	29.66	40	48	37	49	S	S	1	7			b	qor (4)
17	F.	29.64	29.70	43	47	43	49	SW	SW	5	5			qbc 1)	qbc 4)
18	S.	29.93	30.03	34	42	33	43	SW	SW	2	3			b	bc
19	Su.	30.10	30.06	42	46	38	47	S	S	2	2			bc	bc
20	M.	29.90	29.75	39	42	35	43	S	S	4	5			o	qor (4)

December, 1850.—Mean height of the barometer = 30.031 inches; mean temperature = 39.6 degrees; depth of rain fallen = 1.59 inch.

London:—Hunt, Printer, Church Street, Edgeware Road.





V I C T O R I A ( R E D C A R ) H A R B O U R.  
V I E W L O O K I N G S O U T H W A R D S O F T H E P R O P O S E D R E F U G E H A R B O U R A T R E D C A R , I N T E E S B A Y ,  
A R E A 5 1 0 A C R E S , D E P T H W I T H I N A N D A T I T S E N T R A N C E 3 0 F T A T L O W W A T E R O F S P R I N G T I D E S ,

Projected by *W. A. Danks, C. E.*

THE  
NAUTICAL MAGAZINE

AND

**Naval Chronicle.**

---

MARCH, 1851.

---

THE PRECIOUS AND THE INFERIOR METALS.—*A Nautical Sketch.*

WHILST at Tahiti, Capt. Wallis, in order to discover what present would most gratify the islanders says, "I laid down before them a Johanna, a guinea, a crown piece, a Spanish dollar, a few shillings, some new half-pence, and two large nails; making signs that they should take what they liked best. The nails were first seized with great eagerness, and then a few of the half-pence, but the silver and gold lay neglected."

It may be observed that, Capt. Wallis was the first European who had had intercourse with these islanders, whether Quiros was or was not the first discoverer of Tahiti, under the name of Sagitaria in the beginning of the seventeenth century.

The result of the trial was curious. By what means did these isolated islanders know that iron was the most useful of the metals laid before them? It would seem evident that the iron, if not the copper, was chosen from a prior knowledge of its utility; and that the choice was made for practical purposes, and not with a view to ornament, or the gold and silver, which were more attractive to the eye, would probably have been selected.

Like many other points of knowledge, not the immediate result of enquiry, experiment, or accident, which have obtained a footing in the civilized world, the origin of this as to the value of the particular metal, may have come from a remote distance, and been handed down from generation to generation by tradition. The information obtained it is probable came from the East Indies, and was retained by the successors of the Malayan tribes that peopled the islands. This, I think, more reasonable than to suppose that it was imparted by the European to the

natives of some of the islands visited; or that the metal was first obtained from the wreck of a vessel, as the knowledge appears to be universal throughout the islands of the vast ocean.

The latent ingenuity of the human mind, runs through the whole species, whether in a rude, semi-barbarous, or civilized state; and is brought into action; and, if I may so say, dovetailed in various degree by the force of circumstances, and from the energy roused by necessity, and other causes. Hence, the same plans, varying in the material used are seen in different parts of the world wide apart, adopted by races who in complexion, customs, manners, language, and social condition, have nothing in common, but form, to imply that they originated from one and the same stock.

In every part of the world, whilst in a state of savage nature, the first weapons for defence and offence, of man, have been bows and arrows, and spears; the shafts headed either with the hardest wood, or flint or other stone, where metal was not attainable. Indeed, down to a not very remote period, when some nations had attained to a considerable refinement, both in manners and the arts, so slow has been the expansion of the mind, we find these instruments still in use. The Greeks, Romans, Gauls, Britons, &c., employed them in their wars; and it was not until the invention of gunpowder had been put to practical trial, and the general use of cannon, that they were entirely laid aside by Europeans.

Again, the hollowed log, was the first rude vessel in which man in every clime attempted to brave the peril of a buoyant element; as the mind enlarged, the tree was fashioned into the graceful canoe; then came next the boat, followed by the decked sloop, and so on, until the three-decked first-rate ship-of-war was attained. Amon, son of Manassus, was the first to build long vessels which carried masts and sails.

In clothing, adapted to climate, we find the same beginning throughout, the skins of beasts, the flexible bark of trees, mats, &c.; all displaying one common origin of primitive ideas, whether innate or proceeding as effects from external objects imparting or suggesting these to the imagination.

But in the particular instance given by Capt. Wallis, if the Tahitians had never seen the—to them, wonderful metal which we call iron, how was it that they so readily distinguished it from the gold, the silver, and the copper, and eagerly seized it as if previously aware of its great value? This consideration would seem to make it questionable whether it was not rather the shape of the nails, and not the article of which they were composed, that at once gained their preference; the very form of the article being to their minds suggestive of spear and arrow heads, and consequently as a matter of course, the apparent utility it would be to them.

So that, leaving tradition aside, our navigator may have been in reality the first originator of the knowledge of iron to these islanders. After once practically testing its value in perfecting the weapon of offence, we may imagine how eagerly it would be subsequently sought for from other strangers.

The islanders having no conception of money as a medium of exchange,

the gold and silver pieces would perhaps suggest the idea of utility, no farther than a pretty flower, or a handsome pebble would do, as an article with which they might adorn their person, for, as to any intrinsic value in the yellow or the white substance before them, they could not be supposed to have formed any notion, that being to be obtained only from experience; and yet they chose also the copper pieces, which were precisely of the same round shape as that of the gold and silver coin: how shall we account for that preference?

If they took the copper coin, with the same view as they may be supposed to have had in their choice of the nails, that of forming spear or arrow heads, by what intuitive process of mind, could they reason the probability of its susceptibility of being beaten into the same shape as that of the nails? They could not, in all probability, have gained a hint from experience, unless some sort of metal had fallen into their hands at a former period, and the process of heating and hammering had been tried.

Why the copper should have been more attractive in the eye of the Tahitian than the gold and the silver, if chosen merely with a view to ornament the person, it is difficult to determine; did the preference arise from the colour approaching nearer to that of their own bodies? There is no doubt that vanity is as rife among the savages as among the civilized, and that belles and beaux are to be found on the sandy beaches of the South Sea Islands, as on the Boulevards of Paris, the Parks of London, or the Prado of Madrid, and this feeling of petty pride being universal, seems to be a design.

The experiment would have been more complete if the captain had thought of placing two round pieces of iron in the batch, instead of two nails. In that case would the choice have been the same? It is impossible to surmise; nor can we imagine where the choice would have been, had a gold, a silver, a copper, and an iron nail been substituted for the pieces.

The intercourse of the islanders with Europeans has now become so general that it would be useless to try the experiment with those who have been already visited. But it is probable that there are some inhabited islands, not yet discovered. It would be a matter of reasonable curiosity therefore, should any of our navigators meet with these hereafter, to try it; and with this hint we conclude our remarks on the subject.

---

#### JOURNAL OF A RUSSIAN PRIVATEER.

*Journal kept by William Davidson, a seaman on board a Russian Privateer, copied from the original journal, which was shewn to Lord Hood by Capt. Keats of His Majesty's ship Niger, on board which ship the said William Davidson was, and deserted from her at Portsmouth in the year 1794.*

[The following extraordinary journal has been placed in our hands, and as a copy of an original document we give it verbatim et literatim.—Ed.]

THE 3rd December, 1788, we sailed from Leghorn with a prosperous



gale, on board the *St. Dennon*, a Russian privateer, bound for Messina, on the Island of Sicily, as a merchant vessel, until she would get there; and from thence she was to get a clearance and go a cruising. We sailed, but had not been long out, before the wind came from the eastward, and blowing very hard, we were obliged to bear away for Porto Fenoro in the Island of Elbe, fifteen leagues south of Leghorn, and soon got in and moored in this place. We were getting the shot from under the ballast in the hold and were fixing them on the carriages, when they taking notice of us on the shore, that we were fitting out for a vessel of war, they sent on board for us to sail immediately; and if not, they would stop the ship, as it was not allowed, for any ship of war to fit out of any port belonging to the Grand Duke of Tuscany.

Dec. 22nd.—So the 22nd December we sailed for Messina with a fair wind and clear weather; but the 25th the wind coming a head and blowing very hard, we were obliged to bear away for Longona.

Dec. 27th.—We got in and moored, we lay there thirteen days, in which time we got all our guns fixed and every thing ready for sea.

Jan. 17th, 1789.—We set sail for Messina with a fair wind and clear weather, and the 24th arrived safe at our intended port, when all the Englishmen would have left the ship if they could; but the captain would not allow them to go, until he could get to Malta, thinking to get hands there.

Feb. 2nd.—We sailed for the Island of Malta, the 9th we got in; the 11th got Prattick; and the 12th hauled the ship up and moored her there; we mended all our sails, made new nettings, and got small arms on board, in number, thirty musquets and fifty cutlashes, twenty-four blunderbusses, and eighty pistols, but men the Grand Master would not allow to take, which made the Englishmen very discontented, as they could not get their discharge.

Feb. 14th.—The 14th there came on board three slaves, they had been murderers that had made their escape. Our captain protected them upon account that they entered with us; the 16th we sailed for the Island of Zante, when we were obliged to go with them, as it is there we are going to man our ship, which frightened us the more as the inhabitants of that place are nothing but thieves and most pirates. All this time we had a fair wind and clear weather, until we got as far as Solee, then the wind came against us, and blowing hard, we were obliged to bear away for Cephalonia, when we got safe in and moored. We had not been in many days before that we got sixty-eight pirates on board of us, we can call them nothing else, upon account the most of them are all pirates. Then we get on board carpenters, and cut two port holes between decks, when we put two twelve-pounders, and then got every thing ready for sea; but the day before we sailed the captain of the pirate that sunk the Dutch ship in the year 1786, gave our captain 500 dollars to take him on board as lieutenant, and certainly would have done it if the Russian Consul would have let him, but they told him if he was to take him on board, or even to take him off the island, he should have all the men-of-war in the Straits after him; so that when he found he could not take him he sailed the 7th March for the Island

of Privese, and the 11th got in; the 12th moored ship. We had not been in long before we heard that there were some pirates on shore in the mountains, which our captain wrote several letters to, for to come on board, besides every night we would have two boats armed in readiness to take them on board. One day the captain went up the town and met two of them, which he told for to go and to tell the rest to come down abreast of the ship at night, so they did; for there came down that night thirty-five of them all armed, and we took them all on board, which made us English and Italians very discontented, as they were all pirates.

March 16th.—There was a boat came and told us there were four vessels in Cephalonia, with Turkish cargoes on board, but Greek sailors; so we unmoored and stood for the same place, but being little wind and calm saw no vessel that day. Next morning we spoke a Ragusa brig with Turks, passengers in, come from Candia bound to Zea, which had a great quantity of silk and dollars, which we took from them, but the Turks we let go as they were taken under neutral colours. Next day shared the money, which came to 63 dollars a man, as for the silk the captain kept for himself.

March 22nd.—We saw a vessel going down along shore, so we hauled the long boat up and put eight swivels and thirty-five men all armed in her, and sent her after the vessel as it was a calm, and soon came up with her and fired two guns which she returned the same, and both sides fired for the space of forty minutes when the lieutenant got wounded and five men killed, so our boat was obliged to return on board and get more hands and gave chase for three hours, then the wind freshning, she soon left the long boat out of sight and returned on board again.

April 1st.—We saw a sail a head and gave chase, and soon came up with her, and sent her into Cephalonia: she was loaded with wine and brandy, which we took all out of her, and sunk her, besides killing nine Turks that were on board of her; as for the Greeks they entered with us.

April 2nd.—The 2nd we sailed for Selon, that same day got in and moored, then these vessels attempted to get away, so we armed the long boat and sent her out in the night to lay wait for them, as they would go out; but they taking notice of us never moved. In the mean time the long boat fell in with a vessel with Jerusalem colours but Turkish property, which was nine bales of silk, and honey, and soap, we took out the silk, the rest we sunk, people and all together, which were in number fifteen Turks: that same day took another boat, has nothing in but ballast, which we let go.

April 6th.—We got all the sails and lumber on shore, and all the ballast out of the hold; the 8th and 9th we were working very hard and had but little wine on board, so the captain ordered the lieutenant to go out in the long boat, and gave him orders to take the first vessel he met with, let her be what she would, if she had wine on board, which he did, for he brought in a vessel which had seven pipes of Cypress wine in; so we took it all out of her and let her go: she was a Greek setter come from Samoos.

April 12th.—We righted ship and took all the ballast in; the 12th

we hauled out from the shore and bent all our sails, and got the ship ready for sea again. The 13th we unmoored and got all the vessels' boats that were in the harbour to tow us out; the merchants belonging to these vessels gave our captain 15,000 hard dollars (£3,300) for not troubling them any longer, so our captain told them he would give them three days, and no more so we left them. Soon after we had a fair wind, and at 4 o'clock came to an anchor on the Turkish shore, when we sent the long boat and yaul on shore armed, for stock, which they killed, five bullocks and thirty-four sheep, besides leaving a great number on shore which the boats could not carry off.

April 14th.—We saw a pirate which came on board of us, and told our captain if he was to go Magane he would get plenty of small vessels there belonging to Cypress, but they had nothing in but fire-wood, which our captain said was not worth going for. In the mean time the pirate had in this harbour one Ragusa and three Venetians, that he had taken two days before, and was taking the best of every thing out of them for to sink them, when they were taken. And in the room of this pirate whom we should have taken, we gave him powder and arms, and let him go, because he was one of our captain's old acquaintances, we had not put all our things to rights when we saw two ships coming down towards us, so we got all hands to quarters and every thing ready for engaging them, as we took them to be Turkish men-of-war; but as they came within gun shot of us they hoisted Russian Colours, which we were glad for to see, they were two privateers bound to Zante.

April 15th.—We sailed for Zante, and the rest of the day we got in and moored, and the captain sent on shore thinking to get Prattick, but could not as we had been on the Turkish shore.

April 17th.—The captain went on shore to see if he could get a new main-mast, which he did, a very good one. The 18th we got the main-mast out and sent it on shore, and one of the pumps to be repaired, in the mean time the people were employed fitting the rigging.

April 20th.—We got the new main-mast off and got it in, and the rigging over head; the launch was on shore watering, and the rest of the people employed clearing the hold. The 22nd we got all our provisions and water on board; and the 23rd set up the rigging fore and aft, and got every thing ready for sea.

April 24th.—The 24th there was a Ragusa ship lying in Zante and had Turkish passengers on board for Smyrna, and had 2,500 dollars on board (£590) belonging to those Turks, which were liable to be taken by us, if we only met with them at sea; but our captain was resolved to follow them as they sailed.

April 25th.—She sailed about 10 in the morning, and was about six leagues off when we got under way, and gave her chase, and was coming up with her fast, but it soon came on calm, and in one hour's time the breeze freshened and she getting it a long time before us, and it coming on dark she left us out of sight, and coming on to blow we hauled down the steering sails and went under easy sail all night. The next morning made sail and stood in for the Turkish shore where we saw a vessel at an anchor, and taking notice of us coming in, she got under way as

fast as she could, when we followed her, and soon came within gun-shot of her, and fired twenty-three guns at her before she hove to, in the mean time we had Venetian colours up, and plundered her of every thing she had on board, besides one of our men killed the captain and two men for only asking him to return a small chest of silk turbans and sashes that he took; this was a small Pollacca Turk loading there. Then we steered out for sea, all the night we had a fair wind, and about 5 o'clock in the morning we hailed a ship which made answer, she was a Frenchman from Marseilles, bound to Constantinople, when our captain told him to stay by us until daylight, which he said that he would, but soon after we taking notice of him making all the sail he could to get away from us, we fired a gun at him, but he did not mind it, when we fired a second and carried away his fore-topsail yard, which made him cry out he was afraid we were pirates as there was always so many about this place, so we let him go on his voyage.

April 28th.—The next day we saw several vessels, but did not offer to go after them, but went into an harbour in the Island of Cerigo, where came to an anchor the 29th. There was a vessel came in under Jerusalem colours, which was a good prize for us if at sea, but as we were under a Venetian fort we could not take her: that same day the captain went on shore to see if he could get any hands.

April 30th.—There came in the same vessel that engaged our long-boat the 31st of March; which our captain was resolved to be up with them, then we armed both boats and sent them out to lay wait for her, when she would come up; about 11 o'clock this vessel to her misfortune got under way and was going out, when our boats fell in with her and killed all hands on board, only two boys, which we put on shore on Thenoa.

May 2nd.—There came on board us twenty-three sailors, which made our complement in hands 215 altogether, which we were now ready to go to sea a cruising in the afternoon. The captain came on board and ordered all hands aft and read his commission, which was that we were going out against the Turks, and as they are a cruel enemy, that we must stand true to the colour, and that we must neither give or take quarters, but burn, sink, and destroy, all that came in our way, and the more we took the more we should have for ourselves, besides doing so much good for the Russian Empress, when all hands gave three cheers and said there was no fear. All night we sailed for the Archipelago, had a fair wind all night, blowing fresh.

May 3rd.—At 4 o'clock in the morning the long-boat broke loose from our stern at the Island of Milo, where we went in and hoisted the cutter out and came to an anchor, sent her after the long-boat and a short time after brought her alongside, but she had lost her arms and every thing she had in. We sailed and spoke a Venetian ship bound to Smyrna, we overhauled her and let her go.

May 4th.—We saw a ship which we gave chase to, and at 5 o'clock got alongside her, she proved to be a Turkish cruiser, fourteen guns, and after engaging her half an hour she struck, when we put the prisoners to death, in number 123, took the best of every thing out of the ship and sunk her.

May 5th.—We saw a small vessel from the mast-head, and it being calm we armed the long-boat and sent her after her, which she took, and brought her alongside. She proved to be a Turk loaded with wine and brandy. We put the prisoners to death and took what wine and brandy we wanted out of her and set her on fire, in the mean time we saw a ship coming down from the eastward, which we sent the long-boat after her but she got away: in the mean time there was another coming round the island, which our long-boat boarded without any defence; by this time we got under way with the ship and went out and spoke with the vessel, she proved to be a good prize loaded with cotton, silk, and honey. In the afternoon it came to blow and rain; at 10 o'clock we lost sight of our prize it was so dark, which caused us to fire several signal guns, and had lights up all night but to no purpose, for they never saw or heard from us.

May 6th.—The next morning we went to look after our prize, but we could hear or see nothing from her, which troubled the captain as he thought the prisoners had retaken their vessel and killed all our people, as they were five to one on board. Next morning we stood in for a small island belonging to the Greeks, when all hands went on shore and plundered them of every thing they had on the island; the same day we spoke a fishing boat, but could give us no intelligence of our prize.

May 8th.—We heard they were prisoners on the Island of Thedrœa, where this vessel belonged to, which so enraged our captain, that he said he should have them out, or that he should put every man, woman, and child to death.

May 9th.—We sailed for the same place, but in the afternoon it came on calm; all that night and the next morning it came on little wind right against us. We saw a sail which we gave chase to, and soon came alongside her, she proved to be a privateer belonging to Tunis, which engaged us one hour and struck; we took all the prisoners on board of us, in number 125, and after examining them, one of them told our captain that they would have struck sooner only that they expected us to board them, and they would blow the ship up: when our captain ordered all of them on board their own ship, only the man that told us what they intended to do. After they were all on board we took some of their small arms and powder, and made this man go and set the ship on fire, people and all together, which was a dreadful sight for to see; the man we forgave and put him on shore on one of the Greek islands. At 10 o'clock at night the wind came in our favour; and the 12th May we got in Thedrœa and fired several guns into the town which knocked down some of the houses, and killed several of the people; then the governor came off to us to know what was the reason we behaved in this manner, when our captain made answer, if he did not deliver his people up, and the vessel that he took, he would put every one in the place to death, when the governor made answer, that he never saw or heard from her since the day that she sailed from thence. The governor went on shore and sent off to us in provisions and money, five hundred sequins (£250) altogether; that night we sailed, and next morning spoke a French brig, who told us our prize was gone down to Cerigo, then we steered for that place.

May 14.—Next day we took a small vessel laden with Cyprus wine, of which we took what we wanted out of her, and sunk the vessel; the Turks we put to death on board of our own ship, in number fifteen.

May 15th.—We got in and found our prize there, and another she had taken; but we could not make a prize of her, as she belonged to some Greek merchants. We took all the silk and cotton and most of the honey out of the prize, and got ten six-pounders off the shore and put them on board the prize, and sixty hands, and fitted her out as a tender to go along with us, on account that she sailed well: we stopped two days getting every thing fit for sea again.

May 19th.—We sailed for the Arches, that same day we saw seven sail which we gave chase to, and soon came up with them, they proved to be prizes to a Russian privateer, bound to Treste, under her own convoy, and all richly laden.

May 20th.—The 20th it blew fresh, no sail seen that day; next morning we anchored in Thenoa, when they were very glad for to see us come in, as there was a Turkish galley on the other side of the island, going to plunder them in the night: at 1 o'clock we sent the tender after her, and at 3 in the morning she took her without the least defence; she had on board eighty-five hands, which we took out of her and confined them in the hold till next day, then they were called up one by one and had their heads cut off, (in the same manner as we cut duck's heads off at home) and then threw them overboard. Now this being the first time we were obliged to take it in our turns to put them to death; the Englishmen when they were called for at first refused it, but as the captain told them they were cowards, or people that were afraid of their enemies, he could not believe that they were Englishmen; then they went and did the same as the rest, and afterwards we were worse than themselves, for they would always be the first when such work was going on, and at last got quite used to it, for sometimes we had three or four a day to put to death for one man's share.

(To be concluded in our next.)

---

SHAKINGS FROM SMYRNA.—By *Mahmouz Effendi*.

(Continued from page 72.)

ABANDONING the cabin and seating themselves on deck under an awning an hour before sunset, the party of five on board the *Saucy Fanny* with whom the reader has already become acquainted, seemed still by all appearances somewhat disinclined to separate. And no wonder. The Asiatic prospect around them as seen from the brig was enchanting in the extreme, and ineffaceably impressive; and the dark blue sea but gently heaving under a refreshing light breeze or *embad*, which displayed to perfection the gaudy colours of the numerous craft at anchor, as well as

the national ensigns flying from the tall crown-headed flagstuffs\* in front of the several consular mansions, all of which buildings, selected for their convenient site, abut on the Marina, and command a view of the anchorage. There is scarcely a place in the world where, in a line of half a league, so many different banners "flout the sky" as at Smyrna. We question even whether the Bay of San Francisco can equal Izmeer in respect of bunting, notwithstanding the now world-wide reputation of that attractive Californian Port; that "Golden Horn" of the "Far West".

The Smyrniotes though unblessed with "diggings," have at least among other advantages a glorious sun above their heads.

"Not, as in Northern climes obscurely bright  
But one unclouded blaze of living light."

Lord Byron, from whose "Corsair" we have quoted this couplet, landed at Smyrna in 1810, and paid a visit to Ephesus, (which is distant therefrom about fifty miles,) and we may here incidentally mention that a most accurate plan, with measurements of the ruins of this City of Diana, is said to have been recently taken by a Mr. Falconer, who at intervals has made several trips to Aia-Sulouk, and its mountainous environs.

But to proceed with our tale.

Tomkinson was now endeavouring to persuade Master Nicholas Collier to spare a couple of days to make this very Ephesian excursion, which, by-the-bye, is generally the first into the interior, in which tourists indulge after arrival at Smyrna.

"It's all very well for your lords and gentry," said the captain, "to go galloping about the country, they've no ship to mind."

"Surely Mr. Surtees can attend to the *Saucy Fanny*," suggested Tomkinson.

"Ah! the lad can do that well enough," continued the captain, "but still it's *my* duty; and I don't like to leave it, merely to perch myself on the top of a saddle and be trotting after old stones and inscriptions, just because Saint Paul visited Ephesus some eighteen hundred years ago. My curiosity must be satisfied for the present with seeing something of Smyrna alone, and that you know we shall do to-morrow; and after that we must break bulk."

"Sardis is I think a shorter trip," observed the consignee. "Can we tempt you just to visit Sardis?"

"No, no;" answered the captain, "neither Sardis nor Ephesus will do for me; I won't go out of gunshot of my brig for all the ruins and antiquities in Asia Minor."

"In that case," said Tomkinson, "all we can hope to show you are the city and shores of this our beautiful bay; and as our *kaiks* here,

\* When we last visited Smyrna nine consular flags were flying ashore, viz: English, French, Dutch, Russian, Prussian, Austrian, American, Greek, and Tuscan. We cannot but envy these consuls; and such is our own love for Turkey, and its lovely language and historic associations that, were the choice offered, we would ourselves rather be appointed to a consulate on the Turkish coast than to a dukedom in England. Such is the prompting of our heart.

altho' stouter than those of Constantinople are still somewhat ticklish, you had better favor us with your own long-boat, if my frolicsome daughters induce you to consent to a pic-nic. For we have wind enough here at times."

"The boat is a stiff one, and will be at your service as soon as our hold is clear," answered the captain. "'Till then I fear my first mate here won't part with her, even to oblige the Queen of a Harem."

"Not without your express orders, Sir," said Mr. Surtees; "for I find we can't haul the ship in to the quays to discharge; there's not water enough. And so the long-boat will be wanted."

"We always discharge into lighters, and load the same way in Smyrna," said the consignee. "You see we have no docks; and, as you say, there is not water enough at the quays. We can't run alongside 'em here as they do at Constantinople."

"Smyrna had an inner port once," said Tomkinson, "called even up to the beginning of the last century the 'Galley Port.' And in the time of Chandler, the traveller and author, it formed a spacious recess within the town, and might have been used as a dock, and continued so to this day, but for neglect."

"And now," observed the consignee, "the whole of the site has been built upon; but still some idea of the place may be obtained from Tournefort's 'View and Plan of Smyrna,' where the port is distinctly marked."

"And the very Fort St. Peter yet stands, which once defended its entrance;" added Tomkinson.

"A fort celebrated in history," said the consignee, "for a desperate contest between the Turks and those zealous Catholics, the Knights of Rhodes."

"The arms of the Papal Church," said Tomkinson, "are still visible over the gate, on two tablets of white marble. We shall see them to-morrow as we approach the seaward entrance of the bazaars."

"Aye, aye," said the consignee, "they were put up as a monument of the original conquest of this castle from the Turks; the whole honour was then politically ascribed to the Pope, but the Knights of Rhodes did the real work without much assistance from his Holiness. Now, as Scott sings—

"The knights are dust,  
Their swords are rust,  
Their souls are with the saints, I trust."

"By-the-bye," exclaimed the supercargo, who had not spoken for some time, "an idea strikes me."

"Out with it then," cried Master Nicholas.

"Among the knights plunder of this fort, was there such a thing as a queerish old *chair*, with an inscription upon it?"

"Why so?"

"Because this is a Fort St. *Peter*, which was taken from the Turks; and St. Peter's *Chair* now a relic at Rome, is said by Lady Morgan, on the authority of Denon and Champollion, to bear a *Turkish inscription upon it!* Perhaps the Knights of Rhodes palmed off a chair from this castle upon the Pope, as St. Peter's own Chair. Who knows?"



“Dont talk such trash,” said the captain, muttering to himself, “tho’ St. Peter is just as likely to have visited Smyrna as Rome.”\*

“What gun’s that?”

The consignee and Tomkinson both pointed seaward, where a long line of smoke, in the distance abreast of Vourlah, betrayed the approach of a steam-vessel, a circumstance which had now occasioned the signal-gun to be fired from the so-called *Castle of St. James*, situate about a couple of leagues from Smyrna, on the south shore of the gulf, at a point where the *very narrow entrance* to the broad and spacious basin, off the town of Smyrna, (spreading as it does like an oval lake, over an extent of some six or seven miles from north to south, and from east to west,) had tempted in times back some long-headed personage in power, to cause a fortress to be erected to command and guard this little channel, and if necessary to prevent all ingress, which with good gunners may easily be effected, for the entrance is as we have said very narrow; the castle close to the beach, the fairway flanked by shoals, and even the opposite shore within range.

The opposite or Menimen shore is known as Pelican Point and the castle of which we have spoken as the *Sandjak Kalessy*, and also as the Castelo-Novo, and again as the Chateau St. Jacques. Notwithstanding the similiarity in sound between “St. Jacques” and “Sandjak,” their meanings are totally different; one simply being, as our readers are aware, the French for St. James, and the other being a Turkish word, signifying a banner or ensign; whence comes the word “*sandjaktar*” or standard-bearer. *Sandjak-Kalessy* seems therefore to be the proper name of the fortress, which may be translated literally as “Flag Castle.”† It is also sometimes called the *Yeni-Hissar*, or New Castle, while the fortress on Mount Pagus is termed the *Eski-Hissar*, or Old Castle.

“You found the passage off the castle narrow enough on coming in I suppose;” said Tomkinson. “The castle opposite Pelican Point I mean.”

“The *Saucy Fanny* threaded it easily enough,” replied the captain. “The old barky has seen too much of the Swin at home to care for such a spot as this Pelican passage.”

“We could beat through it, if necessary,” observed the mate.

“Many vessels find it an ugly place,” said the consignee; “craft are constantly getting aground there; even steamers and men-of-war don’t always escape.”

“Then the passage should be buoyed,” said the supercargo; “if accidents are so frequent.”

“An English surveying-vessel *did* buoy it once;” said Tomkinson; “but some of the outward-bound Greeks immediately made lawful prize of the casks, and appropriated them to their own use. They stole ’em all and bolted.”

\* See the *Times* and *Daily News* of the 4th of February, 1851.

† This is certainly a more elegant title than “Castle Rag” at Plymouth.—  
*Printer’s Devil.*

"A good look out at the castle would have prevented that," said the captain.

"Our Muslim friends are not too famous for watchfulness, I fear," remarked the consignee.

"I think I should myself have managed to give the thieves a shot," said the captain. "They richly deserved it; for every tar should respect marks and buoys, and all that sort of thing."

"Are you fond of shooting?" enquired the consignee. "The neighbourhood of the castle is famous for woodcock, and innumerable red-legged partridges."

"You should see the middies ashore in that quarter," said Tomkinson; "they're the boys for shooting."

"I'm no great sportsman," said the captain, "unless being fond of mackerel fishing gives me the title. With a fit breeze for that sport I've caught those jokers with a bent sixpence, or even a 'baccy pipe for bait.'"

"Our Smyrniote fishermen," said Tomkinson, "supply us not only by net and hook; but have another dodge, they light fires in their boats at night which attract the fish near enough to be speared."

"I can handle the granes too," said the captain. "I've struck many a *bonito*\* in my time."

"Here are some of our fishing boats coming out now," rejoined Tomkinson, "and their fires will 'flare up' before they reach the castle; the ground is very favourable just there."

"Come," said the consignee, "I think it's time to break up, as we've to ride to Bougia. Lend me that spy-glass. Ah! I see our horses are already on the Marina: and Milcon, my Armenian *sais* does not like to be kept waiting, I can tell you."

Tomkinson now rose and hailed a passing *kaiik*, pulled by a Turk with a most orthodox turban on his head, the fold of which mightily tickled the fancy of Master Nicolas Collier; and then taking leave, Tomkinson and the consignee seated themselves in the bottom of the *kaiik*, for these craft have no thwarts or comfortable stern-sheets for their passengers; and shoving off from the *Saucy Fanny*, made for the little *iskélé* or wooden jetty near the Dutch consulate.

Soon after this departure, the captain gave Mr. Surtees a few directions about the watch for the night, and other matters connected with the brig, and then went below with the supercargo to prepare letters for England.

The evening wore on till three bells struck; and the supercargo the captain, and the mate were again discussing divers glasses of grog: the evening allowance in the cabin of the *Saucy Fanny* not being stopped as in the navy, when through the conversation somewhat lagging, it was proposed they should overhaul, for a little while,

#### Merchant Tomkinson's Manuscript.

"Come Mr. Supercargo," said the captain, "examine this which is to

\* *Scomber pelamis*. L.

be our 'guide book for Smyrna' and read out something or other *pro bono publico*."

"What will you have first?" asked the supercargo.

"Something about the churches," replied Mr. Surtees, who still had his thoughts running on the second chapter of Revelations.

"Or read us something about a Turkish bath, if Tomkinson has made a note of it," added the captain.

"I will try to oblige you both," said the supercargo, "for I find the book has an *index* which will much facilitate perusal. Ah! here's an account of a bath to begin with!" And here the *super* read out as follows:—

"*Hammam or Turkish Bath*.—I went, says Capt. Frankland, R.N., with Sir W. Eden, and Capt. Martin, to the principal Turkish Bath in Smyrna. We were first ushered into a large square ante-chamber, around which were many Turks, squatting or lying down upon divans, smoking and sipping sherbet. Upon these divans, mattresses are spread, and each candidate for the bath is conducted by half-naked bathing men to one of these couches. Here he undresses and leaves his clothes; he is then supplied with a wrapper, a large cloth or towel to tie round his middle, a large pair of wooden clogs raised upon two pieces of wood, at least six inches from the streaming floor, and he is then conducted to an inner apartment, at the door of which he leaves his wrapper, underneath a dome lighted at the top, and amid an atmosphere of steam. The sensation upon entering is most oppressive, for such is the heat kept up by the stoves and flues below, that at first the bather can scarcely breathe, and until relieved by copious perspirations, he feels as if he were going to expire. The first thing that strikes his eye, as soon as he is sensible of what is passing around him, is a number of naked figures, with shaven heads, but long topknots and long beards or moustaches, undergoing the various operations of rubbing, scrubbing, lathering, and shampooing. The operator turns the patient over as he would a dead body, first lifts one limb, then another, and lets them fall again as if they were masses of inanimate matter, cracks all the joints in succession and then thumps and kneads as he would a piece of dough. Your unhappy self meanwhile is seated upon a wet and slimy board by the side of a fountain, into which hot or cold water can be conducted at pleasure, by means of two brass cocks. Your naked tormentor begins his annoyances by scrubbing you all over with a kind of glove on his right hand, made of horse-hair; your delicate European skin not used to such a scarifying operation peels off in rolls upon your person, which your persecutor knocks off with an air of contempt. Then comes the shampooing and kneading, after which you are seated in a corner, and covered from head to foot in a cloud of thick soap-suds, which streams into eyes, nose, mouth and ears, and makes you smart all over. This, which produces a feeling of cleanliness, is rapidly succeeded by copious ablutions of hot and then of cooler water. After a little while you rise, and wrapping the friendly cloth round your waist, proceed upon your clogs towards the door, where you are supplied with *hot* wrappers, and conducted to a couch to repose till the perspiration subsides, waiting which, you smoke and drink sherbet and coffee."

"Dash my buttons!" exclaimed Master Nicholas; "*that's* a Turkish bath, is it? Such a stew won't suit me, I can tell you; a plunge overboard, and a swim round the *Saucy Fanny*, accord more with my notions. But shut up your book, *Super*, *that's* enough for to-night;

and, Mr. Surtees, as the wind's rising just step on deck, and give the brig a little chain." This is your watch, you know, tho' I *did* call you down to a glass of grog."

(*To be continued.*)

---

### THE SAILORS' HOME.

THE immediate object of Sailors' Homes is to provide for seamen when on shore, board, lodging, and medical attendance, at as moderate a charge as possible—to protect them from imposition and extortion—to encourage them to husband their hard-earned wages—and in every way to promote their religious, moral, intellectual, and professional improvement. Such institutions to have a reading-room attached, and a registry and record of character kept. By this means seamen will more easily obtain ships, and wages in proportion to their merits, and shipowners will be materially assisted in procuring proper men. There should also be accommodation provided where masters of vessels may pay off their crews, and record their character, and where they can also ship them.\*

In addition to the important objects contemplated by Sailors' Homes, the library and reading-room should be open for the use of sailors and apprentices frequenting the port, who have no other comfortable place of resort, and who might not be living at the institution. By this means, the moral and intellectual character of the sailors would not only be elevated, but they would be kept from the innumerable snares that beset them while on shore. And in order to secure these important benefits for seamen, it only requires the assistance of the public for their establishment, as experience proves that, once established, they are almost or entirely self-supporting.

To the sons of the ocean this nation, under Providence, owes its eminence and power; and yet, very often, after years of absence from their native land, and having escaped the many dangers incident to their profession, on arriving at a seaport, and being discharged from their ship, they know not where to take up their abode; and, as is well known, are watched for by designing persons, and often pass from the ship to the crimp, and from the crimp to sinks of vice, where they find no comforts, no real pleasures, but are led on by the depraved of both sexes to give themselves up to the most debasing passions—until at length, with injured health, and having lost all their earnings, they are glad to escape to a fresh ship, and take refuge, amidst the perils of the sea, from the greater perils of the land.

*Neglect*, of individuals and classes, is to be measured with some reference to their importance and value. Were the seamen who are

\* Fire-engine, hoses, fire-buckets, fire-grapnels, scaling-ladders, and axes, ought to be kept at the institution, in the event of any ship in the river, or building on shore, taking fire, so as to render immediate assistance. Life-buoys, bearers, and baths, ought also to be kept to assist persons who may accidentally fall into the river.

daily perishing in the waters an idle, unprofitable, burdensome generation, we might perhaps let them drop away with less blame. But they sustain the trade of the world. Whatsoever is meant by that pregnant word *commerce*, involves the toils and dangers of thousands of mariners. To neglect them, is to cast from us the very instrument by which the gains of merchandize are acquired. The useful products, and the almost necessary luxuries, which are exchanged between continents and islands, are borne on their arms. The sails that fan all climates are guided by their sinews. There is not a delicacy or an ornament of commerce, there is not a wonder of art, there is not a transmarine medicine, there is not a transportation of christian mercy, not a visit of holy friendship or affection, which is not in some sort entrusted to the hardy seaman whom we neglect. And when he *dies*, far from sight of land, he dies in the hard service of a civilization and refinement, which *use* him, and *abandon* him. Surely, if people reflected on these things, they would not hesitate to aid in establishing such Sailors' Homes, where seamen, after their toils, might enjoy the comforts and necessaries of life, and have an opportunity of improving and raising their moral character in every way.

In the Bill recently introduced by Mr. Labouchere for the improvement of the mercantile marine, express reference is made to the necessity of encouraging Sailors' Homes. At all our ports legal powers and advantages are to be granted to them, which proves that the government recognize their importance and utility. If England wished to encourage and improve her seamen, she cannot do so more effectually than by thus protecting them from those harpies who watch their return to their native land in order to get them into their trammels, from which they are never permitted to escape until every farthing of their hard-earned wages is dissipated in extravagance and vice; when they leave the shores of England trusting to the advance-note for another fit-out, disgusted with their country, and ready to quit its service, whenever an opportunity offers.

This country has to thank the late much-lamented Capt. Robert James Elliott, R.N., for instituting in London the first public "Sailors' Home;" and to the present great shipbuilder and owner, Mr. Richard Green of Blackwall, for the first private "Sailors' Home," which he has established at his own expense for the seamen of his splendid merchant ships.

The London "Sailors' Home" in Wells Street, near the London Docks, has, after an experiment of fifteen years, been found well adapted to the wants and growing inclinations of seamen. There is a steady yearly increase in the number of its inmates, and of those who return again and again after each successive voyage, bringing with them others to enjoy the comforts, the respectability, and the protection from temptation which are afforded in that institution. At a recent meeting, it was stated that 31,667 seamen had been received into the "Home," since its opening; of which number, 12,391 had been old or returned boarders. During the last year, the number of boarders was 4,633, whose money, to the amount of £25,160, passed through the hands of

the cashier, while £2,500 had been invested in the Savings' Bank connected with the establishment.

It may appear strange to the people of this country, but it is a fact, that the Americans value and take more care of their merchant seamen when on shore than we do; for as far back as 1839, when Capt. Hall visited the United States, "Sailors' Homes," were in full operation in most of the seaports. The first effort to establish a "Sailors' Home" in America, was made about 1833, at Charleston, in South Carolina, where it answered so well, and proved so great a blessing to the seamen, that since that period, others have been established with equal success in Baltimore, Providence, Philadelphia, New York, and other ports. If the American people exert themselves for the welfare and comfort of their seamen when on shore, what ought not this great commercial nation to do for her seamen, who are the sinews and safeguard of that commerce which has placed her, under Providence, in so proud a position! Surely those who live on shore at ease, enjoying the fruits of the labour of their unwearied and gallant sailors, will assist in contributing to their welfare in so practical a manner as is offered in the erection of a home for them, and in thereby proving to them that their domestic happiness is cared for, and that it is felt that they ought to participate, in common with others, in the comforts and enjoyments arising therefrom.

On Capt. Hall's return from America at the close of 1839, and when engaged fitting out the *Nemesis* war-steamer at Liverpool, he was strongly impressed with the necessity for a Sailors' Home, and recommended to his friends the establishment of such an institution there. Since then, one has been established, and is now in full operation.

During the period that Capt. Hall commanded H. M. steam frigate *Dragon* on the Irish station, he was instrumental in establishing a Sailors' Home in Dublin, which was opened on the 28th July, 1849, by his Excellency the Earl of Clarendon, and has continued in full operation since then. On lately revisiting that port, he found that there the lodging-houses for sailors, formerly of a very inferior kind, had not only been very greatly improved but the rates much reduced. This result is simply to be attributed to the establishment of that institution. From the Report of the Dublin Sailors' Home for the year ending the 30th September, 1850, it appears that no fewer than 369 sailors had been lodged and boarded in the institution—56 shipwrecked men boarded till forwarded to their respective countries—while 8 seamen from America who arrived at the port naturally inquired for and lodged at the institution. The objects of the institution have thus in a great measure been attained. The mariner has been provided with a good and cheap lodging house while in port, opportunities have been afforded him of procuring a berth in a sea-going ship—and the shipwrecked sailor, whether foreigner or native, has received shelter and hospitality till supplied with means to return to his native land.

More recently, Capt. Hall directed his attention to the great naval port of Portsmouth, where such institutions were probably more needed than in any other port in the kingdom. There he met with the cordial assistance of many friends of the sailor, and steps were taken to institute

a Sailors' Home. Sir F. T. Baring, Bart., First Lord of the Admiralty, and Sir G. T. Staunton, Bart., Members for the Borough, kindly consented to be the Patrons of the Institution, and Admiral the Hon. Sir T. Bladen Capel, the Commander-in-Chief, President. From accounts lately received, it appears that upwards of £2,500 has been raised for erecting a suitable building. At one of the meetings connected with its institution, the Chairman, Capt. Sir Edward Parry, who takes such a well-known interest in the welfare of our seamen, said—"That he had had some experience in connection with British seamen, and could not conceive any object that should more worthily commend itself to the notice of the public than a Sailors' Home. If it be true that the seamen of our country constitute a numerous and valuable portion of the population, carrying the British flag, and representing the British character in every part of the globe—if they form a most important means of defence against foreign aggression, then it must be true interest and wisdom of Britain to raise the moral and religious character of these men, and place them in circumstances of respectability. Such was the object which the Sailors' Home hoped to accomplish."

In his present tour, the object of which is to establish Sailors' Homes at all sea-ports, Capt. Hall proceeded from Dublin to Belfast, where a meeting was held, and a Society formed to carry out that important object. After visiting several other ports in Ireland, he proceeded to Scotland, and has already turned his attention to Glasgow and Greenock, where the disgraceful condition of the lodging-houses for sailors, as bad as those at some of the English ports, is such as loudly calls for the establishment of Sailors' Homes. Proceeding to Stornoway, in the island of Lewis, by the west coast of Scotland, where Capt. Hall visited most of the small ports, he received the benevolent co-operation of Sir James Matheson, Bart., M.P., the public-spirited proprietor of the island, and succeeded in adopting measures which will result in a "Home" being immediately established there. The hope is entertained, from the favourable manner in which Capt. Hall's proposals have been received, that in Inverness, Banff, Peterhead, Arbroath, Kirkcaldy, and other ports on the east coast, Sailors' Homes on a small economical scale will also be established. In Aberdeen, Montrose, and Dundee, public meetings have been held, to hear what Capt. Hall had to say on the subject, and committees appointed, consisting generally of the magistrates and shipowners, to carry out the resolutions of the meetings without loss of time. Everywhere he has received a cordial welcome, and met with a ready response to his appeals on behalf of seamen; and he has no doubt that the result will be, that in many or all of these places, Sailors' Homes will ere long be established. When sailors are paid off or discharged at any port, low lodging and public-house keepers are always in waiting to lead Jack wrong, but no one to lead him right. It has been a proverb from time immemorial, that sailors "gain their money like horses, and spend it like asses." Poor fellows, they are warm-hearted, generous, thoughtless—ever ready to lend a helping hand to promote that which is good, and ever liable to be misled. At sea, they are all that the nation which boasts of them can desire—

on shore they are all that the *shark* and the *sharper* can desiderate, and hence they become, in very many instances, an easy prey. Sailors' Homes have done much to save the sailor, and it is to be hoped that every port will soon have some such institution of its own, be it ever so small.

“When mad-brain war spreads death around,  
By them you are protected,  
But when with peace the nation's crown'd,  
Those bulwarks are neglected.”

Capt. Hall intends to continue his visits to other sea-ports, and hopes to meet with the same kind co-operation on behalf of seamen which he has hitherto invariably met with.

In order to convey a proper idea of the nature of such institutions, and the manner in which they are conducted, the following are submitted as the Regulations that have been adopted at Dublin and other ports:—

#### *Respecting Terms.*

Men will have to pay at the rate of—\* a-week for living at the Institution. Apprentices will pay— a-week. In both these charges, washing to the following extent is included; namely, two shirts, one flannel waistcoat, one pair of white trowsers, one pair of drawers, and two pair of stockings, weekly.

After a man has lodged his chest and bedding in his cabin, and is waiting to receive his wages, the superintendent may, according to his judgment, advance him a sum of money not exceeding twenty shillings, portrage, &c., included.

When a man has entered his name as a boarder, his charge for board will go on, unless he gives notice to the contrary to the Superintendent.

If a man, on leaving the Institution, after the settlement of his accounts, wishes to deposit any property in charge of the Institution, he is carefully to lock or lash it up, place his name or number on it, and give the Superintendent the necessary information respecting it, when it will be placed in safe custody until his return.

Should a man, on quitting the Institution, leave any property in his cabin, or in the hands of the washerman, without informing the Superintendent, the Institution cannot be answerable for it, and it will be sold at the expiration of one year, and the money will be carried to an account for “unclaimed property.”

If a boarder goes away in debt to the Institution, leaving property, it will be sold after the expiration of six months, in liquidation of the debt.

#### *Respecting Conduct.*

All *swearing* and *improper language*, so unbecoming the character of a man, and so dishonouring to God, must be entirely avoided in this place.

*Drunkenness*, that disgraceful vice, which sinks a man below the very beasts that perish, and which is so contrary to order and decency, the

\* The committee will, of course, regulate the prices and other details according to circumstances.



men must judge of themselves, cannot in any measure be permitted here.

All *quarrelling* and *abusive language* one to another must be guarded against; and a respectful manner towards those who superintend the Institution will be expected of every man.

*United Service Club,  
Pall Mall, London, Jan. 1st, 1851.*

## THE ETHNOLOGY OF EASTERN ASIA AND THE INDO-PACIFIC ISLANDS.

*By J. R. Logan.\**

(Continued from page 92.)

### SECT. 3.—*Development of Naturalism and Naturolatry.*

THE first religious or philosophical belief of man is, that all natural powers are living and spiritual, like that by which he himself is animated. This idea arises primarily from transferring the internal nature of which he has the nearest consciousness, to external nature. In this great and ever present and operative internal nature, action is the effect of living will, and the will is moved by desires and passions. The mysterious physical forces by which man is everywhere surrounded and pervaded, the abundant vegetable and animal life in external nature and the constant motions, actions and mutations which it presents, shew it to be full of animated powers. The actions of these powers must also be the effect of will moved by passions. Only that which affects man immediately or strongly, arrests his attention and becomes the subject of this unconscious reasoning. In tribes of the lower organic development, in which fear is strong and imagination weak, this idea probably first matures into a deep rooted and fixed belief in the individuality and malignity of natural powers when the ordinary course of nature is interrupted by some striking event or phenomenon, or when man suffers from her operations. Wonder begets worship. Whatever excites strong emotions has something supernatural in it. The nameless attributes of objects, by which in nations of an imperfect or too physical civilization few souls will suffer themselves to be habitually thrilled save those of the child and the poet, the power, the beauty, the terror, the sublimity, and mystery, which to the human mind exposed bare to nature, reside in matter and its mundane forms, are living spirits to unscientific tribes.

The naked and unarmed family that wanders in primeval forest-lands see irascible and capricious powers in the tiger, the snake, the pool in whose dark depth a child vanishes, the torrent that sweeps away a parent or a brother, in the gigantic and living forest itself, in the wind that awakens it from silence and gives it a thousand voices, or fills it with one mighty and awful sound which drowns the crash of falling trees, above all in the mysterious disease which first prostrates and wastes the strong man, and then transforms him into a lifeless corpse.

\* From the Journal of the Eastern Archipelago, published at Singapore.

Everything from which we suffer is animated by a spirit which, whether always actively malignant, or only seizing its victims at rare and uncertain times, is ever living, ever conscious of our presence, and is to be destroyed or propitiated like a human enemy. The invisible and intangible, cause the greatest sense of supernaturalism and mystery. The corporeal or substantial only differ from human enemies because their nature is less understood and their action more uncertain. But if they injure us, they excite anger and revenge, and are to be destroyed if within our power. If they are beyond it, they become objects of fear only, or of fear and hate, and are to be propitiated. For as gods have man-like natures, and malignant or beneficent, their enmity may be appeased and their good will excited by the ordinary means, submission, humiliation, adulation and gifts. Where this is not sufficient, and the gods are peculiarly vindictive and powerful, their vengeance must be gratified by offering them victims. Supernaturalism when indigenous is necessarily a reflection of the nature of the race.

If the man delights to embrew his hands in the blood of him against whom his rage is kindled, so will the god, and human victims must bleed vicariously for the tribe or the family. The man too whose will, passions or intellect are beyond the common standard of the tribe, is seen by all to be possessed of something which is not in them, and this too is mysterious and supernatural like the elemental powers. Nay, it is greater than them, for it is by the power he exercises over nature and man that he proves his god-like faculty. He who by his skill, his his knowledge, or his courage, overcomes disease, foretells events, destroys fierce animals, forces other men to yield to him, escapes dangers or baffles the assaults of elemental enemies, does so by his communion with the spirits of nature or by his over them. All men who rise far above their fellows, whose nature they cannot understand, are gods. In the feelings with which individuals regard men of a stronger will than themselves, or who from physical power or position are lords over them, there is a primordial source of human deification. In certain ethnic stages women must regard men, and children parents, as transcendently greater than themselves, as gods, because they are entirely subject to their will and caprice, and their lives are every moment in their hands. To the women wandering in the wilds of primeval nature with her lord, the single isolated pair from whom a tribe or a race are to descend, his savage anger must have been more dreadful than the wrath of the elements, and his tenderness more grateful than the light of heaven. To the child the parent is still transcendently powerful and loveable.

Can we wonder if, in the dawn of human history, when the mother and her children were bereft by death of the hand which had staid them, of him who had often stood between them and death, and whose will they had followed with mingled love and fear, she should feel towards his spirit as towards a god, call upon to come to her aid in danger and distress, address him in endearing language, offer to him food and continue to picture him to her children as a superior being, till in their imaginations he became superhuman and his actions mythical. Nor is this belief in superhuman power limited to men absolutely or relatively great.

Whatever peculiarity in a fellowman raises a barrier between us and him, and fills us with perplexity and uneasiness or dread, is also more than human. He in whose gloomy, malignant or sinister eye we cannot gaze without a sensation of fear at times creeping over us, is a god, has a god-like power, or is possessed by a god. In a word to every community in this ethnic stage there are two orders of spiritual powers, that of ordinary human nature, and that beyond it, whether it resides in god, men, or in elemental spirits. The same principle, in various developments, may be traced through every ethnic condition, and even in the higher organisms, where the intellect and imagination are powerful, all the soft, sublime and dread impressions which they receive from external nature, are reflected back upon it in supernatural forms. Nature evokes in us love, wonder and awe, and these feelings fill it with gods, heroes and mysterious powers.

SECT. 4.—*Incarnation of the elemental spirits. Polytheism.*

When men have become gods, the greater distinctness of form and individuality which characterises them, must soon suggest the idea that the elemental gods have also human forms, and what thus presents itself as reasonable and probable will speedily be recognized as fact. The mind labours to individualize the beings of its spiritual world, and it naturally associates intelligence with the human form. It cannot in the ruder tribes, nor indeed can it after the highest experience and culture obtain a distinct conception of immaterial spirit. The rude mind does not attempt such abstractions. It believes that every being is possessed of a limited and definite body, and those powers to which it ascribes the feelings of man, and which often and deeply stir its imagination and affections, are pictured as human in their forms. Probably a still earlier cause of the attribution of this form to spirits, is to be found in the conception of a thin or immaterial body, originating in the observation of wind, light and darkness, shadows of men and other objects, and in the images which occur to the imagination in dreams, or when the feelings are strongly excited, or which appear as spectres in certain diseased states of the ocular nerves. When a deceased relative re-appears with remarkable distinctness in the memory of the dreaming or brooding survivor, it is naturally believed that the vision is a reality. Unusual sounds too are often heard without the source being seen, and in diseased states of the brain or ear, words are sometimes heard when there is no person near to utter them, or which are in the voice of one who is known to be far distant. Hence arises the idea of invisible spirits hovering in the air, and of spirits capable of assuming and discarding their sensible forms. The idea of beings with airy and intangible human forms having been acquired, the imagination will soon recognize them in natural appearances and in the spiritual world, and invest the elemental powers with similar bodies. The ideas of superhuman power, velocity and vastness derived from nature, are gradually transferred to the human gods who have ceased to exist, and whose lineaments, faculties and deeds have assumed a dim and transcendent character in the magnifying medium of antiquity and tradition.

Thus all the beings of the spiritual world become assimilated in their character, and are submitted to the mythic action of the mind. The elemental spirits are clothed with human forms, the human spirits with elemental powers and attributes, and the two orders even come to be confounded with each other. Naturalism passes partially or wholly into Polytheism. Gods become male and female, and have their histories like notable men. It is doubtful whether there is any tribe in which pure naturalism prevails. The extent to which the human element predominates in all the spiritualisms of Asianesia of which we have any accurate knowledge, is a strong confirmation of the truth, derived from a consideration of the action and history of the individual mind, that spiritualism is nothing but the reflection of human nature on the outer world.

#### SECT. 5.—*Possession, Sorcerers, Priests.*

The belief in the possession of supernatural power by men is almost universal. It is probable that all men of extraordinary intellect, strength of will, force of passion, fervid temperament, or susceptibility of nervous excitement were at first considered as inspired by a superhuman spirit or as gods. Nothing makes a stronger impression on men's mind than the sight of a fellow man labouring under profound or violent excitement. If it be of an extraordinary nature, the result of disease, insanity, nervous impressibility, or the unconscious or voluntary occupancy of the mind with one emotion, purpose, or notion, the acts and speech in which it manifests itself will be naturally attributed to possession by a god. It will soon be discovered that some individuals are peculiarly susceptible of nervous and imaginative excitement by external means. They themselves will believe with those around them that this extraordinary state is the result of the influence of a god.

The passage from this to the idea that man enters into communication with the great spirits of nature, and causes them to aid him, or do his behest, or that they voluntarily reveal to him the hidden and the future is an easy one. This led to sorcerers and priests. The superhuman power being an attribute of superior intelligence, force of character or passion, may be used for benevolent as well as for malignant purposes. Hence in most tribes there are good as well as bad sorcerers, the former being the chief benefactors and the latter the greatest scourges of a community. It is to the former that the tribe looks to shield them from all supernatural evils, to avert the anger of spirits, to expel those that haunt the person, the house or the village, to detect wicked sorcerers and counteract their spells. It is through them that prayers, invocations and sacrifices are made. It is by their mouths that the gods declare their will. Standing thus between man and the unseen power from whom all good and ill come, their office assumes an influence which generally corrupts its possessors. To maintain and extend this influence, to conceal their failures and their defects of power, to save themselves from the revenge of disappointed credulity, they are compelled to have recourse to cunning and art. This does not render them hypocrites to any greater extent than the priest, the statesman, or the leader of more

civilized societies who is driven by defect of self denial, and by lust of power or fame, to maintain his position in public opinion, at the expense of occasional, and sometimes, systematic deviations from candour and truth.

Quackery has various degrees and forms, and thorough uncompromising sincerity demands a courage and a self renunciation which are not always present even in the best of men. The creed that the end demands and justifies the means, has a constant, though mostly an unconscious operation in life, in the family, the social circle, the public arena, and the temple. Most sorcerers are imposters to a certain extent, but they are believers too. The faith which calls them into existence is in their breasts also, and their arts as often proceed from a desire to exalt it as to benefit themselves. Pious fraud is common to all races and civilizations that the world has yet seen.

---

TABASCO AND ITS RESOURCES.—*From a paper translated from the Spanish, by the late Lieut. Mooney, R.N.*

(Continued from page 86.)

*En passant*, I will give Tabasco the credit of being generally well disposed towards strangers. There exists a spirit of localism, which engenders dislike, in some of the inhabitants, but this is confined to office-seekers; and strangers are not likely to cross them in this ambition. Likewise the abolition of excise in the interior, would be a great benefit conferred on agriculture: this heavy contribution reprobated by economists, opposes a strong obstacle to the circulation of riches, the fountain of all industry and commerce; it is never more ruinous than when levied on the primary products of the land, which on account of their bulk and small value, can little bear the addition of a tax, to the costs of transport, without diminishing the value of capital, and finally swallowing it up altogether.

When for the first time the farms were burdened with the tax of three per thousand, it was solemnly promised that the excise should cease, if this impost was found to answer the purpose of the legislator, or on the other hand the tax should be remitted. Now we see that both are levied to the great prejudice of agriculture, upon which they directly press; the law of the 6th August, 1815, and the decree of His Excellency the General in Chief of the Liberating army of September last year, which determined the revenue of the States, have left these contributions in the particular and local clause, and it is to be hoped that the Estates will abolish that of the excise as all the industrious classes constantly demand, in accordance with the civilization of the age. The cacao, the principal product of Tabasco, has suffered severely since it has been burdened with five per cent., by putting a stop to the extension of the plantations.

Messrs. Camareua and Zubieta, worthy deputies to the Sovereign

Constituent Congress, have proposed a decree to abolish this tax, as one of great import to the nation; and it is to be hoped that, that illustrious body will adopt this measure, fraught with so much consequence to the interests of agriculture.

It will be of no use to acquire by the increase of population, a greater command of labour, or by exemptions from taxation greater facilities to the circulation of capital, if attention is not paid to cultivation.

Yes! let it be considered as a machine, as so much capital! The uncultivated portions of the State are very extensive, in proportion to its superficies. There are two classes of land, one having proprietors who leave them uncultivated for want of means, and the other, waste, belonging to the nation. The appropriated lands have been chosen as its most natural, from amongst those nearest to the villages, the most fruitful, and which afford the greatest facilities for labour. Not taking into account that their acquisition cost very little under the Colonial regime; the ambition of territorial proprietorship, ought not to pervade here as in other times, amongst the conquerors and first settlers; and neither entails, bonds, or religious bequests ought to be suffered, these having in other countries established an inequality prejudicial to agriculture. There still remains much waste land of excellent quality, the appropriation of which now becomes a matter of necessity, and as much for this reason as any other—that with the lapse of time the extension of internal navigation and the augmentation of population, they will be left just as they are now. The obstacles which are now thrown in the way of acquiring the proprietorship of public lands ought therefore to be at once removed.

The greatest stimulus which can be given to the husbandman, is the facility of acquiring landed property. No one labours with the same energy in the affairs of others as in his own, especially when the operations are slow, and the results tardy, as is the case in agriculture. Some economists hold that it would be better to grant the public land in copyhold, and this opinion has been adopted by the legislature, but it is evident, that the required object is not gained, by with-holding the direct title to the land from the husbandman. The improvement of the land, by means of enclosures, canals, roads or aqueducts, in which it is necessary to employ a fixed capital, will not take place, these works will not be duly appreciated, nor will the land be enhanced in value by them, through fear of being dispossessed of the direct title. Every man endeavours to enjoy the fruit of his toils or to insure an adequate subsistence to his progeny, and cannot with indifference behold the despoiler hovering over him, to snatch from his grasp, some cherished spot, endeared by sweet reminiscences, and reeking with the sweat of his brow.

The copyhold cession is another inconvenience in the present political circumstances of this nation—there being no stability in the governments, those holding copyholds are now subject to being despoiled of their lands, by ceding them to those who through favour, or money claim them; and although this is a scandalous violation of social right, to the disgrace of this State such scenes have been enacted, through the mania of imitation, and these lands have been dealt with as if they were

waste. In the United States, where the sale of public lands, forms a large item in the revenue, the question of their better disposition has been largely discussed, and the government has happily decided on their alienation in propriety, since by the last classification of revenue, the supreme government has reserved the national lands, it is to be hoped it will act up to this measure, so well tested by experience, by establishing a general office for the sale of public lands, and assigning titles and uniform conditions. These improvements are not new, nor are the proceeding measures proposed solely by me, the whole nation calls loudly for them, and as proof that they are supported by public opinion, remember that in the revolutions these reforms were the watchword to popularize political changes, although shamefully cast into oblivion, when the real object of the agitations was gained, namely the possession of power.

### *Industry.*

Although in the broadest acceptance of this word, Agriculture and Commerce, are included also, I shall now only treat of labour applied to the manufacture of the primary materials, and to the means which facilitate their diffusion, and augment their value, as an article of barter. The operations of industry significantly mark the progress and career of civilization, and open a vast field to the powers of genius.

Whilst the cultivation of the land is circumscribed to the increase of its productive faculties, and commerce only arrives at the interchange of the products of the soil, those of industry directs labour according to the principles of science, guided by human knowledge. Thus we cannot hope for perfection and prosperity, in industry, whilst the sciences are in their cradle, in consequence of the slow progress which nature has assigned to their dissemination. Such is the position of Tabasco, whose inhabitants are solely occupied in producing the diminutive crops, of which I have spoken in treating of agriculture; in the manufacture, and transport of the primary products on which I am about to descant; and in operations of barter, which I shall notice when speaking of commerce.

In order to extract the juice of the sugar-cane, wooden mills have alone been employed, which on account of their small power, and natural elasticity have wasted much of the liquor. Even now many of these imperfect machines are in use; but within these few last years, they have begun to import iron mills of better design, and with the necessary apparatus, by which there has been a saving of both time, labour, and produce. The only motive forces employed are horses, mules, or oxen, the important application of steam, having been never yet attempted here, except in navigation, and even scarcely that of water-power, which is so abundant. There are about a dozen iron mills, with their appurtenances of boilers and furnaces, on the modern principle in work: of these, two belong to Don Pedro Monti, three to the Messrs. Robirosa, one to Dr. Miguel Hernandez, one in Tepitapan, one in Tacotalpa, two in Cundoacan, one in the Ceuso, and one in a farm belonging to Senor Maldonado, which I believe is within the jurisdiction of Chiapas.

The principal manufacture of sugar is the cake or small loaf, which

the poorer classes use to sweeten their beverages. The spirit stills and the export to Yucatan are shewn in the adjoined statement, of the exports of this port for the last eight years. In the year 1846 some cargoes of this article were cleared out for Campeche; when possessed by the fatal spirit of monopoly, which is the ruin of industry, they imposed an additional duty of three-pence per 25lbs., from the 28th of May of the same year; fearing forsooth that the importations from this conterminous and sister state, would be of detriment to its own products. In Tabasco no less blinded to their own interests, they collect six-pence export duty for every ten arrobas (25lbs) a tax which although at first sight it appears small is not so, when we consider the small value of the article, the waste to which it is subject, and the increasing cost of production. The crystalization of the juice into cakes, to make aguardiente, appears to be a superfluous labour, which occasions the loss of fermentation, so necessary to the produce of alcohol. There would no doubt be a considerable saving of produce, if, as is the case everywhere else, the direct distillation of molasses was practised; but this mode of proceeding would meet with constant opposition in Tabasco, where they are ignorant of the reason for so doing. The chief consumption of the aguardiente and sugar-cake, which are manufactured in this country, as in the interior, is very considerable in both articles, although from want of returns, I cannot be particular as to the quantity.

Sugar properly so called, is manufactured in small quantities, insufficient even for home consumption; which in part supplies itself from the town of Chilon, Ocoeniago, and others in the state of Chiapas, which hitherto have produced it in abundance; and of a very superior description. The want of large capital which is requisite in this branch of industry, is an obstacle to its extension, which can alone in time better prices.

Another exertion of industry is the cutting, barking and transport of logwood, (*Hæmatorcydon Campechiaunm.*) which is known in the European market as Palo de Campeche. This tree is indigenous to the forest of Tabasco, to the lowlands, islands, and banks of rivers, and lagoons, and gives employment to very many, forming the principal article of foreign export of this State. Far from the land producing it in abundance, it begins to disappear, it is seldom met near the mountains, although when planted on the highlands and hills it arrives at perfection. To procure it, establishments are formed in those places where it abounds, which are called "Tintales";\* and a more or less considerable capital is employed in procuring hands, tools, boats, victuals, and other articles necessary to the undertaking. It is cut with the axe, and is a work of torment, for the lowlands in which it grows are very marshy, and teem with mosquitoes. However it is the most lucrative for the labourer. For instance in husbandry, say in the breeding of cattle, a labourer if married gets four dollars per month, and three if unmarried, besides the food necessary for his family. Whilst in the "Tintales," every labourer whether married or single is paid according to his labour, and as there is no overseer, as in cultivation, to take note of their work, each makes

\* Tintales—Establishments for cutting.



a separate delivery, keeping a daily account of weight and date, in the "Tintales," from which they cannot remove the wood until the floods. They employ themselves in cutting and stacking it, till the season approaches in which it is removed in small boats, then each person, barks and delivers by weight as much as he has cut, and this is divided into daily tasks, (tareas) and the value of each tarea is placed to his credit. These tareas consisted formerly of twenty-five pieces, averaging nine inches in thickness, and weighing between ten and twelve Castilian\* quintals, without the bark. This method is still in vogue in some establishments, but in others the tarea has been reduced to four or five light quintals, barked and brought to the loading place. It is calculated that when there is abundance of wood, a man of mediocre strength, can compass that amount of labour in a few hours. Some labourers are paid a real and a half (9½d.) for every quintal delivered within certain bounds; these are called quintaleros, and their families are not maintained by the proprietor. But most commonly eight reals per tarea are paid, and that shews, that the labour applied to this branch, produces 150 per cent more than the farm labour, supposing a man does not cut more than half a tarea a day, which including the food he receives amounts to five reals.

The farm labourer only receives two, hence it is that logwood cutters look better and are more comfortable than the others, although they work much harder; having the means of satisfying all their wants.

---

THE ANTILLES.—*Sombrero, Anguila, St. Martin, &c.*—*Described by Capt. E. Barnett, R.N., late of H.M.S. Thunder.*

(Continued from page 18.)

THERE is however a good channel within the shoals, for vessels drawing fourteen feet, provided the prevailing wind is not to the northward of E.N.E. To navigate it, having passed the bar as before directed, or if pursuing the route from the eastward through Cades Bay anchorage, give Johnson Island a berth of a quarter of a mile, and then steer with Sandy Island on with the north-east side of the highest of the Five Islands, until the Hawk's Bill Rock comes on with Pelican Point, which mark will carry you through the Five Island Channel, which is however only a cable's length wide, if therefore on your approach you should find the wind too scant to allow you to make certain of laying through, you had better pass out to the south-west of the Five Islands, taking care to avoid the north end of the Irish bank, by not opening Flat Top Hill to the southward of Musquito Hill when near it. You may also anchor before coming thus far in the centre of Picart Bay, in 3 fathoms, three-tenths of a mile from the shore, where there is good holding ground, and good landing on the east side of Ffry's Bluff. Should you have succeeded in getting through the Five Island Channel, we can give no further leading marks, but you may pursue the inshore route with safety, by steering from thence direct for Pelican Island, a small rocky islet eight feet above the level of the sea, two cables' length to the westward

\* Castilian quintal is equal to 1 cwt.

of the east point of Five Island Harbour, you will soon perceive a breaker, which lies a cable's length off the west point of the island; round this within a cable's length, and then hug the shore close on board, taking care not to open Fort Barrington on Goat Hill, of Ferris Point, until you are past the Hurst Banks, or the Table Peak is nearly in one with the Hawk's Bill Rock. Ships passing outside the shoals, bound to St. John's Harbour, should as before directed, not shut in Dow's House of Old Road Bluff, until they have passed to the westward of the leading mark for the bar, when they may haul gradually up to the north-west, taking care to open the Hawk's Bill Rock out to the westward of the Five Islands, before Johnson's Island comes in one with Old Road Bluff, when they may haul up north. The soundings off the south-west end of the island in this track, are very irregular and rocky, varying suddenly from 7 to 12 fathoms, and in the night, this part should not be approached within the depth of 10 or 12 fathoms.

*The Five Islands* are a small group of low, rugged, rocky islets, scantily clothed with brushwood, the outermost lying half a mile west of Pearn Point, and are easily recognized from the north and south direction: from other points, being under the hills they are not readily distinguished, except the largest, which is fifty feet in height: the innermost lies a cable's length from the shore, leaving a small channel for a drogher. The ship channel we have described, is between the highest and the one next east of it; there are really but four islets, for the north-east point of the largest, which is called the fifth from its appearance at a certain distance, is connected with the island by a low coral ledge, the two outer ones are steep to on their north and west sides.

*Red Cliff*, three-tenths of a mile to the north-east of Pearn Point: at the east end of a sandy beach, there is a remarkable Red Cliff, about thirty feet in height which forms the south-west point of Five Island Harbour, which, forming a deep indentation to the eastward is one mile and a half in extent in that direction and three-fourths of a mile from north to south. This is a very secure anchorage during the prevailing winds although exposed to the rollers for vessels of sixteen feet draught; the holding ground is very good. There is however a dangerous small patch of rocks in the very middle of the harbour on which there is only nine feet water; its shoalest part lies with Sandy Island in one with Pelican Point, the north-west point of the harbour; to avoid it to the northward which is the side on which it should be passed—on entering do not open Drews Hill to the southward of Maiden Island, which is a remarkable small, round, rocky islet, with precipitous sides, crowned with small trees, the tops of which are ninety feet above the level of the sea, lying in the middle of the inner or eastern part of the harbour. We are not able to give any mark for passing it to the southward. The harbour is also obstructed at the entrance by the Pelican Shoal, on which there is only fifteen feet water. If working in to the southward of it do not shut Drew Hill in with Maiden Island; and when the Great Sister is in one with Ferris Point, you will be close on the inner or east side of it. The shoal is cleared to the northward by not opening Seaforth Head, a rocky bluff hill at the east end of the harbour to the southward

of Maiden Island. If approaching from the northward the better way is to keep in the inshore channel already described, and haul sharp round Pelican Island rock, when, if the sea breeze is to the northward of east you may fetch to windward of Cook's Shoal.

*The Hawk's Bill Rock* lies a cable and a half length from the shore, and midway between Pelican and Ferris Points which are a mile and a quarter distant. It is a small, barren, rocky islet, twenty-five feet in height; its west side being composed of soft sand stone, has been cut into by the action of the sea, formerly a perpendicular cliff to nearly the top of the rock, where it overhangs projecting out almost horizontally for a few feet, and then becomes rounded to the summit, on which there is a nob of rock, and when seen clear of the land from the northward or southward has the appearance of a hawk's bill and cannot be mistaken: there is no passage within it even for a boat, but on its outer side it is steep to within a cable's length.

*Goat Hill*, eight-tenths of a mile to the north-east of Ferris Point, is of conical shape, 176 feet in height, and is readily distinguished by the small fort with its two signal staffs on its summit, more particularly from the south-west, from whence it also appears a well defined point or headland. The hill is situated on a narrow neck of land, on the west side of which is Deep Bay, where there is a temporary anchorage for small vessels.

*Ship's Stern*.—Nearly a cable's length from the point, is situated a narrow flat topped rocky islet, slightly wooded, one-tenth of a mile in length, called the Ship's Stern, its west side having something of that appearance. It is a bold perpendicular cliff about sixty feet in height, having several large masses of rock lying at its base, which are very remarkable from the south-west or north-east directions. From hence the shore takes an abrupt turn to the E.S.E., for two miles and three-quarters, forming the south side of the harbour and roadstead of St. John's.

*St. John's*.—St. John's is the capital of the island, and lies on the side of a gentle acclivity, which at the upper part of the town, is about eighty feet above the level of the sea. From the offing it is readily distinguished by the cathedral, a large massive white building with two lofty towers, the vanes of which are 157 feet above the sea. The only other remarkable object is the kirk, a small square white building with a nipped or sloping roof, and a small bell turret at its west end; it stands a little above the cathedral, nearly a quarter of a mile to the south-east of it. The centre part of the city is well built and clean, the streets running parallel and at right angles with the shore. The commerce of the island is carried on from hence, both inwards and outwards, the produce and supplies being conveyed by droghers to and from all other parts, with the exception of Parham, where three or four ships load annually.

The harbour is secure against all winds except hurricanes; but confined, and not at all convenient, for ships of only twelve feet draught, cannot come within three-quarters of a mile of the wharf, and those drawing over fourteen feet, are obliged to load in the roads: it is also exposed to

the rollers, which at times break over the jetties and do much mischief. It is of irregular shape, nearly two miles in length from the bar to the head, and between Week Point and the north end of the cove, it is three-quarters of a mile wide. Here however it is divided by Rat Island, a small rugged rocky islet, on the summit of which is the lunatic asylum and signal-staff, which are conspicuous objects, the wall which surrounds the building being 137 feet above the level of the sea. The islet has recently been connected to the shore at the west end of the town by a well built stone causeway, with a carriage road to the foot of the hill. That part of the harbour situated on the south side of the island, is alone occupied by shipping, and abreast of it there is ten feet water. The north-west point of the harbour terminates in a small rocky bluff thirty-eight feet in height, on which is situated Fort James, a mile from the nearest part of the opposite shore, which may be termed the entrance for small vessels. The harbour however is obstructed by a narrow sand bar, six-tenths of a mile to the westward of the fort, on which there is only a depth of fifteen feet and a half at low water. As the trade wind continually blows from almost the same direction, ships will always have to beat in; therefore, those drawing thirteen feet, having passed within the middle ground, should keep Yepton Mill on with the east end of Loblolly Bay, until the westernmost house in the city, which is a long low building with a red roof, and with a small flag-staff near the east end of the wharf on which it stands, is in one with the cathedral, when you may haul to the wind and cross the bar. The deepest part however is only a cable's length wide, and to beat up from it into the harbour, can only be effected by good local knowledge, with the assistance of a pilot, for we can give no safe directions. A nun buoy has recently been placed on the west end of the bar, which is of great use, enabling you to haul your wind more quickly than can be done by attending solely to the leading marks. To the north of the channel mark or buoy, there is thirteen feet water in that direction, until Fort James Bluff is in one with the north side of Rat Island, to the northward of that there is nine feet.

(To be continued.)

---

### VICTORIA (REDCAR) HARBOUR.

*Newcastle-on-Tyne, 15th Feb., 1851.*

SIR.—In 1832 my project for forming a Refuge Harbour at Redcar, in Tees Bay, first received your support in the pages of the *Nautical*. In 1839 a bill to authorize the formation of the harbour under Commissioners was brought before Parliament; but the means which were then necessary for its execution, (*viz.* a passing toll of one half-penny per ton, not more than is paid for some lights without harbours to them,) were withheld,—the preservation of human life was not in that decision made an object of paramount consideration, though warmly

advocated by many distinguished officers and members of the House of Commons.

A reference to your table of the wrecks of British Shipping which have since taken place on that coast, or foundered off it for want of a place of refuge, shows that the necessity of the measure still exists.

In 1839, many hundreds of *masters* and owners of vessels petitioned Parliament for the harbour, although it was to be paid for by a passing toll. *They* drew a wide distinction between Redcar with thirty feet at low water, and the wreck-traps for which they were taxed. Happily the same necessity for a passing toll does not now exist, because the connection of Redcar with the mining and manufacturing districts by railway, ensures a revenue sufficient to justify the advance of the sum necessary to complete what nature has by the Salt and East Scars so far advanced as the work of refuge.

There will now be levied only dues on entering or deriving shelter, and for this purpose a bill has been introduced this session which has gone through a second reading, and is now entrusted to a Select Committee of the House of Commons. Before that Committee accounts will be tendered of vessels seen to go down since 1839, with all hands immediately off Redcar, and of the shores of Tees Bay having been, as oft before, "strown with wrecks of British Shipping."

I am, &c.,

W. A. Brooks.

*To the Editor N.M.*

[Our readers will easily remember the interest we long ago expressed in the success of this project, under the name of Port William; being satisfied, of its great importance, as providing a port of safety for our ships just where that was wanted. The opposition, however, which it had to encounter from *interested* parties unhappily succeeded. The project was successfully opposed and many valuable ships and *invaluable* lives have been lost in consequence. What that wilful old lady dame Nature held out as an encouragement, (having done half the work of making the harbour herself,) was slighted and the projectors laughed at for supposing that harbours were really wanted on a dangerous coast of 200 miles in extent, where, in reality, none were to be found! But

"Tempora mutantur et nos mutamur ab illis."

"the poet sang of old, and so it still is." Those simple-minded men were really right after all, and although a glance full of jealousy may be cast at the projectors, by the same interested parties who opposed it in 1832, still we are informed that the work is really to be done, and a noble harbour, the appearance of which is to resemble that in the sketch accompanying our present number, is to appear under the more successful name of VICTORIA; for its inaugurating bill in parliament, that precious *projet de loi*, by which it is to stand or fall, has really passed its second reading. We have not room now for Mr. Cubitt's report, and must defer it for another number. We must, therefore, content ourselves at present with the sketch, and congratulate, not the projectors of this noble harbour alone, but seamen generally, who when they happen to be embayed on the lee shore of Durham, in those dreadful easterly gales to which that coast is exposed, will find a refuge fully capable of receiving them in safety at Redcar.—Ed.]

\* Query?—Of no value.—R.D.

## THE BARROW MONUMENT, ULVERSTONE.

THIS beautiful tower, erected in memory of Sir John Barrow, Bart., on the Hill of Hoad, which rises immediately above his native town, was partially damaged by lightning on the evening of the 30th of January.

We are sure that our readers, many of whom have contributed towards the erection of the tower, will learn of this casualty with regret, but it is due to the committee to state that orders had been given two months prior to the event, for fitting the lightning conductors on the plan of Sir William Snow Harris; want of time alone having caused the delay in carrying out the order.

The damage done is confined chiefly to the lantern, eight or nine of its massive stones, weighing 3 cwt. each, having been hurled from the summit to the base, a distance of 100 feet, breaking through five out of six of the iron girders, inserted for the support of the several floors of the building, one or two of the landings, and several of the stone steps by which the tower was ascended. Some of the stones fell outside, but occasioned no material damage, striking the projecting portion at the base. No damage whatever appears to have been done to the body of the tower, which is a most fortunate circumstance.

The lantern is much shaken and must be taken down, the expense to restore it is estimated at about £120, and the fitting of Harris' conductor will cost a further sum of about £50. Under these circumstances the committee have determined upon keeping open the subscription lists, and no longer to confine the subscriptions to the immediate friends of Sir John Barrow, who have shewn their marked regard for him by erecting one of the most beautiful structures in the kingdom, but to all persons, in the service, or out of it, who from their knowledge of his character as an honourable upright man, a friend and benefactor to the Naval Service, during the forty years he served as Secretary of the Admiralty, or in admiration of his great talents, perseverance, and industry, may wish to enrol their names in the same cause, in which we ourselves feel so deeply interested.

We trust this will be a warning to all architects and others, and that they will take good care to apply Sir William Harris' conductors, *pari passu* with their buildings, when they stand on so exposed a site as that of the Hoad Hill. Fortunately in our own service few ships are without them, and their efficacy is frequently proved to the satisfaction of all on board. We have long been of opinion that no ship should put to sea without them, and (as it is impossible to be *au fait* with every thing,) we can only hope that all vessels and passage-boats, carrying large numbers of passengers across the Atlantic and elsewhere, are fitted with Sir William Snow Harris' admirable conductors.

## THE COMMERCE OF LIBERIA.

THE formation of a settlement at Port Cresson, has been looked upon by me with unabated anxiety for many years. In fact its delay seems more like a rejection of an inestimable blessing of God than anything else. This I am confident is the opinion of every candid and sensible man who has visited the site. Our excellent President, Roberts, has often expressed the same opinion in substance, as also, other prominent citizens of this republic. Through your unabated and zealous efforts for our prosperity, Capt. Gordon,

of the U.S. brig *Porpoise* visited us in June, in company with President Roberts, in the Liberia schooner *Lark*. They landed at the Cove, walked up (three miles) to the present settlement, Bassa Cove, and such were the manifest facilities of the former, as a harbour and landing, that the president informed me that he would embrace the earliest opportunity of communicating to the A. C. Society to send out a full expedition as speedily as possible for its settlement, and with these sentiments Capt. Gordon's were in perfect harmony.

I am happy to say further that Com. Byrne, of the U.S. sloop-of-war *Decatur*, anchored in our roads on Monday, the 3rd ult., and remained with us until Thursday the 6th. On his arrival I immediately communicated with him, apprising him of the dangers of our bar, and advising him to land at Cresson Cove, and to signify when he would land, and I would send some gentlemen down to escort him up to this settlement. I also informed him that it would be conferring a favour on this settlement if he would, during his stay, have the harbour and landing of Cresson examined, and give his opinion as to its advantages for a settlement.

This request was complied with. He landed the following morning at ten o'clock opposite the extreme end (this way) of the anticipated town, which is the reservation requested for the mission premises, &c., and though the landing here is not as smooth by 50 per cent, as the front, centre, and opposite end of the new town, yet he declared over and over, in the presence of a number of gentlemen that he considered it to be the best landing he had seen on the coast, and authorized me to freely use his name in giving publicity to this sentiment. In fact, he told me that so soon as the ship anchored and ere he had received my note, he took his glass, and after examining the Cove, said to several of his officers, yonder is the place at which the settlement should have been formed, and wondered why it had not been before this time occupied. These impressions were confirmed on his landing.

The French Squadron, while stationed on this part of the coast, in 1846 and 1847, used to run so far into the Cove, that their vessels could not be seen from the front street of this settlement, there they would land their marines and field pieces, parade and fire at targets part of the day, and at the proper hour, walk to their boats, step in and go off at pleasure.

I deem it superfluous to add the testimony of the Rev. R. R. Gurley, to the above. You will have the pleasure I hope of seeing him in a few months, and from him you will be able to gather considerable information. He invariably preferred landing at and going off from Cresson, considering the walk but a pleasant exercise. You will find that he will dwell upon the necessity and wisdom of the settlement of that place.

By some mishap, I perceive the river St. John is represented on the map of Liberia, comparatively smaller than it should be. Its representation is about half the size of the St. Pauls, which is a wide mistake. I feel confident in asserting that it is at least nine-tenths as large as the St. Pauls, and many say, equally as large, which I am more than half inclined to believe.

Its banks on both sides are generally beautifully elevated and admirably adapted, especially to agricultural settlements; the fertility of the soil increases as one ascends. A beautiful range of mountains is to be seen, while gliding on its lovely bosom. These are about twenty miles from Bassa Cove. There are tracts of land along the banks of the St. John still owned by tribes who would readily dispose of most of them, for the purpose of having settlements formed near them in order that their posterity may be benefitted by the blessings of civilization. These tracts of land lie above Bexley, and are superior to the latter in point of fertility and elevation, notwithstanding that of Bexley is truly excellent. I long to see the day when both sides of this noble and lovely river, will be thickly inhabited by Liberians, and the

rich soil now covered with dense forest, converted into well laid off plantations under proper civilized cultivation.

On the 27th ult., with about fifty inhabitants of this town, (volunteers,) I succeeded in cutting a back street, (upon which our farms are ranged,) from Benson's river, to within a couple of hundred yards of the reservation for our mission. The length of the street, from the river to where it terminates on the beach, is about one mile and a quarter. The direction S. 16° W. My farm is situated on the same street; the first commencing from the river. To the commercial men of our country, Liberia presents herself as a theatre of extensive and lucrative business operations. To substantiate this position, let us look at the number and value of articles embraced in the present trade of Western Africa, and which may be called the natural productions of that immense continent, in the strictest sense of the term, as nature supplies them ready for the market, almost without the aid of man.

Palm oil is produced by the nut of the palm tree, which grows in the greatest abundance throughout Western Africa. The demand for it, both in Europe and America, is daily increasing, and there is no doubt it will ere long, become the most important article of trade. The average import into Liverpool of palm oil, for some years past, has been at least 15,000 tons, valued at about £400,000 sterling.

Camwood, red wood, bar-wood, and other dye-woods, are found in great quantities in many parts of the country. About thirty miles east of Bassa Cove, is the commencement of a region of unknown extent, where scarcely any tree is seen except the camwood. This boundless forest of wealth, as yet untouched, is easily accessible to that settlement; roads can be opened to it with little expense, and the neighbouring kings will readily give their co-operation to a measure so vastly beneficial to themselves. It is impossible to ascertain the amount of exports of these commodities to Europe and the United States, but it is very great, and employs a large number of vessels. One Liverpool house imported 600 tons, in a single year, worth about 50,000 dollars.

Ivory is procurable at all points, and constitutes an important staple of commerce. It is supposed that from 150,000 to 200,000 dollars worth is annually exported.

Gums of different kinds, enter largely into commercial transactions. The house referred to above, imported in three years, into Liverpool, of gum Senegal, nearly 600,000 dollars.

Dyes of all shades and hues are abundant, and they have been proved to resist both acids and light.

Gold, which is found at various points of the coast, from the Gambia to the Bight of Benin, and probably to a much greater extent, is obtained by the natives, by washing the sand, which is brought down from the mountains by the rivers. As the purest and richest veins lie much deeper than those which are worn away by the attrition of mountain streams, the mountains only need to be explored, and the veins worked by the aid of scientific skill, to open sources of unlimited wealth. Even now, the shipment of this article from Sierra Leone in a recent year, amounted in value to 300,000 dollars.

Besides these may be specified wax, hides, horns, pepper, ginger, arrow-root, ground-nuts, copper, mahogany, teak, and gambia wood. When we reflect that these are merely the materials spontaneously furnished by nature, which may be increased indefinitely by the application of industry and science, we cannot but wonder at the extent and variety of the resources of that rich and beautiful country.

The amazing fertility of the soil, affords facilities for supplying some of the most important commercial wants, among which may be enumerated the following:—



Cotton of a very beautiful staple, yielding *two crops a year*, is indigenous, and thrives for twelve or fourteen years in succession, without renewal of the plant.

Coffee of a quality superior to Java or Mocha, is raised in Liberia, and can be cultivated with great ease to any extent. It bears fruit from thirty to forty years, and yields ten pounds to the shrub yearly. A single tree in the garden of Col. Hicks, (colonist,) at Monrovia, is said to have yielded sixteen pounds at one gathering.

Sugar-cane grows in unrivalled luxuriance, and as there are no frosts to be dreaded, can be brought to much greater perfection than in our Southern States.

Indigo, caoutchouc, tamarinds, lime<sup>s</sup>, oranges, lemons, and many other articles, which are brought from tropical countries to this, might be added to the list. Indeed, there is nothing in the fertile countries of the East or West Indies, which may not be produced in Western Africa.

Here are the elements of wealth, the materials of an extensive and tempting commerce. Enterprise and capital, with proper protection from our government, are alone necessary to develop and make them available and profitable.

And what a market is thus opened for the exchange and sale of the innumerable products of the skill and manufactures of our people? Africa is estimated to contain one hundred and sixty millions of inhabitants. These are not only willing, but anxious to obtain the various articles of civilized nations, yea, it is to satisfy their thirst for these commodities, that impel them forward in procuring victims for the accursed slave trade.

The favourable geographical position of Liberia, the elevating influence of her free and christian institutions; the industry, integrity, and intelligence of her children, with constitutions adapted to that climate, and a similarity of colour with the natives, will enable the Liberian to penetrate the interior with safety, and prosecute his trade in the bays and rivers of the coast, without suffering from the diseases which are so fatal to white men.

Liberia is the door of Africa, and we believe is not only destined to develop the agricultural and commercial resources of that mighty continent, but the means of regenerating her benighted millions, and amply repaying to our own land the expense she has already incurred, or may incur, in building up and sustaining, directly or indirectly, the Republic of Liberia.

---

CALIFORNIA.—By the last accounts disease still prevailed amongst the overland emigrants to a fearful extent, produced, it appears, not so much for the want of food, as by the unwholesome nature of it, and the bad quality of the water they were obliged to use. The mortality would appear to have been very great, one man alone counted 1,500 graves by the road side while he was coming over the plains. Murders and robberies were as numerous as ever. The site of the future Capital of the State of California was being discussed with great eagerness, many places having offered for the honor and holding out large inducements. One spirited capitalist, a Mexican general, offers 152 acres of good land and to expend 370,000 dollars on public buildings, if his site is chosen.

---

### THE SAILORS' STRIKE.

THE strike amongst the seamen, which broke out in the north, now happily at an end, at one time threatened to be of more serious consequence, and of greater hindrance to the trade and commerce of the district, than was at

first anticipated. One of the grievances of which the seamen complained was the interference by the Board of Trade with what the sailors call "their domestic arrangements on board ship," this was considered obnoxious to the seafaring population, and although the adoption of the regulations of which they complained were wholly optional, and not to be used unless agreed upon by both master and crew, they could not be made to understand them in that light, and vigorously objected to them. The following are the regulations alluded to as having been sanctioned by the Board of Trade :—

*Regulations sanctioned by the Board of Trade, 1850.*

1. Not being on board at the time fixed by the agreement—to forfeit two days' pay.
2. Not returning on board at the expiration of leave—one day's pay.
3. Insolence or contemptuous language or behaviour towards the master or any mate—one day's pay.
4. Striking or assaulting any person on board or belonging to the ship—two days' pay.
5. Quarrelling or provoking to quarrel—one day's pay.
6. Swearing or using improper language—one day's pay.
7. Bringing or having on board spirituous liquors—three days' pay.
8. Carrying a sheath knife—one day's pay.
9. Drunkenness (first offence)—two days' half allowance of provisions.
10. Drunkenness (second offence)—two days' pay.
11. Neglect on the part of the officer in charge of the watch to place the look out properly—two days' pay.
12. Sleeping or gross negligence while on the look out—two days' pay.
13. Not extinguishing lights at the times ordered—one day's pay.
14. Smoking below—one day's pay.
15. Neglecting to bring up, open out, and air bedding, when ordered—half a day's pay.
16. (For the cook.)—Not having any meal of the crew ready at the appointed time—one day's pay.
17. Not attending Divine Service on Sunday, unless prevented by sickness or duty of the ship—one day's pay.
18. Interrupting Divine Service by indecorous conduct—one day's pay.
19. Not being cleaned, shaved, and washed, on Sundays—one day's pay.
20. Washing clothes on a Sunday—one day's pay.
21. Secreting contraband goods on board with intent to smuggle—one month's pay.
22. Destroying or defacing the copy of the agreement, which is made accessible to the crew—one day's pay.
23. If any officer is guilty of any act or default which is made subject to a fine, he shall be liable to a fine of twice the number of days' pay which would be exacted for a like act or default from a seaman, and such fine shall be paid and applied in the same manner as other fines.

[We find the foregoing string of *complaints* in the *United Service Gazette*, and the following extracts from the *Daily News* and *Shipping Gazette* appears to place the subject in its real light. We have purposely omitted some passages from the *Daily News*, which being very incorrect and calculated to do no good, we regret to find circulated in that well informed journal.—Ed.]

It was on the Tyne that this movement began. On the banks of that river strikes are by no means uncommon. Only, however, at long and distant intervals amongst its seamen. Far more frequently amongst its pitmen. On the present occasion it commenced with a dispute between

masters and men about wages. The fine winter has seriously depressed the coal, and necessarily the carrying trade; the consumption of fuel by this metropolis alone having, it is calculated, fallen during the last two months quite 10,000 tons a week beneath the ordinary consumption of this season of the year. This decreased consumption, of course, diminished the demand for shipping and freights; lessened the employment and lowered the wages of seamen. They resisted the operation of the law of supply and demand. As usual with work-people, ineffectually. But one complaint, even though averted, leads to another; and the seamen of the Tyne, foiled in their attempt to keep up wages, took to expressing their dislike of the new legislation of the Board of Trade; and with, as we shall see, some reason.

At first the movement was confined to the two Shields and their satellite ports. But grievances, real or fictitious, are infectious. The Board of Trade, notwithstanding its duty of "general superintendence," instead of at once interposing, looked curiously on. The Wear thereupon next sympathised with the Tyne; the sailors of Sunderland and its adjacent ports responded to their class further north. The Humber became uneasy; and Hull joined the movement.

The Board of Trade then sent Capt. Beechey, down to North Shields. Liverpool seems to have caught the infection; and from distant Peterhead, in the north of Aberdeenshire, the whalers are to be heard clamouring against the statute in that case made and provided.

Nevertheless the British seaman, with professional qualities and capabilities unrivalled, is an ignorant, insubordinate, and suspicious fellow. Down to the last session of parliament he was not subject when afloat to any proper discipline, and in the coasting trade to little competent or morally responsible command. He had been petted and protected and made much of by legislation, until his insubordination and general bad conduct was jeopardizing the maritime reputation and profits of England. With minds and old associations unsettled, and generally indisposed to confidence, the Navigation Laws were repealed; that repeal Jack, in his deplorable ignorance, believed, as his owners assured him, was meant to take the bread out of his and put it into the foreigner's mouth. And before he had recovered from this fright, the act of last session came upon him.

The act was well meant; it aimed at raising the character of the mercantile marine by instating a higher class of masters and mates, by protecting seamen against crimping and other frauds, and by enforcing discipline at sea; all admirable objects. But it proposed to do this in a meddlesome, fussy, costly and indiscriminate way: trying to force sailors at once into habits of order; not gradually weaning them from habits of disorder. And it was unaccompanied by several other measures absolutely necessary to render it popular with either owners, skippers, or sailors.

The statute contained many provisions for which sailors ought to be most thankful; it gave to Advance Notes for wages a legal character, which ensures their being cashed without the usurious assistance of crimps; it provided for the better accommodation of seamen on the long voyage, for their proper food and for due medical attendance; and these are provisions which it is very ungrateful in seamen to overlook or to depreciate. On the other hand, it laid down very stringent regulations for enforcing discipline and heavy penalties for its breach; and these it is that are so obnoxious to sailors; but their dislike of them is a proof, if it were wanted, how much they were needed. The act also provides for such a system of registration as on its face will show from the reports of masters the general character of the men: so increasing the value of good, and placing at their real worth bad men. This, of course, is not popular with the latter.

The Board of Trade's original bill required all agreements to be made at

the Shipping-offices; its bill No. 2, now the law, however, limited this requirement to foreign-going vessels. It left the coasting trade to make its agreements as before; provided they were in writing and contained certain particulars set forth in the act.

Their tickets will, we are persuaded, prove of infinite use to them; and to describe themselves, because of their issue, as "ticketed negro slaves," is a piece of very foolish exaggeration, which can only damage them when they have real evils to be redressed.

We are apprehensive that the present conduct of the seamen is calculated to inflict very serious and permanent injury upon themselves, and, perhaps, to damage irreparably the Shipping Interest of the country. Let us remind them that they are now, by our recent legislation, placed in very precarious circumstances. The Foreign Trade of England is thrown open to the whole world, and, under the same enactment, her Majesty in Council—that is, in fact, the Ministers of the day—can regulate as they think proper, the proportion of British seamen required to be borne on board an English vessel. As yet the Coasting Trade is exclusively reserved for our own ships and our own seamen; but, when the act for repealing the Navigation Laws was first framed, the Coasting Trade was also included in it, and it was with some difficulty, on the part of those who supported the Shipping Interest, that free-trade in Navigation was confined to the Foreign and Colonial Trade of the kingdom. The seamen, therefore, who are now "turning out" may rely upon it, that the same party who forced the Act of 1849 upon the Government would very cheerfully support them in adding the Coasting Trade of the kingdom to the former measure.

They should further know that a very considerable proportion of the Ship-owners of the United Kingdom complain of the hardship of being compelled to man their ships with British seamen, when they are required to compete with foreigners, who receive much less pay, and who are fed in a very different manner from what our seamen are accustomed to. This is one of the grievances of the Shipping Interest complained of by Mr. Anderson, the member for the Orkneys. We have always admitted that it is an extreme hardship upon our Shipowners; but consideration for our seamen, has at the same time compelled us to say, that it is one which there is no, alternative for them but to submit to. What are we now to say, when we find them insisting upon wages which we know Owners of vessels cannot pay at the present rate of freights? They may rest assured that, if they continue their present conduct, they need not trouble themselves about the Mercantile Marine Act, to which they make such clamorous and unfounded objections; for, in a very short time, the country would be without any Merchant Navy, and the Shipping Trade of the country would be monopolized by foreigners. In fact, the present conduct of the seamen will be referred to by the enemies of the Shipping Interest, to show the wisdom and propriety of allowing foreigners to engage in our carrying trade.

With regard to the Mercantile Marine Act, it is our firm belief that so much misrule and disorder, such frequent instances of insubordination, mutiny, and desertion, had sprung up in our Merchant Navy, that under a free-trade in shipping, foreign vessels would, in a very short time, have been generally preferred by Merchants who had cargoes to embark. The object of Mr. Labouchere's Bill is to remedy these abuses, by making the Merchant Navy of the Kingdom, in every respect, more orderly and trustworthy, from the efficiency of the Commanders and Officers, and the better conduct of the seamen; and, in effecting this object, care has been taken to make the new regulations the medium of insuring comfort and justice to the seamen themselves.

If these men suppose they are to make laws for themselves, or that they

can be allowed to remain in that state of wild disorder which for some time past has been prevailing on board many of our merchant ships, let us tell them they are deceiving themselves. In no civilized country could this be permitted; no matter what may be a man's station in society, he must be subject to the laws which are enacted for the well-being of society, and which are requisite for the security and happiness of every individual in that society. If any of those to whom these remarks are more especially addressed have served in the Merchant Navy of the United States, they may know that in that service a system of good order and discipline has to be preserved, as rigid as any that prevails on board our ships of war; and this is enforced by the courts and civil power in the United States. American seamen are well paid, well fed, but at the same time they are *well-worked*. Our seamen may ask what wages they think proper—with that we have nothing to do, as it is optional with the Shipowners to give the wages demanded or not. They may estimate their services as high as five pounds a month if they please; but we will tell them what they have no right to do:—they have no right to coerce or insult other seamen who are not of their way of thinking, and who choose to go at a lower rate of wages; this is an outrage, an act of illegal tyranny, which is not permitted to any other class of persons in the empire, and we are confident will not be permitted to the seamen.

We wish to assure these misguided men, that public opinion is against them throughout the country: their demands are considered unjust and unreasonable, and, in England, a cause which is deprived of public sympathy can never succeed, if resisted by the Government.

For our own part, we could not inflict so serious an injury upon the Seamen of the country as to recommend the President of the Board of Trade to make any material alteration in the act of last session. We should be sorry to see the spirit or the principle of it in the slightest degree departed from, having the most perfect confidence that—when they shall have had a little experience of its good effects in promoting their comforts and securing their interests—the seamen themselves will wonder that they could have been instigated to offer the resistance to it they are now doing. The Shipping-offices, and the Register-tickets, which are so strenuously objected to, are, in our opinion, among the best features in the Act; except for those who enter on board a ship with the resolution to desert whenever an opportunity offers. These dishonest characters may well object to an enactment which will check their unruly and fraudulent purpose, on the same grounds that the swindlers who infest our streets would much rather there was no law or police to restrain them; and, whatever our seamen may think, we tell them that, in principle, it is as much an act of dishonest swindling on the Shipowner, to desert from a vessel after engaging for the voyage, as it is to enter a tradesman's shop, and cheat him out of his goods: it is, perhaps, even worse, as there is breach of faith and a betrayal of confidence superadded to the fraud.

We hope that Mr. Labouchere will remain perfectly quiescent under the present agitation: let him do so, and he will find that the barque, which now threatens to be stranded by the disorder of its own crew, will very soon right itself, and be sailing away with a steady breeze.

---

#### NAUTICAL NOTICES.

**THE NEW AFRICAN PORT OF BASSA.**—It is only quite recently that the importance of Liberia to our commerce, our manufactures, and to promoting the comfort of our officers and crews, has begun to be appreciated. The

exports of that new state, in exchange for our merchandize of various kinds, cotton, woollens, glass, iron, steel, &c., are only now beginning to excite attention. Palm oil, ivory, gold, dyewood, pepper, ginger, coffee, and other tropical staples, are now exchanged by the industrious citizens of Liberia with our merchants; and a new element of vast importance to England is justly attracting deep interest. After much investigation the cotton plant is found to thrive admirably; and an association of capitalists, intend to extend their experiment in cultivating that right arm of national industry. But of the topography of that interesting region, little is known. Our readers will therefore learn with much interest, that immediately below the mouth of the St. John's, a noble river nearly a mile in width, and extending far inland, but obstructed by a bar, is a beautiful cove; long a favourite resort of the slavers for wood, water, and provisions. Although a good Admiralty chart of Bassa Cove exists, it is but just now that the development of its rich resources through the industry of the colonists planted there by the philanthropists of Pennsylvania, has rendered it at all known to our naval men. It now ought to be universally known; for, in addition to the towns of Bexley and Edina, on the northern bank of the St. John's, a new town, to which the grateful citizens have given the name of Cresson, in remembrance of their obligations to that gentleman, has quite recently sprung up within the Cove. Free from the dangers of the bar, and protected by the "Point of Rocks" forming its south-east boundary, it is at all times one of the very best harbours on that long line of coast. Its citizens, among whom stand prominently Hon. S. A. Benson, Messrs. A. P. Davis, Cheeseman, Hanson, Weaver, Washington, and Dr. Moore, as men of integrity and enterprize, not only trade in the staples above enumerated, but desire to attract to their noble port, vessels needing supplies. The water of Bassa has long been celebrated for its excellence, and until colonization excluded the slavers, they came long distances to fill up their tanks and casks. These industrious people, especially Mr. Benson, intend keeping on hand salt and fresh provisions, bread, biscuits, flour, poultry, &c. Of their fruits and vegetables the variety and excellence have long been noted; and although the settlement is quite recent, Messrs. Moore and Benson, have already coffee plantations of 8 to 10,000 trees each. The duties on foreign imports are very moderate, generally not exceeding 6 per cent *ad valorem*; port charges, if any, extremely light; and the services of Kroomen and Bassas readily obtained, the individuals named, we believe to be worthy of entire reliance. To officers of our Navy and our Commercial Marine, we recommend this new port with confidence; and we trust that ere long the efforts of Mr. Cresson to build up an episcopal church there, will afford an additional attraction to our officers and men.

We propose to enrich the papers of the *Nautical Magazine* with the letters of Mr. Benson, as illustrating men and things in Grand Bassa County. They have our best wishes for their prosperity.—*Esto perpetua.*

REMARKS ON THE BAY OF ANTIOCH, *Extract from the Remark Book of H.M.S. Frolic, Com. Vansittart.*

The Bay of Antioch may be said to extend from Cape Possidium to Cape Khazar, a distance of about twenty-two miles. The head of the bay is formed by the small bay of Karrobojak, the mouth of the Orontes and the old port of Sileucia, a distance of quite eight miles, each of which places being open to winds to westward of south and north, would render the anchorage at the head of Antioch Bay, during the winter months, most unsafe; however, good anchorage and shelter is to be found at the Bay of Possidium, which forms the south-west extreme of the Bay of Antioch; for

although, by all accounts, the westerly winds do not prevail in the winter months in the Gulf of Iskenderoon and the Bay of Antioch. as on the other parts of Syria, yet they occasionally do blow so as to endanger the safety of any vessel at anchor in an open roadstead as the head of the Bay of Antioch is.

Bay Possidium, twelve miles S.S.W. of the mouth of the river Orontes, and where several of Ibrahim Pasha's squadron rode out a winter in perfect safety, is, after Iskenderoon, the best anchorage on the coast of Syria.

The bay is upwards of a mile in extent, being formed by Cape Baziet at west extreme, and a point with mosque at north-east end. It is sufficiently large to contain a squadron of large vessels. The best anchorage is off the remains of a pier where, as along the whole bay, it deepens gradually from 6 fathoms at a quarter of a mile distant, to 9 fathoms at half a mile, and 15 fathoms at three-quarters of a mile, good holding ground, sand and mud.

The anchorage is sheltered from all winds but from W.N.W. to N.E. It is easily discovered by a remarkable table land, half way up which is a small village, under which in the water are the remains of the pier.

A good watering place is nearly in the centre part of the bay, at a stream running into the sea, from which, in the month of July we watered quickly, and found the water far superior to that we took in at Beyrout from Dog River. Between this stream and the ruins of the pier, are three small streams. Cattle to any quantity might be procured here.

In entering anchorage from Cape Baziet, it is necessary to give Cape Baziet and points to ruins of pier a berth of a quarter of a mile, after which there are no rocks.

Bay of Kasseb, seven miles S.S.W. of the mouth of the Orontes. No anchorage for a man-of-war, badly sheltered, and not less than 25 fathoms at 450 yards from the beach.

Bay of Karrubojok, about two miles to the south of the mouth of the Orontes, badly sheltered, and from the great depth of water same objection for anchoring in as in Bay of Kasseb.

The mouth of the Orontes, nearly in lat.  $36^{\circ} 3' N.$ , long.  $35^{\circ} 59' E.$ , is at the head of the Bay of Antioch. At a quarter of a mile to the north of the entrance of the River Orontes, is the most convenient and usual anchorage for vessels remaining a short time, which may be easily discerned by remembering that the small white domed building (Mosque of St. George), and two houses on the beach, are two miles to the northward of it. The water here as along the head of the bay shoals gradually, with good holding ground, sand and mud, having 5 fathoms at 700 yards off shore, 8 fathoms at half a mile, and 12 fathoms at three-quarters of a mile.

The Orontes rises near the southern extremity of Syria, flows behind Lebanon, through its whole length, it turns its northern point, and passes by Antioch into the sea.

At the entrance of the river is a bar of sand, but by keeping nearly in the centre, is a passage of from 5 to 6 feet. The breadth at the entrance is 270 feet, so that boats of any size might enter without fear of grounding, and take in cargoes from the small village known as the Marina, about one mile from the entrance. After having entered six or seven miles up the river, the water runs down with great force; in some places it becomes so shallow as to prevent boats going up and down, and on which shallows the river naturally runs with much greater velocity.

The bar at the entrance of the river is evidently caused by the deposit from the sea, but there is little fear of the entrance being entirely blocked up, as from the river running down fresh into the sea it will always keep the entrance clear.

At a short distance from the entrance of the river is situated the village

of Suediah, which consists of several straggling houses, amongst which the most conspicuous is the Chateau Hunicay, the residence of Dr. Holt Yates, near to which is the residence of the British Consulate Agent (Mr. Barker), prettily situated amongst the poplars. There is already a steam factory established at Suediah and from the quantities of silk, cocoons, grain, and other articles raised there, which are now for the most part sent off to Aleppo, and partly in native boats, any vessels arriving off Suediah, might be pretty certain of securing good cargoes. June appears to be both the silk and grain season, the early part of the month for the silk, the latter part for grain.

Merchant vessels might ship off cargoes during the summer months from Suediah, with much greater safety than at Jaffa, and from Suediah as well as Possidium being very healthy, I should think preferable to Iskenderoon, which place although a safe anchorage is most unhealthy, from the insalubrity of the low marshes; so much so that as late as in 1843, an English merchant brig lost the whole of her crew, with the exception of the mate; likewise dying in the same year, the masters of two French merchant vessels.

The British trade in Syria is rapidly progressing, for at Iskenderoon alone in 1848, the amount of British merchant vessels arriving there was thirty-five, or 4,976 tons; for the next year 1849, double that, being sixty-eight vessels, or 11,552 tons, the cargoes taken from which place being chiefly cotton and grain.

About six miles north from the entrance of the River Orontes is the Old Port of Seleucia, off which there is now no shelter: good holding ground and water shoaling gradually, as off the mouth of the Orontes.

The entrance to the Old Port of Seleucia, is marked by the remains of two piers jutting out into the sea, but is now so blocked up as to be on a level with the land on each side of it; likewise growing on it mulberry and fig trees. The basin is still marked by the remains of the old wall, and is now a fresh water marsh covered with reeds and grass. It must have once been a noble basin, being upwards of a mile in circumference encompassed by a wall, the entrance to which was defended by enormous towers, the ruins of which are still standing: near to one is about twenty-five feet of mosaic pavement.

As to the practicability of clearing out of the basin and port, so as to enable even small vessels to enter, the expense and labour required, would always be a serious consideration before attempting it.

---

#### THE PORGAS BANK.

We alluded in our last number to a fortunate cast of the lead having struck the Porgas Bank, one of the oldest of the vigias to be found on our charts. We have since received the following from Mr. Aylen, late Master in command of the Birkenhead steamer on her recent voyage to Ascension and back.

*H.M. Yacht Victoria and Albert,  
Feb. 13th.*

SIR.—I felt very anxious you should have these soundings from the fact of your having told me that yourself had been looking for this nautical shoal. I have inclosed you the soundings herewith in the same paper, the arming was melted from, in order that you may determine what they are. I consider it pieces of shells and sand or small particles of coral. I regret that I did not again sooner take a cast with more line than was used. My anxiety to proceed on the service ordered was such, I did not like heaving the ship





in favor of there being something there." To these may be added also, Carmlick Shoal  $39^{\circ} 32' N.$ ,  $51^{\circ} 50' W.$  1841\*, for although this latter is rather distant from the foregoing it may prove that this report is true, although the position may be erroneous, in longitude especially.

The following account of this bank appears in Laurie's Atlantic Memoir, and we hope hereafter to see this important subject investigated by a few of those deep casts of some of our naval officers that have been already attended with success.

"M. Bellin, however, placed it as a certain danger; and in his memoir of 1742, has said, that this danger was seen on the 22nd of August, 1700, by M. Daraith, who approached within one league and a half of it, then sailed around it in order to observe it well, and took an altitude within sight of it. The rock is described as extending one league and a half, being three-quarters of a league broad. Its longitude is very uncertain.

"April 20th, at 8 A.M., being on the starboard tack, ship going two knots and a half an hour, moderate weather, a man saw something ahead; the helm was immediately ordered a-weather to clear it; being very near it, ship was only 15 or 20 fathoms to leeward of it, which enabled me to distinctly make it out to be a rock, just even with the water; its head was round, and appeared to be about 8 fathoms or more in diameter; it was covered with weed, similar to that on half-tide rocks; it was of a light green, with some branches of a red colour. It was at times on the top of a sea invisible; but in the hollow of a sea, several feet uncovered. I observed the sea to break on it twice, causing a spray, as any pinnacle-like substance, with deep water around it, might be expected to do. My first officer and others also saw it, and are fully convinced of its being a danger; the lead was hove as soon as it could be got forward, but there was no bottom at 90 fathoms perpendicular. I might then be within musket shot of it; from the mast-head, no appearance of other danger could be seen.

"From an excellent observation at noon; I consider it to lie in lat.  $40^{\circ} 18' N.$ , long. by dead-reckoning,  $53^{\circ} 40' W.$

"The water, for several miles around it was dark as if on soundings. Fearing I might strike on some invisible danger, I did not put the ship's head toward it, and there was too much sea to lower a boat; recovering from the consternation this unexpected sight put me into, I left it astern, fearing there might be more beneath the surface, directly in the track I was going.

"From my thermometrical observations on approaching to and on the great Bank of Newfoundland, I have reason to think the above longitude nearly correct; at least, if any error, it could be only a few miles too far eastward. I unfortunately broke this *most valuable* instrument a short time before seeing the above danger.

"I understand there have been many opinions as to the truth of my statement; it is difficult to convince some, and perhaps, if the *Harbinger*, which I commanded, had struck on it, some would have supposed she had alighted on the back of a whale, though by-the-by, weeds are seldom seen growing there.

"During the many years (14) I have commanded a ship, mostly in the North American trade, I have seen various things in the ocean, and was too well acquainted to mistrust my eyes in this case. It is said that Daraith saw a danger not far from this; perhaps it may be a part of the same, as he represented it as very extensive. I am convinced we too often treat *doubtful dangers* in charts, with indifference, because they are not always seen by

\* Nautical Magazine, p. 781, 1841.

those who look for them; may it not be the case, that ships sometimes are wrecked on them and never heard of? However, I shall always dread the above danger when sailing in that part of the ocean."

*Liverpool, Feb. 3rd.*—The *John Garrow*, Hamilton, arrived here, passed over a bank about fifteen miles from west to east, in lat.  $40^{\circ} 25' N.$ , long.  $54^{\circ} 28' W.$  The sea ran higher on than off the bank, the water was very much discoloured, and large quantities of seaweed were floating about. Tried the temperature of the water, and found it 12 degrees below the air, and when the bank was passed over, found the water 14 degrees above the air. A very heavy gale blowing at the time, the *John Garrow* was prevented sounding.—*Shipping Gazette, Feb. 4th, 1851.*

HALIFAX, Jan 25—The new lighthouse, a square building, painted white, with a black ball on the seaward side, on Cape Latour, which forms the east side of Barrington Harbour, about midway between Cape Sable and Cape Negro, is now in operation. It exhibits a bright flash light of 15 seconds' duration, with alternate eclipses of 34 or 25 seconds. As this light will be of some importance to American vessels, I give, from the authority of the commissioners, the following bearings and distances:—

Lat. of light,  $43^{\circ} 26' 9'' N.$ , long.  $65^{\circ} 23' 7'' W.$ , variation  $15^{\circ} 40' W.$ ; magnetic bearing; Cape Sable S. extreme S.  $77^{\circ} W.$  distant  $7\frac{1}{2}$  miles; south extreme Black Ledge S.  $34^{\circ} E.$ , distant  $1\frac{1}{2}$  miles; Salvages, or Half Moons, S.  $88^{\circ} E.$ ; Brazil Rock, S.  $4^{\circ} 10' W.$ , distant  $5\frac{1}{2}$  miles; Bantam Rock,  $45^{\circ} W.$  distant  $1\frac{1}{2}$  miles.—*Boston (U.S.) Post.*

#### ARCTIC EXPEDITIONS.—Bhering Strait.

Despatches have been received at the Admiralty from Capt Kellett, c.b., of H.M.S. *Herald*, dated at sea the 14th of October, 1850, on his return from Behring Strait. The *Herald* had communicated with H.M.S. *Plover*, on the 10th July, at Chamisso Island, where the *Plover* had passed the preceding winter. The two ships proceeded to the northward until they sighted the pack ice, when the *Herald* returned to Cape Lisburne in quest of Capt. Collinson's expedition, and on the 31st fell in with H.M.S. *Investigator*, which had made a surprising short passage of twenty-six days from the Sandwich Islands. The *Herald* remained cruising off Cape Lisburne, and again fell in with the *Plover* on the 13th of August, on her return from Point Barrow, Com. Moore having coasted in his boats, and minutely examined the several islets as far as that point from Icy Cape, without gaining any intelligence of the missing expedition. Com. Moore and his boat's crew had suffered severely from exposure to cold. Capt. Kellett having fully victualled the *Plover*, ordered her to winter in Grantley Harbour (her former anchorage at Chamisso Island not being considered safe), and then returned to the southward on his way to England. Despatches have also been received from Capt. Collinson, c.b., of H.M.S. *Enterprise*, and Com. McClure, of H.M.S. *Investigator*.

Capt. Collinson's letter is dated Port Clarence, September 13th, 1850, and after detailing his voyage from the Sandwich Islands, till he arrived in lat.  $73^{\circ} 20'$ , and his embarrassments among the ice, it proceeds to say,—

"On the 29th of August the thermometer having fallen to 28 deg., and there being no prospect of our being able to accomplish anything towards the fulfilment of their Lordships' instructions this season, I bore away for Point Hope, where I arrived on the 31st, and found a bottle deposited by the *Herald*,

which informed me that it was intended to place the *Plover* in Grantley Harbour this season. I accordingly proceeded thither, with the view of taking her place for the winter, and enabling Commander Moore to recruit his ship's company by going to the southward. On my arrival I found her inside preparing her winter quarters, and having examined and buoyed the bar, I attempted to take this vessel inside, but failed in doing so, owing to the change of wind from south to north having reduced the depth of water four feet, and had to relieve the ship of 100 tons, which was quickly done by the opportune arrival of the *Herald*, before she was released from a very critical position.

"The tides being irregular, the rise and fall depending principally on the wind, and that wind which occasions the highest water producing a swell on the bar, it became a question whether a considerable portion of the ensuing season might not be lost in getting the ship out of Grantley Harbour; and on consulting Captains Kellett and Moore, finding it to be their opinion, founded on the experience of two years, that the whalers coming from the south pass through the Straits early in June, whereas the harbours are blocked until the middle of July, I have come to the conclusion that I shall better perform the important duty confided to me by returning to the south, and replenishing my provisions, instead of wintering on the Asiatic shore, where there is not a prospect of our being of the slightest use to the missing expedition. It is, therefore, my intention to proceed to Hong-Kong, it being nearer than Valparaiso, and the cold season having set in, my stores and provisions will not be exposed to the heat of a double passage through the tropics; and as I shall not leave until the 1st of April, I may receive any further instructions their Lordships may please to communicate.

"The *Plover* has been stored and provisioned, and such of her crew, as are not in a fit state to contend with the rigour of a further stay in these latitudes have been removed and replaced by Capt. Kellett, and the paragraphs referring to her in my instructions fulfilled.

"I have directed Commander Moore to communicate annually with an island in St. Lawrence Bay, in lat.  $65^{\circ} 38' N.$ , and long.  $176^{\circ} 43' W.$ , which is much resorted to by the whalers, and where any communication their Lordships may be pleased to send may be deposited by them, as they are not in the habit of cruising on this side of the Straits; and I have requested Capt. Kellett to forward to the Admiralty all the information on this head he may obtain at the Sandwich Islands. It is my intention to proceed again to the north, and remain in the most eligible position for forwarding assistance to the *Investigator*, which vessel having been favoured with a surprising passage from the Sandwich Islands, was fallen in with by the *Herald*, on the 31st of July, off Point Hope, and again on the 5th of August, by the *Plover*, in lat.  $70^{\circ} 44' N.$  and long.  $159^{\circ} 52' W.$ , when she was standing to the north under a press of sail, and in all probability reached the vicinity of Point Barrow, fifteen days previous to the *Enterprise*, when Capt. M'Clure, having the whole season before him, and animated with the determination so vividly expressed in his letter to Capt. Kellett, has most likely taken the inshore route, and I hope before this period reached Cape Bathurst; but as he will be exposed to the imminent risk of being forced on a shoal shore and compelled to take to his boats, I shall not forsake the coast to the northward of Point Hope, until the season is so far advanced as to ensure their having taken up their winter quarters for this season."

---

A letter from Com. M'Clure, date H.M. discovery ship *Investigator*, at sea  $51^{\circ} 26' N.$ , long.  $172^{\circ} 35' W.$ , July 20, 1850, gives the following account of the proceedings and intentions of that officer:—

"As I have received instructions from Capt. Collinson, c.s., clear and unembarrassing (a copy of which I enclose), to proceed to Cape Lisburne in

the hope of meeting him in that vicinity, as he anticipates being detained a day or two by the *Plover* in Kotzebue Sound. It is unnecessary to add that every exertion shall be made to reach that rendezvous, but I can scarce venture to hope that even under very favourable circumstances I shall be so fortunate as to accomplish it ere the *Enterprise* will have rounded that Cape, as from her superior sailing she hitherto having beaten us by eight days to Cape Virgins, and from Magellan Straits to Oahu six. It is, therefore, under the probable case that this vessel may form a detached part of the expedition that I feel it my duty to state, for the information of the Lords Commissioners of the Admiralty the course which under such a contingency I shall endeavour to pursue, and have to request that you will lay the same before their Lordships.

“After passing Cape Lisburne it is my intention to keep in the open water, which from the different reports that I have read, appears about at this season of the year to make between the American coast and the main pack as far to the northward as 130° meridian, unless a favourable opening should earlier appear in the ice, which would lead me to infer that I might push more directly for Bank's Land, which I think is of the utmost importance to thoroughly examine. In the event of thus far succeeding, and the season continuing favourable for further operations, it would be my anxious desire to get to the northward of Melville Island, and resume our search along its shores and the islands adjacent, as long as the navigation can be carried on, and then secure for the winter in the most eligible position which offers.

“In the ensuing spring, as soon as it is practicable for travelling parties to start, I should dispatch as many as the state of the crew will admit of, in different directions, each being provided with forty days' provisions, with directions to examine minutely all the bays, inlets, and islands towards the north-east, ascending occasionally some of the highest points of land, so as to be enabled to obtain extended views, being particularly cautious in their advance to observe any indication of a break up in the ice, so that their return to the ship may be effected without hazard, even before the expenditure of their provisions would otherwise render it necessary.

“Supposing the parties to have returned without obtaining any clue of the absent ships, and the vessel liberated about the 1st of August, my object would then be to push on towards Wellington Inlet, assuming that that channel communicates with the Polar Sea, and search both its shores, unless in so doing some indication should be met with to show that parties from any of Capt. Austin's vessels had previously done so, when I should return, and endeavour to penetrate in the direction of Jones's Sound, carefully examining every place that was practicable.

“Sir, should our efforts to reach this point be successful, and in the route no traces discernible of the long missing expedition, I should not then be enabled longer to divest myself of the feelings, painful as it must be to arrive at such a conclusion, that all human aid would then be perfectly unavailing; and, therefore, under such a conviction, I would think it my duty, if possible, to return to England, or at all events endeavour to reach some port that would insure that object upon the following year.

“In the event of this being our last communication, I would request you to assure their Lordships, that no apprehension whatever need be entertained of our safety until the autumn of 1854, as we have on board three years of all species of provisions, commencing from the 1st of September proximo, which, without much deprivation, may be made to extend a period of four years; as, moreover, whatever is killed by the hunting parties, I intend to issue in lieu of the usual rations, which will still further protract our resources.

“Should difficulties apparently insurmountable encompass our progress so as to render it a matter of doubt whether the vessel could be extricated, I should deem it expedient in that case, not to hazard the lives of those entrusted

to my charge after the winter of 1852, but in the ensuing spring quit the vessel with sledges and boats, and make the best of our way either to Pond's Bay, Leopold Harbour, the Mackenzie, or for whalers, according to circumstances."

A subsequent letter from Com. McClure, dated 'Her Majesty's discovery-ship *Investigator*, July 28th, 1850.' Kotzebue Sound, lat.  $66^{\circ} 54' N.$ , long.  $168^{\circ} W.$ " states that the writer had not seen anything of the *Enterprise*, nor was it his intention to lose a moment by waiting off Cape Lisburne, but he should use his best endeavours to carry out the intentions contained in his letter of the 20th."

" *Her Majesty's ship Enterprise,*  
Oahu, June 29th, 1850.

"Memorandum.—As soon as Her Majesty's ship under your command is fully complete with provisions, fuel, and water, you will make the best of your way to Cape Lisburne, keeping a good look out for *Herald*, or casks, and firing guns in foggy weather after passing St. Lawrence. The whalers also may afford you information of our progress.

"Should you obtain no intelligence, you will understand that I intend to make the pack close to the American shore, and pursue the first favourable opening west of the Coast Stream, pressing forward towards Melville Island. In the event of meeting land, it is most probable that I would pursue the southern shore, but conspicuous marks will be erected, if practicable, and information buried at a ten-foot radius.

"As it is necessary to be prepared for the contingency of your not being able to follow by the ice closing in, or the severity of the weather, you will in that case keep the *Investigator* as close to the edge of the pack as is consistent with her safety, and remain there until the season compels you to depart, when you will look into Kotzebue Sound, for the *Plover*, or information regarding her position; and having deposited under her charge a twelvemonth's provision you will proceed to Valparaiso, replenish, and return to the Straits, bearing in mind that the months of June and July are the most favourable.

"A letter from the hydrographer, relative to the variation of the compass, is annexed, and you will bear in mind that the value of these observations will be greatly enhanced by obtaining the variation with the ship's head at every second or fourth point round the compass occasionally, and she should be swung for deviation in harbour as often as opportunities may offer.

"Should you not find the *Plover*, or that any casualty has happened to render her inefficient as a depot, you will take her place; and if (as Capt. Kellett, supposes) Kotzebue Sound has proved too exposed for a winter harbour, you will proceed to Grantley Harbour, leaving a notice to that effect on Chamisso Island. The attention of your Officers is to be called, and you will read to your ship's company the remarks of Sir J. Richardson, concerning the communication with the Esquimaux, contained in the Arctic report received at Plymouth.

"Your operations in the season 1851, cannot be guided by me, nor is there any occasion to urge you to proceed to the north-east; yet it will be highly desirable previous to entering the pack that you completed provisions from whalers, and obtained as much reindeer meat as possible. Capt. Kellett's narrative will point out where the latter is to be had in most abundance, and where coal can be picked up on the beach; but husband the latter article during the winter, by using all the drift wood in your power.

"In the event of leaving the Straits this season, you will take any weak or sickly men out of the *Plover*, and replace them from your crews, affording Com. Moore all the assistance in your power, and leaving with him Mr.

Miertching, the interpreter; instructions with regard to whose accommodation you have received, and will convey to the captain of the *Plover*.

"RICHARD COLLINSON.

"To Com. McClure, of *H.M.S. Investigator*.

"Should it be the opinion of Com. Moore, that the services of the *Investigator's* ship's company in exploring parties during the spring, would be attended with material benefit to the object of the expedition, he will, notwithstanding these orders, detain you for that purpose; but care must be taken that your efficiency as a sailing vessel is not crippled by the parties not returning in time for the opening of the sea.

"R. C."

#### IRON LIGHTHOUSE FOR THE AMERICAN GOVERNMENT.

WE have been favoured by Mr. John Walker, of Gracechurch Street, with a view of a corrugated iron lighthouse, which he is at present constructing for the American government. It is, we believe, to be fixed on one of the keys off the coast of Florida. He has only contracted for the iron part of it, and the lantern is to be furnished by the Americans, who are to erect it. It is now being put together at the Shepherd and Shepherdess-fields, New North-road, Hoxton. The foundation is to consist of sixteen solid wrought iron screw piles, which will be bedded in the solid rock, and are to rise fifteen feet above it. Twelve of these pillars will be disposed to form a square of forty-five feet each way. The remaining four will form a smaller interior square, and will be the foundation for the tower. On these iron girders are to be placed, and above them a thick flooring of oak plank forming a platform, from which the lighthouse will spring. We now come to the part which is to be seen erected at Hoxton. It may be divided into two parts—the house for the keepers of the light, and the lantern tower. The house is thirty-eight feet square and eleven feet in height, and is made of a double casing of corrugated iron three-eighths of an inch in thickness, and placed five inches apart. It is divided into nine rooms by partitions of a similar construction; the doors, windows, and corners of the house, places where the partitions join the sides, and top and bottom of the sides, are all cased with angle iron. In a wooden house the angle iron is represented by the timbers, and the corrugated plates by the boarding. It is surmounted by a curved roof, which is of single iron plate, inside of which will be placed a timber roof, for without this the heat would be intolerable. The whole of the house is bolted together in pieces, two feet six inches in width. The tower is raised through the roof and from the centre of the platform. It is also made of a double casing of iron, is cylindrical, and seven feet inside in diameter. It is divided into rings six feet in height bolted together, and each ring is lifted to its place in two pieces. The height from the platform to the commencement of the lantern is seventy-six feet. The tower derives much strength from a spiral cast-iron staircase, which ascends to the lantern floor, and is supported by a solid iron newel. Each step, as it is bolted to the side, and also to the newel, forms a stay in itself. To secure additional stiffness, pieces of gaspipe are to be placed between the castings every eleven inches, and to be bolted through. In addition, from the piles, twelve stays of cast-iron pipe, eleven inches in diameter, will rise and be inclined to meet the tower at the top, just beneath the lantern, and also four stays from the inner piling. This again will all be stiffened with vertical, horizontal, and diagonal bracing, so that when erected it will have the appearance of a pyramid of iron network, surmounted by a lantern, and enclosing a house and monster chimney. The double casings spoken of will not only be a great advantage with regard to strength, but also for the purpose of ventilation. Openings are made at the bottom of the building in the partitions and the tower, so that a free current of air will pass everywhere. The form of corrugated iron, which may be described as a succession of waves in and out, or curves of contrary flexure, gives great strength in itself. What with the bracing, and the way in which both house and tower are tied together, it is supposed that it will completely resist a hurricane. The building will shortly be completed and shipped to its destination.

## TABLE LXXVI.

*For converting Roman miles into English.*

1 Roman Mile = 0·92043514 English Mile.

1 English Mile = 1·08644265 Roman Mile.

Roman or Eng. Miles.	Eng. Miles and Dec. parts.	Rom. Miles and Dec. parts.	Roman or Eng. Miles.	Eng. Miles and Dec. parts.	Rom. Miles and Dec. parts.	Roman or Eng. Miles.	Eng. Miles and Dec. parts.	Rom. Miles and Dec. parts.
1	0·920	1·086	40	36·817	43 458	79	72·714	85·829
2	1·841	2·173	41	37·738	44·544	80	73·635	86·915
3	2·761	3·259	42	38·658	45·631	81	74·555	87·002
4	3·682	4·346	43	39·579	46·717	82	75·476	89·088
5	4·602	5·432	44	40·499	47·803	83	76·396	90·175
6	5·523	6·519	45	41·420	48·890	84	77·317	91·261
7	6·443	7·605	46	42·340	49·976	85	78·237	92·348
8	7·363	8·692	47	43·260	51·063	86	79·157	93·434
9	8·284	9·778	48	44·181	52·149	87	80·078	94·521
10	9·204	10·864	49	45·101	53·236	88	80·998	95·607
11	10·125	11·951	50	46·022	54·322	89	81·919	96·693
12	11·045	13·037	51	46·942	55·409	90	82·839	97·780
13	11·966	14·124	52	47·863	56·495	91	83·760	98·866
14	12·886	15·210	53	48·783	57·581	92	84·680	99·953
15	13·807	16·297	54	49·703	58·668	93	85·600	101·039
16	14·727	17·383	55	50·624	59·754	94	86·521	102·126
17	15·647	18·469	56	51·544	60·841	95	87·441	103·212
18	16·568	19·556	57	52·465	61·927	96	88·362	104·298
19	17·488	20·642	58	53·385	63·014	97	89·282	105·385
20	18·409	21·729	59	54·305	64·100	98	90·203	106·471
21	19·329	22·815	60	55·226	65·187	99	91·123	107·558
22	20·249	23·901	61	56·147	66·273	100	92·044	108·644
23	21·170	24·988	62	57·067	67·359	150	138·065	162·966
24	22·090	26·074	63	57·987	68·446	200	184·087	217·289
25	23·011	27·161	64	58·908	69·532	250	230·109	371·611
26	23·931	28·247	65	59·828	70·619	300	276·131	325·933
27	24·852	29·334	66	60·749	71·705	350	322·152	380·255
28	25·772	30·420	67	61·669	72·792	400	368·174	434·577
29	26·693	31·507	68	62·590	73·878	450	414·196	488·899
30	27·613	32·593	69	63·510	74·965	500	460·218	543·221
31	28·533	33·680	70	64·430	76·051	550	506·239	597·543
32	29·454	34·766	71	65·351	77·137	600	552·261	651·866
33	30·374	35·853	72	66·271	78·224	650	598·283	706·188
34	31·295	36·939	73	67·192	79·310	700	644·305	760·510
35	32·215	38·025	74	68·112	80·397	750	690·326	814·832
36	33·136	39·112	75	69·033	81·483	800	736·348	869·154
37	34·056	40·198	76	69·953	82·570	850	782·371	923·476
38	34·977	41·285	77	70·873	83·656	900	828·392	977·798
39	35·897	42·371	78	71·794	84·743	1000	920·435	1086·443





*Whitegate, Co. Cork, Ireland, Feb. 16, 1851.*

SIR.—I send you an astronomical enigma for the instruction and amusement of your many readers. If it is considered worthy a place in the *Nautical Magazine*, it is quite at your service.

To the Editor N.M.

Your obedient servant, C. G. S.

The merchant brig *Ocean* of Liverpool, was employed in 1850, in trading to the Coast of Africa for palm oil.

It so happened that while lying awaiting her cargo in the Old Calebar River, the master and mate died of fever; and the medical man being the only person on board acquainted with navigation, accounts, or trading tact, was nominated as master, and took charge accordingly. The vessel having completed her cargo, left the river bound for Liverpool, but from the fatigue and exposure consequent upon the constant attention, which the master was obliged (single handed) to pay to the interests of the owner, and the ship herself, his health was materially undermined; and so ill was he, that when off Cape Palmas he became delirious, and was obliged to keep his bed.

The acting mate not being able to write log or keep the ship's reckoning, soon lost the day of the month; and when the master was sufficiently recovered to ask questions, he was told that the ship was holding on a northerly course, but that no one on board knew the day of the month.

Being aware that without such knowledge it would be impossible to ascertain the ship's geographical position, and never having heard of so extraordinary an occurrence, he hauled the ship in for the land, and in two days sighting the high land of Sierra Leone, touched there for the required information.

It is required to know, how the day of the month, and the hour of the day or night, might have been ascertained by the master without altering his northerly course, or seeing the land?

[We are quite ready to hear from any of our readers in answer to the above.—Ed.]

INTERESTING TO NAVIGATORS.—Lieut. Maury, of the National Observatory at Washington, in noticing the existence of a sub-marine volcano, as observed by Capt. Ballaird, of ship *Rambler*, from Calcutta, on the 30th October, in lat. 16° 30' N., long. 54° 30' W., and Capt. Potter, of the barque *Millicood*, last from Rio, half an hour later on the same day, when in lat. 23° 30' N., long. 58°—as noticed in the *Inquirer* immediately after the arrival of those vessels at Boston and Salem respectively, makes the following remarks—

These vessels were about 520 miles apart. Supposing them to be in the direct line in which the earthquake was travelling, its rate will appear to be about one mile in about five seconds, which is only a little slower than sound (at the rate of one mile in 4.6 seconds) travels through the air.

It is worthy of note that these two vessels were over and in the direction of an elevation, the existence of which my investigations of ocean currents and temperatures have induced me to suspect in the bottom of the Atlantic. This supposed submarine mountain range extends in the direction of Cape St. Roque from the Capes of the Delaware and Chesapeake.

Lieut. Walsh, in his recent cruise in the "*Taney*," was directed to run a line of sounding across it for the purpose of establishing its existence or non-existence, which he however, was prevented from doing in consequence of his schooner proving unseaworthy, and of his having to put back before reaching that part of his cruising ground. The object of this communication is to request other mariners, who may have experienced the same or any other earthquake at sea, to communicate the particulars thereof.

I have also received an interesting letter from Capt. Waters, of ship *Vespasian* describing a remarkable "tide rip," seen by him October 16th, 1850, lat. 8° 30' N., long. 36° W.

The day was beautifully clear, with the wind southwardly and light. He was sitting in his cabin and heard a loud roaring noise, "not unlike that of a large water-fall." He hastened on deck, and could see nothing; but, mounting up on the house, he saw with his spy-glass, at the "distance of three miles, the surface of the water raised some three or four feet above that nearer," and approaching at the rate of three or four miles an hour.

"When close to the vessel, it had a fine appearance; the waves were raised at least four feet above the level of that nearer, and falling over some, like the water over a dam, and breaking against the vessel's side with such force as to heave water upon our decks. We were in the strength of it from ten to fifteen minutes, as it passed on to the north-east. I could distinctly mark its course for twenty minutes after it had passed. The surface, after it had passed, resembled that on 'Fishing Rip,' in a rough sea, and as the surrounding water was smooth, it struck me as a beautiful sight. We saw at a distance two others during the day, but not so large as this. I have before seen "tide rips," so called, but none ever to compare to this, either in size or beauty."

In the various abstract logs returned to this office by mariners who use the "wind and current charts," frequent mention is made of 'tide rips,' in this region. But this evidently could not have been a "tide rip," caused by a current, for the rip experienced no current, and had it been a "tide rip,"—as the agitation of the water by currents at sea is called—then it would have lasted longer.

The position of this vessel was northward and eastward of the supposed range of submarine mountains. This "tide rip" came from the southward and westward, the direction in which they were, and passed off to the north-east—that is, perpendicular to the line of their axis.

Might not this extraordinary "tide rip," have been caused by the throes of a submarine volcano? I ask the question for the purpose of calling the attention of mariners more particularly to the "tide rips," so often seen in the equatorial regions.

They will greatly oblige me if they will on such occasions get a cast of the deep-sea lead, try the temperature of the water, and note any roaring noise or tremor that may be observed, and report the same, with all other circumstances and conditions connected with the phenomena.

#### NEW BOOKS.

**EXTRACTS FROM THE THE EVIDENCE TAKEN BEFORE COMMITTEES OF THE TWO HOUSES OF PARLIAMENT, RELATIVE TO THE SLAVE TRADE.**—*By a Barrister of the Middle Temple.*—Ridgway, 1851, second edition.

We have here a very useful compilation. In the space of one hundred and thirty widely printed pages, it embraces the whole case for the maintenance of the African squadron. From the voluminous Parliamentary Reports, which during the last three years have been published on the subject of the slave trade the most important portions of evidence have here been carefully selected, so that the reader is enabled in a very short time to form a judgment upon the various points in dispute without a laborious reference to the original ponderous authorities. We recommend to every one who is interested in the subject, a journal of the "extracts," which prove beyond a doubt that the widely spread opinions as to the inefficiency of our repressive measures is wholly delusive. They seem to prove moreover, that with energy and perseverance the final extinction of the slave trade may be certainly accomplished, and that too at no distant date.

**REMARKS ON THE AFRICAN SQUADRON.**—*By J. S. Mansfield, of the Middle Temple, Barrister.*—Ridgway, 1851.

In this little pamphlet are replied to in detail the various objections which have been raised from time to time by the opponents of our anti-slave trade policy. The arguments employed by Mr. Hutt, and his supporters, during the memorable debate of last session, were to the effect that in the first place, the slave traffic had increased in defiance of all our efforts to suppress it, and secondly, that our interference had tended materially to aggravate the sufferings of its victims. Both of these allegations are conclusively disproved in the pamphlet before us. It is shewn from the returns published by Mr. Hutt's own committee that, in the space of the last ten years the traffic has materially diminished; and it is proved moreover, that the mortality among the exported slaves in what is termed the middle passage, is considerably smaller at the present time than even during the *regulated* slave trade of Great Britain. The reason of this simply is that, the vigilance of our cruisers induces the slave

dealer to employ the fastest sailing vessels in the world, and the middle passage is thus usually performed in less than half the time that used to be consumed, when the trade was legalised. The author of this pamphlet refers in conclusion to the great and important change which has taken place in public opinion in Brazil, with reference to this abominable commerce. There is now no doubt that the government of that country, has at length awakened to a sense of the danger as well as the disgrace which attaches to the slave trade, and that it has now taken active measures for its suppression, so far as a comparatively powerless government has the means of doing.

**REGULATED SLAVE TRADE FROM THE EVIDENCE OF ROBERT STOKES, ESQ., GIVEN BEFORE THE SELECT COMMITTEE OF THE HOUSE OF LORDS, in 1849.—Ridgway, second edition, 1851.**

The evidence of this gentleman is very important, Mr. Stokes has a more extensive and accurate acquaintance with the slave trade as formerly practised than, we believe, any person now living, and his testimony totally disproves the notion that its horrors have increased of recent years. Nothing can exceed the appalling details of the unrestricted traffic as described by Mr. Stokes, and of which he furnishes the most ample and convincing proofs.

**THE BRITISH SQUADRON ON THE COAST OF AFRICA.—By the Rev. J. Leighton Wilson, with notes by Capt. H. D. Trotter, R.N.—Ridgway, 1851.**

This is a re-print from the "Colonial Magazine," and contains the views of an American Missionary, who has been twenty years a resident on the Western Coast of Africa, relative to the suppression of the slave trade. Mr. Wilson was induced to give expression to his opinions from the discussions which had arisen in Parliament upon the subject, and the paper before us is therefore, both valuable and interesting as proceeding from an unprejudiced observer, whose experience and character well entitle him to be heard. Mr. Wilson is decidedly in favour of the maintenance of our present repressive measures. After detailing the history of our past exertions, he sums up their results in the following emphatic terms. "In all these varied ways it does seem to us that the British Squadron has rendered important service to the cause of humanity. *It has put down piracy on the African seas; has restored peace and tranquillity to a line of sea coast of more than 2,000 miles; has called into existence a large and flourishing commerce, and at the same time, has thrown the shield of its protection over the cause of christian missions, and all the varied agency that has been employed to promote the cause of humanity and civilization among the benighted inhabitants of this great continent. If these great objects are not worthy of British philanthropy, we know not where to find those that are.*"—p. 26.

We would call the special attention of our readers to the excellent map of the Western Coast of Africa which is prefixed to this re-print. It is taken, though reduced in size, from that which is appended to the Lord's Report of 1850, and it exhibits at a glance the present state of the slave trade along the whole range of coast. It is at once perceived that to the North of the Equator the traffic has been wholly extinguished except in a portion of the Bight of Benin, to the extent of 200 miles.

#### THE SLAVE TRADE.

The circular attached to this number of our work speaks for itself. The long array of distinguished names appended to it, and which we understand is every day extending, attests the accuracy of its facts, and the conclusions derived from them are too obvious to require comment. It is an ascertained fact that through the instrumentality of England the slave trade has been materially diminished; and it is the deliberate opinion of all who have signed this circular that it may by the employment of judicious means, be totally and speedily extinguished. A glance at the names subjoined will shew that this is no party move. Nobles of the highest rank, but of opposing politics, dignitaries of the church and of the bench, ministers of religion of different sects, naval and military officers, (amongst the former, admirals and captains who have served on the coast) and civilians of various degrees, are all leagued here together in the common cause of oppressed humanity. If ever there was a public question which truly deserved the name of *national*, this is one, and viewing it as such, we cordially wish the present movement all success.

NEW CHARTS.

Published by the Hydrographic Office, Admiralty, in February 1851, and sold by J. D. Potter, 31, Poultry. s. d.

GULF OF ST. LAWRENCE, EASTERN ENTRANCE TO NORTHUMBERLAND STRAIT, Sheet 9, Capt. Bayfield, R.N., 1847.	-	-	-	-	-	-	-	-	-	-	-	2	0		
RICHMOND HARBOUR (PRINCE EDWARD ISLAND) Capt. Bayfield, R.N., 1845.	-	-	-	-	-	-	-	-	-	-	-	2	6		
CASCUMPEQUE HARBOUR ( Do. ) Ditto	-	-	-	-	-	-	-	-	-	-	-	1845.	1	6	
PUGWASH HARBOUR (NEW BRUNSWICK) Ditto	-	-	-	-	-	-	-	-	-	-	-	1840.	1	6	
PORT HOOD (CAPE BRETON ISLAND) Ditto	-	-	-	-	-	-	-	-	-	-	-	1847.	1	6	
ATLANTIC OCEAN, 2 Sheets, from various documents, each	-	-	-	-	-	-	-	-	-	-	-	-	1	6	
ANGILLA, ST. MARTIN, AND ST. BARTHOLOMEW ISLANDS, (WEST INDIES) Capt. Barnett, R.N., 1847.	-	-	-	-	-	-	-	-	-	-	-	-	1	6	
SINGAPORE NEW HARBOUR, J. T. Thomson, 1849.	-	-	-	-	-	-	-	-	-	-	-	-	1	0	
NELSON ANCHORAGE (NEW ZEALAND) Capt. Stokes, R.N., 1849.	-	-	-	-	-	-	-	-	-	-	-	-	0	6	
BELGIAN, NETHERLANDS, HANOVERIAN, DANISH, PRUSSIAN, RUSSIAN, SWEDISH, and NORWEGIAN Lights, corrected to 1851.	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0
AFRICAN Lights, corrected to 1851	-	-	-	-	-	-	-	-	-	-	-	-	0	2	
ATLANTIC OCEAN, 1 Sheet.	-	-	-	-	-	-	-	-	-	-	-	-	1	6	
Hydrographic Office, Feb, 20th, 1851.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

EDWARD DUNSTERVILLE, Master, R.N.

METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, Royal Observatory From the 21st of January, to the 20th of February, 1851.

Month Day.	Week Day.	Barometer.		Thermometer				Wind.				Weather.	
		In Inches and Decimals.		in the shade.				Quarter.		Strength			
		9 A.M.	3 P.M.	9 AM	3 PM	Min	Max	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
21	Tu.	29.50	29.50	47	47	42	48	S	S	2	2	or (1)	bcp (4)
22	W.	29.55	30.02	36	42	34	44	SW	SW	2	2	b	b
23	Th.	30.34	30.36	32	42	30	43	SW	W	1	1	b	b
24	F.	30.24	30.12	30	33	27	38	E	E	1	1	bef	bef
25	S.	29.98	29.95	33	39	29	40	S	S	1	2	bc	o
26	Sa	29.43	29.76	34	37	31	38	SE	SE	2	3	bc	o
27	M.	29.90	29.95	35	43	33	44	SW	W	2	2	bc	b
28	Tu.	29.78	29.81	41	45	36	46	SW	SW	2	3	bcp 1)	bcr (4)
29	W.	29.75	29.80	48	51	41	51	SW	SW	6	6	qo	qor (4)
30	Th.	29.55	29.51	39	44	37	45	W	SW	5	3	qbc	or 3)
31	F.	29.21	29.19	36	42	33	43	S	SW	2	2	ors (2)	bc
1	S.	29.43	29.46	35	40	33	41	NE	NE	1	2	o	bc
2	Sa.	29.51	29.47	36	39	34	40	N	SE	1	1	or 1) (2)	o
3	M.	29.56	29.51	31	42	29	44	S	S	1	2	bef	or (4)
4	Tu.	29.80	29.88	33	41	31	42	W	NW	1	2	bef	bc
5	W.	29.80	29.66	44	47	33	48	SW	SW	6	6	qo	qor (4)
6	Th.	29.80	29.96	38	43	35	44	W	NW	2	4	bm	bc
7	F.	30.17	30.04	38	45	32	46	SW	SW	4	4	or 2)	or (3)
8	S.	29.90	30.00	44	48	43	50	W	NW	2	6	bc	qbc
9	Sa.	30.35	30.36	37	42	33	43	NW	N	2	3	b	o
10	M.	30.41	30.39	40	42	38	43	NE	E	1	1	bc	o
11	Tu.	30.29	30.23	34	42	31	45	S	SW	1	2	o	bc
12	W.	30.16	30.08	35	44	31	46	SW	W	2	3	bc	bc
13	Th.	30.02	30.02	41	43	38	44	SW	SW	2	1	or (2)	og
14	F.	30.19	30.22	39	45	36	46	E	SE	1	1	of	o
15	S.	30.31	30.26	33	42	29	43	SE	S	1	1	b	b
16	Sa.	30.26	30.20	27	41	25	42	NE	SE	1	1	b	b
17	M.	30.10	30.04	27	41	23	42	S	SW	1	3	bcm	b
18	Tu.	30.04	30.05	48	54	35	55	SW	SW	4	5	o	qbc
19	W.	29.94	29.89	49	52	47	53	SW	SW	6	5	qo	qo
20	Th.	29.80	29.74	46	52	43	53	SW	SW	2	3	o	or (4)

January, 1851.—Mean height of the barometer = 29.783 inches; mean temperature = 42.0 degrees; depth of rain fallen = 2.860 inches.

We shall keep the subject before us on which our "Twelve years Subscriber" writes, and give him hereafter the best information we can.

London:—Hunt, Printer, Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

## Nabal Chronicle.

---

APRIL, 1851.

---

### REMARKS ON THE PRINCE ALBERT'S TRACK THROUGH THE ICE OF BAFFIN BAY.—*By W. P. Snow.*

IT is not to be denied that in latter years, with far superior means at our command; and, with an increase of scientific knowledge infinitely above anything our early Arctic seamen could have conceived it possible for man to attain, we are, yet, not one whit advanced beyond, even if we are not behind them, in our capacities for surmounting the difficulties of Arctic navigation. It must strike every one with astonishment, when reading the accounts of our old voyagers, to find that they carried out, almost in every instance successfully, the duties with which they were entrusted. With small ships, (even supposing, as I do suppose and believe, that the tonnage in their day and ours is different, thereby making the vessels larger than is generally presumed,) and with ill provided-means, they managed to penetrate into that farthest region of the "thick ribbed ice," where but very few vessels have since been able to follow them to so high a latitude, and in the same direction. The inference from this should be, and strictly is, not that we are less capable of doing as much, in a general sense, nay more, in our day than was done in the days of Baffin and his brother voyagers; but, that the difficulties of the passage through the ice are greater now than then. Indeed, this is evidently seen to be the case if we only take a glance at the earlier and latter history of that forbidden region. We read of a water communication existing between the east and west sides of Davis Straits so early as *May*, during the period when Greenland flourished as a dependency of Denmark, in the eleventh and twelfth centuries. Now, however, it is very rare for a vessel to be able to reach any part of

the west coast of Davis Straits, or Baffin Bay, earlier than the middle part of June: at least, if the attempt to do so has been made, it has failed; for, there is no record, in any published or known account of its having been effected. It must be concluded, therefore, that the difficulties of Arctic navigation are increasing, instead of diminishing; and, this may easily be conceived after finding, from repeated testimony, that the Greenland glaciers, already great in magnitude, add to their size and might year after year without abatement. Pressing themselves into the already encumbered sea of Baffin Bay and elsewhere, they add to the great body of ice previously accumulated there, and cause the entire passage to be all but totally blocked, or rendered so extremely difficult, as to produce the greatest risk and delay to vessels attempting it. When the pressure becomes too great, the vast frozen mass is propelled forward to the south, abutting upon that part of the Arctic land which most intercepts its progress, (in Davis Straits, about Cape Walsingham,) and, there meeting the great swell of the main ocean, breaks up into large fields and floes, which ultimately find their way into the broad Atlantic. Hence the reason, I presume, why so much more ice is met with, in some years, so far to the southward in the Atlantic, than in others.

But, however great these difficulties are, it is a pleasure, as well as pride, to reflect that they have been, in a great measure, successfully combatted against, by the skill, daring and perseverance of our renowned Arctic captains of late years. The names of Parry, Ross, and others will stand for ages in the imperishable tablet of history as proof of this; and, it yet remains to be seen whether the gallant Franklin and his brave companions have not also successfully battled against these difficulties. Still, even the much that has been done, does not equal in proportion, that which might have been expected from the past labours of our early voyagers, and the great improvement in everything nautical and scientific since their time. Whether there is, or is not, a possibility of entirely mastering the impediments in the way of Arctic navigation has yet to be proved; and, from the experiments made during last summer by the vessels under the command of that gallant officer, Capt. H. Austin, C.B., now in search of Franklin, I am inclined to hope the former. As some ground of reason for this hope, and with a view to offer a few hints taken from the short experience I have personally gleaned of the subject, in order that others more competent may, in future voyages thither, attempt clearer and better results, I here give some remarks I made at the time of the *Prince Albert's* passage through the ice.

In making the southern coast of Greenland from the eastward I believe it is usual with most Discovery vessels to give it a wide berth. The whalers, however, if I am not misinformed, keep it tolerably close aboard, unless the wind is dead upon it; a thing not very common, according to past experience. The advantage of the latter is, that the position of a ship with regard to the land is then determined, and can, henceforward, on the passage northward, be always regulated as required: a very desirable object where fogs are so frequent, the sun and planets so often obscured, and the obstacles to making any astronomical calculations so

great. The *latitude* of Cape Farewell is pretty accurately known: by sighting, therefore, and determining from ocular demonstration any part of Greenland to be its *southern* extremity the after course can be set in accordance. The appearance of land in the northern regions is so deceptive that it is as well to be assured of this one point if possible, when making up Davis Straits; and after rounding the entire promontory, keeping the land either aboard, or within a few hours sight. The voyager is enabled easily to do this, owing to the summits of the lofty mountains of Greenland being discernible at a great distance, above the dense fog and haze that may encircle their base. The *Sukkertop* is a very conspicuous landmark, and is readily distinguished by its towering most majestically above all surrounding mountains.

When making for Whale Fish Islands it would appear absolutely necessary to keep the land as much aboard as possible, guarding against the assumed Victorious Rock, in lat.  $66^{\circ} 22'$ , and the other doubtful dangers marked in various charts as existing. By running too much off from the land, streams of ice are met; and the chance exists of running into a bight of the main pack: whereas by keeping moderately close in, the various headlands may be determined, and the ship's true position known. The uncertainty of currents, and unsettled state of the weather induces the whaling captains to pursue this course, and to give this advice.

The Island of *Disco* may be known, from other land in the neighbourhood, by its dark frowning appearance, and its apparently perpendicular aspect when first seen in thick weather. It has a tabular look until closely approached, when a succession of mountains in the form of pyramids meets the gaze. Lively Bay is the only large estuary on the western side; and, consequently, easily found. There is an anchorage, and watering place more to the northward, as marked in the charts, but not possessing any shelter save from a wind between north-east and south-east. *Hare* Island is well determined in position and is not such high land as *Disco*.

It is about this part that the ice is often met with in large bodies, and it is from here that some make the attempt, and successfully too, to strike across to the westward through the middle ice. At all events it is generally considered advisable from here to look at the main pack, if it exists, and then return to the coast if it is found impassable.

Proceeding northward, as the ice permits, Cape Lawson, Dark Head, and Sanderson's Hope, are readily distinguished. The former is somewhat similar to Beachy Head at a distance; the second is a high bluff and singular looking mass of dark brown rock, sloping backward from the sea to more verdant land; and the latter is not unlike the Lion's Rump as seen from some positions when making for Table Bay, Cape Good Hope. About these three places there are innumerable islets, between which run deep passages, leading, no doubt, to places never yet explored. Proven Island, Store Island, and the whole of the Woman Islands present extraordinary features of geological interest. High and bluff, they shoot up from the sea, with deep water around them, as St. Helena does in the midst of the ocean.



In these passages there appears to be sufficient depth of water close alongside the rock to admit of a vessel, especially a small one, running under easy sail and manœuvring as required without any danger; so that a ship could there find shelter if necessary. This was the case with one of the whalers, (the *Truelove*,) last summer, during the gale of the 11th July. She ran for shelter to the Woman Islands, and under the lee of one of those lofty and almost perpendicular iron bound cliffs lay perfectly secure.

The Danish settlement of Upernavick is not, at first, easily discovered. It is situated upon the south-west corner of the second island from Sanderson's Hope; and bears from it about N.N.E., true, some five miles. The anchorage is in a cove at the back of the island; and it is there that the vessel, which annually arrives from Denmark, is to be found. Native pilots come off in their kayacks to conduct a ship in, and the English language is understood and partly spoken on shore. The governor's house is, I was told, a tolerable building; and the settlement is worth visiting, if only, for the opportunity there afforded of forwarding despatches home. The Esquimaux can be fully trusted.

As the ice, is here very frequently met with in large bodies, it requires great caution in working a vessel to the northward. The advice always given by experienced whalers is, if bound through Melville Bay, to keep to the shore as close as the land ice will permit, and, on no account to be tempted, by any apparently favourable opening to the westward, to proceed in that direction. The value of this advice is such, that it ought not, under any circumstances, to be disregarded; unless the original intention was, to try the middle ice and not go through Melville Bay. In the latter case, vessels, if up so far as Upernavick, should bear away direct to the westward, and not allow themselves to be entangled in the vast fields and floes that hang about, and within, the outer circle of Melville Bay, on the north of that course. Sir Edward Parry in 1819, and Sir John Ross, in 1829, made a most successful passage across in that direction; but they bore off to the westward before they reached the latitude of Upernavick. After attaining that parallel, it is a matter of almost vital importance that the land-floe should be kept close aboard. Neglecting this, vessels may get among the loose floes, and sometimes close beset, drifting hither and thither and placed in great peril. The Americans were thus situated, when venturing in the pack on the 11th July. The safety of a ship however is, her keeping in loving proximity to the land floe.

Leaving Upernavick then, the ship's course should be at once directed for the ice attached to the main land, and between which and the middle pack, there is almost always found a small channel of water. Last summer it unfortunately occurred that the land floe, broke up, and the pieces drifting to seaward, and uniting themselves to the large bodies there floating about, intercepted the passage already taken by the ships previously up so far. This was the cause of the delay attending Capt. Austin and Capt. Penny in getting through. Had the land floe not broken off, and actually jammed them in against the main body of ice, they would in all probability have got through,

and into the north water by the middle of July, and before the *North Star* had cleared from her winter quarters. Had they been even where the *Prince Albert* was (owing entirely to the mere chance of her being later, and consequently escaping the break up of the land floe,) they would have been far ahead of their position when overtaken by us. The delay therefore attending the government ships, was owing solely to the unexpected break up of their main dependence; and which, if it had not occurred would have enabled, them to have proceeded onward by the aid of the steamers, at a rate probably never known before in Melville Bay. Illustrating these remarks, I will here observe that a similar delay, though not for so long, occurred to ourselves on and after the 28th of July, and which delay was avoided by the two American vessels; who, having seen their first error in trying to force their way to the westward, wisely availed themselves afterwards of the remaining portion of the land floe, to keep along it in working to the northward. This was the real secret of their speedy deliverance from the ice, which so much surprised us on beholding them in Barrow Strait, when we imagined them to be still going through the same difficulties as ourselves. I heard of no great obstacles that they had encountered after keeping to the land floe; and I have every reason to believe that they found an almost uninterrupted passage.

The delay occasioned to the *Prince Albert* on the 28th of July was owing to our taking a more seaward lead than the Americans afterwards evidently did. On that date, two doubtful leads presented themselves; the one trending in a south-easterly direction to the shore, its continuance being broken near some bergs by an apparently difficult neck, and the other to the northward. Neither presented much prospect for us, but the latter was in the direction we wished to go; while the former, however, led to the land floe, which, after the 21st, it was evident we had lost. The *Felix* took the northern lead, and this decided us, though against the half expressed opinion of our mate, who was for the other. A reference to my published journal will show the result. In a fortnight we made only twelve miles direct progress: in a fortnight, the Americans by taking that south-east lead, made the entire circuit of the bay to Cape Melville. I mention this, merely by way of illustration; for it might have been very fairly presumed that both chances were equal; and the *Felix* having taken the one to the north, it was right for us also to do the same.

Keeping to the land floe, then, is the great secret for getting through the bay. When the whalers were obliged to return to the southward last July, there was no land floe. The whole body of ice was closely and heavily packed from seaward right into the centre of the bay; and by-and-bye, upon their return, will give the history of the severe tests the government vessels were put to in the various rough squeezes they bravely endured, while boldly persevering through such heavy ice after the stout whalers found it necessary to return.

But to keep the land floe, it appears there are many dangers to be prepared for; and of a somewhat different kind to those that are encountered in the main pack itself. The first is, the doubtful position of

many places marked in the chart of Melville Bay. Where even the high land of the coast is all but buried under enormous glaciers, and the tops of islands alone are seen peeping through the thick ice of the sea that environs them, it is a matter of great difficulty to determine, in thick weather, what may be the right position of the ship, especially where the currents are at work in a more mysterious manner than is known in other parts of the world. One of the first of these dangers is found soon after leaving Upernavick. If the land ice should chance to trend in very close to the shore (which is the best position for vessels it can assume) there are several small islands in the direct route northward. Upon one of these, Lieut. Elliot of H.M.S. *Assistance* landed, and ascertained the latitude to be  $73^{\circ} 14' 23''$ , and the longitude, deduced from the results shown by five chronometers on the island,  $56^{\circ} 45' 24''$ . Beyond this, and running off from Cape Shackleton, I was informed that a reef of rocks extends to some distance; but the weather was too thick when we passed, to admit of my ascertaining, though we were sufficiently near to have done so in fine weather. Baffin Isles, and the various islands in the bight of the bay have all to be guarded against, especially as, I believe, their exact position is inaccurately laid down in the charts. "Duck Island bears W.  $\frac{1}{2}$  N., (true) from Sugar Loaf Island, which is also W.  $\frac{1}{2}$  N., from Horse Head; the latter bearing from a rock S.E.  $\frac{1}{2}$  S., seven miles." Now, here is evidently some confusion as to the names of headlands; but Capt. Parker who gave this information, thinks the names are placed wrong in the chart. The whalers prefer a chart of their own; which, if I remember rightly, they place entirely in their head.

From Cape York until reaching Cape Dudley Digges, there is no impediment in the shape of rocks or islets. Off the latter Cape there is a small sugar-loaf island, having I believe deep water all around it.

If I now venture to offer a few remarks upon making way through the ice, they are only given as hints, which may or may not be of value, and must be treated accordingly. Looking at our own progress through Melville Bay, the following ideas struck me when engaged in the occupation of trying to clear a passage. Frequent stoppages are occasioned by two floes of ice being connected or hung together by other smaller pieces, heaped upon and between them. Where two fields have suddenly met, and thrown up large masses by the heavy blow each has received, the same thing occurs; and perhaps, if an attempt be not made to remove the obstacle, will detain the vessel days. An attempt probably is made; but, unless something like scientific management be brought into play, it fails. As in everything else, force is not always the best agent to apply to a stubborn difficulty, with a view to its removal. A little reflection points out that the easiest and readiest way to master it will be, as much as possible to remove the cause whereby it was produced, or if the cause cannot be removed, to undermine its primary results.

The cause of a stoppage in a vessel's progress, such as I have named, is, the two floes of ice having been driven together by wind, or current,

or both; and wind or current may, or may not, again separate them; human power cannot. But human power can probably remove the first result of that collision. A little ingenuity may detect where the secret lies; and by the aid of proper skill, accomplish the desired end. Thus, in our position of the 20th of July at 6 P.M., when we were first stopped by such an impediment as that mentioned, a reference to the track of the *Prince Albert* through Melville Bay, will show that a very narrow neck, only, intervened between the vessel and some open water. The adjoining floes had been driven together, and their tongues had overlapped underneath the surface of the water. This could be seen by walking round the spot, and examining it minutely. Upon the tongues, and thus binding them together, several large and small pieces of ice had been thrown in wild confusion; and merely looking at what was presented to the eye, it would have seemed vain to attempt clearing it. But, by removing, one after the other, the upper pieces, and pushing them through into the open water, the under pieces became eased; and the action of the tide or current setting the floes in work, soon caused a passage to open. Such passage whether so opened, or made by blasting, could always be kept open sufficiently long for a ship to pass through, by placing some of the loose blocks of ice, as wedges between the two floes, ahead and astern of the vessel; or otherwise, the ice might suddenly close by the very action of the tide that had assisted in opening it.

The very tortuous track of the *Prince Albert* through Melville Bay, if examined, would convince any one of the great difficulties and delays encountered in working through that Bay; and yet our little vessel was more fortunate than all the others that had preceded her. Taking up that track, then, from the evening I have alluded to (the 20th,) we find her on the 21st, making way through a fleet of bergs, and with thick weather. There are few positions, perhaps, more dangerous than this, and more requiring care. There is danger to be guarded against in coming suddenly upon one of these masses of ice, unseen through the fog and rain until it is close aboard. There is great care required in making fast to them in such weather, for the bergs themselves are often in motion, and may carry you unawares upon a grounded mass, or heavy floe: there is danger too from an overturn, a break up, or overhanging pieces unexpectedly tumbling down: nor should it be forgotten, that innumerable eddies and counter currents are here at work, whirling, and rushing with great velocity in every direction but the preconceived one. Thus, unceasing watchfulness has to be the lot of him who carries his ship in these places, the only ones where he can carry her. In making fast to a floe, I observed that it was usual to take, not its lee, but to make it the lee. The reason for this reverse of the usual mode elsewhere, is, I believe, to keep as much clear water to windward as possible, and to make the holding ground, that upon which you are pressing, not upon which you would otherwise be straining. When thus fast to a floe, a very sharp eye is necessary to be kept upon any bergs that are near, lest perchance, they come unceremoniously upon you, without either noise or perceptible motion.

It was on the 21st that the *Prince Albert* joined the *Felix*, and thus had the advantage of her company through the ice. Pursuing their way together, both vessels made to the northward, in whatever open water was found. From the 27th to the 31st they were, all but close beset, and during that time the whole body of ice drifted to the N.N.W. the two vessels rested in comparative safety in a natural dock; and the advantage of such a dock is infinitely superior to an artificial one. I might suggest, as it appeared to me at the time, that to ensure as much as possible obtaining the shelter of a natural dock, it would be well, in making fast to a floe, to take a position where a bight is formed by two stout projections. Many such places may be found; and the almost certainty thereby obtained of finding security in the event of other ice setting down towards the ship. The projecting angles of the floe serve as outer breastworks, and receive the first shock of any collision that may ensue between two fields. At all events some little time is given to a vessel to guard against the danger; and, for her crew, if need be, to escape more leisurely. The time and labour required in sawing a dock is, from all I have learned concerning it, enormous. Capt. Austin's ships were in a dock thus made, some time before we had arrived there. In company with the whalers and Mr. Penny, they had to find a speedy shelter from a threatening gale. All the vessels were near each other. Penny soon got through his task, and then, I believe, went to the assistance of Capt. Austin; whose larger ships required more room, and consequently more time and labour to get them in safely. Two small vessels thus are seen to be preferable in such cases to two large ones; and *two* always better than *one*, as the same labour serves for both, while additional hands can be employed on it.

The *Felix* and *Prince Albert*, fortunately found a *natural* dock, at the time I have mentioned. Though the ice closed in fast and heavily, it could be seen to hang on the projecting angles of the bight we had got into. These angles however, occasionally gave way before the great pressure upon them; and, consequently, narrowed the small space of open water left to us: still, when the outer edges of each floe of ice had broken up, and the solid portion of the one came in contact with the solid portion of the other, nothing like farther injury was expected. The two masses became united, and drifted together, with us enclosed therein, and in that manner protected. It struck me, therefore, that when such a bight can be found in a solid floe its power of offering security might always be ascertained by examining the projecting points, and seeing to what extent they would probably be broken up by the sudden collision of another floe; and at what distance from the outer edges, the floe offering shelter, would be able to resist the attack of the other. If the bight still runs within this mark, I cannot help thinking that a perfect sense of safety may exist, and that such natural dock may be entirely relied on. Such was the result of my examinations and reflections when we were enclosed from the 27th to the 31st.

On the latter date, a fog and calm produced the usual slackening of the ice. Gradually it appeared to crack; and, in the evening, the entire field, large and thick as it was, parted asunder, in an easterly direction.

At first it appeared as a mere thread; but, by the time the two vessels were got into the opening, it had enlarged and formed a passage precisely like a canal, and as even and straight as such, with high and deep banks on either side. Now this was not a place where two floes had met and stopped the passage; for, save at the western entrance, no masses had been raised up to denote such collision; but it was the solid floe severed in twain, as if by some unseen power, to admit of our extrication. Passing along it, I observed from the "nest" several small holes, such as are occasionally found in a floe; and, it appeared to me, that it was only in the line of these holes that the break had taken place. The inference I afterwards drew from it was, that any other floes might be so separated by the application of blasting, such as I believe was successfully tried by Capt. Austin's vessels.

Even in common ice, if a crack is anywhere but partly made, it is soon seen to extend itself much farther, and this I think applies still stronger to ice exposed to the united action of sweeping tides, and attacks from other masses in motion. If then, blasting be brought into operation wherever an intervening floe blocks the passage to some open water, it strikes me it would not be entirely in vain; for, without at all supposing that whole solid fields of ice can be thus blown up and rent asunder, yet, what can be done, in causing a convulsive movement, is sufficient to crack the the entire mass; and, where a crack is made, the other causes named speedily assist in enlarging it. Thus in breaking a neck of ice by a ship coming upon it end on, the sudden and powerful shock it receives causes such a convulsion around, as to rend it without much difficulty. The vessel's strength does not so much break it, as the sudden shock; and here is seen the great advantage of steam, in being able at all times to give a certain power to the blow made, which power a ship, under the canvass alone, can only derive from whatever wind may exist: in the ice, generally very light.

The *Prince Albert* almost retraced her course for some distance, after the 31st. On the 2nd of August she was close to her position of the 29th July. She then again tried for the northward by rounding a floe near some bergs; but once more had to go backward to the south-east; until at noon of the 5th she was not far from where she had been just nine days previous. On the 4th however, she was very close beset, and in greater danger than at any time before. Among very heavy ice and bergs, no natural dock was found, nor any time for cutting an artificial one before the floes closed in upon her. In such case there is no harm in wisely preparing for possible disaster. No material injury is likely to occur to the crew of a vessel at such a period, if they are only on the alert and prepared before hand. If the vessel is in danger, the prospect looking worse, and no means of extrication at hand, the course we adopted was certainly judicious. Boats placed on the ice, and provisions and clothing, with portable fuel ready to accompany them, is only a little more trouble well bestowed. If the boats have to be taken to, there are many worse evils might have happened; and the return journey to Upernavick has not unfrequently been made in such manner.

After the 5th, the *Prince Albert's* course was more clear until the 7th.

Here, a charge or two of powder would have probably opened us a passage without that delay we experienced; but we had no blasting materials on board. Frequently on examining the ice, I found the extremes, of an apparent passage, in motion, while the centre remained stationary. That centre might, perhaps, have been broken had gunpowder been applied to it. Here, too, the regular action of the tide was plainly perceptible. We had got alongside of the land floe: this moved not, nor did one or two of the bergs that were evidently aground, at a great depth, near us; but three or four other bergs and loose floes sailed backwards and forwards, slowly and most majestically, with an almost uniform motion. The sweep of the tide and the eddies caused by them, in places where the ice was stationary, was by no means trifling. Great care therefore has to be taken; and it was with the utmost difficulty we could weather a ragged and heavy floe that we passed near this spot; though we were at first well to windward of it.

There is one obstacle to clearing a passage in the ice which is, no doubt, often noticed. It is, that the moment any such passage is partly cleared the adjoining floes set in upon each other and block it up again. A remedy for this may perhaps be found in guarding the ends with pieces similar to what I have already suggested; and then when all is ready, for their removal, letting the ships come full down upon them at a given signal. Those who go to work on the ice, at such times, and those who cross it on foot to examine for a lead, should not forget to hold a boat hook or small ice pole in their hands horizontally, to guard against suddenly falling through a partly hidden crack. A strong plank drawn after one of the party, I should think would be always very useful; for there are many broken places where the best leaper cannot make a bound across, without incurring the too great risk of falling short of his mark, or missing his footing, and instantly disappearing from his comrades; who, if not very alert may lose him altogether.

Sometimes a ship is jammed between the corners of two small floes; and, as was once the case with the *Prince Albert*, becomes so fixed that more labour than could be supposed has to be employed, for perhaps hours to move her, with all the heaving, warping, &c., applied for the purpose. The first thing done is, generally, to clear away the ice at the sides; but it is not always the mere ice at the sides which is the cause of stoppage: it is often the "tongues," underneath the water; and these cannot be very well reached. In such case it would not be amiss to cease working alongside of the ship, and proceed to the opposite part of the floe, where, possibly a great deal can be cut away with greater facility; and, at all events, enough to ease the pressure and permit the ship to pass.

The remaining track of the *Prince Albert* through the ice, after the 11th, was free from any difficulty, owing to the very kind assistance rendered by Capt. Austin, in allowing us to lay hold of his tow-rope. Where any obstacle presented itself, he either removed it by blasting, or told the steamers to go and break it away; and right well did they do so. On the 15th, the "North Water," was gained, and on the 17th we bore away direct for Cape Hay; but instead of being there on the next morning, found ourselves to the southward of Cape Liverpool. It

appears therefore, that there is a very strong current sweeping out of the southern entrance of Lancaster Sound; and, if our dead reckoning at noon of the 17th be correct, its rate, according to a calculation I have made, must have been two miles and a half per hour. Sir James Ross mentions this current; and the whalers who visit Lancaster Sound, speak of it as existing up to Admiralty Inlet. To Mr. Parker of the *Truelove*, we were indebted for the following advice and information:—

“ In making for Lancaster Sound if a gale comes on from the north-west (true) avoid the south shore, and, at once stand right over to the northward, to meet the north wind which will be there found often coming from that point of the compass. In all gales from the westward keep well to the northward in Lancaster Sound; and, remember the current running down on the south side. Near Cape York, to the east, is a rock and shoal.” On a point two miles beyond Niell's Harbour, a cairn was erected by Mr. Parker.

About Cape Hay there is a famous Loon Rookery, with high table land; and between Capes Hay and Castlereagh on a low point, about two miles and a half from the former, is a cask of preserved meats, a cask of letters, and thirty bags of coals, placed there by Mr. Parker, from Lady Franklin.

In Eardley Bay, Prince Regent Inlet, two cases of pemmican may be found. I placed them in the form of a cross, upon a hilly mound near the beach, and in a line due west, from the beacon on the mountain at the back.

Inside of Cape Riley there appears to be good anchorage; and also between Beechey Island and the main land. Close in to, and easterly of Cape Spencer, the water likewise shoaled gradually.

I trust I may be excused for venturing to offer the foregoing hints but, however insignificant such observations may at first appear, coming from a private individual like myself, with so very little experience, still there may be found something in them tending to a useful result; and it is with that view only, that I have given them. It is, not for those who have so often visited these icy regions, and whose ability and skill will enable them to determine what is best, that I have written this paper; but for others who may yet proceed thither, not having been there before. In the vista of the future it is not too much to hope that, by the aid of science, as well as by that of daring and of skill, we may see the great difficulties of Arctic navigation successfully overcome; and our ships freely traversing those seas, where the undaunted whale fishermen now, annually, peril their lives to add to the commercial wealth of our beloved country. By blasting, and by the proper use of that all powerful engine, steam; as well as by the rightful application of those mechanical principles which teach men to easily remove apparently insurmountable obstructions; there does appear, judging from the experiments made by the government ships last year, a great probability of accomplishing that which is so desirable to have done; and that our advance in this, may be in equal proportion to everything else pertaining to the same branch of scientific knowledge since the days when Baffin and his adventurous brethren penetrated to the extremity of that bay to which his name has been given.



SHAKINGS FROM SMYRNA.—By *Mahmouz Effendi.*

(Continued from page 127.)

MR. SURTEES, the chief mate of the *Saucy Fanny* had the first watch, from 8 P.M. to midnight; but he was not the only one on the *qui vive*, for the skipper of the brig had even at home heard much of the audacity of the Greek pirates who haunt the vicinity of Smyrna; and now, therefore, altho' in harbour, and even within gunshot of several Frank men-of-war, he prudently kept one-third of his crew on deck, instead of contenting himself (as too many masters of merchantmen do in the Levant,) with an anchor-watch of one hand only. Greek boats have at night in numerous cases during the last ten or twelve years, unexpectedly run alongside English merchant vessels thus insufficiently guarded; overpowered the one poor tar on deck, and then plundered the ship at their leisure: in several instances also committing murder. The pages of the *Nautical Magazine* have from time to time recorded several of these piracies.\* And we happen to know that in the late winter of 1850, divers such buccaneering pranks were repeated with success even in the Bosphorus.

The actual Port of Smyrna is, however, tolerably well watched. Turkish launches row guard at intervals throughout the night, and the heavy plunge of their many oars, breaks every now and then upon the startled ear of the careless look-outs, among the groups of shipping ever to be found at this Oriental anchorage. The boats of the Frank men-of-war also row guard occasionally. Notwithstanding these precautions, certain Maltese, Sclavonian, and Romaic land-rats and water-rats, manage at times to catch a crew napping; and consequently take the liberty of walking off with at least any "wee things about the decks." On the present occasion the *Saucy Fanny* escaped any such unsatisfactory visitation.

Mr. Surtees was as we have said on watch; and we may here add that while pacing the deck he, as a stranger, was particularly struck with the intense phosphorescence of the sea, flashing forth as it did in fiery flakes on the passing of even the smallest boat. No one who visits Smyrna, can fail to remark this peculiar and pleasing brilliancy.† And even the little play allowed to the rudder of the *Saucy Fanny*, produced a sparkling flash of light.

It was now late, and though the parted sea thus shone forth here and there in sheets of trembling fire, the city itself wore from the ship a most sombre appearance. Nor lamp nor candle threw forth a twinkling

\* See also the sketch entitled "The Pirates of the Archipelago" in *Knigh's Diary in the Dardanelles.*

† "In all the confined seas in the Mediterranean, I have observed the phosphoric light sparkling in the waves caused by our paddle-wheels; but in the sea here, (Smyrna) the boats are actually lighted by the illumination from the motion of the oar in the water; and a belt of light some inches in width is drawn around the boat by its motion, whilst a stream of light follows its course."—*Sir C. Fellows' Excursion in Asia Minor, in 1838.*

beam either from the mysterious serais of the Faithful, or the more uninteresting brick and mortar residences of the plodding Frank. The whole city seemed wrapped in repose and extreme darkness, much to the surprise of the supercargo, who, altho' perhaps he did not expect to find gas adorning the water-side streets of Smyrna, still imagined they might display long lines of lamps lit up with the native oil, said to be here so superabundant.

Heaven save the mark! There are scarcely a dozen street-lamps in the whole city, hotel-lights included, and therefore no one is permitted—be he Infidel or Faithful—to tread a thoroughfare after sunset, without carrying a lighted lantern in his hand, a regulation enforced even when the soaring silvery moon makes the streets as bright as day. The somewhat inexperienced supercargo had been much struck with the flaring illuminated appearance of Brighton, as the *Saucy Fanny* passed down Channel at night on the present passage, and in his little knowledge of the Levantine world, he was now quite unprepared to find a city of 140,000 inhabitants, appear from the sea but one unlighted dull black mass of mansioned mountain.

“Have six bells struck?” inquired the *super*, coming lazily up the companion to join the mate, Mr Surtees, on deck; preferring his question in this blue-jacket fashion, rather than flatly ask if it was yet 11 o'clock. It is astonishing how fond landsmen frequently are of parading what few nautical terms they may happen to acquire on their first voyage.

“Nearly seven bells now, I think,” answered Mr. Surtees. “We shall take our time from our neighbour to the north-east—H. M. S. *Plantagenet*.”

“Then are we near cock-crow,” replied the supercargo, “that is if it be near seven bells.”

“Cock-crow!” exclaimed the mate in astonishment. “What! before midnight!”

“Yes, cock-crow!” repeated the supercargo. “Did you never hear of a Smyrniote *alectrometer*?”

“Not I,” said the mate. “What is it?”

“Why to tell the truth I never heard of it myself till just now,” said the supercargo laughing; “but having taken another peep at MERCHANT TOMKINSON’S M.S., I therein found some remarks about it, which induced me to come now on deck.”

“I don’t yet understand you,” cried the mate.

“The fact must interest you nevertheless,” said the supercargo, “being illustrative of scripture.”

“If that be so,” observed Mr. Surtees, “it ought to interest everybody.”

“Yes, certainly,” rejoined the supercargo. “It ought to interest everybody. Well then, as I managed to acquire a little classics at Durham, I may first explain that *alectrometer* is composed of two Greek words, one being *μετρον*, a measure, and the other *Αλεκτωρ*.\*

\* The ancients divided the night into different watches; the last of which was called cock-crow: wherefore they kept a cock in their turret or towers to give notice of the dawn. Hence this bird was sacred to the sun and named

So that alectrometer is I take it, as well-derived a word as barometer or thermometer. I'm no sailor, but still I understand a little *hic, hæc, hoc.*"

"I can't gainsay that," said the mate. "But what has this to do with scripture. And moreover, what is an alectrometer?"

"Listen and learn," exclaimed the supercargo. "You will soon hear what an alectrometer is, and how it bears upon scripture. In *MERCHANT TOMKINSON'S M.S.*, there is a quotation from *Arundell's Discoveries in Asia Minor*, showing that in eastern countries, cocks invariably crow in the night; and remarking that the regularity with which they keep what may be called 'the watches,' has not been sufficiently noticed. Referring to this very time of night (between eleven and twelve) Arundell asserts that he has often heard the cocks of Smyrna then crowing in full chorus, and with scarcely the variation of a minute."

"That's strange indeed," remarked the mate.

"Then again," continued the supercargo, "the second cock-crowing comes off between one and two o'clock; therefore, when *our Saviour* says—

'In this night before the cock crow twice' † the allusion was clearly to these seasons."

"One would really imagine so," said the mate.

"I must add," resumed the supercargo, and this brings us to our point—"another observation of Arundell's. He says, 'In Smyrna I could calculate the hours of the night with as much precision, by what I termed my *alectrometer* as by my watch.' I have now come on deck to test his statement; and you now know what an alectrometer is." At this instant, notwithstanding the stiff breeze, a full chorus of crowing broke suddenly upon the speaker's ear. The brig happened to be anchored rather near the shore, and now throughout some seventeen points of the compass, black cocks, and white cocks, and gray cocks, and cocks of all other colors, and sorts, and sizes, were heard crowing loud enough to split the very ears of the groundlings.

Arundell was thus proved to be strictly correct in his alectrometrical record; the indisputable corroboration of which we trust may prove very satisfactory to all learned ornithologists.

"So much for crowing!" exclaimed the mate; "but during the whole watch I have not heard a single clock strike in the city."

"Nor will you," replied the supercargo, "nor any peal of bells. We were told at dinner to-day before you joined us that there is not *one* single street clock in the whole of Smyrna; even at the Roman Catholic, or Greek, or Armenian churches; and I have heard that at Constantinople itself there are but two public clocks, one put up (by Vulliamy of Pall Mall,) in the Arsenal, and the other by a native in the Tower of

---

*Αλεκτρορ* which seems to be a compound out of the titles of that deity, and of the tower set apart for his service; for these towers were temples. See *Holwell's Mythological Dictionary*, p. 16. And vide MARK xiii. 35. "Or at the cock-crowing." This was a watch among the Jews.

† MARK xiv. 30.

Galata, adjoining Pera. The Turks, however, are very fond of watches, especially repeaters."

"I suppose their time is the same as ours," observed the mate.

"Not a bit of it," answered the supercargo. "The consignee explained that to me this morning."

"How do we differ, then?" enquired the mate.

"Why thus;" rejoined the supercargo; "the Turks begin their account at sunset, reckoning twelve hours thence to sunrise, whether the night be long or short; from sunrise to sunset they also reckon twelve hours, and consequently a night hour is longer in the winter than an hour in the day; and in summer the hours of the day are longer than those of the night."

"Then at all events," said the mate, "the English rule that sixty minutes make an hour won't always hold in Turkey."

"Certainly not," said the supercargo; "we must all go to school again for these outlandish parts; where the hours shorten and lengthen like the tube of a spyglass, according to the season; where the Sabbath falls on Friday instead of Sunday; and where the year consists of twelve lunar months instead of thirteen."

"Go where you will there is always something to be learnt," observed the mate.

"Undoubtedly," added the supercargo; "but looking to the 'Lions of Smyrna' as set down in *Merchant Tomkinson's MS.*, I am afraid we shall not have time to understand or to see half of them this trip, as the skipper hopes to discharge the whole of the cargo this week, and start on Monday next for the Dardanelles."

"Aye, aye; for that cargo of Valonia\* the consignee was recommending us to take. Such stuff as that comes to us; the steamers won't have it."

"Returning however, to the Lions of Smyrna," resumed the supercargo, "I have just copied out a leaf from this pen and ink work of Tomkinson's which will answer as a sort of 'book of directions' or *vade-mecum* whenever I get ashore. Nothing like black and white, my boy! Here it is, so I'll squat down and read it to you by the light of the binnacle lamp."

"Read away," cried the mate, "I'm all attention."

The supercargo then read as follows:—

### **Rides Round Smyrna.**

1. Windmill Point, (Deirmen Bouroun,) across the country to Bournabah, the Plain or Ovah of Hajjilar, Baths of Diana, Kooklujah, and the Caravan Bridge.
2. The Caravan Bridge, (Kiarvan Keupriy) Upper Road to Boojah, Plain of Paradise, and thence by the Lower Road back to the bridge.
3. Caravan Bridge\*, Castle on Mount Pagus, Seddi-Keuy, and home through Turk Town.
4. The Baths of Agamemnon, Sandjak Castle, and Vourlah.

\* The Valonia imported into England in 1845 was valued at £286,170; that in 1848 at £112,607. We have not the return for 1850 at hand.

5. Windmill Point, Bournabah-Scala, Cordelio, and Menimenn, on the road to Fokia.

6. From the Caravan Bridge to some of the following villages in the plain between Smyrna and Hajjilar, viz: Shaiklar, Bunarbashy, Byrakly, Kavaludereh, Narli-Kui, etc.

7. A day's ride to Mannesia. [Vide, "Van Egmont's Journey from Smyrna to Magnesia." And for Smyrna itself refer to *Notice sur Smyrne, par Mons. Deschamps.*]

### Walks in Smyrna.

1. Castle on Mount Pagus, Stadium, Theatre, Jewish Cemetery, Barracks, and Governor's Palace.

2. Windmill Point to Caravan Bridge; or Windmill Point to the French Hospital, thence to Rue des Roses *via* Les Jardins; or from the French Hospital along the Marina to the English Consulate.

3. The Armenian Quarter, Wine Stores, Church and Schools, and Plague Hospital of St. Roque.

4. Austrian Arsenal; two Custom Houses, Slave Market, Bazaars, Turkish Bath, English, Dutch, and Greek Hospitals.

5. Paper Mill, Flour Mill, Frank Cassino and Cadi's Court.

6. Dervish's Chapel or Tekeh, Residences of the Greek and Armenian Bishops, and the Turkish Khans or Caravan Serais.

"There!" exclaimed the supercargo rising from the deck "are memoranda enough for all the sight seeing I shall be able to accomplish in Smyrna. I don't expect to visit even half of the places I have set down, but we shall open the ball to-morrow at all events, according to appointment. I long beyond all measure to inspect the old castle at the top of the hill or Mount Pagus as they call it here."

"And I long to turn in," cried the mate, "H.M.S. *Plantagenet* is now striking eight bells. *Forward there!*"

"Aye, aye, Sir!"

"Strike the bell; call the watch!" The order was at once obeyed.

"Starboard watch, ahoy! D'ye hear the news? Tumble up my sons."

And the watch being relieved the supercargo and Mr. Surtees went below.

The followers of the Prophet ashore were already lost in the arms of Morpheus; and the mate and the supercargo soon fell also as sound asleep as the Seven Sleepers of Ephesus, the slight motion of the *Saucy Fanny* under the night breeze rocking them speedily to deep repose. At sea or in harbour a sailor ever enjoys his hammock, generally sleeping hard and fast, and not by uneasy fits and starts like a dozey Levantine monk, whose fraternity too often prove the truth of the proverb "*La notte per dormire, il giorno per riposare.*" As for the Turks they do not by any means despise a good night's rest, and yet they rise betimes, as the first of their five daily prayers is fixed for forty-five minutes before sunrise; but the second is not offered up till twenty minutes to one o'clock, Frank time; or about seven o'clock, Turkish time; when the *tesvib* or call to public prayer is made by the *mueddin* from the

\* Cravan's Bridge.—*Usborne.*

minaret-gallery of every *djamee* or mosque. Five times a day does this mellifluous voice, descending as it were from the very sky, summon all Muslims to bow down and worship their maker. And seldom indeed is the holy call of the *mueddin* disregarded. But on the night of the conversation we have above recorded, the Turks were not destined to sleep very soundly till the morning prayer, their usual hour of rising, for just after the second cock-crow a smart shock of a *zelzelet*,\* or earthquake, threw the whole city into confusion, though but little damage was done to the buildings, and fortunately no life lost.

Nor was the shock even felt on board the *Saucy Fanny*, or any of the shipping at the anchorage. Nevertheless, we must notice the event; for surely, mention of an *earthquake*, however slight, will be expected and cannot be well out of place in a sketch entitled "*Shakings* from Smyrna."

(To be continued.)

#### JOURNAL OF A RUSSIAN PRIVATEER.

(Concluded from page 121.)

*Journal kept by William Davidson, a seaman on board a Russian Privateer, copied from the original journal, which was shewn to Lord Hood by Capt. Keats of His Majesty's ship Niger, on board which ship the said William Davidson was, and deserted from her at Portsmouth in the year 1794.*

[The following extraordinary journal has been placed in our hands, and as a copy of an original document we give it verbatim et literatim.—Ed.]

May 23rd.—Then we sailed for Accoa, and at night got in and moored; next day we got some of the ballast out and water casks, to lighten the ship to give her a clean bottom, as she was very dirty. The 24th we got the ship to rights, and took the ballast and water in; that same day our tender brought in a good prize, loaded with honey, soap, and tobacco, which we sent down to Malta. The 25th we got every thing ready for sea; about 4 o'clock in the afternoon we saw a ship in the offing, which we took to be a Turkish man-of-war; we slipped our cables and went out after her, and got everything ready for engaging her: as we came within gun-shot of her we fired a gun, when she did the same, and hoisted her colours; she was a French frigate looking out for pirates, as there is so many about: he sent his boat on board to know where we fitted out of, or what we were doing there, but our captain would only tell him that he was a Russian cruizer, and that his commission was as good as his, when the French captain told us to mind what we were about, and bid us good-bye, when he stood out for sea, and we into harbour for our anchors and cables.

May 26th.—We sailed, and in the afternoon fell in with the French

\* We believe a register of the fires and earthquakes at Smyrna is still kept at one of the Consulates in that city. One of the most severe earthquakes occurred in 1778; and among the recent fires of great extent were those of 29th July, 1841; and July 3rd and 4th, 1845.

frigate again, but said nothing to us. 27th being little wind, we saw no sail that day. The 28th, we saw five fishing boats, which our tender went and spoke, they were Greeks, but could give us no account of any Turks. The 30th boarded a French ship from Smyrna, bound to Algiers, with Turkish passengers on board, when we took their goods from them, and let them go. The 31st came to an anchor in the Island of Cashow, and plundered it of everything we could get, besides burning the town, and all the vessels in the place.

June 2nd.—We sailed for the Island of Paros, which we plundered of a deal of silk, and burned the Turkish governor's palace, and a new frigate on the stocks, and twenty Turks that had no time to make their escape. The 3rd we sailed, but saw no vessel that day. The 4th spoke a Ragusa pollacca, that told us there was a Turkish xebec in Sandaroon, bound to Smyrna, with money to pay the soldiers, besides coffee and rice, and would sail the first fair wind, when our captain thanked him, and bid him a good passage.

June 7th.—Then we hauled up for the north end of Cyprus, where we knew they must pass by, and the 7th we saw her and gave chase; and at 4 o'clock in the afternoon we got alongside her, when she engaged us for an hour-and-a-half, and then struck. She had on board twenty-four guns, and 250 men, which we took all prisoners on board of us, and sent the prize down to Malta; now our ship's company was but seventy-five in all. Next day at 2 o'clock we put the prisoners to death; we fell in with several merchant ships of all nations, when we took out of them as many as made our ship's company 115, so that we were ready for a fresh cruise.

June 12th.—We spoke a Venetian ship that came from Jaffa, bound to Constantinople, which told us there was a Turkish vessel come from there, bound for Rhodes, loaded with coffee and rice, had twelve guns, and sixty men on board. That same day at 4 o'clock in the afternoon we were alongside of her, she engaged us for half-an-hour and then struck; we took all the prisoners on board of us, and sent the prize to Leghorn.

June 13th.—We put all the prisoners to death; at 6 o'clock in the afternoon we saw a sail to leeward, which we gave chase to, and soon came up with her, she was a Greek ship loaden with wood for the Turks, when we took the men out of her and set her on fire, so then we steered for Syria. We had not sailed above three leagues, before the man at the mast-head saw two vessels at an anchor, when our tender went in and spoke them, they were Turks, had three bales, and nine bales of turbans; in the other nothing but ballast. We took the silk and turbans out, put the people on shore, and set the vessels on fire. Next morning we saw three more at an anchor, which we went in after, they were Turkish ships loading for Alexandria, we took all the prisoners on board, and burnt the ships; at 4 o'clock in the afternoon we put all the prisoners to death.

June 15th.—It came on to blow fresh with the wind to the eastward; at 2 o'clock we saw a ship coming down before the wind, which we hove to for, she was a Greek ship which we let go. Then we steered

in for Castle R, and hoisted Venetian colours, where there was a large town without any appearance of guns about it. As soon as we came within gun shot of the place, we fired in amongst the houses, and hauled the Venetian colours down, and hoisted Russian colours, and all hands went ashore and plundered them of every thing they had, besides burning one-half of the town, and killed all the Turks that did not get away; as for the plunder we had, no one can tell, as there was a deal of gold and silver that we took out of the churches, such as images and candlesticks.

June 16th.—We went out and spoke a Turkish brig that came from Smyrna, bound to Marseilles, loaded with wool and hemp. Next morning we spoke a Venetian pollacca, that told us there were three Turkish ships in Alexandria, loading with coffee and rice, for Constantinople; when we bore away for the Roads as they must pass by. There we cruized off and on for two days, without seeing a vessel of any kind. The 18th at day-light we saw five sail close in with the land, which we went in after, thinking they were good prizes, but to our great misfortune found them to be Turkish men-of-war, one of fifty guns, one of forty guns, and three of sixteen guns each; which gave us chace, and at 7 the frigate came alongside, which the captain wanted to engage, but the lieutenant would not until the others should be further astern; they were three miles astern of us: in the mean time the frigate kept continually firing at us, then at half-past ten we hauled the French colours down and engaged her, and shot away her fore-topsail yard, when she tried for to go down to the others, but before that she got from under our guns, we had the luck to set her on fire; by this time the others came up with us and got round us, which caused us to fill the train that we had to the magazine, ready to blow the ship up if any of them boarded us, so any one may easily guess the condition we were in at this time, as we made ourselves sure of being taken; but as God would have it, we got so close to the fifty gun ship's stern, that our larboard spritsail-yardarm touched her stern, and we fired as fast as we possibly could, until they silenced the guns and took to the small arms, when we killed most of their men, for they could not make any sail to get away from us, all their sails and rigging were shot away. By this time the frigate had got her topsail-yard up and came up to us, when we made sail to get away, but all in vain as she sailed better than we did, so we were obliged to engage her once more; but soon disabled her by carrying away her fore-topmast halfways down. Then we had the three small ones to keep off, but as soon as they saw that the two large ships were able to do no more, they made sail away from us, which we were very glad of, as it was half-past eleven o'clock at night, and we had seventeen men killed and nine wounded, and all our sails and rigging torn to pieces. Our force being no more than twenty-two guns, and if there was another of the same force with us, we would have taken the five of them; but now we have got clear of them, we wish we were as clear of the ship and cruize. Next day we steered for Serpanto, for to get repaired.

June 20th.—We got in, and the captain went ashore and got plenty of people to help us, then we were ready for sea the 24th. In the



morning we sailed for the Island of Cyprus, and in the afternoon fell in with a Turkish vessel loaded with honey, oil, and cotton; we took the prisoners out, and sent her to Leghorn. Next morning we put the prisoners to death; the captain ordered that the prisoners for the future should be put to death in the head, as there were always such dirty deck. In the afternoon we took a small vessel loaded with nutts, which we sunk, people and all together; then we steered for Jaffa to see if we could get any water, as we had but very little on board.

June 28th.—We got in, and sent the tender and long boat with sixty armed men to fill water, but had got only twelve butts filled, before we saw above 2000 Turks and Moors, coming down a horseback towards us, when we were obliged to haul our tender close in shore, to cover our men the time they got water; but before we got it all on board we had three men killed; but how many of them, we cannot tell, as we could see a great many of the horses fall by the shot from our tender. As soon as we got the water stowed and the ship clear, we got under way, and stood for Alexandria.

June 29th.—We saw five sail a-head which we give chase to, and soon came up with them, we took two, but the other three got on shore. One of those we took was a good prize, loaded with cotton and silk, besides a deal of money; the other was loaded with coffee and rice; but as we could not spare any hands to send them down to Leghorn or Malta, we took the best of every thing out of them, and sunk them, people and all together. In the afternoon we took a Ragusa pollacca, which told us there were seven sail of Algerine xebecs a cruising in the Arches after us.

June 30th.—We sailed for the River Nile, as it was the best way to keep from the Algerines, and a good place to cruise in besides; at night we took a small vessel loaded with wine and soap, we took some of the wine out, and sunk her, prisoners and all together.

July 1st.—We go to Damietta at the River Nile, and made three large ships and two small ones our prizes, without the least defence, but before we could board them all, most of the people went overboard, and swam ashore. These vessels were loading with coffee and rice for Constantinople; we loaded the two largest with what was in the others, and sent them down to Leghorn, which made us short of hands, as altogether now was only seventy-five hands, after we manned the two prizes.

July 2nd.—We sailed for Cerigo to get more hands, and burned the ships we did not take. At 4 o'clock in the afternoon we took two good prizes, that came from Sandaroon, bound to Rhodes, with honey, hemp, and oil; we took what we wanted out of them, and sunk them, prisoners and all together.

July 3rd.—We took a large ship loaded with sheep and cattle, Turkish property with Greek sailors; they entered on board of us; then we took what we wanted out of the prize, and sunk her.

July 4th.—We got into Cerigo, that same day got our water on board, and thirty more men. Next morning we were ready for sea, and at 9 o'clock we sailed with a fair wind for Caramina.

July 6th.—We saw a large ship to leeward, which we gave chase to,

and at 6 o'clock came up with her; she proved to be a Turkish ship come from Alexandria, bound to Constantinople, loaded with coffee, rice, and hemp; they had twenty-eight guns, and 200 Turks on board, she engaged us for two-hours-and-a-half, then struck, after having twenty-three hands killed, and nineteen wounded, and we had five killed, and thirteen wounded; we took the prisoners on board of us, and sent thirteen hands on board the prize, and sent her down to Malta.

July 7th.—At 6 o'clock in the morning we put the prisoners to death. In the afternoon we spoke a Ragusa pollacca, could give us no intelligence of any Turks.

July 9th.—We took a small galley that the Turks had sent out as a spy after us, she had eighty hands and small arms on board. The same afternoon we put all the Turks to death except one man, which we put on shore on account of his telling us where the Turkish fleet lay, and what situation they were in. He told us there were three sail of the line, and five frigates, besides a great many xebecs in the Island of Rhodes, only waiting for the Russians to go up the Arches, that they might get behind them. The 10th we ran away for Syracuse in Sicily, to see if we could get any help to go with us, before we should go up again.

July 11th.—We spoke an English brig from Leghorn, bound to Smyrna, who told us there were three Russian privateers there, ready for sailing. In the afternoon we spoke a Venetian ship from Genoa, bound to Alexandria, but could not give us any news.

July 12th.—We fell in with two Malta frigates a cruising. The 13th in the afternoon got into Syracuse, where there were three Russian privateers ready for sea, one of eighteen guns, and two of twenty guns each.

July 14th.—We got our water and provisions on board, and every thing ready for sea. Next morning there came into harbour two privateers from Trieste, and in the morning at 6 o'clock there came in the three that were at Leghorn, which made us in number nine sail; the least of us mounted sixteen guns, and the commodore thirty-four guns. And now we thought ourselves able to attack the Turkish fleet, although they had three ships of the line, and five frigates, besides a number of small vessels.

July 16th.—We got everything ready for sea. The 17th we sailed at 10 o'clock in the morning, for the Island of Malta. The 18th we fell in with two Malta frigates we had seen on the 12th; they went up with us in hopes to meet the Turkish fleet. We cruized off the Island of Rhodes five days, but they never offered to come out. In the meantime one of the Malta frigates went to the harbour's mouth, and fired at them laying at an anchor; but all to no purpose, for they would not come out.

July 25th.—We went round the south-west part of the Island, where we sent all our boats ashore armed for stock. They could find nothing but goats, and of them we took as much as we wanted, for there were plenty on the Island.

July 26th.—We all parted, some for the Barbary shore, and some for the coasts of Syria and Egypt, and we for the coast of Morea.

The 27th we spoke a Ragusa pollacca from Venice, bound to Smyrna, but could let us know nothing of any Turks. Next morning we saw a large ship close in under the land, which we made sail after, thinking she was a Turkish frigate; so we got everything ready for engaging her. At 4 o'clock we were alongside of her, but she proved to be a French frigate, which we spoke, and told us he was looking out for a pirate that had done a deal of mischief on that coast, and gave us a description of her force and men, when we made sail to the westward, and the frigate to the eastward.

July 28th.—We spoke a Venetian ship, that had been chased into Cerigo by the same pirate. The 30th we made the Island of Cerigo, and cruized off there three days, and saw no vessel of any kind all the time; when our captain said it was on account of this pirate, that there was no vessel seen on the coast; but on August 3rd, we saw a large ship close in to the west side of the island, when we steered after, and found to our misfortune it was this pirate, for she engaged us from 10 o'clock till half-past three in the afternoon, then she hauled her colours down, after having fifty-four men killed, and forty-three wounded. She mounted thirty-two guns, nine and six pounders, and had 378 men on board, but they were all of different nations, which made them very much confused in the time of action. At 6 o'clock in the afternoon we took all the prisoners on board of us, and confined them in the hold till next morning; then our captain examined them, they confessed they had taken many vessels of all nations, and killed the people, and sunk the vessels, after they had plundered them of everything worth taking; when the captain said they should all be put to the cruellest death ever could be invented; so we did, for next morning we got whips to the main-stay, and made one leg fast to the whip, and the other fast to a ring-bolt in the deck, and so quartered them, and hove them overboard, as for the wounded we put them to death after they struck.

August 6th.—We washed the ship fore and aft, above and below, and went into the Island of Zante, when we sent all our wounded men to the hospital. Then we got every thing ready for sea again; but next morning, there was an order came from the Russian Consul at Trieste, for to come there and join the Russian Commadore, William Glenmore's squadron.

August 8th.—At 4 o'clock in the afternoon, we got under way, and steered for Trieste with a fair wind. The 9th we saw several vessels of all nations. The 11th spoke the *Ambuscade* frigate, Capt. O. Hara, from Leghorn, bound to Smyrna; we spoke her off the Island of Corfu. On our passage up the Gulf of Venice we had fair weather.

August 14th.—We got in, and after riding fifteen days quarantine, we got Prattick; when the ship was ordered into the Mole, to be repaired as quick as possible. In the mean time the Englishmen that were on board, got their discharge and wages, and got the plunder besides, which came to 950 dollars (£230) a man, and were only on board from the 1st of December, 1788, till the 6th of September, 1789.

ON THE CONNEXION OF TIDAL PHENOMENA WITH ATMOSPHERIC INFLUENCES.—By *Kennett B. Martin, Esq., Harbour Master.*

*Royal Harbour of Ramsgate, Feb., 1851.*

SIR.—Another winter has passed with its usual accompaniments of danger and destruction, to the devoted mariner.

In three short months, 500 sail of merchant vessels have sought shelter in this harbour of refuge. Upwards of 100 sail, or one in five of the whole, during the same period, have been driven in under circumstances of severe distress, such as loss of anchors and cables, windlass gone, dismasted, crippled in collision, derelict, crew disabled, sails blown away, from off the Goodwin and other shoals; and others the numerous evils to which this portion of our race are exposed, and all this is contemplated with apathetic composure! The shipowner and underwriter play the game at hazard, and like all other gamblers are resigned to the chances, which they in many instances incur. An underwriter recently observed in my presence, "If there was none of these severe losses, premiums on policies would be *nil!*" On the other hand a shipowner said "They (the underwriters) have had a pretty good turn out of me, and now my ship shall have a thorough repair at their expense." So far then as the property is concerned, the account may savour of equity between man and man! But who is to settle the account with the drowning mariner in his last struggle? Or, with the widow and orphans in their first cries of despair, in the advent of their desolation?

I am led into these reflections as the winter gales periodically afflict our coast, by the repeated instances of skeletons of wrecks which are discovered on the Goodwin Sands, after a night of storm, when day breaks upon that grave-yard, of many a strong arm and devoted heart. Many a family in Northern Europe never receive a tidings of the lost ones, thus cast away in a midwatch of trial, without a witness of their fate. Seen perhaps for the last time at sun-set, riding at anchor comparatively safe among a crowd of others in the Downs roadstead, missed from the anchorage at sunrise, their fate uncertain, and in many instances never decided. Floor timbers and sections of vessels are seen upon that wilderness of sand, but the tide which like a mill stream sweeps across and falls over its outer and steep edge, has in its depths consigned all heavy bodies to oblivion, and scattered abroad upon the waste of waters every thing else which may be floatson. It is often painful to listen to the recital of eye-witnesses. Thus, during the last winter a French vessel had a very narrow escape, she just came round to her helm, clear of the breakers. A brig went on shore, and a schooner followed close to her, and this French captain assured us that not a vestige of either was to be seen in an incredibly short space of time. For days following, the *sea eagles*, in their luggers, were continually arriving with tallow and sundry merchandize picked up upon the sea, which was strewn with wreck.

We have harbours of refuge, to receive the badly equipped, and badly manned vessels, to reduce also their number in a crowded anchorage,

and thus secure more room, and greater safety to the rest. Can anything else be done to alleviate this load of human misery? I think there can. The tides are neither sufficiently explained in theory, nor understood in practice. I have repeatedly urged in the *Nautical* a stricter attention to the deep-sea and hand-lead, in these dangerous localities. In my official capacity, I continually warn masters of merchant vessels of the necessity for greater attention in this respect, and I am often met with the remark of "How little use it is upon the outscarp of that fearful Goodwin, where in deep water, before you can get another cast you are on shore." It is too true, and in darkness, haze, and spray in a navigation where the ocean tides are tenfold more perplexing, except to the regularly trained and experienced pilot. It is astonishing how little is known of the tides in this locality by those in charge of ships on foreign voyages. An American captain once gave the following account before the Lord Warden's Commissioners. "I was one of twelve who sailed from the Scheldt together, and this little fleet agreed to keep company through the Straits of Dover, and we shaped our course accordingly. We had light variable winds, and when we saw a white chalky head land, we supposed it to be Calais Cliffs, till to our great surprise we found ourselves in very shallow water. I happened to be the headmost ship, and when I took the ground, the other fellows took the hint, and let go their anchors all standing. We were on the Long Sand. An extraordinary tide had taken us into the indraught of the river Thames, and hence the error in our reckoning." Then you had the wind northerly I observed, "Just so, we had! A breeze sprung up from N.N.W., and we hauled across towards your coast, and made a short tack to avoid the Flemish Banks, and a lee shore." And that short tack put them a long way out of their reckoning as a consequence of not being better acquainted with the tides! What might have been the fate of these ships if overtaken by a sudden storm, while thus embayed in the embouchure of the Thames? As it was, the Margate boatmen took charge of them, and piloted them out clear of the dangerous shoals by which they were surrounded.

It would, therefore, be a great benefit to all who frequent these tidal waters, and more especially to the mariners of Northern Europe, if a publication on these perplexing tides was put within their reach by competent authorities, and this can only be done by our most experienced naval surveyors. A season might be well devoted to test the accuracy and proofs of existing testimony, for it is a subject which cannot be treated mechanically. There are currents above our heads which alter and cause to diverge from lines, which else would be mechanically (nay mathematically) correct, the tides beneath our feet, and the mariner should be cautioned and taught how to be guarded against such effects. As for instance, if at sunset in a gale he had hove to, with his ship in sight of a headland, and calculated upon the change of tide at high or low water agreeably with the tables for those bearings, he should be aware that a sudden shift of wind of only a quadrant of the compass will accelerate the tidal column as to momentum and velocity, and prolong the time of high water perhaps an hour or more, that a shift to an

opposite quarter would retard such cause and effects in an equal ratio, and baffle the calculations and expose to peril those who are not cognizant of such oscillations in the tidal pendulum. Thus a ship in a south-west gale splitting a sail, or carrying away a spar, and unwilling in a dark night to attempt picking up a berth in a crowded anchorage like the Downs, heaves to perhaps abreast of Dover, and in the stream of the Goodwin as a natural consequence. The tide turns (if in course) at midnight perhaps, and the ships drift is calculated accordingly. But a sudden squall thick with rain or sleet has thrown a cloak over the lights, and by a shift to north-west, the tide is prolonged an hour, out of course. Now, admitting the tide to run only three knots, here is an error in reckoning of six miles which may peril the existence of life and property as in that splendid ship the *Ogle Castle*, a loss admitted by all the pilots on shore, consequent upon a want of right experience as to the tides.

Proofs of the treacherous nature of tidal navigation, may be seen wherever the public authorities have had the spirit to erect selfacting tide gauges. At Sunderland there is a perfect specimen. Ours at Ramsgate constructed by approbation of the Admiralty, is also an unerring register, and comparisons with Sunderland on tidal phenomena have proved very interesting. We transmit our tidal diagrams regularly to the hydrographer. I will then select a few specimens of extraordinary deviation during the past year, commencing with the far famed predicted tide for new year's day. These tides (see *Nautical Magazine* Feb. 1850,) came careering on two days before anticipated, and did a great deal of mischief, because unexpected. How then were the calculations of the astronomer on planetary influences thus falsified in our particular locality. On the nights of December 24th, 25th, and 26th, the high water levels were much below the usual average, and people began to smile at the predictions, but on the 27th in came the giant tide and rose to a height of nine feet above the level of that which preceded it. What must have been the difference of momentum of a column of water, of 24 feet moving through the Straits of Dover, in comparison with its predecessor of 15 feet. Yet, such was the effect of a sudden and heavy gale from the northward. Now, if the wind in this storm had shifted as suddenly to the south, these tides would have been retarded in lieu of accelerated in our locality, and their column would have diverged upon some other point of our sea-encircled coast. The master mariner and rising generation of officers, surely ought to study, and be taught to become intimately acquainted with cause and effect relative to the tides. Here at Ramsgate, on the days so positively predicted, the high water did not reach its usual level, because, the northerly gale had given place to southerly breezes. The tidal pendulum, which had thus been struck by the impulsive atmospheric pressure experienced a reaction and receded from our shores. Again a south-west storm, January 26th, produced such a remarkable ebb, that wrecks were visited which had not been uncovered for years. The tidal wave arrested in its progress had been held in check, but it must have existed in an increased column in some other locality, and as soon as the gale

abated, it resumed in the following tides its accustomed level. Two days only elapsed, and Boreas again sent forth his blast over the German Ocean, propelling its lifting undulations into the narrow seas, and again we had the high water sweeping over our embankments, flooding our marsh lands, and attaining at high water, an elevation of four feet above its average level.

I could multiply instances of the past and errors in reckoning, and casualties which have been attributed to these causes, but we will take a brief review of recent tidal phenomena during the present winter, now happily departing, for it has been a season of great detention, and severe losses to the mercantile marine. Thus from October 11th to 16th the gales were so sudden, and shifting in squalls that they proved very disastrous to the Autumnal Fleet, and many serious accidents occurred to vessels in their endeavours to get through and clear of this high road of nations,—the English Channel.

I regret that I have no means of publishing the tidal diagram of this period, as evidence of the extraordinary and immediate effects of shifting winds upon the rise, fall, and momentum of the tides, and the consequent derangement as to time of high and low water. They would astonish any person who studies the tides theoretically, without reference to practical experience.

Thus on November 14th during a prevalence of north-west breezes, the tide signal at Ramsgate Harbour, remained up during the whole of the ebb tide, as the surface was only a foot below the level of half tide, and a vessel drawing twelve feet might have come in at dead low water. November 26th the tide flowed till 4h. 12m. A.M., but it was not high water in the evening tide till 5h. 30m. P.M., being two hours and twenty minutes later than the evening tide of the day before, and it may be seen by the diagram that these tides obeyed the impulsive influence of the winds, the one being retarded by a heavy gale from south-west, and the other accelerated and prolonged in its duration by a sudden shift to north-west, and during that night two vessels, name and country unknown, went to pieces on the Goodwin Sands.

On the 15th December at daybreak, a south-west gale tide gauge at high water showed 17 feet, during the day the wind suddenly shifted to north-west, and the tide gauge shewed at high water on the evening tide twenty and a half feet. I could go on with repeated instances of these undeviating causes and their effects, and I trust these observations may suggest the necessity of instructing our young officers, in this useful branch of nautical knowledge, namely, the connexion of tidal phenomena with atmospheric influences, more especially as these must, from nautical causes, vary in results in distant localities; and I would most respectfully and humbly, urge the necessity of placing the means within the reach of the poorest of our mercantile marine, by a publication at a moderate charge. The proper medium perhaps would be Her Majesty's Surveying Officers, assisted by Her Majesty's Government.

I have the honor, &c.

KENNETT B. MARTIN,

*Harbour Master, Royal Harbour of Ramsgate.*

*To Admiral Sir F. Beaufort, K.C.B., Hydrographer to the Admiralty.*

Since writing the above, another melancholy proof has occurred of the necessity for imparting some additional information on atmospheric influences as regards the tides, and placing it within the reach of mariners, who navigate our tidal waters.

March 6th, at daybreak, a heavy gale from N.N.W., a large brig was seen near the north sand head of the Goodwin, with the usual terrific breakers close under her lee! It was soon evident that she could not weather out clear of the sand upon either tack, as the ebb-tide was setting her rapidly to leeward, and soon after 6 A.M., she went on shore upon the inner face of the shoal, the sea making a clear breach over her, and had she not been a very strong vessel, she would have gone to pieces instantly. The luggers put to sea, with their usual dispatch and gallantry, but it was impossible to approach her in that position, and they anchored to leeward as near as safety would permit, and manned their four-oared boats, to seize upon any chance which might offer of approaching the wreck, which was fast giving way, and the crew clinging to the rigging. Fortunately, a life-boat has very recently been presented to his native place (Broadstairs), by that eminent builder, Mr. White, of Cowes; and although this boat was small of its kind, only twenty-eight feet by six, and had never been tried in a storm, she was most gallantly manned, and dashed through the heavy sea upon the sand, and sheered alongside the brig, which was by this time rapidly breaking up. Seven out of the ten which composed the crew were rescued; the captain, a seaman, and a boy perished. But in saving these men the life-boat was stove, drifted to leeward among the surf, and was in turn rescued by the Ramsgate lugger *Buffalo Gal*. The brig soon disappeared beneath the flowing tide, and at 3h. 30m. P.M. the lugger entered Ramsgate Harbour with flying colours, having the damaged life-boat safely in tow. Thus, but for the life-boat the crew would have perished, and without the lugger's assistance she must have been cast upon the sand! This is a brief history of a painful occurrence such as we are too often called to witness. It has taught us the value of life-boats, and beautiful as this specimen is, it has also taught us the necessity for constructing them of greater capacity.

Let us now enquire how it was, that with a fair wind to carry this ill-fated vessel upon her course this accident happened; I examined the survivors! The man who said he was at the helm gave me the following account.—“The captain was well acquainted with the navigation, and the mate also knew the coast well! They had sailed from Sunderland to call at Southampton on their passage out. They had passed most satisfactorily and correctly all the buoys and channels during day, and the lights during the dark, more especially after the gale came on from the north, they sighted and passed the Galloper and Knock Light vessels; made the North Foreland and Goodwin lights; and shaped their course for the Gull stream; the captain was on deck! The man at the helm remarked to him. “That the vessel seemed to go to leeward of her course,” he replied “Keep her a point more to windward,” they did so, and shortly afterwards the helmsman again observed, “Sir, we seem to near those breakers very fast under our lee”; and the captain replied



“Down helm, and sail her close!” But it was too late! The sea was terrific! To tack was impossible! To anchor in time equally so! To wear there was not room! and when driving into the breakers, the captain exclaimed, “Oh! good God! The tide has deceived me! I have not allowed enough for the tide.”

Now, I believe that he had allowed enough for an average tide, but this was a tide out of course, as our tide gauge will shew the previous high water had overflowed our banks at Ramsgate, and rose to twenty-three feet, or four feet above the average level. What then must have been the returning ebb from the rivers Thames and Medway, and their estuaries, sweeping as it does right across the north sand head and athwart the vessels' course, thus deceiving this careful mariner and carrying himself and his property, a new ship just off the stocks, to destruction; what then was the occasion of this extraordinary tide? I answer Cause and effect sure and certain in operation, but, little understood or appreciated. In the afternoon tide on the 5th consequent upon a south-west gale, there was only seventeen feet at high water, while upon the following or morning tide of the 6th, the tide was out of course as to time, and rose to twenty-three feet at high water, a difference of six feet in the tidal column, because the storm had thus suddenly shifted to N. and N.N.W. It is, therefore, necessary to warn the mariner against these sudden changes so invariably depending upon atmospheric influences, for it is evident, that, at present none but the experienced pilots of each particular locality are aware of them.

K. B. M.

Our esteemed correspondent, adds, “If you had been present with me examining these poor men, you would have wished Charley Dickens at our elbow. Fancy a splendid brig, nearly 300 tons, only a few days in existence, just off the stocks, built by her commander as two-thirds owner, himself recently bereaved of his wife, this little floating world his all, appoints a meeting with his daughter at Southampton, names his new vessel after her, the *Mary Wright*; and, the first intelligence carried to the orphan girl must have been, the wreck of all her earthly hopes, in the brief existence, and quick annihilation of the *Mary Wright*. In such awful visitations, “God only, can temper the wind to the Shorn Lamb.”

[No pen of Charley Dickens is needed to aggravate such a tale of sorrow.—Ed.]

---

### THE PIRATE SLAVER.

[The interest which belongs to adventure in any shape, and the favourable aspect presented by the African Slave Trade in the successful efforts of our cruisers on both the African and Brazilian shores, induces us to give a more complete and authentic account of the capture of certain pirates a short time ago, and the measures resulting from it, than that which appeared in a former volume of this work. It will serve besides to show the habits of the

slave dealers on the coast, and thereby assist with that kind of information, those officers engaged in capturing the vessels, who may have had little experience with them.—ED.]

His Majesty's sloop *Curlew*, employed on the African station, under the command of Captain Trotter, happened in May, 1833, to visit Port Antonio, the capital of Prince's Island, in the Gulph of Guinea, a harbour at that time seldom resorted to by British vessels of war. Some time before this, Mr. Gould, an American merchant, residing there, had learnt from the "*Salem Commercial Advertiser*," a well-known newspaper in the United States, that an American brig, called the *Mexican*, had been met at sea and plundered by a piratical schooner. Some particulars of the transaction were stated, and a tolerably minute description of the schooner given, which agreed with that of a Spanish vessel called the "*Panda*," which had sailed from Port Antonio some months before the arrival of the *Curlew*, on her return to the river Nazareth near Cape Lopez, a little to the south of the Equator. On the arrival of the *Curlew*, at Port Antonio, these particulars were communicated to Captain Trotter, by Mr. Gould, with the additional information that the *Panda* was supposed to be still lying in the river Nazareth; and on receiving this intelligence, the *Curlew* immediately proceeded in search of her.

The American brig *Mexican*, with a valuable cargo, including 20,000 dollars, had sailed from Salem, near Boston, Massachusetts, for Rio Janeiro, on the 29th August, 1832. In the course of her voyage, on the morning of the 20th September, in lat 33° N., long. 34½° W., a vessel, like a Baltimore clipper, was seen in the south-west quarter, by the watch on deck. She appeared to be about a mile off, and standing across the brig's bow: daylight discovered her to the crew of the *Mexican* as a schooner low in the water, with a long straight hull. At first she appeared to be standing from the *Mexican* on her weather quarter, but soon after daylight she tacked, and was observed to be in chase of the brig.

Suspicious of no pleasing kind arose in the minds of Captain Butman and the crew of the *Mexican*. A council was held, and it was resolved to make all sail away from the unwelcome stranger, which was accordingly done, but without avail, as it was soon found that the schooner gained fast on them, and was already within gun-shot. Another interval passed, when the well-known signal for bringing to was made by the schooner—a gun was fired, and, as escape was impossible, the *Mexican's* main-topsail was thrown aback, and she lay with her colours displayed, awaiting the approach of her pursuer.

"Where are you from?" was heard from a voice on the schooner's fore-castle, as she ranged up to the brig's stern within pistol-shot.

"From Salem," was the reply of Captain Butman, while he and his crew anticipated no gentle treatment from the number of ill-looking fellows in red caps crowded about the speaker, who had addressed him in a foreign accent.

"Where are you bound to, and what is your cargo?" These questions were concluded with the order, "Bring your boat on board." On

which the schooner sheered off, and took up a commanding position on the brig's weather beam. The *Mexican's* boat was leaky, and this excuse was offered for not sending her, but in vain—the order to “Come on board quickly,” was the short and hasty reply.

The last order fell heavily on the captain's ear, as he turned to his mate, and giving him the trumpet, said “These fellows must be obeyed, we must go, come what will.” Directions were accordingly given to clear away the boat, and Captain Butman, with four of his men, departed for the schooner.

It may be difficult to prescribe for such occasions as these, but there can be no doubt that this was a most injudicious step on the part of Captain Butman. The captain of a vessel in such circumstances should never leave her, as by so doing he is more easily made a prisoner himself, and leaves his crew unprotected.

The boat's course was being steered as usual, to the gangway of the stranger, but on her approach she was ordered to the fore-chains, and no sooner had she reached them, than five ruffianly fellows, each armed with a long Spanish knife, sprang into her, and ordered Captain Butman to steer for the brig. On gaining the brig's deck, the work of plunder was begun, each of the pirates drawing his knife. Captain Butman was ordered to his cabin, followed by three men, who, pointing their knives to his breast, said he had money on board, and unless he would disclose where it was to be found, he should be put instantly to death. Resistance was vain, and calling his mate and men, the captain gave directions for the money to be got up. The crew, with the mate, being called aft to assist in getting at it, the pirates went on deck, with the view of preventing the possibility of their being suddenly overpowered.

The crew were at work in the cabin in getting out the money, but the work was not done fast enough, and the pirates went again below, intimidating them with threats and imprecations, and beating them with their knives, to let them more fully know, that they were in earnest. In this manner all the boxes of money (ten, containing 20,000 dollars) were gradually got on deck, and the schooner's launch was sent for it and conveyed the booty to her, accompanied by one of the pirates, leaving the remainder (four) to ransack the brig for more plunder. The mate was then attacked by one, who, it appeared afterwards, was the boatswain of the schooner, and was driven to the fore-castle, where another was placed as a guard over him. His watch was taken from him; but more money was the object of the pirates, and the lives of all were threatened to produce it, while they hurried fore and aft the deck, fearful of being discovered by a sail heaving in sight. The captain's chronometer was demanded by the boatswain, who, disbelieving the assertion that he had not one in the brig, broke the speaking-trumpet about his head, after robbing him of his watch and some doubloons he had about his person. The crew were at this time secured in the fore-castle, while every chest and locker was ransacked for more money. Finding themselves disappointed, the pirates took possession of coils of rope, leather and other articles; and having thrust the mate

into the cabin, and secured him with the captain, they went on board the schooner, to consult with their lawless comrades on the next measures that were to be adopted. In ten minutes they returned hastily, closed the fore-scuttle of the brig and after-hatchway, and commenced the work of havoc on deck. The compasses were broken, the rigging cut, and also tiller-ropes, braces, running-rigging, sails, &c.; and the yards were lowered down and spare spars thrown overboard; and, to complete their atrocious deeds, short of murdering the crew at once, they left a pot of tar, and a quantity of tarred ropeyarn in the caboose to which they set fire, with the mainsail, hanging loose, resting upon it. In this state they left the brig, taking her ensign and pendant, and her only boat with them, which, when they got alongside of their own vessel, they scuttled; and after hoisting in their launch, and the brig's spars which they carried off, they made sail to the south-east, to reconnoitre a ship that had hove in sight, leaving the *Mexican* to her fate, and expecting every moment to see her a mass of flames.

Inscrutable are the ways of Divine Providence in bringing to summary or future justice the atrocious deeds of man. While the work of plunder had been going forward, the schooner had taken such commanding positions of the brig, that she might speedily have sunk her with her guns. The feelings of Captain Butman and his crew, throughout the whole transaction, can be better conceived than described. Threats, imprecations, and blows; in fact, everything short of actual murder were dealt on all, while the work of robbery and plunder went forward. But it was now complete; the worst had passed over, and the pirates were gone with all they could contrive to take. But they had neglected to secure the cabin skylight, and the mate judging they were standing away under sail, crept up through it on deck, in time to save their lives, and the whole vessel from destruction. The caboose was on fire, the mainsail would soon have been so, and a few short moments more would have been the last of the *Mexican* and her crew. But they were saved; the hand of Providence was there; and by their exertions and perseverance the vessel was again put into some order, and they reached Salem, where the account of the piracy was speedily published—the same account that was put into the hands of Captain Trotter at Port Antonio, and was the cause of his proceeding to the River Nazareth.

We have already stated that when this account reached Prince's Island, the *Panda*, had been some time on the coast, and had put into Port Antonio for provisions; and that from her correspondence with the description given of the pirate, joined to the circumstance of the crew being extremely lavish of their dollars, suspicions had ran high respecting her; and that Captain Trotter, on being made acquainted with the facts, had proceeded without loss of time to the River Nazareth in search of her.

On the night of the 3rd of June, the *Curlew* arrived off the mouth of this river, anchoring about nine miles from the shore. Two hours after midnight, three boats manned and armed, left the ship (in the gig, Captain Trotter, the other two boats commanded by Mr. Maule, mate,

and Mr. G. Quintom, second-master,) and proceeded towards the bar of the river, which they crossed as soon as daylight allowed them. After proceeding three miles up the river, a vessel was seen a mile further up. The current running strong against them, they were a long time pulling up to her. In the mean time, her crew were seen to take to their boats, and make for the shore, with the exception of one man, who soon after followed the rest in a canoe. Captain Trotter in the gig made direct for the boats, but was unable to come up with them before they reached the shore. Smoke had been seen to issue from the vessel as soon as the canoe left her, and on the boats getting on board, she was found to be on fire in the cabin immediately over the magazine, in which were sixteen casks of powder. A quantity of cotton and brimstone was burning, communicating with the magazine, which would shortly have exploded, but for the timely arrival of the boats, and the promptitude of John Turnbull, seaman, who sprung below, and threw on deck the lighted pieces of match. A cask of gunpowder with its head out, was also found placed close to the galley-fire, shewing how determined the crew were to destroy the vessel and her captors.

By the exertions of the *Curlew's* men, the fire was extinguished, and search was made for her papers, but without success; nor could any valuable property be discovered. A few private letters, however, were found, with the signature of Pedro Gibert, addressed to the boatswain and carpenter of the *Panda*.<sup>\*</sup> While this afforded sufficient proof of her being the schooner which had been at Prince's Island, and in search of which the *Curlew* had sailed, the fact of the desertion by her crew gave strong evidence of their guilt, as under the then existing treaties, they could not have been captured by the boats of a British man-of-war, without their having had slaves actually on board.

The vessel was in consequence taken possession of; and Captain Trotter determined, if possible, to get possession of her captain and crew, who were on shore at the town of Nazareth. Five of the latter at once surrendered themselves, but declared they had not belonged to the original crew, having entered at Prince's; but they were detained to identify the others when taken: they confessed having often heard their shipmates speak of a piracy they had committed.

The *Panda* after this was taken outside the river, into the offing, where the *Curlew* had been left at anchor: every inducement was now used to prevail on King Passall, the native chief of the country, to give up Don Gibert and his crew. Captain Trotter went himself to the king, who acknowledged his obligation to give them up, but firmly maintained that they had fled into the bush, and that he was unable to seize them. This was proved to be a mere evasion and after many days fruitless remonstrance with the king, seeing that he had no intention whatever of surrendering the pirate, Captain Trotter determined to effect, if possible, by force, what could not be done by persuasion. The *Curlew* drawing too much water, the *Panda* was taken inshore, and anchored off the town. Captain Trotter sent at length to the king, and

\* She had several foreign ensigns and pendants.

threatened to fire upon the town if his demands were not acceded to within a given time. The last messenger, the gunner, returned on board without bringing any hope of the pirates being sent off, and at the expiration of the time named, the demand not being complied with, a shot from the *Panda's* long twelve-pounder amidships, was fired over the town. A disaster here occurred, which threw a temporary gloom over the proceedings. Some loose powder was on the deck of the cabin, which a spark from the gun igniting, communicated with the powder in the magazine, and the *Panda* the next moment was blown up.

The vessel's stern was blown out, as well as the plank on her larboard side aft, and her quarter-deck was turned right over and hung into the water. Being in little more than her own depth of water, she took the ground at the instant of filling and heeling over, one bulwark remained above water affording safety to the crew till the arrival of her two boats; these were two or three miles off, having happily been sent away a few hours before, or the loss of life might have been still greater than we have to record. Two valuable officers perished; Mr. Johnson the purser was picked up with life almost extinct; Mr. Lewis the gunner was still alive, clinging in the water to the end of the deck; both died the same afternoon, as did John Pilling, marine, who was picked up nearly dead; and a Kroo boy was never seen afterwards. Amongst those who received injury were Captain Trotter, who was much hurt by being jammed between the planks of the deck, as it blew up, and the bulwark, from which position he was with some difficulty extricated and saved from drowning when the vessel filled;—and James Wasley, marine, who was obliged to undergo amputation of his leg.

The *Curlew* was some miles off, hull down; but underway, standing in with a light breeze towards the schooner. On the arrival of the first boat the wounded men were sent away under the care of Mr. Mackey the surgeon. This officer, when the gun was fired had jumped into the fore-rigging to see where the shot fell, and thus escaped injury; a most happy circumstance, for on arriving on board the *Curlew* the assistant-surgeon was found on his death-bed in the last stage of African fever. When the second boat came up, as many as she would hold were sent away in her, while Captain Trotter with a few others remained on the wreck till they were removed to a small Portuguese sailing craft, in which they remained till the *Curlew* sent another boat.

This sad catastrophe was not only attended by loss of life, but many valuable stores of the *Curlew* were lost on board the *Panda*, including the greater part of her firearms and cutlasses; it became therefore impossible to take further steps at this time to seize the pirates. King Passall was clearly not to be trusted, for although he had declared to Captain Trotter that he had not even a canoe by which he could send off a message, on the morning after the accident the *Panda* was seen at daybreak surrounded by native canoes, which had doubtless been busily engaged all night in pillaging her. The *Curlew's* boats kept them off during the day time, till such stores as could be saved were brought away.

Captain Trotter, thus circumstanced, resolved on going to Fernando Po for a fresh supply of arms, and then return to secure the pirates.

Having learned however, from the Portuguese prisoners that several of the crew of the *Panda* had left her on various parts of the coast, he determined on his way to call at all the places where he was likely to gain intelligence of any of them. With this view, after getting the *Curlew* under way on the 20th of June, he proceeded to the Gaboon River, where the prisoners had told him the second mate of the *Panda* had gone some time before. On arriving there it was found that this person had left for Havana, and the *Curlew* proceeded on to the Island of St. Thomas. In reply to Captain Trotter's enquiries the governor of this island professed to know nothing whatever of the pirates, but with what truth will afterwards appear. Touching afterwards at Port Antonio, Princes Island, information was received that two of the crew of the *Panda*, who had quitted that vessel there, had gone to Whydah, in the Bight of Benin.

As no great delay in going there would occur by going first to the Gold Coast, Captain Trotter who, as senior officer in charge of the vessels of war on the coast,\* had some important duty to perform there, proceeded to Cape Coast Castle, where he left one of the Portuguese prisoners, in order that on the arrival of a man of war, which was expected, he might be put on board, for the purpose of recognizing any of the *Panda's* crew who might be in any vessel they fell in with.

The *Curlew* then sailed for Whydah: on arriving at that place, there being no British resident there of any description, Captain Trotter applied to M. De Souza, the well-known slave dealer, for intelligence respecting the two men he was led to believe had gone there, and he found that one had sailed for Bahia, and that the other on the appearance of a man of war on the coast, had given himself up as a slave to the King of Dahomey. M. De Souza, who seemed cordial in his proffered assistance volunteered to send an officer of the *Curlew* to Abomey, the capital of Dahomey, to try and secure the man who had fled there; but this offer was declined. No less than thirteen slave vessels were lying at Whydah at this time, all of which Captain Trotter, being short of officers, searched himself, in his anxiety to discover some of the *Panda's* crew, but in vain. He was now taken extremely ill with fever, and proceeded to Fernando Po, after making a short stay at the Bonny.

On his arrival at Clarence Cove, Fernando Po, on the 17th of August, he was in a state of great danger, and was landed in a cot and taken to the hospitable house of the governor, Colonel Nicolls, to whose care and kindness may be attributed the saving of his life. The illness of the commander caused the detention of the *Curlew* here for a short time, but it will soon be seen how strikingly this delay was overruled for the furtherance of the ends of justice.

A few days before the arrival of the *Curlew*, Captain Beecroft, an officer of the establishment at Fernando Po, had gone over to the adjoining coast to the Isle of Bimbia, at the mouth of the Cameroons River, where he accidentally fell in with five Spanish sailors. These men accosted him, saying that they had been shipwrecked in a vessel

\* Admiral Warren being Commander-in-chief of both east and west coasts, necessarily remained almost always at the Cape of Good Hope.

of their country, and requested that he would give them a passage to the Old Calebar River. This Captain Beecroft said he could not do as he was going to Fernando Po, but that they could go with him there, and then find their way to Calebar from that island. They accordingly took their passage with him, and were about to sail again from Fernando Po for Calebar, when Captain Beecroft received from his agent at Bimbia a quantity of Spanish dollars, with information that they had been picked up at low-water mark, and were supposed to have been lost from the canoe in which the Spaniards had arrived there.

On these circumstances coming to the knowledge of Colonel Nicolls, it immediately occurred to him that these men might have belonged to the *Panda*, and it was determined that they should be confronted with one of the Portuguese prisoners which Captain Trotter had on board from the Nazareth. This was no sooner done than they were all immediately recognized as part of the *Panda's* crew. The youngest of them, a lad of eighteen years of age, called Jose Perez, being admitted as king's evidence, disclosed the fact, and gave the following account of the piracies which the *Panda* had committed:—

“I entered on board the schooner *Panda*, Pedro Gibert, at Havana; she had two iron guns, and one long brass one abaft the mainmast. We sailed about thirteen months ago for the coast of Africa on a slaving voyage. About a month after we had been at sea we boarded a ship at night; I believe she was English. We took two coils of rope, two goats, some syrup, and sweetmeats. About twenty days afterwards we fell in with an American brig; first saw her at 6 A.M. I was at the masthead at daylight, but did not see the brig until she was seen from deck, and I was kept all day at the masthead for it.

“About 8 A.M. we closed her, hailed her to send her boat on board, which she did, then the second officer, boatswain, carpenter, and four men jumped into her, and made them row back to the brig; the second officer being armed with a cutlass, and the others with long knives.

“Soon after they were on board, the boatswain came to the after part of the brig and hailed the schooner, showing the captain his hand full of dollars, which he threw into the sea. On this the captain sent the schooner's boat to the brig, with some hands, and they set about plundering her. They sent the brig's crew to the forecabin, and then secured them in the cabin; but before this, they made them get up the boxes of dollars from below. Then they put some tarpaulins and something else into the caboose, and set fire to them, and left the brig. But they brought with them ten boxes of dollars, half a cask of butter, about 300 dollars in a bag, I was told got from the captain, but I did not see it. Then they scuttled the brig's boat, and made sail away from her for Africa.

“When we boarded the American there was another brig in sight, and when we left her a ship was seen to leeward. When we made the coast, we went to Grand Bassam for water, and were chased off for about eight hours by a frigate, but we made the River Nazareth, to purchase slaves.

“After we had been in the Nazareth about two months they sailed for Prince's Island to refit; but before that they cut off the figure-head



of the schooner, and made her all flush with the bulwarks. I was left on shore in charge of the slave-house, while the vessel was gone to Prince's; she came back to the Nazareth in about a month.

"About five months afterwards I heard that a man-of-war brig was at the mouth of the Nazareth, and after anchoring she sent her boats up the river to board the schooner. As soon as the schooner's people saw them, they took to the boats for the shore. I was by the captain on shore, and heard the carpenter tell him that he was the last person out of the vessel, and had got her papers. The carpenter told him, also, he had put a barrel of powder in the caboose, with a train from it into the cabin, leading to the magazine, and had left a slow match burning. He expected before then, he said, to have seen the English all blown into the air together. The captain asked the carpenter what he had made the match of, and was told 'brimstone and powder.'

"I was away in the bush, but I heard firing on the town and saw rockets, but I believe nobody was hurt.

"When the schooner anchored off the town of Nazareth, a few miles outside of the river, in charge of the men-of-war officers, the Spaniards all took to the bush except the captain, who remained in the town, secreted by the king. Four days after the man-of-war sailed from Nazareth, the schooner *Esperanza* arrived. Some of the crew of the *Panda* went on board of her.

"About a month ago, five of my shipmates and I got a canoe, and our captain gave us leave to go where we liked, and he gave us all our share of the plunder we had got; the whole was 1,960 dollars, but my share was 250.

"We arrived in the Cameroons river about six days afterwards, and hearing that an English schooner was at Bimbia, we went to her, but agreed to say that we were shipwrecked seamen. We wanted to get to Calebar or Bonny, but as we could not get there without going to Fernando Po first, we threw most of our dollars away at Bimbia and kept only a few."

Such was the confession of Jose Perez before Colonel Nicolls, Captain Beecroft, and Dr. Ballard, R.N., justices of the peace at Fernando Po; and not only is great credit due to Colonel Nicolls for his indefatigable zeal in the whole of the transaction, but his great discrimination of character is well exemplified by his having selected Perez for king's evidence. It appeared afterwards that he was the only one amongst them of sufficient honesty to keep the truth at all hazard, and without his testimony, the piracy as will hereafter be seen might not have been proved.

When we consider the trivial circumstance of the dollars left exposed at low water having first produced suspicions concerning these Spaniards, and the happy coincidence of the *Curlew* being at Fernando Po at the moment of their arrival, with some of their shipmates on board to recognize them, Who shall say the hand of Providence was not manifest here? One of the six Spaniards, five of whom had now been secured, was left at Bimbia; but he was sent for, and all six were despatched to the Island of Ascension, by the *William Harris*, transport, to await the arrival of the *Curlew*.

(To be continued.)

## THE SAILORS' HOMES.

*United Service Club, Pall Mall,  
17th March, 1851.*

SIR.—The *Shipping and Mercantile Gazette*, of the 27th of February states, with reference to a meeting of seamen recently held at the Music Hall, at Liverpool, in opposition to the Mercantile Marine Act, that one of the speakers remarked “That the act was an invasion of their civil and religious liberties,” and “That Sailors’ Homes, were described as Sailors’ Gaols,”—a sentiment which was received with loud cheers!

Lest so monstrous an assertion, from being unnoticed, should pass current amongst mere superficial inquirers into the nature of the Mercantile Marine Act, and the system of Sailors’ Homes, I take leave to offer the following observations which I trust may be allowed a place in your Magazine.

It is only those who have spent the best part of their lives amongst seamen, who can appreciate their good qualities and kindness of heart, when well directed, and it is much to be regretted there should be found amongst our shipowners and merchant captains, any who would encourage poor Jack in his misguided discontent, and who can show so little regard and sympathy for them, when they are turned adrift in our sea-port towns, with their little earnings, exposed to every kind of chicanery and temptation. During my late visit to the principal sea-ports in Ireland, Scotland, and the North of England, to personally examine the lodging-houses and haunts of the mercantile seamen when out of employment, for the purpose of ascertaining whether something could not be done, to better and ameliorate their condition, and improve their habits—and when at Liverpool I visited the shipping-office which is connected with the “Sailors’ Home,” and has been in full operation for many years. It is admirably conducted and answers well, thus proving a great boon to the sailor and an advantage to the ship-owner, as all shipping-offices will prove to be when the seamen open their eyes to the many great advantages this new Mercantile Marine Act affords to them, and not allow themselves to be led away by crimps, lodging-house-keepers, their agents, and other designing interested persons.

All who have the welfare of our seamen at heart, must be glad at any attempt to raise his character and increase his comforts. Mr. Labouchere has shewn a most laudable activity in dealing with a question that was surrounded with so many difficulties; and although he has had to encounter those obstacles which must always turn up in the way of government interference with the regulation, by general rules of matters of individual enterprise, he has, upon the whole, been successful. I am not sure in expressing these views that I shall meet with the concurrence of the whole shipping interest, since, in some respects, that body may be more or less affected disadvantageously by the new and proposed regulations. But there is at least one point on which every interest in the country (except the fraternity of knaves and harpies who infest our sea-ports) will be cordially unanimous, viz. the duty of providing some safe-guard against the temptations that strew the way of our simple, heedless seamen, when they set foot on shore. These most beneficent institutions, called “Sailors’ Homes,” which have only of late years begun to be established are the only means, (when combined, and worked out properly with the new Mercantile Marine Act,) of effecting this most desirable object.

People who are connected with shipping, and encouraging those sailors’ meetings care little for their moral habits and personal comforts; they see with indifference their vices and make no attempt to better their sad lot; they

think of getting their ship *out* and *home* in safety, and realising a good profit: ask *such* people to give their mite towards the moral amelioration of the sailor, and they will say they have nothing to do with it--in paying him his wages they consider they have finished with him, and

“ Where he goes, and how he fares,  
No one knows and no one cares.”

As self interest must be the only channel through which you can get at the sympathy of such men, I would remind them that, a pound subscribed and applied towards the furtherance of a proper system for improving the habits of seamen, and their conduct on shore would be found to repay them amply, and prevent crime, desertion, and disaffection, which exists to a fearful extent in the Merchant Service, and which I have witnessed to a dreadful extent at Quebec, Calcutta, and other foreign ports, and the existence of which may be traced to the want of proper and efficient laws to regulate the Merchant Service.

Neglected by his employers, the natural weakness of human nature, uninfluenced by moral restraints, yields to the force of temptation and finds itself the victim of every passion.

I wish to impress upon my readers the debased state of prostration, this really fine warmhearted race of men labour under, and to help them out of the scrapes they are sure to fall into on coming on shore. There is no class of men so illtreated by their fellow creatures as sailors. After suffering the hardships and toils of the sea, they are beset the moment they land, by the most profligate of both sexes, for the purpose of robbing them of their hard earned wages, whilst those whose duty it is to come forward to protect them, leave them to be taken in and done for by the low lodging-house keepers and their abominable agents, who put every temptation in their way. Surely then it is evident that the merchant, the owners and commanders of ships, and all who profit by the toils of our seamen ought to come forward and assist in establishing “Sailors' Homes,” and do their best to reconcile them to any act intended to benefit them. The new Mercantile Marine Act may require a few alterations, but the object of it is good, and it is conducive to the interest of all classes connected with the Mercantile Marine.

W. H. HALL, *Captain, R.N.*

*To the Editor N.M.*

Whilst writing the above, I have just heard from the North, that our misguided seamen at Shields and other ports, are still setting at defiance all the laws and respect for their employers, and threatening in every way the New Mercantile Marine Act, which has been made, not only to benefit the Merchant Service, but more particularly the seamen who are therein employed, their wives and children; and should they die abroad and far from home the protection will also extend to the widow and orphans, or to an aged mother, and sister, who will be lawfully entitled to the remains of their pay or whatever property they have left.

This act is also a check to all improper punishment, and tyrannical treatment, too often practised by masters and mates; in fact, it will protect and better the condition of seamen in every way, and in time produce a more enlightened, and better class of men, to command them, and protect the property intrusted to their care. Many a richly laden merchant vessel with a good and gallant crew has been lost from the ignorance, and incompetency of the commander, or mate.

In the year 1849, sixty-nine vessels were lost belonging to those Northern ports, and several of the crews perished: such results might have been anticipated, for the commanders and mates were not subject to any exami-

nation, and neither the Government nor the public had in any way the least control over such appointments. Fortunately, (thanks to the new act) it is not the case now, for proper, and competent officers are appointed to examine masters and mates, and to shew the necessity of having such examinations, seventeen candidates offered themselves for masters and mates at the Northern ports last week, and only two could pass for masters, and four for mates; a proof that some laws were wanting to oblige persons, who have such a charge, to qualify; consequently, when the new act is fully understood, I beg again to remark that to merchants, shipowners, and the public, it has an especial claim, and will prove a very great boon to the Mercantile Marine of England.

W. II. II.

---

ANSWER TO ENIGMA IN NAVIGATION.

45, Prince Street, Bristol, March, 6th, 1851.

SIR.—There are several methods by which the day of the month may be found at sea, if lost under any circumstances resembling those recorded in your last number, as befalling the brig *Ocean*, of Liverpool. The two most simple are, first, the taking the *apparent* distance of the sun, a star, or planet, and finding from pages 13 to 18 of the month, in the *Nautical Almanac*, the date when this lunar distance would occur, which will be the required day. The second method is by finding the latitude of the ship by the meridian altitude of a star, which as the annual variation in declination is but a few seconds would not be sensibly affected by date. The difference between this latitude and the meridian zenith distance, of either sun or moon, will give the declination of the object. The date found in the *Nautical Almanac* when the object has this declination will give the *day*, if the sun be observed, and if the moon, the hour.

The following example will illustrate both modes. On the day of convalescence, let the sun's meridian passage be observed, and his zenith distance ascertained, suppose it to be  $20^{\circ} 27' N$ .

Suppose that shortly after 7 P.M., the apparent angular distance of Aldebaran from the moon's centre was observed to be  $40^{\circ} 12' E.$ , by referring to the *Nautical Almanac*, I find this lunar distance recorded both on the 7th Feb., and the 6th March, one of which must be the day required. I decide on the latter, because the time shewn by the almanac is between 6h. and 9h. P.M., nearly agreeing with my time of observation, whilst the time on Feb. 7th falls between noon and 3h P.M. However to be more sure as I find Sirius nearly south, I observe his meridian passage which I find occurs about 7½h. His altitude is  $57^{\circ} 59' S$ . The true time of this star's passing the meridian on the 6th March, I find to be 7h. 29m. P.M., nearly agreeing with my time; on Feb. 7th the passage takes place at 9h. 21m. P.M. thus giving the same date as the lunar. But as there is a possibility of this difference of time being caused by a difference of longitude, from the meridian altitude of Sirius I find the latitude of the ship to be  $15^{\circ} 30' N$ . Suppose the ship to have made  $50' N.$ , difference of latitude since noon, this will give the latitude for that time  $14^{\circ} 40' N.$ , the difference between which and the sun's zenith distance gives the sun's declination  $5^{\circ} 47' S.$ , which also agrees with the 6th March. Having thus obtained the day of the month, the time and longitude may be found in the manner usually employed for these problems.

If, sir, you deem the foregoing observations worthy of a place in your

valuable publication, I hope, many of your nautical readers will derive amusement in verifying the practicability of the problem; and trust none will be compelled to practise the directions from necessity.

*To the Editor N.M*

JNO. SEATON.

[We hope the Commander of the Ocean, will now see how he might have found his date and position, without resorting to the clumsy method of going to Sierra Leone to be told it.—ED.]

#### CELEBES.\*

THE island of Celebes is, according to the existing administrative disposition, as set forth in the Dutch report, divided as follows:—

1. *Residence of Menado.*—It forms a separate division of government, under the higher authority of the Governor of the Moluccas, and will thus be treated of under that government.

2. *The territory of the Sultan of Ternate on the east coast of Celebes.*—This also is placed under the government of the Moluccas, and belongs to the residency of Ternate, under which head it will be described.

3. *Government of Celebes and the dependencies.*—This great division includes the whole remaining part of the Celebes, and the surrounding islands, besides the island groups south of it to and including Sumbawa, where amongst others the Sultan of Biema is established, whose powers also extend over the western half of the island of Florea, called Mangaray.

The kingdom of Goa or Makassar had extended its power over almost the whole of Celebes in the middle of the 17th century by its weapons. In the beginning of this century our Company had already established a factory at Makassar, which having at one time been broken up was again re-established. With an eye to her interests in the Molucca Archipelago, and faithful to her principles of state policy, she at last established herself as protector of the kingdoms subject to Goa. Bloody wars followed, which in 1669 finally put an end to the predominance of Makassar. The possessions of Ternate in the north and east of Celebes, were restored to that kingdom. Different districts and smaller states on the west and south coasts of the island were ceded to the Company. The other kingdoms, by the conclusion of treaties, were united by it in a general confederacy under its protection; whereby the kingdom of Boni was established as a counterpoise to the power of Goa, and placed in the same position as the last. The ceded district of Makassar was declared the chief possession, to the town of which the name of Vlaardigen was given and to the fort that of Rotterdam. The kingdom of Boni, thus raised from its state of depression, by degrees so increased in importance, that the difficulties since experienced are principally to be ascribed to its presumption. Makassar was, in terms of the capitulation of Java, delivered up to the English government in 1812. The pretensions of Boni compelled the British inter-government to send an expedition against that kingdom in 1814 which only had a momentary influence. In consequence of the London convention of 1814, Makassar returned under the Dutch government in the end of 1816, but in a state of disorder and misgovernment, that finally in 1824 and 1825 required to be put an end to by stringent military measures.

New treaties strengthened our disavowed rule; but it is only since the return of Boni in 1838 to the general confederacy, that we can consider order and peace as having been established in this government.

\* From the Report of the Minister of Colonies to the Second Chamber of the States General of Holland.

A many sided ramified feudal system, bound up in one by the rights of the local chieftains, and moreover by an union of the authority exercised by the same, coupled with the existence of other smaller subordinate associations, constitutes the basis of the regulation of the native government, the natural oppression of which is often increased by the rivalry between Goa and Boni. The operation of the Dutch power is here threefold. The direct authority of government extends over the following subdivisions: the district of Makassar with the dependant islands; the southern districts; the northern districts, or Maros, Bulecomba and Bonthian, and Saleyer with the surrounding islands, and the south-eastern and south-western groups of smaller islands stretching from thence.

Under the indirect authority of government stand, according to special treaties, the feudal states of Kajeli, Tanette, Telle Wajo and Luwu.

All the other countries and kingdoms in this government form, according to the existing contracts, a general confederacy, of which the princes of Boni and Goa are the principal members, and at whose head is placed the Dutch government as protectors, clothed with the principal attributes of supremacy. Under its protection are placed the princes of the island of Sumbawa and the Sultan of Buton, but the last only belongs to the confederacy.

The Governor has his seat of government at the chief place Makassar. An assistant-resident is established at Maros, and manages the northern districts, as European functionaries do the divisions of the southern districts, Bulecomba and Bonthian, and of Saleyer, with the dependent islands. A similar functionary is placed at Biema on the island of Sumbawa.

The distinctive character of the inhabitants of this government is that of being enterprising seamen and traders. Only in the interior and on the south-west side of the island is the agriculture, and that principally rice cultivation, of any consequence worth mention. The population is divided into two great races, who however have much similarity in manners and customs. They are, in the west the Makassars, of whom the prince of Goa is the principal, and to the east the Bugis, of which Boni or Bugie forms the most powerful state. The first are *par excellence* hardy fishers, who prosecute the search for tortoiseshell and trepang in the Molucca Archipelago even to New Guinea and New Holland. The last, amongst whom principally the Wajurese, are the great traders of the Archipelago, and as such are spread far and wide.

The total number of the population of this government is conjectured to amount to about 3 millions; that of the chief place is reckoned at 24,000, while the rest is placed at—in the northern districts 120,000, in the southern districts 70,000; Bulecomba and Bonthian 30,000, and Saleyer and the dependencies 40,000.

Makassar has been a free port since 1st January, 1847.

---

#### RESTRICTION ON SMOKING TOBACCO.

We are glad to find that the Board of Admiralty have issued an order prohibiting officers from smoking in the public streets, while in uniform; or in boats, while on duty.

This smoking of tobacco, is one of these *acquired* tastes which has often perplexed us to imagine the advantage of undergoing the ordeal.

However there is no accounting for taste, and we must confess we have as great a horror of the "weed" as honest Old Stowe, who, in his *Chronicles*

of England, in speaking of tobacco, calls it "that stinking weede so much abused to God's dishonour, was first brought into this land by Sir Walter Raleigh, or by Sir John Hawkins, as some say, about the year 1565, but not used by Englishmen in many years after, though at this day, 1631, commonly used by most men, and many women."

In the Harleian Miscellany, there is a curious paper on the natural history of tobacco. "I am confident" says the writer, "it is of the poisonous sort, for it intoxicates, inflames, vomits and purges, which operations are common to poisonous plants; besides, every one knows that the oil of tobacco is one of the greatest poisons in nature; a few drops of it, falling upon the tongue of a cat, will immediately throw her into convulsions, under which she will die."

The writer then describes at length the various modes of using it in different countries. Of the Irish he says "they do most commonly powder their tobacco, and snuff it up their nostrils, which some of our Englishmen do, who often chew and swallow it."

"As for the qualities, nature and use of tobacco, they may be very considerable, in several cases and circumstances, though King James himself has both writ and disputed very greatly against it, at Oxford, and Simon Pauli, has published a very learned book against it. Some anatomists tell us most terrible stories of sooty brains and black lungs which have been seen in the dissections of dead bodies, which when living, had been accustomed to tobacco.

In 1734 to guard against fire, an order appears to have been issued by the Admiralty to the following effect:—

"Such as smook tobacco, are to take it in the fore-castle, and in no other place, taking all possible care to prevent accident from fire. And by an order of the Navy Board, 5th November 1697. "Tobacco was not to be smooked in the yard nor in ships afloat, but over a tub of water."

---

#### COMMODORE STOCKTON ON AFRICA.

YONDER is Africa, with one hundred and fifty millions of miserable, degraded, ignorant, lawless, superstitious idolaters. Whoever has stood upon her sands, has stood upon a continent that has geographical and physical peculiarities, which belong to no other of the great divisions of the globe. The latter appear, upon the face of them, to have been adapted to draw out the energies of the natives in their inequalities of temperature, soil, and surface, inviting the ingenuity and enterprise of man to overcome them, and in the varieties of their products tempting the interchanges of commerce; thus affording ample encouragement to the progress of civil and social improvement. But Africa is still, as of old, a land of silence and of mystery. Like the interminable dreariness of her own deserts, her moral wastes of mind lie waiting for the approach of influences from abroad. No savage people have ever advanced to a civilized state without intercommunication with others. All the continents of the world, have in their turn, been occupied and civilized by means of colonies: but in no one of them did it appear so inevitably necessary, from a previous examination of circumstances, as in that of Africa. It is plain to the very eye, that Africa is a land to which civilization must be brought. The attempt has been made over and over again by devoted missionaries and others to penetrate that land, and seek to impart the blessings of civilization and christianity to her savage hordes.

But the labour has been spent in vain. The white man cannot live in Africa. The annals of the Moravians, of Cape Colony, Sierra Leone, of Liberia, contain the records of the sacrifice of some of the best men that have lived to grace the pages of any people's history, in the vain attempt to accomplish something for her redemption through the instrumentality of white men. Who then is to do this work?

Let now any calm, reflecting spectator of the present state of the world be asked to look at Africa, and then, from among the nations, point out the the people best calculated to do this work, and when his eyes falls upon the descendants of the sons of that continent now in America, will he not say "These are the people appointed for that work".—*Colonization Herald*.

---

#### THE BOSPHORUS.—*Screw Steamer.*

Much interest has been lately occasioned by the remarkable performances of merchant screw-steamers, especially those which are designated Auxiliary.

These vessels are completely masted and fitted for sailing, as full rigged ships, or otherwise; however assisted, when necessary, by the screw.

The principle on which they act, is to sail whenever there is wind enough to give them a certain average speed (say eight or nine knots an hour) near their course; and to use steam only when the wind is light, or during calms; or in occasionally helping the vessel to make good way, while working to windward close-hauled.

Regular winds, such as the trades, are crossed as speedily as possible, with a full sail, just as in regular sailing vessels.

The screw-steamers do not usually make direct courses by the very shortest route, like full power steamers, lightly rigged; nor can they, when only provided with auxiliary power, equal their speed under steam alone; but as their consumption of coal is very small, and they sail faster than any vessel hampered with paddle boxes and wheels, they are not obliged to coal frequently, and by sailing much, and well, they actually beat the full power paddle steamers, on long voyages, while, from their greater capacity for carrying cargo, and their small consumption of fuel, they are sailed very much more economically, and of course return a larger profit.

The speedy return of the *Bosphorus* from the Cape of Good Hope is a proof of this statement, although that screw steamer, being a first experiment on a long ocean voyage, did not take the best course for demonstrating the problem, (of combining speed with economy,) so strikingly as her successors will, especially those of much larger tonnage.

The *Bosphorus* did not take the best course, nor did she follow the general rule of keeping "a full sail" when there was a good breeze, though not a fair one, nor did she steer so as to avail herself to the utmost of known favourable winds, or to avoid currents that retarded her progress. Her course was nearly that of a full power paddle-wheel steamer, instead of being (as it ought to have been) nearly that of a regular sailing ship. Moreover she was not provided with the best fuel, some of her coal being so bad that it was thrown overboard as useless waste.

This ship, and her sisters, the *Hellespont* and *Propontis*, are exactly similar, in all respects; they are fitted with shifting or feathering screws; their builders' measurement is 536 tons, and their power nominally that of 80 horses, respectively.



The average speed of the *Bosphorus*, during the whole time of being under way, going to and returning from the Cape of Good Hope was almost eight knots, (more than seven and three quarters,) a high average under the circumstances abovementioned.

She was thirty-nine days under way, going to the Cape, and thirty-four returning, including the very inconvenient delay caused by going so far out of the best winds, and into adverse currents, in order to touch, both going and returning at Sierra Leone, as well as the Cape Verd Islands; a service that might be less inconveniently executed by a small branch steamer.

At the return of the *Bosphorus* to Plymouth on the 12th of March, from which port she had departed on the 18th of December; her machinery and everything on board proved to be in such perfect condition that her commander (J. Vine Hall,) reported her ready to sail on another Cape voyage in four days.

*Bosphorus, Hellespont, and Propontis.*—These ships are remarkably easy at sea, their screws cause no annoyance, they can be shifted from one position to another in three minutes, at any time, and that of the *Bosphorus* is now in perfect condition.

When these ships are under sail only, shifting or feathering the screw makes a difference of nearly two knots in their speed.

March 20th, 1841.

G. S. S. C.

#### SCREW STEAMERS.

We have more than once directed attention to the great revolution screw-steamers are destined to effect in our mercantile marine, and every week gives strength to our convictions. The disaster which befell the *Great Britain*, though her only fault was she overran her commander, gave screw-steamers a check for a time, but they are now rapidly augmenting, and performing their voyages with great regularity. The *Arno*, one of this class of vessels, arrived last evening in five days and sixteen hours from Gibraltar. Before the year closes we shall have one, if not more, between this port and Chagres, and, as the railroad thence to Panama will be completed by that time, for the contractors are proceeding energetically with their work, with a view to opening it before the 31st of December, this route will materially facilitate the transmission of our textile fabrics from this country to the West Coast of America. In a few years we expect to find not only every ocean and sea traversed by English screw-steamers, but every estuary and river in which there is a port of any extent of trade entered by those from Liverpool. America is proverbial for her clipper sailing ships, owing to the peculiarity of her California and China trades, for the nature of the credit system under which they are carried on gives clipper ships an especial advantage; but, believing that screw-steamers will become best adapted to all trades that can afford to pay a fair remuneration for outward freights, they will ultimately displace the clipper sailing vessel. Every year diminishes the expenses of screw-steamers, from the greater certainty of coaling at intermediate ports at a reduced cost; for, let screw-steamers be but once established on any route, and the coaling depots will be created, as a matter of course, by other interests. Our feeling would be more zealously enlisted were Liverpool, whose position is peculiarly favourable for the building of iron steamers, making efforts to secure for herself her fair portion of their construction, instead of allowing the Clyde to have nearly the entire building to itself. Even a Joint Stock Company would be preferable to inactivity.—*Liverpool Albion*.

## NAUTICAL NOTICES.

THE ISLAND OF RUAD, JUNE, 1850.—By *Commander N. Vansittart, of H.M.S. Frolic.*

Ruad Island the ancient Aradus is situated in nearly lat.  $34^{\circ} 49' N.$ , long.  $35^{\circ} 53' E.$ , is from the main land at nearest part about  $1\frac{1}{2}$  miles, and from Tortosa S.S.W. 2 miles. It is the Aradus or Arad of scripture, whence Tyre is said to have drawn her mariners. It is about half a mile in length, and rather more than a quarter of a mile in breadth, and is surrounded by the remains of ancient walls: the castle or citadel being still nearly perfect without guns.

The island is nothing more than a barren rock, not even having a spring of water, for which they are entirely dependant on the artificial reservoirs containing rain water, and from supplies that are fetched from the river on the main land.

The anchorage, although it cannot be called a good anchorage, is for three or four brigs, corvettes, or small frigates to be preferred to most ports in Syria to the southward of it, being equal to Tripoli and Beyrout, and superior to Sidon, Tyre, Kiaffa, or Jaffa. It is sheltered from the south-west winds which appear to be the prevailing winds on the Syrian Coast; and which, in the winter time, blow with the greatest violence, consequently the ones mostly to be guarded against.

From W.b.S. to S.b.W., the anchorage is sheltered by the Island of Ruad.

From S.E. to N.N.E., by the main land, leaving the anchorage apparently exposed to winds, any point to the northward of west, and likewise to S.S.E. gales.

From a small island  $1\frac{1}{2}$  miles south from the anchorage, and the many  $2\frac{1}{2}$  and 3 fathoms patches to the southward, as they cause the sea in a gale to break violently over them, making the anchorage comparatively safe, although no doubt subject to a disagreeable swell. To the northward although not so well protected, there are several patches of  $3\frac{1}{2}$  fathoms.

To enter the anchorage it is necessary to enter from the north point of the island, which is bold, having 10 fathoms close to it. At 200 yards is a small patch of 4 fathoms rock on it, so that it is necessary to keep the island of Ruad close on board; pass at a distance of 300 or 400 yards, where you have 5 fathoms least water. Good anchorage off the centre of the town in  $5\frac{1}{2}$  fathoms sand and mud, 500 or 600 yards off, increasing 8 fathoms at half a mile. It would be most dangerous for a vessel to attempt coming in or going out to the south of the island from the many  $2\frac{1}{2}$  fathoms patches there.

Water to be had from a stream on the main land bearing from the centre of the Island of Ruad, N.E.b.E.  $1\frac{1}{2}$  miles; vessels may anchor off the watering place at 700 yards distance in 5 fathoms. At the entrance of the stream is a bar of sand with only a foot of water upon it. Boats would have to anchor 50 or 60 yards off. Watering at Tripoli from the river above Ali, which is distant from Ruad 25 miles, is better water and easier for the boats employed.

The island of Ruad as seen from seaward has the appearance of a fortified town, and shows out light from the main land, upon which the ruins of the christian church built by the Crusaders is very conspicuous, to the north-east of which is the town of Tortosa.

On nearing Ruad the mast-heads of the country vessels may be seen over

the town. The inhabitants give a very favourable account of the anchorage, and none of them ever recollect a vessel having been wrecked there. They have themselves eight brigs belonging to the island. Cattle to any quantity may be procured from the main land by giving timely notice.

The population of the island is 960 men, exclusive of women and children, the inhabitants all Mahometans, mostly seamen, carrying on a slight trade in native boats and small vessels, by exporting grain and fruit from the main land at Tortosa to other places, sponge fishery, and a party going over daily in fine weather to work on the main land.

**SAILING DIRECTIONS FOR ALGOA BAY.**—*Extract from the Remarks of H.M.S. Hermes, Com. Fishbourne.*

In approaching Algoa Bay from the southward in clear weather, the first land that will be visible are the mountains in the interior, sketches of the most remarkable of them are given on the chart made by the officers of the *Hermes*, viz., Winterberging land and of a mountain somewhat similar, also having a serrated top, the bearings from Cape St. Francis (which is sometimes taken for Recife,) and Recife are as follows :—

*The Coxcomb* bears by compass from Cape St. Francis N.E.  $\frac{1}{2}$  N. thirty miles, and from Cape Recife N.N.W.  $\frac{1}{2}$  W. thirty-seven miles, and the mountain with the serrated top to the eastward of it bears N.  $18^{\circ}$  W. of Cape Recife, distant twenty-nine miles.

These bearings will be sufficient guide in steering for the Capes referred to, when they themselves are not seen. Continuing to steer for Recife the the next land that will appear will be the high land in its immediate vicinity, on which is a horizontal line of sand that looks very much like a sandy beach, but which is not now so; afterwards Recife itself will appear a little further to the eastward, showing low but distinct as a Cape, with one hummock near the extreme point. Nor will the lighthouse appear till after a further approach of four or five miles; its latitude is  $34^{\circ} 1' S.$ , and longitude  $25^{\circ} 41' 30'' E.$  No vessel should approach the Cape four miles to the eastward of Recife, or Recife itself nearer than two miles, and then only with a commanding breeze. Since the reefs extend to one mile and a quarter from the land, and there is a very decided and dangerous indrift: neither should any be tempted by the absence of break to approach nearer on the east side since it often occurs that the sea does not break on a seven foot patch a mile from the lighthouse, and yet without a moment's warning it will break in seven fathoms.

It is seldom prudent to approach nearer than to 13 fathoms water. When rounding Recife, or before a white stone beacon will be seen to the north-eastward of the lighthouse, which when on with it, or more accurately when its top is in one with a perpendicular line on the lighthouse, it points to the eight foot patch of the Roman Rock, and is the leading mark up to it on a course about N.N.E.  $\frac{1}{2}$  E. This patch bears from the lighthouse N.N.E.  $\frac{1}{2}$  E. two miles and a quarter.

After picking up this leading mark the eye should be carried along the side of the hill opposite to where the Roman Rock lies, and to about two miles from the lighthouse, where will be seen two wooden beacons, which when in one, point to the eight foot patch of the Roman, and from which when in one bear W.b.N.

When the lighthouse has been brought to bear N.W.  $\frac{1}{2}$  W., and the soundings are from 10 to 13 fathoms, intending to go between the rock and the main, the course may be altered to north. After running about two miles from the time of bringing the lighthouse N.W.  $\frac{1}{2}$  W., and yet some distance

before the wooden beacons come in one, or when Beacon Point, which is a low sandy beach terminating in dark brown ragged rocks is W.N.W., the white stone beacon must be brought and kept just open to the eastward of the lighthouse, this will take the vessel to the westward of the Roman in from 7 to 8 fathoms with one or two casts of 6 fathoms before coming up to the wooden beacons. After the wooden beacons have been brought in one, and again opened on the other side some distance, the anchorage off the town may be steered for, always giving Beacon Point a berth of a full quarter of a mile.

Intending to go to the eastward of the Roman after having brought the lighthouse to bear N.W.  $\frac{1}{2}$  W., the course N.N.E.  $\frac{1}{2}$  E. may be steered, or any course more to the northward, that will admit of the stone beacon being kept open to the westward of the lighthouse; then when the wooden beacons have been brought in one, and again opened some distance, or when the staff and point of the Diamond on Fort Frederick have been brought in one with the centre of the remarkable hill behind it (a sketch of which is given in the chart,) or if these are not seen when Beacon Point bears W.N.W., the anchorage off the town may be steered for.

The captain of the port will indicate where merchant vessels are to anchor, but sandy bottom and good holding ground is to be found any where in 7 fathoms. Ships will ride much safer with long scope of cable, say 60 fathoms of chain and 30 fathoms of coir (additional next the hawse) in 4 fathoms, and proportionably more in deeper water—less than the quantity indicated should never be tried in this bay, and indeed it is seldom judicious to use less.

*The Roman* is not, as supposed, a single rock, but a number of single rocks rising above a bed of rocks full 500 feet long.

There is a red buoy with a staff and beacon on it moored in 9 fathoms N.E., by compass, from the eight foot patch of the Roman, outside of which vessels going to the eastward of the rock should pass, but if going to the westward they should not approach the buoy on its W. or S.W. sides nearer than one cable's length.

#### *Directions for entering Algoa Bay at night.*

In coming from the westward no vessel should make the light on a bearing to the southward of east, and should she from any cause have fallen to the northward, so as to have brought the light more to the southward, she must without fail haul out till the light bear east, or if she is not aware of the error or deviation due to the iron, &c., in the ship to E.  $\frac{1}{2}$  S. before she arrives within five miles of the light. After which she may steer E.S.E. till the light bears N.b.W., then E.N.E. till it bears N.W., after which she may alter course to N.N.E. until the light is brought on the latter bearing: she should not get less than 12 fathoms water, and she should go sufficiently slow to obtain soundings. The current sets in strong towards the reefs, so if she find herself dropping in, she must haul to the southward.

While steering the course indicated, viz. N.N.E., going outside the Roman she must not on any account bring the light to the southward of S.W.  $\frac{1}{2}$  S. or S.W., or get less than 10 fathoms water, and if so must haul to the eastward till she has run three miles at least from the time of having brought the light to bear N.W., she may then steer N.W.b.N. to the anchorage. The town and vessels will appear from under the shadow of the land, as the anchorage is approached, even though no lights appear.

It is better to adhere to these directions, though lights should be seen apparently in the town or amongst the shipping, as these might be in a part of the bay north of the town, and thus deceive.

I would strongly recommend that no vessel should attempt to go to the westward of the Roman Rock at night, as the soundings are irregular, and the winds there are more baffling, the currents also set in towards the main land.

*The Redwing Rock* has been most carefully sought after without success, coupling which with the fact that there is no break in the place where it is said to be, leaves no doubt in my mind but that what was taken for a rock has disappeared. In Algoa Bay, and at about ten miles N.E.b.E. from the anchorage off Port Elizabeth, are the St. Croix Islands, under which there is good anchorage for all winds. Indeed it is a question, whether the town should not be near them, and under them the anchorage, for that part of the colony, the open country and the adjacent River Swartzcops, would afford no mean advantages not possessed by Port Elizabeth.

*The Bird Islands* in the eastern extremity of this bay, lay off Woody Cape, which is as its name imports covered with wood, except a small patch of sand at its highest part, and is the only seabound land in its vicinity that is so, which gives it in contrast with that for miles on either side a dark appearance; the land on the west side from near St. Croix Islands, are numerous sandy hillocks quite bare of vegetation; and that to the eastward up to Padrone Point, is nearly similar. Woody Cape is high, rugged, and not prominent, scarcely determinable as a cape, except when very near it; not so Padrone Point which runs out into a low point of sand, forming a determined cape without vegetation, from which breakers run out some distance. The water breaks still further off, owing to the meeting by currents this point, and after strong winds.

The innermost danger from these islands is full five miles from Woody Cape, and they afford a tolerable anchorage behind them from W. to S.S.E. in 13 fathoms, which is rather better than half a mile from the northern breakers closer to them, these would afford more shelter, but the ground is foul.

These islands are very low and proportionably dangerous, and though the main land will generally be seen before them, and the distance from them estimated from it, yet this is not entirely to be relied on, and in shaping a course to go outside of them allowance should be made for the fact that the eddy or return current sets in towards them, and then to the eastward.

*The Doddington* and western reef should be considered as part of the Bird Island reefs, and no vessel should go between them, the water does not always break on them, but in bad weather the break extends the whole way from them to the islands: the Doddington lies about eleven from Woody Cape.

There are many statements current, about breakers being to be seen from time to time in this bay during south-east gales, yet I believe others than those laid down, to have no existence, and that which has been mistaken for them is no doubt the effect of mirage. I had seen the appearance alluded to extend nearly the length of the bay, but examination and patient attention shewed it all to be unreal, as it vanished by degrees as we passed along. It may be occasioned by the sudden change of temperature in the air, which altering its capacity for moisture, causes an evaporation from the sea to take place to the lower strata, and less to the upper, which are therefore of unequal densities, and refract light in different degrees, producing the alternate appearance of white or broken water, and sea green, and regularly as the particles are set in motion, intermingling by the passage of the sea, and whose surface at the same time being smooth but in motion, reflects the rays from different points to the eye, as it rolls along, giving the rolling over appearance of wave crest or roller. There may be a little sea at times, the effect of rain or over falls, where there are as here currents and irregular

soundings, but nothing detrimental to navigation; while on the contrary the palpable change from a very considerable cross sea in north-west gales to smooth water, which immediately follows on passing into this bay, is quite remarkable, and renders it a good refuge in such gales, almost in any part from Recife to Bird Island.

The number of cases of vessels parting their cables in the bays of the Cape of Good Hope induced me to institute enquiries with a view to ascertain the causes. The result left no doubt upon my mind but that they generally arose from the attempt to ride out gales with very insufficient quantities of cable, since there was no room to suppose that their sizes were insufficient, as is evident from a comparison of the sizes of those that parted with that of the *Hermes*, cables, or other ships of war.

Thus those of the *Prince Charley* were  $1\frac{3}{8}$  inches in diameter, the established size of the *Hermes*, yet the *Prince Charley's* total weight when loaded, could not have been more than 800 tons, while that of the *Hermes* is 1400 tons. The anchors of the *Prince Charley* were only 18 cwt., and those of the *Hermes* are 28 cwt. The anchors in the Merchant Service generally are much smaller than those of men-of-war, and judiciously so; for if there be a proper amount of chain, these anchors will hold equally with those in use in the Navy, and having small anchors will often oblige the veering to a considerable scope, and thus save the ship.

---

#### BAY OF MAZAGAN, North Africa.

*Schooner Velox, London, July 1839.*

Sir.—I send you inclosed a survey sketch of the Bay of Mazagan, North Africa, taken in June 1839; should you deem it worth notice, it may be perhaps useful to some ship-master, who like myself, may be chartered there, (and not able to procure a local plan or chart of the bay). The base lines were measured by the ship's deep-sea-lead-line, carefully measured and marked, the angles were taken by a sextant, the sun's bearing noted at each station, and his altitude taken by artificial horizon to determine the variation.

During my stay there, a French brig was wrecked on reef marked H, she missed stays in beating out of the bay in a fresh north-east wind. The reef can always be distinguished, as the sea in fine weather breaks upon it. The patch of rocks marked E are dangerous, as the sea only breaks upon them at low water, in tempestuous weather. They bear W.N.W. from the Old Light House Tower, 720 fathoms. The best anchorage is to bring the two flag-staffs on the Sardinian Consul's house in one, and anchor in 5 fathoms water; by doing so you come upon a patch of blue clay, the rest of the bay being without exception rocky bottom. The prevailing wind is north-east, and when it blows strong, a heavy sea tumbles in and renders the bay far from secure. A north-west wind is also a very unwelcome visitor, but with the wind from any point of the compass from N.E.b.E., round to N.W.b.W., it is always safe.

Provisions and stock of all kinds are very good and cheap. The appearance of the town from the sea, is like an old ruined fortification, and the high tower of Tet or Tid to the southward of it, and the town of Azamon to northward of it, say seven miles, (the buildings of which are all flat-topped and whitewashed,) are the only remarkable objects near it.

There is a great deal of sameness in the appearance of the land, all the way from Cape Blanco north to Rabat. It is a sterile sandy country of mo-

derate height, with here and there a Mahomedan Saint House on the heights.

I am Sir, &c.,

To the Editor N.M.

WILLIAM FALCONER.

[This was received too late to give the sketch in this number.]

#### SEARCH FOR SIR JOHN FRANKLIN.

The following letters have been received from Commander Pullen, the officer in charge of the boat party from the Mackenzie River, in search of Sir John Franklin.

*"Fort Good Hope, Mackenzie River, July 17th, 1850.*

"SIR.—I have the honor to report, for the information of their lordships, a summary of my proceedings since the 28th ult., at which date I had the honor of despatching my last letter.

"I returned to Fort Simpson on the 3rd inst., from which date until the 11th, my own party as also the people of the fort were busily engaged in preparing the boats for the voyage, some of the blue jackets volunteering to act as carpenters, and handling saws and planes with nearly equal facility as the marlingspike. I have had the new boat (*Try Again*, length 40 ft., keel 30 ft., beam 9 ft. 4 in., depth 3 ft. 2 in., masts 22 ft.,) fitted with two masts, fore and aft sails, and an iron keel band. She is certainly very large, but the only smaller boat there (built for Sir J. Richardson) is not of sufficient capacity to contain all our provisions and stores, and should we have the good fortune to discover the missing party we should be enabled to afford them more efficient assistance, although her size will entail on the party a little extra work as regards portages, &c. The *Logan* was as thoroughly repaired and fitted as possible, and having received provisions, stores, &c., from Fort Simpson, we started from that post on the 11th inst., reached Fort Norman on the 13th, stopped there one night to receive the contingent of provisions and stores from that station, and arrived here yesterday morning, having pulled day and night (the wind being almost constantly fresh against us,) with the exception of one or two trials of sailing, in which the *Try Again* (which name I have given to the large boat,) answered as well as could be expected. We have here completed our supplies, amounting to forty-five pieces, sufficient for 120 days for our party of seventeen.

"I intend also to take up the pemmican buried at Point Separation, leaving a notice there, should any parties arrive and need provisions, of the nearest post where they may be obtained, which I consider to be that on Peel's River, to reach which cannot occupy more than three days at the farthest, although I do not consider it probable that any party can arrive, or at any rate, before our return, when I shall, if possible, replace it.

"I have engaged here two Indians to accompany us as hunters, and made arrangements for others to look out for us on the banks of the Beghoola or Inconnu, should we ascend that river, which they say is seven nights from this, and well stocked with deer; but we should probably take a rather longer time to accomplish the journey across, as our men cannot be such expert walkers as those trained from their infancy to the exercise.

"Should we fortunately attain Banks Land, and find the sea clear to the eastward, and a favorable breeze, I am led to suspect that we may possibly proceed to Port Leopold; but I only name this as a possible chance, should their lordships not hear from me of our return this season. Again, could we only reach Cape Bunny with our boats, whence Sir J. Ross turned to the

south, we should certainly not return, but proceed on foot, for which I think we cannot be better provided, all hands being equipped with dresses and moccasins of moose leather, than which nothing is better adapted to resist the icy blasts of the frigid north, requiring less under clothing, which should always be of flannel or woollen, except for the feet, duffle or blanket wrappers being far preferable to any kind of sock or stocking; and thus the men are less tightly and cumberously clad than with the usual provision of cloth garments, English leather shoes, &c.

"I have written to Mr. Rae, requesting a supply of provisions, clothing, &c., the former to meet our wants in case of return by the Beghoola, and to carry us on to the wintering station, which the period of our arrival can only determine—the latter to repay our Indian hunters who will not go further south, and such others as may assist us, for their services.

"We are just on the point of starting, and I hope to reach the sea about the 23rd inst. Whenever I meet with remarkable headlands or points, either on this coast or otherwise, I shall take care to leave conspicuous notices of our visit, and perhaps a deposit of provisions. Our stock on leaving Point Separation will consist of 2,300lb. of dry meat, and 1,700lb. of pemmican; also half-a-dozen cases of preserved meat, which will remain so to the last.

"Agreeably with the opinion expressed in the latter part of my journal, I do not think that Capt. Collinson's ships will be able to get along the coast from Point Barrow, if they reach so far, unless the ice be further removed from the shore, than at the time of our last voyage. The steam-launch will have a good chance, as driftwood is plentiful along the coast, east of Cape Halkett; and of course boats may again do what boats have done before.

"The season has been extraordinarily fine, and our steersman (an intelligent man,) who was on the coast in both expeditions of Sir John Richardson and Mr. Rae, is confident of an open sea. Others, also, natives of the country, are of the same opinion.

"Should I find provisions and fuel plentiful on Bank's Land, it is possible that I may winter there, for the further prosecution of our search next season.

"In conclusion, I beg to assure their lordships, that no efforts (as I before said) will be spared to endeavour to carry out their wishes to the utmost, and hope that the termination of this season may, by God's blessing, throw some light upon the whereabouts of the missing ships.

"I have the honour to be, &c.,

"W. J. S. PULLEN, *Commander, R.N.*

"*Commanding Boat Expedition in the Arctic Seas.*

"*To the Secretary of the Admiralty.*"

#### EDWARD'S PATENT PRESERVED POTATO.

This inestimable vegetable diet continues to meet with deserved support in the Royal Navy, Transport, East India Company, and other public services. From all parts of the world, reports of its virtues as an antiscorbic, &c., continue to be received, and we find by our advertisement sheet, that Com. Forsyth of the *Prince Albert*, late from the Arctic Regions, has added his testimony to its excellence. We strongly recommend all who go long voyages, to add the Patent Preserved Potato to their stores.



## MAURY'S WIND AND CURRENT CHARTS.

The following is an extract from the report drawn up by a Commissioner of the Congress of the United States, which had been presented to Congress, was read at a meeting of the Geological Society by Mr. John Smith:—

Lieut. Maury has undertaken to collect from the log books of both private and public ships, the results of the experience of their officers with regard to winds, currents, &c., in all parts of the ocean, and to embody these results in a set of charts, called 'Maury's Wind and Current Charts,' in such a manner as to give to every navigator, the benefits of the experience of all whose records are thus combined and collated.

For this purpose, the track of each vessel is delineated on the chart, in colours according to the seasons of the year, and in characters according to the months. The winds daily experienced by the vessel making the track, are laid down on that track in symbols so ingeniously contrived, that the navigator, without any written description, sees at once not only the direction of those winds in the different months of the year, but perceives at once their precise character. They are seen to be fresh or light, moderate or strong, gales or squalls.

In like manner he is apprised of the set and velocity of the sea currents, the variation of the compass observed, the temperature of the water, and such other facts as may have been noted; all tending to a more general and correct knowledge of wind and weather, and thus furnishing new helps towards making ocean navigation more safe, speedy, and sure.

In consequence of his investigations, Lieut. Maury has been induced to recommend a more northerly route than the one usually taken by vessels in the European trade. This recommendation is made not only on the principles of great-circle sailing, as being nearer, but also on account of the winds, which are in that region believed to be more favourable. The log book of Capt. Mumford, of the ship *Wisconsin*, lately arrived at New York from Liverpool, has been, with many others, exhibited to your committee. The *Wisconsin* had Lieut. Maury's charts on board, and kept well to the north, as recommended by him. She arrived at her port of destination twelve days before two other ships which sailed in company, but which went farther to the south. It is not claimed that such a difference will invariably occur in the length of passage by the two routes, but the result we record is nevertheless full of significance, and indicates the great importance and value to be attached to the subject under consideration. If the voyage across the Atlantic can be shortened but a day or two, commerce will still reap important benefits."—*Bombay Paper*.

---

**A MAN AFLOAT IN THE MID OCEAN.**—Letters from Havana, dated Feb. 3rd, narrate a second remarkable rescue in mid ocean.—“On the morning of the 28th, at 3 o'clock, as the bark *Oregon*, Thompson, from Frankfort for Havana, was nearing the coast of Cuba, and distant some twenty miles, the attention of the officers of the ship and the watch on deck, was attracted by a singular noise near the ship in the water, not seemingly the voice of a human being in distress, but which led to examination of the surface, as far as the eye could reach, without ascertaining any object floating upon it. The ship passed on its way a half-mile or more, when the captain impressed with the sentiment that life was at hazard, ordered his ship about.

The singular sound was again heard, the boat lowered, and a life saved, James Thompson, a Prussian by birth, after having obtained strength to give utterance to words, reported that he fell overboard from the ship *Ocean Star*, bound from New Orleans to Boston, at 6 o'clock the previous evening, that he fell through the head, and the vessel passed over him, and he presumes that it was not observed on board in time to render him assistance. He remained six hours without anything to aid in sustaining himself, as he thinks, but some three hours before he was picked up through the providence of Capt. Thompson, he struck a floating board of some three feet in length and one foot in width, which buoyed him, and enabled him to rest."

---

**MODELS OF FRIGATES, YACHTS, AND STEAMERS.**—We lately noticed the launch of a splendid steamer for the Turkish government, constructed by the Messrs. White, of Cowes. The public will be glad to learn in these exciting times of the race between England and America, that that talented family is on the *qui vive*, and are preparing a series of models, China clippers and others, to form a new class of merchant ships, and which are destined to be exhibited at the Chrystal Palace, at the ensuing exhibition of the world's industry. There can be no mistake that our little island bears the palm in ship-building, both in Her Majesty's Navy and Mercantile Marine, as it does of her phantom ships, which may be found in every Royal Yacht Club. Mr. Joseph White is also preparing models of all the ships he has built and altered for the Government, including the renowned *Phæton*, the *Waterwitch*, the *Daring*, the *Contest*, and *Termagant*; with those of the altered bows of the *Amphion* and *Fox* frigates; also a few specimens of his schooner and cutter yachts. The *Queen Victoria* schooner, built for the Emperor of Russia, the schooner *Constance*, for the Marquis of Conyngham, and the cutter *Laurock*, now building in his yard for Capt. C. Hamlyn Williams, R.N.; also a model of a schooner, designed to compete with the Yankee clipper yacht, which is to astonish "the Britishers." We understand that Mr. Thomas White, of Gosport, is also "up and doing," so that the talents of a whole family will be exhibited for the honour of their country. Independent of this branch of service, the island will not be backward in sending forth specimens of her industry and manufactures.—*Sun*.

---

**RAMBLES IN WESTERN INDIA.—Versova, Surat.**

The shore continues pleasing and picturesque—cocoa-nut groves, occasionally interrupted by high black masses of rock, skirting the beach; the beautiful hills of Salsette, occasionally surmounted by a ruined Portuguese church, closing up the back ground. A little north of Versova, the estuary running up to the town, and so round the Island of Bassein,—a continuation of it stretching away round by Tannah, and so returning to Bombay harbour after encircling the islands of Salsette and Trombay, opens on the view. The beauty of the scenery and charms of the sail throughout this creek in either direction can rarely be surpassed; of this, however, we shall by-and-bye have occasion to speak. The walls, towers, and churches of Bassein are clearly distinguishable over the rocks and amongst the trees. The coast now becomes much more bold than before; the country round Mahim rising in finely rounded conical hills from the shore. The large massy works of Danoo, a native fort, of apparently great size and strength, flanked at the gates and angles with huge round towers forms another eminently picturesque object from a coasting vessel.

It is singular that though the whole shore north and south of Bombay is dotted with these strongholds, no drawings or descriptions of them appear any where to exist in published form. We have embellished, and fancy pictures numberless of Ghauts and Lindoo temples—Government have just arranged for delineations of the mosques and public buildings of Beejapore—how could officers who handle the pencil with skill better employ a few months' leave, or recommend themselves to their honourable masters, than by supplying us with plans and elevations of the fragments still remaining of the keeps and strongholds of the former masters of the land?

From the mouth of the Taptee to Vingorla we might have a hundred pictures of this sort, of surpassing interest, produced in a couple of months' time; and surely Government would not begrudge the service of one of their own sturdy pattimars to accommodate the artist, nor overlook the claims on their notice with which his industry armed him.

The works referred to are fast hastening to decay—antiquities, like Sybylline leaves, seem to become more valuable the less of them that remains; and neglected as they now are, while as yet there is enough to show us what they were in their most palmy days, they will probably become objects of interest as the last fragments of them threaten to disappear.

The sea here becomes shallow, and large spits and banks of sand are traced on the charts as stretching across as the Gulf of Cambay begins to open out. Lines of fishing stakes, surrounded by flocks of birds, stretch away far out of sight of land; the water is muddy and dirty looking, and the tides so strong that even with a tolerable wind blowing vessels are unable to stem them. The effect of some fifty or sixty native vessels, such was the amount of the fleet within sight of us, which have been all day struggling against a stiff wind, crossing and recrossing each other's paths continually, all coming to anchor at once, as the sun goes down, within no great distance of each other, all sleeping motionless on the waters as dawn approaches, and simultaneously intent with life, ruffling their plumage, and giving their white sails to the wind, as the strength of a favourable current enables them to battle with the breeze, is most interesting. The rush of the tide at its strongest resembles that of a mile race, it comes roaring and foaming down, straining the cable, and rushing against the bows and along the sides of the vessel as if about to carry her along with it.

There is an anecdote of a Government pattimar with treasure on board having been pursued by a privateer or pirate, which threatened at one time to prove too much for her, having dropped the money-boxes into the sea near a line of fishing stakes, with a line and small float attached to each, returning again next morning to fish them up when the enemy had departed.

Fishing stakes are naturally associated in the English reader's mind with shoals and sandbanks, and so they ought to be; but in India, the deep sea stakes are from 80 to 120 feet in length, so that there is no fear of the largest vessels getting aground in their neighbourhood. They are built of great pieces of teak, from eight to fourteen inches in thickness: where more moderate dimensions suffice, a single palmyra or cocoa-nut stem is sometimes employed. These are often to be found from fifty to eighty feet in height, and, like the teak, seen exempt from the ravages of borers. Between these, large bag-nets are suspended, of from ten to twelve feet aperture at the mouth, and from 100 to 150 feet in length, and narrowing away to a point. Boats are always in attendance on the stakes to remove the fish at the turn of the tide; the nets being emptied, are triced up during the period of slack water, and then dropped into the sea when the current becomes strong. Multitudes of sea birds are always seen flying or floating around them, ready to pounce upon any of the fish which may in their struggles show themselves above water.

A Government pattimar is said on one occasion to have been pursued by an European ship of war: the native craft had no chance with the enemy in fight, and not much in the chase; but she knew the peculiarities of the sea, which her opponent did not. About four in the afternoon, as the sea breeze began to go down, the tide was becoming pretty strong, so as to make both vessels drift to leeward; the pattimar anchored, and then clapped on every stitch of canvass

she could set, making a mighty show of watering her sails; the enemy saw herself losing way, but ascribed it to the superior sailing of the chase. The moment darkness set in and concealed her movements, the pattimar availed herself of the turn of the tide, and knowledge of the coast, and in the morning was nowhere to be found by her pursuer.

Some score of miles to the south of Domus the delta of the Taptee begins, and the land becomes so flat as to be invisible at a distance of ten miles from the shore; and then the curious spectacle presents itself, of palm trees springing apparently from the surface of the sea. No land, or signs of land, appear anywhere; but the tall cocoa-nut, in single trees or clumps, stands clear and distinct against the sky. The present bar is about ten miles from the actual debouchure of the Taptee: outside of this we anchored, and then pulled on shore in a boat. The appearance of the land is most delusive, and looks not one third the distance off it actually is. For a time the sail is pleasant enough; but by-and-bye the currents and cross-currents, with an ebbing tide of the river, come roaring down like a whirlpool, and sweep and whirl the boat about in all directions. Great black banks of mud or sand, like vast sea monsters begin to show their backs on the surface: first one or two appear at once, then others spring up before, and behind, and beside you, till uniting, together, they form long filthy looking spits of sludge and sand. The current now increasing in strength, and the water decreasing in depth, the boatmen land and tow the vessel along; and in all likelihood the passengers must land a good couple of miles from the shore, and thread their way through heavy sandbanks and deep channels as they best can.

The banks near Domus are full of hollows and basins, of from a few feet to many yards in diameter. These are left full of water by the retiring tide; these open into the sea by narrow deep cuts through the sand, which continue to pour out their little torrents and mimic cataracts, often till past low water. At high tide many of the banks appear from five to seven feet above the level of the sea. Standing on the gunwale of a boat, it is impossible to see over them.

The barrier spit of sand at Domus, running in a long line of sandy hillocks and low hummocks parallel with the shores, is obviously the old bar of the Taptee, when the delta was under water, and the sea probably extended at least as high up as the present site of Surat. There is a very considerable fishing village, with fine groves of trees at Domus, and a number of handsome residences close by; the favorite hot weather retreats of the wealthier European and Native residents of Surat.

Till within these ten years, Surat was the station of a commodore, one or more armed vessels constantly cruising, or being anchored, off the bar: the last incumbent was the late Captain Pepper, who died at Poona in August 1848; he appears while here to have devoted some attention to the geological marvels in the neighbourhood, many of the finest Perim specimens in the British Museum are marked as presented by his daughter, Miss Pepper.

The commodore's bungalow is now desolate, it seems to have been a very comfortable place of abode, and is still kept in repair by Government, and taken care of by a not over civil or attentive sepoy. A wall, with a neat wooden railing, surrounds the compound; the flag-staff is taunt and entire; the gates are dropping from their hinges, and there are the remains of a shrubbery and flowers inside: one of the bungalows is getting into a state of dilapidation—the other and principal one is clean, neat, and habitable; the outhouses, cook-rooms, and servants' apartments, are nearly in ruins: the whole presents that most deplorable of spectacles, a dwelling-house in the country long uninhabited, but not yet so much decayed as to sever it from living associations, or make us forget the home it long and till lately presented.

Domus is almost isolated by a marsh and low grounds overflowed by the tide, which extend for a mile and more into the interior. The delta of the Taptee is here indifferently fertile, and very partially cultivated: it is obviously suffering from want of irrigation; water could bring it into the highest state of fertility. Cotton is grown in small quantities, and chillies, after cotton, seem the principal produce along by the river. Surat is scarcely discernible till close by.



[ARRIL,

ch 1851, and Sold

. . . . . s. d.  
 . . . . . 1 0  
 17. . . . . 1 0  
 . . . . . 2 6  
 . . . . . 2 6  
 . . . . . 1 6  
 pson, (surveyor) 1 6  
 R.N., 1840. 0 6  
 . . . . . 0 3  
 pass, caused by  
 . . . . . 0 3  
 R.VILLE, Master R.N.

Royal Observatory.  
h, 1851.

Weather.	
A.M.	P.M.
rn	bem
m	bc
b	b
(?)	bc
cf	o
c	bc
(2)	bcphr [4
o	ops [4
b	o
ps 1)	bc
o	o
bc	bc
or 2)	o
bc	qo
o	ogm
o	o
o	o
bc	qop [3]
(?)	o
cm	or [3][4]
(2)	bem
m	o
bc	or 3
1) (2)	bem
m	or 3 4
2)	or 3
2)	or 3 4
2)	bchr 3
sc	

temperature = 39°4

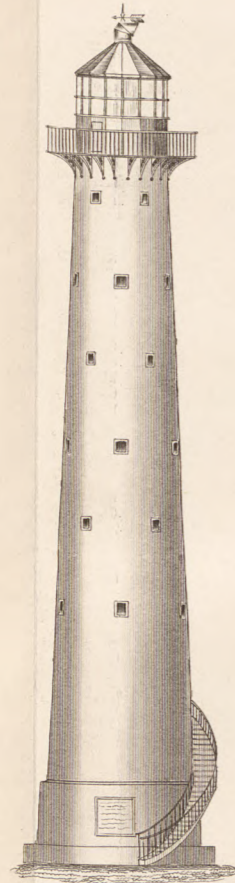
oad.

# IRON LIGHTHOUSES.

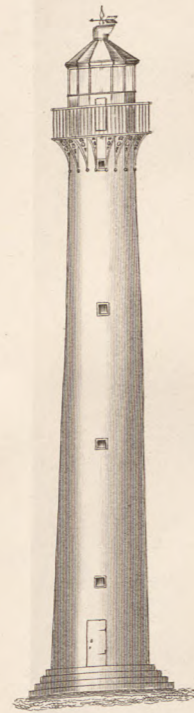
BY ALEXANDER GORDON, M. INST. C.E.



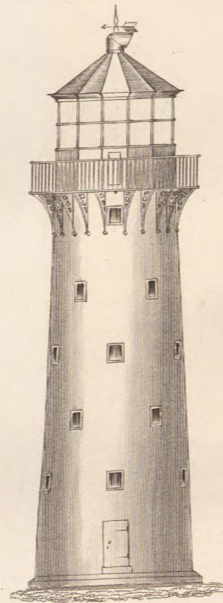
SCHEME OF CLASSIFICATION FOR IRON TOWERS.



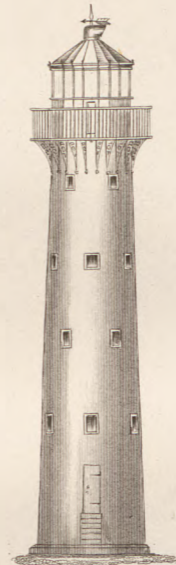
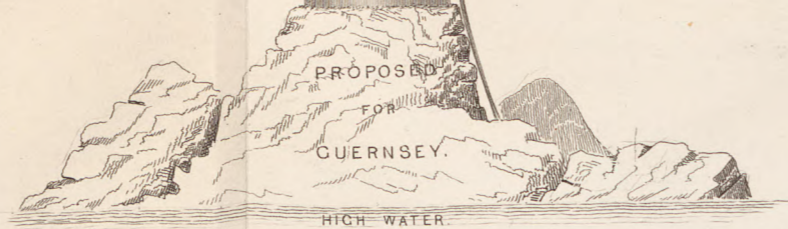
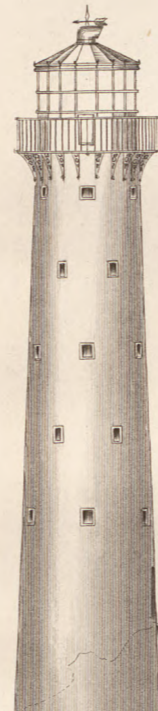
MORANT POINT.



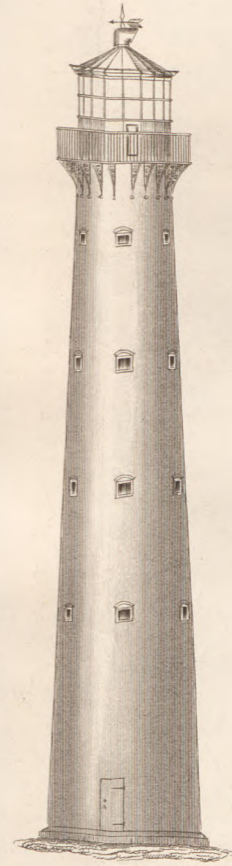
POINT DE GALLE.



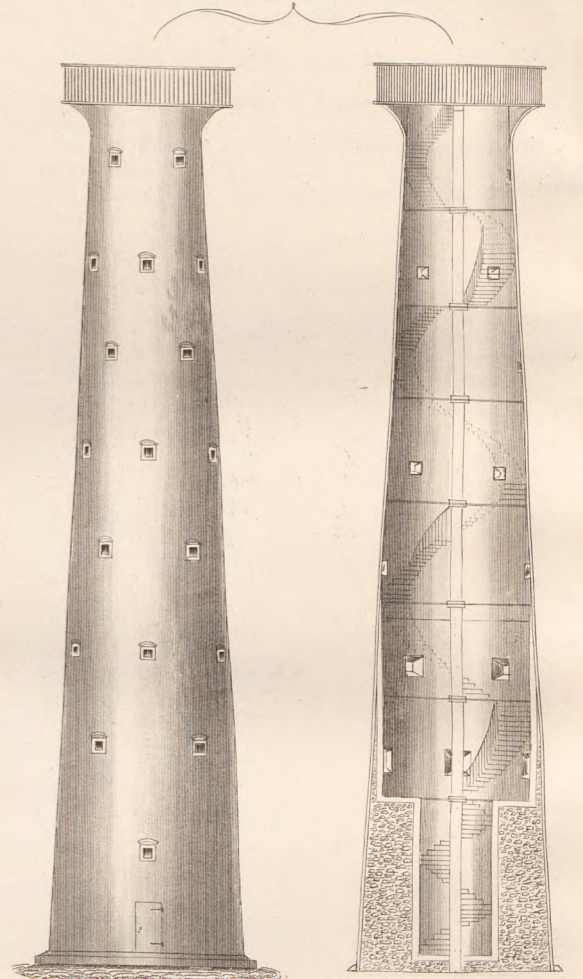
CAPE PINE.



GRAND TURK.



BARBADOS.



BERMUDA.

F.P. BECKER, Sc.



V I  
EXAN

THE  
NAUTICAL MAGAZINE

AND

**Naval Chronicle.**

---

MAY, 1851.

---

THE PACIFIC OR GREAT OCEAN.—*A Nautical Sketch.*

POLYNESIA, studding the blue bosom of the ocean of oceans, *par excellence*, the Great Ocean, hitherto the Pacific, popularly the South Sea, with emerald dots almost as countless as the radiant golden stars of the azure concave imagery of heaven, and apparently as mysterious! It must have been an odd "heave and set" (admitting the nautical phrase) of mother Earth's and daddy Neptune's great pond, to settle at last into such a chequer-board of land and water! relics, shall we say, of early, not ancient days, the then measure of time, lost to us post-diluvians, and which, between record and geology has been a puzzle. But whether the earth was created millions of years before Adam, or not, we must leave as a question to the orthodox and the strata savans to settle. At present we have nothing to do with it.

This ocean, without a proper name, claims a passing notice on that very account. It is an undivided whole, of vast extent, studded with islands; yet it has never had a distinguishing appellation! The Spaniards called that portion, which laves the western coast of America south of the equator, the Pacific. The French formerly termed it the Grand Ocean, and latterly the islands Oceanea, by way of eminence; the English geographers for a long time divided it into North and South Pacific, and lately, have adopted a compound Greek word, Polynesia, (many islands); which is very applicable to the numerous insular lands. The ocean, therefore, is still without a specific name. Why not call it the Andean Ocean? The Atlas Mountains gave a name to the Atlantic. Are the Andes less stupendous or less noted, (leaving fabulous fanta-



sies out of the question,) than the range of Morocco? The Oriental Ocean is named after the Peninsula of India.

One of two things pertains to this vast area of briny water, the wreck, or skeleton of a monstrous continent, or the relics of great continents, or, Vulcan, from an indefinite period (how long, who can even surmise?) has been blowing up his furnace under the bed of Neptune, and gradually lifting it upwards! No matter which; to the old sea god it must, as the latter action is known to exist, cause great alarm no doubt, as he is likely to lose portions of his domain by piecemeal, through the restless and energetic propensity of his calorific competitor for fame. The serious contemplation of the subject is attended with that sort of indescribable awe, and feeling of wonder that creeps over the mind, whilst reflecting upon the Omnipotent Power which produced such a world as this, and the countless orbs which dazzle our eyes with their brilliant magnificence, as we cast our sight upwards to the heavens.

If we exult in our knowledge, are we sufficiently thankful? If our self-love elevates us, are we sufficiently humble withal? Is our gratitude commensurate with the gifts bestowed upon us? Do we seek to unravel the mysteries of creation as a mere pastime, or, to what end? to mend the heart, and teach us humility? or to flatter our pride and minister to our vanity? Look into the *Cosmos*, what a display! These questions are important. But, however, any may answer them; let us not be unmindful of their bearing upon our happiness. Now to our theme.

Thousands of fragments (implied) show themselves to prove pressure, in some points at least, upwards; and the safety-valves of the fire-engine below, here and there are seen established. But others occasionally come sliding-up from a depth unknown; many from hidden causes are shut; whilst others take spell and spell to lead the gas off; and some are intermittent. Are we to trace electro-magnetism to these internal fires?

The islands, many in groups, some in pairs, others single, are as a whole, a curious congregation. But the strangest marvel is, how those almost awash, hold their places against, very often, the tremendous lashings of the angry leaden-weighted billows; and farther, in what manner the sand-bank becomes converted into the grassy cay, then a wooded islet, and lastly a peopled island! It is not the human mason alone who uses lime as an agent in consolidation.

The means of accomplishment, the progressive processes, as far as we are capable of making these out, appear very curious, and would seem to embrace the industry of the following agents; 1. Ignivorous upheaving. 2. The coralline insect. 3. Birds. 4. Current drifts. 5. Wind and consequential storms. 6. And drifted canoes with a living freight. The detailed explanations from facts, would no doubt be interesting, but as our avocation does not lead us to a treatise on the rise and progress of islands, we may safely leave that to scientific voyagers.

Mr. Bull has been "beating about the bush" in these localities for a series of years. There was nothing however to tempt a shot, the game was not piquant enough for his palate. Sandal-wood was the only article of importance fit for trade; swine, fruit and vegetables, as supplies

for his ships, were generally in abundance; but these things John knew he could obtain by barter, though frequently at the risk of life, or vessel, or both, without the expense of taking possession, building forts, &c.

Beautiful as were these "Green Oases" in the immense aqueous, but not desert plain, though large enough in the aggregate singly, to him they appeared too insignificant, and not worth a thought; besides, the desidious disposition of the natives was a discouraging feature.

The two groups whose primitives became first enlightened from heathen darkness, were the Society and the Sandwich. At Otaheite (Tahiti) John dallied a long time, attracted either by the witchery of its nymphs, or, can it be? its well cocoa-nut-fed hogs! It is a question which I cannot take upon myself to answer, for though he is twitted with unsociable taciturnity, there is not a doubt but that he loves a pretty wench of any shade, albeit not so mercurially given to *s'amour a cher*, as his neighbour of the tri-color; and constitutionally alive to the substantial support of the "inward-man;" and farthermore, being no Jew in taste or distaste, he has a great liking to pork, as the daily steamers from Pat-Land do testify.

In truth the order *bellua*, or genus *sus*, was not to be despised so far from home, for a salted palate, without preference will water at the sight of anything, a guana, or a shark, no matter what so it be fresh.

But pigs abounded in the northern group too, (though the other genus feminine, were to be sure, in appearance at least, rather malish;) that however, it is probable, did not sway John. Then what did, with reference to his governor-ship? It was an honest consideration doubtless; for though he is a good hand at drawing parallels, the guardianship of the Sandwicher took place, it is probable, without reference to Oregon or its position relative to the group. Will the group eventually become a "bone of contention"? It is not likely that England will strive for the sovereignty of the isles, unless some other State tries for it. It would, perhaps, be to the interest of America and Great Britain to support the islanders in their independence; Russia does not want them, and no other power, it is likely, would desire to possess them.

All the world knows how conscientious, nay, magnanimous, Mr. Bull, is in such matters. Who can doubt it for an instant? However, in the guardianship at least, he forestalled brother Jonathan for once. But, the importunity, from all accounts, appears to have been on the side of the islanders. In the abstract, the act was a kindly one; but it became a precedent: Monsieur chuckled, it was just what he wanted; just the opening he was craving for, in order to commence his farce at Tahiti; but being void of Mr. Bull's phlegm, and grave circumspection, he started off "tangentially" without the ceremony of waiting for the *contrat de donation*, and demanded the *régence* of the Societies! This was resisted for a time, but what, unaided, could poor Pomaré do? Whilst this serio-comic episode was enacting, it is supposed that Mr. Bull was taking a long siesta, yet, it was shrewdly hinted that he had one eye and one ear open to the dulcet sounds wafted over the water of the "*enteinte cordiale*"! Point Venus, had no point in his sleepy

eye just then; the planet's transit had long been settled; science was satisfied, and the remembrance thereof, and the hopes which his caresses had generated in the breast of the natives, had passed away from his mind like a vision. The mutation of time had been busy there as elsewhere; even the old name, which had been associated with England's glory in the acts of peace, was altered; how then could it be expected that so busy a mortal should recognize it in its abbreviated form?\*

When enterpris was rife, in times of yore,  
This isle the name Sagittaria bore;  
But Wallace that forgot, or never heard,  
And named it unwittingly 'George the Third'.  
Bougainville next, isle Cythire called it—  
By way, perhaps, of showing off his wit!  
Cook found its vernacular—O'Tahcite—  
Perhaps, in honour of heathen deity.  
But Mutation in this would not acquiesce—  
'Twas brief'd with the introduction of the press,  
At present it is call'd 'Tahiti,'—which may  
Change again when Monsieur plays out his play—  
If the astringent spirit of Methodism  
Should yield place to more indulgent Romanism!

"What's in a name?"—not much it seems with respect to islands, always excepting the "tight little, right little" one whose claim to be remembered all the world knows!

What the French required more than the Marquesas, which they had already seized, it is not easy to divine.

The Poor Queen of the Societies amid her bitter tears, and under the influence of those benign precepts taught to her by the white man, might very well have exclaimed—

"Where sits white rob'd Justice with her pois'd scales,  
And her bandag'd eyes impartial—  
Goddess painted in Arabian tales,  
And proclaim'd at all Courts Martial?  
Where's Humanity her cherish'd bantling  
Dissolv'd in tears compassionate—  
And even with soft sympathy mantling,  
To cheer—and all wrong propitiate?"

Where, indeed! If tyranny of power invokes revolution in a settled order of things foreign to its own soil, and the object helpless as the other is as strong; when the elements of discord unsettles that power

\* There can be no doubt that England did as much as lay in her power by diplomacy to avert the fate of Tahiti; probably even so far as to ensure the unfettered rights of the Queen. To have gone to extremities on account of a people which, as far as we know, had no other claims to our protection than those springing from the feeling of humanity and from long intercourse, would not have been considered justifiable.

There was some discussion on the subject in the French Chambers, and an explanation given by the then Minister; but the impression of the act being arbitrary and tyrannical was general.

and scatters its authority to the winds, it shall in vain look for the sympathy of the world. But that could not bring consolation to Tahiti's queen. She is as much the bonds'-woman of a republic as of a monarchy! Small affairs in localities attract notice. A great event widely spread over the surface of the earth, gradually and silently progressing to an awful and final termination, is scarcely known. The amount of white people in the whole world is not, probably, more than one-third of that of the coloured races, from the Arab or Moorish tint, to the coal-black of Ethiopia; and yet, the majority are diminishing, whilst the minority are rapidly increasing and spreading over the face of the globe! The diversity of colour, too, is a puzzle.

'Tis a theme, indeed, that seems to envoke  
 Preplexities reason fails to clear,  
 More a mystery than when Adam woke  
 And found an Eve his bright joys to share.

A great traveller says that, "with the paltry, (paltry! shade of Charles the Twelfth!) reservation of the Swedish peninsula (up! Frederika Bremer, and Jenny Lind, up! and abash him with your 'grey-goose-quill', and the shrill of your nightingale pipe!) "with the paltry reservation of the Swedish peninsula, Russia, and Great Britain, literally gird the globe where either continent has the greatest breadth: a fact which, when taken in connection with their early annals, can scarcely fail to be regarded as the work of a special Providence."

This interpretation goes beyond the light emitted by my finite reason. There is no doubt however, that in one point of view the Anglo-Saxons, and Russians, (or rather Russian power,) are treading in the steps of, (and the French too,) the Goths, Vandals, and Huns of old. Well, how is it to end?

The Romans conquered the world, that is to say, as much of it as they could reach, but they were not, strictly speaking a colonizing people. Where are the Romans now? In the lapse of thirteen centuries will a similar question be asked about the Trio of modern progressors? I am no prophet.

But, all things have an end, the Lion may perhaps,  
 Die, as some Lions have, from repletion:  
 The Great Bear may sink, as bears have, from heavy traps,  
 The Cock crowed his last, lacking discretion!

The dispossessed of rights, cannot call up a retribution for themselves, but time may, and in looking back to the past, how often shall we find that it has done so. We do not require to be reminded that the white man supplanting the coloured man in the country where Providence had placed him, has for a long period taken place, and is still continued. That fact we are assured of, and the abstract cause seems to be the insatiable selfishness of the strong over the weak; but the why this should be permitted by an overruling Providence to the destruction of the indigenous inhabitants who can determine?

It is truly a remarkable phenomenon that since the mere presence of the white man among the islanders of the Great Ocean, without his

colonizing the islands, they have considerably lessened in number, and this after a long period of the discontinuance of desolating wars among themselves, and the partial advance towards civilization in many of the groups.

There were other sources whence we should have expected that prior to their intercourse with Europeans, their number would never have been so great as it was known to be at the time of their discovery. Infanticide was practised to a very considerable extent, with female infants principally, with a view, it is supposed, to keep down the redundancy of population in limited spaces, rather than from any other motive. The islands were, and still are, subject to the devastating hurricane, the effect of which was often extensive famine, or an insufficient supply of daily food; pestilence sometimes followed, sweeping off hundreds of the natives; yet, notwithstanding that infanticide has ceased, and war generally discontinued, the consequence is nevertheless directly contrary to the inference we should naturally draw from those circumstances, the fact being that the population is rapidly decreasing.

In some measure, the introduction of European diseases unknown to the islanders before the white man made his appearance among them, may be considered as explanatory of the fact. The small-pox for instance, having made great havoc among them. Yet that circumstance has not been admitted as alone sufficient to account for the extraordinary diminution of the numbers; which, according to the observation of the natives themselves, and continued in the records of the missionaries, takes its date from the first appearance of Europeans among them.

The change of habits, of clothing, of pastimes, and to some degree, of diet, with the introduction of ardent spirits, more generally destructive than the *cava*, may all be taken as instrumental in the deterioration of their former condition, although it is said these considerations are inconclusive in settling the question.

There is a considerable aggregate of land in this great ocean, equal perhaps to a moiety of one of the continents; but which being disjointed, and lying scattered over its area, scarcely arrests sufficient attention to summon up the propensity of the white man for supplanting. In no part of the world however, has nature been more prodigal of her beauties. To those wanderers who have beheld these "green isles of the ocean," after a monotonous unvaried sight of a boundless expanse of water, they appear terrestrial paradises, such as the fancy of the early Cambro-British bards imagined to be the fit abode for departed spirits.

There are four classes of islands proper: 1. The mountainous. 2. The hilly. 3. The moderately elevated, and with the exception of hillocks, level. 4. The low and flat. All these are clothed with trees of luxurious foliage, the cocoa-nut palm being conspicuous; and are for the most part inhabited. Each, though differing in feature from the other, is a beautiful object to the sight, whether seen from the sea, or viewed from an eminence within the land itself. The scenery is everywhere romantic and charming; and the fine sunny radiance brightening every object, adds considerably to the effect upon the mind of the visitor. From the insularity of the lands, there is not a healthier climate in the world; the

refreshing tropic wind being felt throughout their whole extent. Seasonal variations however, occur here as in other parts of the globe, which for a time, interrupt the general salubrity, such as heavy rains, storms, and a succession of calms; but the weather during the greater portion of the year is beautifully fine, and conducive to health.

We are very apt in considering the savage in his wild and unrestrained mode of life, as possessing ideas and feelings, which place him in a position little above the instinctive brute. The observations of voyagers prove the contrary. In many instances, these untutored beings have vindicated their title to be classed above the station in which the civilized denizen had placed them. It is true indeed, that many of the islanders were found to be fierce and treacherous, and according to abstract interpretation, dishonest; but the application of the civilized moral code, cannot fairly be made to them. Some have been met with who were surprisingly amiable, mild, affectionate, and extremely sociable, such as the Badicans, described by Capt. Kotzebue; and our immortal Cook speaks with admiration of the Mallicolians, observing that although they were the ugliest people he had seen in the Pacific, they were the most scrupulously honest of all the islanders he had had intercourse with, and as the virtue appeared natural, of any people in the world!

HORSBURGH'S CHARTS, AND THE CARGADOS GARAJOS SHOAL, *together with remarks on the cause of shipwreck, and the expediency of fixing additional lights in the Indian Ocean.*

MR. EDITOR.—1. Every seaman and navigator must be startled and surprised at the report of any glaring inaccuracy in Horsburgh's Charts; but as such a thing is possible, it behoves every person, who has any regard for the welfare and security of navigation and commerce, to set aside all undue favour or partiality, and search and enquire, by every practicable means, whether such reports are, or are not correct. I am led to this important subject by noticing in the *Mauritius Overland Commercial Gazette*, the following observations under date the 16th of November, 1850.

2. The loss of the *Mary* on the Cargados Garajos.—“The loss of this vessel recalled to our memory the loss of the *Letitia*, Capt. Malcolm, on one of the same islands (Frigate Island), in 1845.\* ‘The charts used on board the *Letitia* were incorrect. We applied to Capt. Tweedie of the *Mary*, for a communication of the charts he had on board, and soon learnt that the loss of his vessel was from the same cause. Capt. Tweedie had on board the *Mary*, Horsburgh's Atlas of Charts dated 1830, and also a chart on the same scale and date, by Horsburgh, which

\* Capt. Malcolm of the *Letitia* was unfortunately drowned, but I never heard before that the wreck of that vessel was owing to inaccurate charts; if so, whose charts was she furnished with?

included these islands. On comparing these charts with one on about the same scale drawn from the surveys of Capt. Owen, dated 1828, and another by Norie with corrections to 1837, we find a considerable variation. In Horsburgh's charts these islands are laid down on the meridian of  $60^{\circ}$  E. In the other charts they are laid down some distance to the westward.'

3. "Captains Tweedie, Asbridge of the *Eliza Moore*, and Kaswell of the steamer *Prince Albert*, went in the latter vessel to these islands a few days ago, provided with excellent chronometers, and after careful observations they made Coco Island the south-west extremity of this group, to be in long  $59^{\circ} 30' 30''$  E., and lat.  $16^{\circ} 47'$  S., which corresponds with Norie's and Owen's charts, and is no doubt correct.

4. "We rely on the press abroad to make this fact as public as possible, and we ask whether there is no possibility of recalling and suppressing all the charts that are incorrect, whilst the present occurrence is fresh in the mind. A notice from Lloyd's made as public as possible will, we trust, prevent the recurrence of such deplorable accidents, which are in no wise the fault of the commanders.

5. "Tracings of the correct and incorrect charts may be seen at our office, and we shall be happy to place them at the disposal of any captains that they may correct the error. It may be that there are captains who are well aware of the error, but as these charts may fall into the hands of others, we beg of them to make the alteration on the chart or destroy it, as these islands (sandbanks) are on the direct track of vessels to India from Mauritius, at certain seasons of the year."

6. Thus, Mr. Editor, it appears that the loss of the barque *Mary*, is attributed to a very considerable error in Horsburgh's Charts published in 1830. It therefore seems essentially requisite to ascertain, whether there is any foundation for so serious a charge, and whether that well-earned confidence entertained by mariners at large in Horsburgh's Charts and Directory, can so easily be shaken. Under these circumstances I have taken considerable pains to come at the truth, and have now before me the first edition of Horsburgh's Directory, published in 1809, with auxiliary remarks to 1812, in which at p. 10 of the auxiliary remarks, it is stated that "Cargados Garajos is now ascertained to be the St. Brandon Reef of the charts. His Majesty's ships *Cornelia* and *Sir Francis Drake*, visited this group of low islets and shoals in January 1810, and Lieut. J. Henderson determined their situation as follows: the anchorage of the South Islet is in lat.  $16^{\circ} 47'$  S., long.  $59^{\circ} 34'$  E., by  $\odot$  and  $\delta$  and  $59^{\circ} 53' 15''$  E., by chronometer.

7. "H. C. ship *Huddart*, in December 1810, made the south islet in lat.  $16^{\circ} 47'$  S., long.  $59^{\circ} 31'$  E., by chronometer, and the *Semillante* French frigate made it also in lat.  $59^{\circ} 31'$  E."

8. "The narrow chain of islets and reefs called Cargados Garajos, is steep to on the east side, having in general 32 or 34 fathoms water within a quarter or half a mile of the breakers; but the west side is not so steep, and may be approached in several places to 18 or 20 fathoms."

9. "In Horsburgh's 4th and 5th edition published in 1836, and 1841,

the foregoing remarks are precisely the same, with these additional observations, "H. M. S. *Magicienne* brought the surviving crew of H. C. S. *Cabaloa* to Mauritius in 1818, and while she remained at the wreck of that ship, made the bank of Cargados Garajos extend from lat. 16° 9' to 16° 52' S., and from long. 59° 25' to 59° 50' E. Lieut. Hay of H. M. S. *Menai*, in April 1821, anchored off the South Isle in 16° 47' S.; the northernmost Isle St. Pierre, he made in lat. 16° 11' S., the southern reef extremity in 16° 55' S., and the meridian assigned to the North Isle 59° 39' E., will pass through the centre group."

10. And now, Mr. Editor, as Horsburgh's Charts are reported to be erroneous, I will give you the positions laid down in his chart which was published in 1814, from which I myself, and several nautical friends have measured as follows:—

The south-western islet or danger on which the	lat.	lon.
<i>Mary</i> was wrecked is in - - - -	16° 47' S.	59° 31' E.
The south-eastern islet or reef - - - -	16 48 S.	59 42 E.
North-eastern islet or reef - - - -	16 10 S.	59 47 E.
Southern extreme of the bank in (40 fathoms) -	16 54 S.	59 35 E.
The commander of the late ship <i>Mury</i> , and other officers who went down to the wreck in the steamer <i>Prince Albert</i> in November last, assign the position of the south-western extremity of the groups - - - -	16 47 S.	59 30 30"

And Horsburgh gives the same result within one mile, and indeed one ship the *Magicienne* places that position five miles farther to the westward, and yet it is asserted that in Horsburgh's Charts these islands are laid down in the meridian of 60° E.!

11. I had the pleasure of being acquainted with the late Mr. Horsburgh, and can bear, with every feeling of gratitude and respect, this tribute to his memory, and to his talented, and arduous, and pre-eminent services, viz., that no hydrographer ever laboured with more zeal and indefatigable care and caution than he did for the welfare and security of navigation; he marked down himself every shoal, every head-land on his charts, and he wrote every word of his invaluable Directory. Can it therefore be credited that whilst his chart of 1814 corresponds, so far as relates to the Cargados Garajos shoal, in the minutest manner with his Directory, that the chart of 1830 should denote a material difference? but even supposing it possible that so glaring an error had escaped Horsburgh's scrutinizing vigilance, how came the Commander of the *Mary*, to trust his ship only to the guidance of a chart on a very small scale, and not refer to that standard work on which the chart was based (*the Directory*?) If the one is *wrong*, I have unquestionable evidence, now before me, that the other is *right and correct*.

12. Having thus clearly established the accuracy of one of Horsburgh's Charts, and the very clear corroboration thereof, which is borne by three editions of his celebrated Directory, I have no hesitation in saying that there is no shoal, east or west of the Cape of Good Hope, better laid down or more correctly delineated than the Cargados Garajos, but as the ships *Cabaloa* in 1818, the *Letitia* in 1845, the *Indian* in 1850, and the *Mary* in 1850, have been wrecked on that shoal during



the night, and I believe several other vessels have shared the same fate, I am of opinion that a lighthouse should be erected on the south-western reef or islet, and I venture to recommend the expediency of such a safe-guard to the notice of the honourable the Governor of the Mauritius, and especially to the due consideration of the Colonial Government at home. And I would also call the attention of the authorities to the shipwrecks which have occurred on the Island of Roderigues, as the *Queen Victoria*, and the *Oxford* in 1843, and I think it can be ascertained that several other vessels before and since that date have been lost on that Island; because in my opinion those disasters afford a very strong argument in favor of fixing a light, on the reef projecting to the southward of that island, which is on the track of homeward bound ships.

When Mr. Editor a comparison is made between the number of lights exhibited on the sea-boards of the West Indies, the North Atlantic, and Great Britain, and those which are shewn in the Indian Ocean and on the sea-boards of India and China and adjacent islands, it must be evident to every impartial enquirer and observer that a vast extent of navigation is much more efficiently guarded with safety beacons on the one side, whilst, on the other side, they are lost sight of, or very much neglected, and as there can be no doubt as to the large amount of life and property lost on many dangerous positions that might have been saved by the aid of a light, the necessity of those essential safeguards to the mariner is so obvious that there needs no apology for the measure of precaution, which I have ventured to recommend, nor any further argument in favor of it, as the value and the utility thereof, are as apparent as the sun at noon-day.

13. Whilst on this important subject, I must call again attention to the necessity of fixing a light on the *Great Busses*. That important subject has so frequently been before the public, and has been so strenuously urged and advocated by the press, and by Joseph Hume, Esq., M.P., that it seems unaccountable why the Colonial Government have not yet given their powerful aid in support of it. In furtherance of that desirable project a private subscription has been recommended at Calcutta, and I verily believe that a considerable sum would be raised throughout India by the same means. But when we take into consideration the number of years passed by ere the construction of the Horsburgh Lighthouse was commenced, although a very extensive subscription was started in London, at Canton, and elsewhere upwards of fourteen years ago,\* I am afraid that that mode of obtaining the end in view cannot be successful; especially as it is in my opinion absolutely necessary to elevate a light on the Great Busses at least 140 feet above the level of the sea, because, to be efficient, it should be seen beyond the Little Busses, and the distance between those shoals is 19½ miles. Therefore a tower of such a height would incur a considerable outlay.

14. Even since I started this project in 1847,† I have received nume-

\* The Horsburgh Lighthouse, on Pedra Branca, at the entrance of the China Sea, will in all probability, be completed this year,

† Vide *Nautical Magazine* for 1848, p. 59 and 343, also *Nautical Magazine* for 1850, p. 58.

rous written and verbal applications respecting its attainment, I shall certainly persevere in my earnest endeavours to promote that essential object, and do not despair of a successful issue. Lighthouses are undoubtedly very expensive, but when we take into consideration the value of property lost where they are required, and above all, when we reflect upon the sacrifice of life which has ensued, it must be conceded that the amount of one loss is far beyond the cost of tenfold the number of those essential beacons, whilst the other loss is too powerful an argument, and too urgent a call upon utility and humanity to pass unheeded or disregarded.

15. Reverting to the main object of this communication, viz., a refutation of so serious a charge as the alleged inaccuracy of Horsburgh's Charts, I have also examined one of the Indian Ocean, by John Walker, Esq., Geographer to the East India Company, and published by their authority in 1842, by W. H. Allen and Co., in which the Cargados Garajos bank is exactly laid down in accordance with the several positions of islets and danger assigned by Horsburgh in *his* Chart of 1814; and in each of his Directories to which I have referred. The Commander of the late ship *Mary Florence*, made a similar attempt to dispute the authority of Horsburgh's Charts and Directory, but he failed in establishing the slightest ground for such a charge, and I think it would well become commanders of ships if they would abstain from throwing off the blame which may attach to themselves, by casting that blame on other persons, or attributing it to other causes and effects, when they have had the misfortune to lose their ships. Sometimes we hear of unlooked for currents, sometimes of errors in chronometers, and occasionally that the charts are inaccurate, and that the deviation of the compass has led the ship out of her course. But, Mr. Editor, do commanders ever confess that the absence of a vigilant check or control over the care and management of a ship has led to a disastrous result? Do they ever confess that the *probable* or the *possible* set of a current has neither been reckoned upon, nor taken into consideration; that soundings have been neglected, and that a proper look out has not been kept? We seldom or never have such a candid confession. But assuredly when no reasonable excuse can be offered, silence is better than an ill-judged, or an unworthy charge or accusation. And, although it is not in human nature to accuse one's self of culpable neglect, yet, the public have a right to expect a plain straight-forward dealing in matters of this kind. Every case of shipwreck should undoubtedly be submitted to an impartial investigation, and I hope and trust the Board of Trade will, under the provision of the Mercantile Marine Bill, direct and authorise competent persons to convene Courts of Enquiry, whenever, and wherever, such disastrous events occur.

16. Many ships have been lost through stress of weather, and many have been wrecked or have foundered under indubitable proofs of skillful management and vigilant control, when no human efforts could avert the catastrophe. But, alas, it must also be acknowledged that a vast number of vessels have been wrecked, and many lives have perished owing to that want of foresight and caution, which is culpable and

reprehensible in the highest degree—" *latitude, lead, and look-out.* " Old, and comprehensive as so trite a maxim is, and the well known A, B, C, of the seamen and the navigator, it is too often lost sight of, and is not, as it ought to be, sufficiently attended to. Wreck, fire, and collisions in the open sea are the melancholy consequences which frequently happen through a bad look-out, or *no look-out at all*, whilst mutiny and insubordination follow in the train of a total disregard to good order and discipline; and there are frequent instances on record, which shew that the want of care and caution, so forcibly indicated by the aforesaid good old maxim, does not often escape with impunity. Indeed, there are not wanting other proofs of the folly of such neglect, because it is well known that a *touch-and-go, or a hair-breadth escape* has attested an over-weening confidence, or the absence of all due precaution. However, I wish it to be understood that commanders of ships are not always to blame in such cases, as they themselves cannot *always* be on the alert, and must occasionally entrust their officers with the charge of the deck; but, at the same time, it is very evident that a better system of looking out, &c., is imperatively called for, and that such an amended system should be rigidly enforced throughout the Merchant Service.

17. In conclusion, I beg to call your attention to the appeal made to the press by the Editor of the *Mauritius Commercial Gazette*, for the purpose of giving every publicity to the alleged inaccuracy of Horsburgh's Charts. Therefore, in vindication of the well earned merit of that able and talented Hydrographer, whose services are so universally prized and acknowledged, my humble endeavours to uphold his his fame should, in my opinion, be as generally made public. I fully agree with the Editor of that Journal, as to the expediency of calling in, or suppressing all erroneous charts, and I verily believe there are many to be found; but I am certain that none of Horsburgh's will class therewith. There have been rocks and shoals discovered since his time, and scientific pursuits have led to correctness, both in latitude and longitude, which can be inserted on any chart, but inaccurate positions throughout are not so easily to be amended. It is, however, the bounden duty of commanders of ships to ascertain what discoveries have been made, and what errors have been found out since the publication of the charts furnished for their guidance, and to learn whether new editions of sailing directions contain any further notice to mariners. On these essential points they will obtain every information from the well known publishers of nautical works; whilst the newest charts and the latest edition of Horsburgh's Directory are sold by W. H. Allen and Co., and they will find that every desirable information, respecting those publications, can be had at the East India House from John Walker Esq., the worthy successor of Horsburgh.

Captain Proudfoot, of the brig *Ocean*, who is a very cautious and careful navigator, examined Horsburgh's Charts and Directory of 1838 the other day, and has assured me that they both agree in placing the south-west Islet of the Cargados Garajos shoal in latitude 59° 31' E., but I have searched in vain for Horsburgh's Chart of 1830.

I am, &c., C. BIDEN, *Master-Attendant.*

SHAKINGS FROM SMYRNA.—*By Mahmoud Effendi.*

(Continued from page 185.)

WEDNESDAY is a doubtful day in the *East*, that is, it is regarded as neither lucky nor unlucky; it may be either, according to circumstances. But Thursday and even Friday, are ever considered fortunate, though Saturday is decidedly the contrary. So that as Master Nicolas Collier was to "break bulk" on board the *Saucy Fanny* on Thursday, a most fortunate day, he cared very little about Wednesday being a doubtful one, determined in his own mind to have his cruise ashore at all hazards, as Wednesday had now actually arrived, and as 9 o'clock would find his two merchant friends expecting him on the Esplanade at the entrance to the English Consulate.

Master Nicolas and the supercargo had not only risen betimes, but already demolished the best part of a hearty breakfast; thus, as the captain said "laying a good foundation for the day's work." They had likewise again rummaged over the pages of *Merchant Tomkinson's Manuscript*, and Mr. Surtees had also taken care that the brig's boat was duly prepared, and put into that *smart* order which became the occasion. The four hands that were to pull her, had moreover cheerily obeyed the order for "a clean shirt and a shave."

*Merchant Tomkinson's Manuscript* proved a fruitful source of conversation at breakfast, between the captain and the supercargo; and although, it will be remembered, the compiler had described it as "unfinished and arranged with little method," those to whom it was now lent, found it convey much information they had no other immediate means of obtaining.

And now just before jumping into the boat to keep their appointment with Mr. Tomkinson himself, and the consignee of the *Saucy Fanny*, they were peering over the chart of the Gulf, and comparing it with the subjoined *leaf*, in which, although Tomkinson had still left some gaps, and here and there merely *pencilled* down a note, enough was still found to amuse as well as enlighten two rough and ready men, so willing to eschew all attempt at criticism, as the *super* and the skipper, and so ready to appreciate the kindness of the Smyrniote, in putting into their hands any written information at all. Here then is the *leaf* in question from—

**Merchant Tomkinson's Manuscript.***South Shore of the Gulf of Smyrna.*

*Smyrna* and *Ionis* were first elevated into a Pashalic on the downfall of Kara Osman Oglou, and Chapwan Oglou, so long the delight of their people and the protectors of European travellers. *Penny Cyclo. art. Anatolia.* A. D. 1833. Mr Kinneir about 1808-14 visited Ooscat (near Angora) then the

*North Shore of the Gulf of Smyrna.*

*Phokia Vecchia*, and *Phokia Nova*, the former within the Gulf of Smyrna, the latter a little outside, and nearer Cumæ, *Phokia*, anciently called *Phocæa*, was one of the most celebrated of the harbours of *Ionis*. It was founded by an Athenian colony under Phocus, from which leader, or from the word

*South Shore continued.*

capital of Chapwan Oglou, and a place of importance.

*The Western Coast* and western part of Asia Minor has often experienced most destructive earthquakes, which have not only shaken the country from Sardis to the Valley of the Mæander, below Smyrna and Ephesus, but also the neighbouring island of Cos or Stanko, (see Thucyd., viii. 41.) and Strabo records his opinion that the whole district of the Mæander is burrowed under by channels full of fire and water, as far as the interior of the country. The whole western part of Asia Minor is full of Thermal Springs, one of which called the Bath of Agamemnon is situate near the Castel Novo or Sandjak Kaleissy, at Smyrna.

*Vourlah* is on the starboard hand of a vessel entering the Gulf of Smyrna. The town itself, which is described in Capt. Slade's Travels is on the main, faced by a group of islands, the chief one of which is Long or English island, and the second is called Partridge Island. Among the remaining five or six are St. John's and Round Island.

*Clazomene*.—This which was the birth place of the philosopher Anaxagoras abounds in various evidences of military occupation at an early period, and was at one time connected with the main by a causeway, part of which is still visible.

Anaxagoras died at Lampsacus (now Lamsaki) in the Dardanelles, 428 B.C. He was preceptor to Socrates and Euripides.

*Sandjak Kaleissy*.—This fortress is distant about an hour and a half from Smyrna on horseback, and two leagues by water.

*Kayador.*

*Baths of Agamemnon*.—These hot springs called in Turkish *ilidjeh*, or *kup-loujah*, are covered in, with separate rooms for men and women. The rooms are very dark. One has a *kourna*, or cistern five feet deep, and the heat of the water is great. The baths are much frequented by rheumatic patients.

*North Shore continued.*

*phocæ* signifying "Sea-calves," which, are found in the neighbourhood, it received its name.

*The Harbour*, town, and islands off Phokia are passed . . . a town which contains a Genoese castle, aqueduct and arches, and the remains of beautiful structures now mingled together with a few hundred houses, encircled by a wall. Here as well as farther up the Gulf or nearer Smyrna are salt-pans (*Touzla*). *Knight's Oriental Outlines*, p. 225, and *Emerson's Letters from the Ægean*, vol. ii., p. 8.

*Phocæa* was colonized by adventurers from Phocis, and Ionians from Attica, on a territory north of the Hermus, which belonged originally to the Cumæans of Æolia. About 546, B.C., Harpagus, a General of Cyrus, the Persian, took and destroyed Phocæa whose surviving inhabitants fled and founded Marseilles, 539, B.C.—*Penny Cyclo. art. Ionia*.

*Agria*.—It is believed that no traveller has yet described this place, which is situate on the largest of a small group of islands, between Phokia and the embouchure of the Hermus. The Agrian group of islands nearly faces the Vourlah group. [Tomk.]

*Hermus*, river, called by the Turks the *Sarabat* or *Kedous*, flows into the Gulf of Smyrna opposite the Sandjak Kaleissy. The sands of the Hermus, according to the Poets, were covered with gold. It flows near Sardes, the capital of the kingdom of Lydia, and receives the waters of the Pactolus and Hyllus or Phyrx. The Pactolus rises in Mount Tmolus, and bears the latter name in Pliny. Sarou is the Turkish for yellow or gold color; is the name of the Hermus, therefore Sarou-abad or Sarabat, anything more in signification than "abounding in gold"? Alexander the Great encamped on the banks of the Hermus B.C., 334, and thence issued a decree by which he restored to the Lydians all their laws, rights, and privileges as existing before the Persian conquest by Cyrus the Elder, two hundred years before. Alexander certainly visited Sardes. *Query*. Did he visit Smyrna?

*South Shore continued.*

*Turkish Hospital.*—The road hence to Smyrna leads close along the beach.

*Abattoirs.*—Most of the cattle for the use of Smyrna are slaughtered at this establishment, about a mile from the city.

*Mount Coraz* is seen on the left, in advancing from Smyrna on the Vourla Road, with the curious peaks known as the "Two Brothers" and the "Three Sisters."—See *Knight's Oriental Outlines*, p. 239.

*North Shore continued.*

*Pelican Point.*—This point and its shoals face the Sandjak Kalessey.

*Menimen.*—This town lies a little up the country. The route to it is by the Menimen Iskelessy, or from

*Cordelio*, a hamlet nearly opposite Windmill Point, at the north-east end of Smyrna. Boats make the passage in ten or twenty minutes.

*Burnabat Skelessy* is a landing place in the little bay, between Windmill Point and Cordelio, leading eastward to the large village of Burnabat, a favorite residence of the Franks.

"The Scenery around the Gulf of Smyrna is wild, and wide, and mountainous, softening a little as it approaches the city and becomes interspersed with the gardens and villas of the wealthy merchants."—*Warburton's Crescent and the Cross*, vol. 2, p. 279.

"The approach to the City is very imposing . . . The town of Smyrna which I have now viewed from all sides, in situation is beautiful, but in appearance is exactly like a large town of Swiss chalets. . . . The "Castle Hill" (Mount Pagus) is not half a mile from the centre of the city, and is the only point commanding a view of the town or country; it has consequently been my daily walk. . . . The south east of Lydia is less beautiful, and much resembles Sicily or Calabria; but on approaching Smyrna this district has valleys equal to those near Salerno or Naples. The artist would here be richly rewarded."—*Sir C. Fellows' Excursion*.

"Here I shall shut up *Merchant Tomkinson's Manuscript*," exclaimed the supercargo, "and now for the shore!"

"Hurrah, hurrah, my jolly boys, its time for us to go!"

"Well! I think it is about time to start," said the captain, "but dash my buttons, here comes Tomkinson himself, pulling under our stern. Give him a hail, *super!* Talk of [the devil his imps appear." Tomkinson at this moment who was approaching in a *kaik* happened to turn his head towards the cabin windows of the *Saucy Fanny*, and seeing the supercargo and the captain, at once addressed them.

"Good morning, gentlemen, good morning, I have come to fetch you, you see."

"We are not behind time yet," said the captain, bluntly.

"I know that," continued Tomkinson, "but the fact is, I was again wanted on board the *Hospodar* yonder, and having just settled my business there, I thought I might as well pick you up at once, as wait to meet you on the Esplanade."

"Step on board," said the captain, "we have a capital Yorkshire ham still on the table."

"No, no, thank you," replied Tomkinson, "I see your boat is alongside; so I will step into her, and discharge this *Kaikjee*."

Upon this, the supercargo and the captain proceeded on deck, and in

a minute were over the side and seated with Tomkinson; being pulled towards the shore by four of the brig's smartest hands; and steered by Mr. Surtees.

"We have yet a little time to spare before nine o'clock," said Tomkinson, "suppose we make for the Kishlak, the barracks there, and then pull alongshore to the Esplanade. This will show you a little of Smyrna, the fairest city of Ionia."

The head of the boat was accordingly turned towards the south-west end of the city, where stand at the waters' edge, some very large and handsome barracks, erected about the time of the battle of Navarin. These buildings, as viewed from the sea, form three sides of a hollow square, the fourth or open side facing the anchorage, and presenting to the eye over the top of a low wall, the warning muzzles of a long array of cannon, which are frequently brought into requisition to return the salutes of Frank men-of-war; as well as to thunder forth salvoes on the Prophet's or Sultan's birthday, or on the feast of Bairam. These barracks flank the very extreme end of the city.

"You have just now called Smyrna as you have repeatedly, the fairest city of Ionia," said the supercargo, "but I find in my maps as well as the one prefixed to Fellows' Excursion, which the consignee lent me, that Ionia is not set down at all. From the Dardanelles\* to Rhodes the only ancient kingdoms or countries marked on the coast are those of Mysia, Lydia, Caria, and Lycia; while more inland are Bithynia, Phrygia, and Pamphilia."

"And Cappadocia, Galatia, and Pisidia," added Tomkinson. "You see we Smyrniotes are not without a *little* classical and geographical knowledge."

"I wish then our English map-makers would take a leaf out of your book, and at least set down this Ionia. You should spur them up a bit, and make them thus render due honor to the city, and region you reside in."

"Oh! Smyrna itself will be found in all maps," said Tomkinson.

"No doubt of that," rejoined the supercargo. "But not only is Ionia omitted by name, but *Æolia* also."

"A bad compliment to Sappho," added Tomkinson, "who you are aware was born in Mitylene; but just outside the Gulf of Smyrna; and Lesbos or Mitylene was certainly in *Æolia*, and not an unimportant part of it, being 170 miles in circumference. As for Ionia we scarcely want a map to remind us that no less than twelve states formed that celebrated confederacy."†

\* A description of the Dardanelles by the same pen as that now employed on "Shakings from Smyrna" appeared in the *Nautical Magazine* for 1844, and has since been published in a pocket volume.—ED. N.M.

† Asiatic Ionia extended from the Cumæan Gulf on the north to Mount Grius and the Gulf Basilicus, south of Miletus; a length of not more than a hundred miles in a straight line, but with a coast three times that length, owing to the many sinuosities and the form of the large Chersonesus opposite Chios. The Ionian territory did not extend inland above forty miles from the coast as far as Mounts Sipylus and Tmolus. The Ionian states were subdued by Cræsus, King of Lydia, and then Cræsus himself by Cyrus, the Persian B.C. 548.

"I must confess," observed the supercargo, "it is now so long since I left my tutor at Durham, that I cannot name more than half that confederacy."

"The names still dwell in my memory," continued Tomkinson, "and I will therefore mention them, viz.; Priene, Miletus, Colophon, Clazomenæ, Ephesus, Lebedos, Teos, Phocæa, Erythræ, the capitals of Samos and Chios, and last not least, Smyrna!"

"Never mind all those devilish hard words," exclaimed Master Nicolas Collier, "here we are off the barracks; and, dash my buttons, here's a queer tier of country craft, all anchored by the stern too."

"A common practice with many of them," observed Tomkinson. "And now, Mr. Surtees, get the boat's head alongshore."

"Pull easy my lads," said the captain, "but keep time, and show these big-breeched lubbers yonder, who are staring at our red ensign as if they never saw one before, how well you can feather your oars."

"Aye, aye, sir," cried the men; and neatly enough they obeyed the skipper's injunction.

The English Consulate, towards which the boat was now directed, stands about the centre of the sea-front of the city, half-way between Windmill Point eastward (opposite Cordileo), and the barracks westward, we have above alluded to.

It did not take long to reach the *Esplanade*, where we may at once mention, the consignee was found punctual to his appointment. It might be tedious to express in detail, all the odd sights that exercised the keen vision of Master Nicolas Collier during this short transit; such as the fancifully clad groups of native seamen and boatmen loitering about the *iskêlés* or wooden jetties; the parties of Greeks, Turks, and Armenians, smoking the *tchibook* or *narghileh*, on the platforms before the waterside *Kav'hanehs*; the barbers seen here and there shaving the well-lathered heads of the Faithful; guitar players and vociferous singers just within the open doors of taverns; and the crews of Christian fishing-craft and of Muslim melon-boats, wrangling as they pushed in for some landing-place. All these matters and many more we might easily describe, but we think it better after having occupied so much space in the *Nautical* to pass them over, and simply to state that at length when the *Union Jack* was descried high on the flag-staff of the rendezvous appointed, the *Saucy Fanny's* gig was run alongside the quay; that the three sight-seers exchanged compliments with the consignee, and then sprang ashore in safety, with the single exception of the *super'*, who even yet not perfectly on his "sea-legs," paid too little attention to the motion of the boat, and therefore made this his first acquaintance with Asiatic ground, by falling *flat on his nose in the gravel*, as many a British tourist has done in the very same spot to our own knowledge; and we cannot exactly say that the same accident has *not* happened to ourselves; but then generous reader, that was after having *dined* on board Her Britannic Majesty's ship *Polycarp*.—"Mum's the word!"

(To be continued.)



## THE PIRATE SLAVER.

(Continued from page 204.)

Two points were tolerably clear from the confession of Perez, first, that the captain of the *Panda* was still at Nazareth, with ample means at his disposal to obtain another vessel, if he met with one; and secondly, that he or his crew had quite recently been in communication with a schooner, called the *Esperanza*, which had arrived at Cape Lopez before Perez left. It was evident therefore, if any hope existed of seizing the pirates, that immediate steps must be taken; but it was difficult to know how to deal with a chief like King Pass-all, whose impenetrable forests afforded such means of concealing his friends. His last message to Capt. Trotter, who had threatened to burn his town, was, that he cared not about his town, that his home was in the bush, and that he only came to the seaside to trade.

A large show of force might have proved effectual in inducing the chief to give up the pirates, but the cruizers then on the coast were too scattered to allow of their being concentrated in time, even if they could with justice to the mercantile interests on other parts of the coast, have been assembled for the purpose. The African squadron at that time only consisted of about seven or eight vessels, all stationed north of the Equator; a number scarcely sufficient to protect our lawful trade, to say nothing of the prevention of the slave trade. No vessel of war had for two years previously cruized south of the Equator, where there was but little British commerce to protect, and where the Portuguese and Brazilians carried on the slave trade unmolested, owing to our defective treaties. The *Panda* probably went to the southward on this account, to avoid meeting with our men-of-war.

But to return to our story, the *Curlew* was ready for sea, Capt. Trotter recovering, when Capt. Fatio, master of the barque *Princess Elizabeth*, which had just arrived from England, hearing of the difficulty of getting hold of the pirates, entered warmly into a plan which Colonel Nicolls and Capt. Trotter had been contemplating of taking them by stratagem, and as his vessel could be spared for a month without detriment to the owners, he offered to take her to Nazareth, accompanied by an officer and party of men from the *Curlew*. It is impossible to applaud too highly the conduct of Capt. Fatio on this occasion, who, influenced solely by a sense of public duty, without any prospect of pecuniary reward, thus placed his vessel at Capt. Trotter's disposal. The offer was at once accepted, and a party of thirteen men of the *Curlew*, was embarked on board Capt. Fatio's ship, in charge of Mr. Matson, mate of the *Curlew*, who volunteered for this difficult service.

It was arranged that the *Princess Elizabeth*, after discharging her cargo of salt in the river Cameroons, should proceed to the Nazareth, and commence trading with the natives. It was hoped that some of the Spaniards would visit the ship, or at all events that the king or some of his head men would go on board (as was usual on the arrival

of merchant vessels), for the purpose of trading, when they might be seized, and detained as prisoners until the arrival of the *Curlew*, which vessel it was arranged, should follow after the lapse of a short interval.

On the 29th of August both vessels left Fernando Po. The *Curlew* first took a few days cruize off the Bonny, searching the slave vessels there, as every where else, in hopes of discovering the pirates. The boats on these occasions were always accompanied by Simon Domingo, one of the Portuguese seamen of the *Panda*, who had not been concerned in the piracy, having joined afterwards. The *Curlew* next proceeded to Princes, to see what news could be learnt there,\* and then she went on to the harbour of St. Anna de Chaves at St. Thomas, where Capt. Trotter had before warned the governor concerning the crew of the *Panda*. A schooner called the *Esperanza* was lying here, and as the name agreed with that of the vessel alluded to in the evidence of Jose Perez, as having anchored at Nazareth four days after the *Curlew* sailed, he communicated his suspicions to the governor that this was the same *Esperanza*, but was positively assured that the vessel in the harbour had never been near the Nazareth. The captain of the *Esperanza* corroborated the statement of the governor; but subsequent events convinced Capt. Trotter more and more of the utter falsehood of the statement. Simon Domingo when going through the town, espied one of the pirates, who immediately disappeared; and although there was no other evidence to produce before the governor, Mr. Holmes, an American resident, told Capt. Trotter confidentially that there was not only one of the *Panda's* crew on the island but five, and that the *Esperanza* was the vessel which had brought them over. The governor quite repudiated the notion of such persons being on the island, and was resolute in maintaining that the information was false, and that no person could have been landed on the island without his knowledge. This assertion of the governor by no means satisfied Capt. Trotter, who remained under the strongest convictions that the Spaniards were on the island, but as he was unable to bring forward the testimony of Mr. Holmes, who had spoken to him in strict confidence, he was obliged to be content with demanding that a strict search should be made for them all over the island, whilst the *Curlew* went on a cruize for a few days.

Being within twenty-four hours sail of Nazareth, and the *Princess Elizabeth* having had ample time to get there, it was determined to run over and see what success she had had, and communicate with her during the night in order to avoid being seen by the natives. The *Curlew* therefore, much no doubt to the relief of the governor, took her departure from St. Thomas, and stood over towards the main land.

The *Princess Elizabeth* it will be remembered, sailed out of Clarence Cove, Fernando Po, with the *Curlew*. After a short stay at Cameroons

\* And there they might have had some most important intelligence communicated to them concerning the pirates, had the master and supercargo of an English merchant vessel chosen to give it. It was little suspected by Capt. Trotter at the time, that this man had lately been trading with a party of these ruffians. If space permits, this subject may be alluded to again.

she made the best of her way to Nazareth, arriving there on the 22nd of September, and anchored about six miles from the shore, the shoals preventing a nearer approach, which none on board were acquainted with, Mr. Matson having been absent in charge of a prize during the *Curlew's* late operations there. Although the *Princess Elizabeth* was as unlike a man-of-war as any vessel could be, the natives had their suspicions roused by the unusual anchorage she had taken up, trading vessels being generally better acquainted with the coast. Numberless canoes came out to reconnoitre the strange vessel, pulling round and round her, while none could be persuaded to approach near, far less to venture on board. The only mode of quieting their suspicions appeared to be to land, and to ask for a pilot to take the vessel to the proper anchorage.

Mr. Matson himself accordingly left the vessel in a four-oared boat, dressed as the mate of a merchant vessel, with a red shirt and a Scotch cap. The boat's crew consisted of two seamen and two Kroomen, selected as being perfectly trustworthy. They were told to address their commander as "Mister," instead of "Sir," as is usual in H. M. Service, and he was to address them familiarly as "Bill," or "Jim." The *Princess Elizabeth* was on no account to quit the position where she was at anchor, until Mr. Matson's return, or the *Curlew's* arrival. Aware that with every precaution considerable risk was involved in this step, Mr. Matson, before quitting the vessel, addressed a letter to Capt. Trotter, never meant to meet the public eye, but which displays so determined a spirit of devotion to his duty, that having come into our possession, we cannot withhold it.

*Cape Lopez, Sept. 24th, 1833.*

SIR.—As I am about to proceed on what may possibly prove a dangerous expedition, I have left a few lines to explain what our movements have been: we arrived at our rendezvous on the 20th; I left on the 21st; I arrived here on the 22nd; the natives are evidently very suspicious of us; several canoes have reconnoitred us, but none would approach the vessel; therefore, I conceive the only way to lull their suspicions, is to go on shore and ask if they have any trade to make, and gain what information I can respecting Don Pedro; if I see him I shall offer to exchange cloth, &c. for dollars, to induce him to come on board: I shall of course be guided by circumstances, and act to the best of my judgment. If I am detained I think it would be better to trust to chance for an escape and not sacrifice any more lives in carrying on what would prove an unequal warfare. I hope you will excuse my attempting to give advice, I only request that no lives may be lost on my account; if they think proper to make me suffer the fate of a spy, write to my friends and say I have done my duty. With kind regards to all shipmates, I remain your sincere friend and well-wisher,

H. I. MATSON.

*To Captain Trotter, H. M. Sloop Curlew.*

On leaving the *Princess Elizabeth*, Mr. Matson made the best of his way to the Nazareth, where King Pass-all was living when Capt. Trotter was there in the *Curlew*; but it now appeared that he had removed his residence to the town of Cape Lopez, about twenty miles distant, and Mr. Matson had no alternative but to proceed to the latter place, where

he was told the pilots resided. After pulling the greater part of the night he reached the town early on the following day, and found several small Portuguese vessels anchored off the place.

Mr. Matson immediately landed, and the first person that attracted his attention after reaching the shore, was a gentlemanly looking man with a sword by his side—apparently a Spaniard, who saluted him. Mr. Matson returned the salute without speaking and passed on; but the keen and scrutinizing eye of the Spaniard, who was no other than Don Pedro Gibert himself, the captain of the *Panda*, detected in the salute and general bearing of the newly arrived Englishman something that made him suspect he was no trader. Passing on however, unconscious of being suspected, and not himself suspecting who the Spaniard was, Mr. Matson proceeded to the king's residence and found him surrounded by a number of his wives and "head men". He immediately stated the professed object of his visit, that he had been sent by the captain of the trading vessel, who had come to trade for elephant's teeth, to say that he wanted a pilot to conduct the ship to the proper anchorage, and that he hoped to see the king on board on the following day to receive his "dash" or customary present. The king appeared in excellent humour, and at once proposed to send a pilot and also his youngest son, Prince Narshin, to receive anything the captain had to send him. While this was being arranged a man hastily entered and whispered something which caused all eyes to be turned towards the English officer, but though alarmed, neither by look nor by manner did the latter betray any uneasiness; and the questions put to him, chiefly respecting the cargo, were all answered, apparently to the king's satisfaction. The interruption had been caused by Don Pedro having sent to inform the king that he suspected the supposed trader to be an English officer in disguise; but, whether carried away by the prospect of a profitable trade or really satisfied with the ready answers given to all his questions, the king remained firm in his purpose of letting his son, as well as a pilot, accompany Mr. Matson on board the barque. Doubtless the joyous anticipation of plenty of rum, muskets, and powder, were uppermost in his thoughts, and exempted him from those deep suspicions, and all the horrors in their train, which were passing in the restless imagination of the piratical captain.

While the pilot and prince were making some necessary preparations, Mr. Matson returned to the beach, and on his way was accosted by the Spaniard and asked to go into a house, or rather open shed, where there were several others assembled, Spaniards also in appearance. A suspicion of who they might be flashed across his mind, and for a moment he was in doubt whether he should make for the boat, or accept his invitation; it was no time for hesitation, and thinking it best to go in, he boldly entered among them. Here he was most strictly questioned, not only as to the cargo on board the barque, but more especially as to the movements of the men-of-war on the coast, and particularly of the *Curlew*. The answers to these questions were given unreservedly and accurately; and as they agreed in all points with the information which the pirates, had been enabled to obtain from other sources, their suspicious were

somewhat quieted; at all events on the arrival of the prince and the pilot, Mr. Matson was allowed to walk out unmolested; and without loss of time, he proceeded, with his two unsuspecting followers, to the barque off Nazareth.

It was well for Mr. Matson that at the time he had no idea of the strong suspicions entertained against him by the Spaniard who first accosted him, or he could scarcely have acted his part so successfully. He said afterwards that he could never forget that man's countenance. Often, very often when he was walking the *Curlew's* quarter-deck, after Don Pedro was a prisoner, he found his large round handsome black eye fixed upon him, with a reproachful, perhaps a sulky expression, but never a revengeful one.

Captain Fatio had become very uneasy about Mr. Matson, Cape Lopez having always borne a bad character for the treachery of the natives, with whom and European merchant vessels there had seldom on that account been any commercial intercourse. He was delighted therefore to see him return on board the *Princess Elizabeth*, accompanied by the two blacks. After being gratified with a sight of various Manchester goods, and allowed to eat and drink to their hearts content, the prince and pilot betook themselves to sleep. It was getting near midnight that same evening when a vessel was descried; and shortly afterwards the *Curlew* passed under the stern and hailed. Mr. Matson went on board, and had the satisfaction of communicating to Capt. Trotter the success of his proceedings so far. The *Curlew* then stood out to sea again. Mr. Matson was much pleased on returning to the barque to find his friends still in the arms of Morpheus. Neither the hailing nor the boat going to and fro had awoken them, nor yet the catching fire of the binnacle, which had to be thrown overboard to prevent the ship being in flames.

On the following day both vessels were seen standing in towards the anchorage of Cape Lopez, but from opposite directions. All eyes were upon the *Curlew*, which having a Brazilian flag, was taken for a slaver, the only kind of vessel cared for at Cape Lopez. As she stood into the roadstead the king was carousing on board a small Portuguese vessel. The *Curlew* had scarce let go her anchor when two of his principal people, one a near relation, were despatched on board while the king himself got into his canoe to go on shore, to receive the newly arrived slave captain. His two head men on getting to the quarter-deck of the *Curlew*, soon discovered their mistake, for on looking through the ports they saw Lieut. McNeale,\* who had been despatched in a boat from the other side of the ship in full chase of the king. His sable majesty however reached the shore in safety. It was not till he saw the boat in pur-

\* Lieut. Malcolm McNeale, and Lieut. Joseph Pyke joined the *Curlew* during this cruise; also Mr. I. K. Ballard, in lieu of Mr. Mackey, Surgeon, invalided; Mr. I. Chapman, Clerk, was promoted to be Acting Purser; and Mr. Wm. Merriman to be Acting Gunner.

The officers of the *Curlew* previously were as follows:—Commander, H. D. Trotter; Lieuts. none; Acting Master, Daniel Quintom; Surgeon, Samuel Mackey; Assistant Surgeon, G. Laurie, [died of fever;] Acting Purser, Thomas Johnson, [killed;] Mate, H. I. Matson, [absent in captured slaver;] F. Maule; Master's Assistant, G. H. Quintom, R. W. C. Whicheo [absent in a prize;] Midshipmen and Volunteers, 1st. class, Thomas Belgrave, S. F. V. Strawbonzie, W. Mottley; Gunner, Robert Lewis [killed]; Carpenter, W. Hammond; Clerk, John Chapman.

suit of his father that Prince Narshin discovered his situation. He was at first dreadfully alarmed; but the kind treatment he had received in the *Princess Elizabeth*, and much kindness shewn to him afterwards on board the *Curlew*, to which ship he was now removed, soon relieved his fears: the prisoners were all treated with much respect and consideration, and were told that they were merely detained until the Spaniards should be given up. Prince Narshin was a frank, kind-hearted youth, and from him it was learnt that the mate and carpenter, and three others of the *Panda* had gone to St. Thomas in the *Esperanza*, which had been several times at Cape Lopez: Don Pedro, he said, and a few of the sailors were all that remained.

A formal message was now sent to the king demanding the surrender of Don Pedro and the remaining Spaniards, and informing him that his son and head men had been detained in consequence of his having secreted such notorious pirates, but that they should be released when the Spaniards were sent off.

Much evasion and delay was resorted to by the chief, occasioned no doubt by the threats and promises of the pirates, and by the influence which Don Pedro had acquired during his long residence. But, happily after a while the feelings of nature preponderated, and the king sent off to say, that if an officer were sent on shore the next morning Don Pedro should be given up. Capt. Trotter determined to go himself, and accordingly the next morning he landed in his four-oared gig. Leaving two of the boats crew in the boat under charge of Mr. Quintom, Master's-Assistant, he walked along the beach followed by the other two. He had not proceeded above a hundred yards, when he observed a Spaniard walking slowly down from the bush alone, whom he rightly conjectured to be the long-sought-for captain of the *Panda*. His thoughtful dignified countenance betokened a man long accustomed to command, and who, but for having engaged in the dastardly, degrading slave trade, might have been the last to have been brought into his present humiliating situation.

The Spaniard had his sword in his left hand, and stood still as Capt. Trotter advanced: he held his right hand behind him, and Capt. Trotter thinking he might have a pistol in it sprang forward to seize him by the arm: in doing so his foot tripped and the two fell grappling together on the sandy beach. A momentary anxiety was felt by those looking on from the ships, but it was dissipated by observing each in an instant on his legs again, and Don Pedro walking quietly down to the boat. The seizure of the pirate-captain seemed to be the signal for the natives breaking into the Spaniard's store, which was immediately ransacked and pillaged of every thing; and his goods and chattels distributed far and wide amongst the people, the king without doubt, getting a large share. In the scramble some of the *Panda's* papers were saved,\* including the

\* A few bags of dollars were also brought on board the *Curlew*, which were delivered over to the Registry of the Coast of Admiralty in England. Dollars were said to have been buried to a large amount on the beach between Nazareth and Cape Lopez, but none could be found.

muster-roll, which the carpenter had taken with him when he attempted to blow up the vessel.

After Don Pedro was conveyed on board, three other Spaniards\* were sent off in a canoe. These it was believed were the only part of the *Panda's* crew which remained at Cape Lopez. The hostages were then given up to the great joy of king and people. Prince Narshin who was dressed in a complete suit of naval uniform, given to him by Mr. Matson, was very grateful to that officer for all his kindness to him; and he had on a subsequent occasion an opportunity of shewing his gratitude when their positions were exactly reversed.

Capt. Trotter having now cleared Cape Lopez of the pirates was anxious to return to St. Thomas before the news of his success reached that island, being fearful of the *Esperanza* or some other vessel taking away the mate and others. The more than equivocal conduct of the governor made it too probable that he would facilitate their escape. It was however desirable to delay the *Curlew's* departure for a short time, to try and do away with any ill feeling that might have been created in the minds of the king and natives by the events which had occurred. But it was soon found that any such fear was groundless, and that liberating Prince Narshin and his fellow prisoners had had a perfectly magical effect in establishing amicable terms between the subjects of King Pass-all of Cape Lopez and King William of Great Britain and Ireland.†

When Capt. Trotter went on shore to visit the king accompanied by several of his officers, there were no bounds to the enthusiasm of the natives who carried them on their shoulders from the boat into the middle of the town. The people had perhaps some cause for rejoicing at getting rid of the Spaniards who had brought them into so much trouble, to say nothing of the recent opportunity of sharing so much valuable spoil. Friendly relations being thus most satisfactorily established, the *Curlew* sailed for St. Thomas accompanied by the *Princess Elizabeth*, which required to go there for a supply of water before resuming her mercantile operations in the Camaroons River.

(To be continued.)

---

### LIGHTHOUSE ECONOMY.

SIR.—Shortly after you published my views of the importance of increasing the number, and improving the management of our Colonial lighthouses, and of the necessity for having a department at home for current information, advice, and repairs, to which the Colonies and also foreigners might apply, I happily succeeded in gaining the attention of

\* Jose Velasquez, Antonio Ferrer, and Nicolas Costa.

† Precedence is here given to King Pass-all in deference to his own views on the subject, the Celestial Emperor himself not having a higher idea of his own pre-eminence. "I pass all kings," was his favorite expression.

the late Sir Robert Peel, then at the head of Her Majesty's Government, and immediately afterwards the attention and favourable opinion of the Admiralty. Mr. Joseph Hume afterwards pressed the matter upon the attention of Lord John Russell, and the then first Lord of the Admiralty, the late Lord Auckland. A collection of lighthouse statistics was then ordered from the Colonies, which appears in a voluminous Parliamentary Report, (No. 656) dated 1st of August, 1850, and which, with the supplemental returns now in preparation by order of Parliament, I am proud to say, originated with me. I was encouraged and supported throughout by the untiring Mr. Hume, and by Admiral Sir Francis Beaufort; and to the Hydrographical and Harbour Departments of the Admiralty, under Sir Francis, I am much indebted.

My letter to Lord Auckland dated 10th of August, 1847, opens the proceedings recorded in the "Returns," and the minute made thereon by Sir Francis Beaufort, the Hydrographer to the Admiralty, and adopted by the Admiralty in their correspondence with the Treasury, Colonial Office, and Board of Trade, is to the effect, that if my view had been adopted "a few years ago, it would have saved much fruitless correspondence between the Admiralty and other departments of government: it would have prevented much lamentable delay in the construction of the lighthouses of Bass Strait, of Cape Agulhas, of the Florida Channel, and of Barbados, and would probably have obviated some mistakes in those that have been constructed."

No systematic administration has yet been fixed for preventing the evils thus so forcibly described; but the different departments of the Home Government, are all now disposed to obviate them. Sometimes I find these departments at cross purposes however, and then it requires some exertion to prevent "fruitless correspondence," "delays" and "mistakes."

It is but recently that I had the disagreeable duty of denouncing at head-quarters, and to my Colonial employers, a sub-official attempt to have lighthouse apparatus for Barbados, made by parties totally incapable; whose first step was to evade my specification and repudiate my superintendance. They had their reasons; one that I found out was an attempt to save in sterling silver about £70, where only twelve reflectors had to be made! Others were equally bad.

The evil would have been more expeditiously corrected had there been but one department. Such "lamentable delay" occurred in the instance alluded to, that three ships were wrecked within a quarter of a mile of the site of the lighthouse, which but for the delay, would have been previously completed.

There are numerous grave objections to the leaving of such important works in the hands of inexperienced persons, or placing them in the hands of contractors without a competent and independent supervision being exercised. I could mention a few recent glaring instances,—late occurrences,—wherein want of stability, want of ventilation, and an extravagant consumption of oil, (twice and even three times greater than was necessary) should have been prevented. These lights were sent abroad where they can "tell no tales."



The subject has infinitely more involved in it than the interests of a few contractors. There are already, upwards of 200 Colonial lights, some very fine, others little better than booth lamps. With the exception of some, (my own,) they are without classification and uniformity of parts. Little is done for the right administration of funds; patronage is prostituted; do-nothings and deep dealers supported and enriched at the expense of navigation. And now when seventy-one new lighthouses are applied for from the Colonies, I trust to your pages for some help, and for publication of the fact that the Home Government has seen the evil, and that hereafter more prompt, if not always more satisfactory answers, will be given to their applications.

It unfortunately happens that Colonial authorities abroad, rest upon the advice of officers or surveyors, long from home, and who have no practical knowledge of lighthouse work and its optical niceties. When money for the work is ready, an order is at once given to some favorite correspondent, contractor, or ironmaster, or perhaps tinman; as if every man could make a lighthouse; as if there were no current facts to be regarded, no optical niceties, no current economy to be studied, and no independent supervision to be exercised for the advantage of the Colony, and the common interests of navigation.

It is owing to such illadvised procedure, that so many cast off and rejected lighting apparatus from home, have been made to do "well enough for the Colonies",—so many profitable jobs perpetrated, and miserable lighting apparatus hastily sent away,—so many costly towers constructed on the spot. The interest of the merchant or the contractor, whether at home or abroad, is not necessarily, and can very seldom be, the interest of the Colony or of navigation. The "well enough" principle satisfies the former, but the "perfect as possible" alone can be for the advantage of the latter. Having the honour to be entrusted with lighthouse works by the Treasury, Colonial Office, Admiralty, and Ordnance, I endeavour to have all as "perfect as possible," considering the situation and the means disposable.

Sometimes application is made to the Trinity Corporation, and the interests of the applicants are handed over to the tradesmen of that Board; or to the Northern Light Board. From the Trinity-House they may be driven from pillar to post, through the Admiralty, Colonial Office, East India House, Ordnance, and other public offices. From the Northern Light Board they may be driven into the course of its own notorious extravagance. Perchance the India House may give an order which has to be handed over to a department of Her Majesty's Government.

I have at length classified the work in such a manner that every part of the metal and glass work, and all furnishings of a Colonial lighthouse, as also most of the stores, shall be conformed to, and governed by, a standard at home, so that erection, repair, renewal, and supplies may be on the most accurate, expeditious, and economical system. In all cases as a Civil and Marine Engineer, acting under Government for the public good, I shall maintain the system of classification. By doing so, I shall

save the "much fruitless correspondence," "prevent much lamentable delay in the construction of lighthouses," and obviate such as the "mistakes in those that have been constructed."

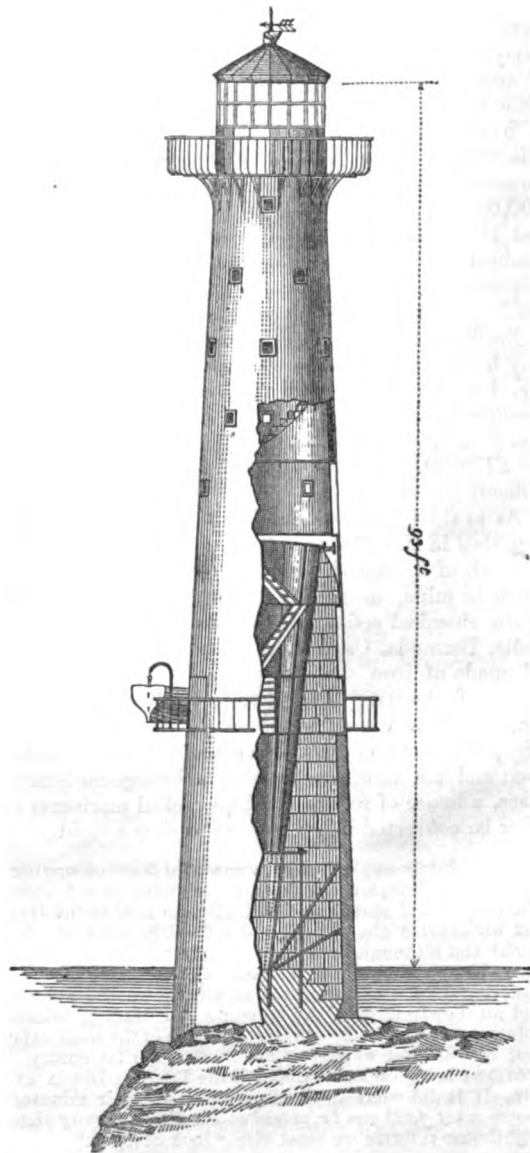
The three powerful Lighthouse Boards of this kingdom have shown clearly that they are content with their venerable expensive and oppressively dilatory, procedure, and that they are insufficient, if not incapable of any enlarged, enlightened, economical, yet liberal lighthouse administration. Their extravagant notions and habits demand and ought to have a check. I could fill your pages with facts in illustration. The Skerryvore with its costly refinements, and hyperbolic elegancies, connected with it, has been built by an expenditure of more than £90,000.\* The Bishop Rock experience of the Trinity Corporation had cost about £16,000 with its cast iron stilts, which broke off short, and tumbled the whole into the sea in February, 1850. (What did that corporation pay for similar expenses shortly before?) So they now are building a tower in stone on the Bishop Rock. When that lighthouse is finished it will have cost as much as Skerryvore. By that time I may have shown that the proposed lighthouse for Hanois Rock, Guernsey, has been completed for one-thirteenth part of the money; and possibly by that time I may have completed the lighthouse with the lead foundation in the Skerki Channel, fifty miles distant from any land for £17,000. This is written after considerable lighthouse practice in difficult situations.

As to the lighthouse for Keith reef in the Skerki Channel it was fully described in the *Nautical Magazine* (June 1850); but I give you again a sketch of it, that the thick outer walls of lead, 24 feet high, may be borne in mind, as necessary when founding a metal lighthouse exposed to the chemical action and storms of the sea. Morant Point, Point de Galle, Bermuda, Cape Pine, Barbados, and Grand Turk lighthouses, are all made of iron, because none of them are exposed to the immediate action of the sea. The Hanois Rock at Guernsey is 23 feet above the sea, and iron will suffice there. I have sometimes recommended much cheaper towers of timber rendered *uninflammable* by Payne's process; and am now constructing a hexagonal beacon of timber for Cape Race, a house of refuge for shipwrecked mariners; and which can hereafter be converted into a tower carrying a light.

\* I was lately applied to by a powerful body occupying a wealthy district on the Solway Firth, for a design and estimates for a Lighthouse on Heston Island. The parties had sent in an application in 1847 to the Board of Northern Lights and anticipated the old alleged difficulty, want of means for so expensive a work and although lives and property are as valuable at Heston as at Skerryvore, the application was refused. It was renewed, and although that application contained the signatures of all the wealthiest landowners in the district, and all the strength of the shipping and trading interest, on both sides of the Solway, and was made at the suggestion of the most experienced naval authorities, it does not appear at all in the Parliamentary Return (7th February, 1851,) as being on the minutes of the Board. Did it ever reach the Board at all? If it did what faith can be put in their minutes? If however, it was there, *what faith can be placed on the Parliamentary Return?* Assuredly in our Lighthouse reforms we must also "look at home."

Classification and uniformity of parts being of so much importance, I have lately adopted for Iron Towers, the "scheme" exhibited on the plate. The lantern is regulated by the height and diameter of the optical apparatus. The diameter and proportions of the tower depend upon the nature, measurement, weight and manner of fixing the lantern, and the required artificial altitude of the lighthouse. These being determined upon by competent nautical authorities in any colony, I need only be informed of the same and of what courses of plates in the "scheme" are required. Each of the towers shewn on the plate, and the upper or iron portion of that shown in this woodcut, may be considered as consisting of some of the same scheme marked from A to T inclusive.

My reasons for preferring one large column to carry the lantern and light, whether on Terra Firma or on a Rock "a-wash," instead of many legs, or piles, or pillars, have already been



Lighthouse for the Skerki.

published, by you, and in the proceedings of the institution of civil engineers, 1850. I remain of the same opinion. Two great authorities differ with me, however, Mr. Walker the Ex-President of our institution of civil engineers, and Mr. J. W. P. Lewis,\* the United States Lighthouse Engineer. I do not deny that there may be some positions where such slender articulations are demanded by the nature of the foundation, but they are very rare.

The optical arrangement for direction of the light by silvered paraboloidal reflectors, or by the French system of polyzonal refractors, (which latter I first introduced and exhibited in England and Scotland seventeen years ago,) should be decided upon after weighing the advantages and disadvantages of each. I incline most to the use of deep and large silvered paraboloidal reflectors, because they are in most cases less costly for construction and maintenance, are less liable to injury, and most easy (by the system of classification) of repair when injured.

No estimates can be given here for all positions, but it may be well to state the following list of different kinds and power of lighting apparatus.

*Sizes of Lanterns and Annual Cost of maintenance.*

	Lantern.			Number of Lamps.	Oil. Per Ann.	Wicks, &c. Per Ann.		
	Diam eter.	Height	Glass			galls	£	s. d.
	ft.	in.	in					
Revolving Sea Lights.	<i>Catoptric—</i>							
	Reflectors thickly plated, and of great size, depth, and power: each reflector having its own lamp.							
	3rd order .....	9	0	2	9	8 Argands	365	8 5 4
	2nd order .....	12	0	4	9	12 do.	547	9 15 4
	1st order .....	14	0	4	9	16 do.	730	10 5 6
	NB.—This size of lantern admits of double glazing for cold climates.							
	<i>Dioptric, or Cata-dioptric—</i>							
	Refractors and Reflectors of glass. The system of Fresnel.							
	3rd order .....	9	0	4	9	1 with concentric wick	188	7 11 0
	2nd order .....	9	0	7	4	do.	385	15 11 6
1st order .....	12	0	9	0	do.	763	30 16 0	

N.B.—A gallon of cocoa-nut oil costs in Ceylon 7d., in Turks Island 1s., and in all Tropical climate is better than any other. A gallon of prepared vegetable oil may be reckoned at 4s. 6d., and a gallon of sperm oil at 7s. 6d. or 8s.

\* In your number for March last, Mr. Walker of corrugated iron celebrity gets credit for the entire iron work of Mr. Lewis' lighthouse, whereas Mr. Walker only made the dwelling, and staircase and housing in of the latter. All the engineering work and all the designs and specifications are due to Mr. Lewis the lighthouse Reformer of the United States, who has had all the grand part of his work, on which depends the stability and which gives the real importance to the structure, made at Boston and Philadelphia, and he is now erecting the whole permanently in Florida.

	Lantern.		Number of Lamps.	Oil Per Ann.	Wicks &c. Per Ann.			
	Diam eter.	Height Glass.			galls.	£	s.	d.
	ft.	in.			ft.	in.		
Fired Sea Lights.	<i>Catoptric</i> —							
	Reflectors, same as Revolving. I prefer in all cases the same size, depth, and power of Reflector, and calculate that as least one Reflector, and its lamp, is necessary for each 15° of the sea horizon. For the whole horizon 25.							
	At Point de Galle there are smaller Reflectors lighting 200° .....							
		9 0	2 9	13	Argands	593	9 17	6
		14 0	4 9	13	do.	593	9 17	6
		14 0	4 9	25	do.	1140	11 0	0
	<i>Dioptric or Cata-dioptric</i> —							
	System of Fresnel							
		7 0	4 9	1	concentric wick.	188	7 11	0
		9 0	7 4		do.	385	15 11	6
	12 0	9 0		do.	763	30 16	0	

The attendants necessary are two men for a lighthouse on shore, and three men for a rock lighthouse, or for a position difficult of access.

The lighthouses shown on the plate have been, or are being completed and permanently lighted for about the following sums, Bermuda £8,000, Point de Galle £3,300, Jamaica £11,000, Grand Turk £3,500, Barbados £5,400, Cape Pine £6,800. At Jamaica, land and road making cost half of the money spent. At Cape Pine much money not mentioned here was spent on surveys, &c., before I was applied to. Such expenditure may be saved in future. The above sums are not one half the amounts spent by the three great Lighthouse Boards at home for any similar works.

From the above list, parties abroad may form for themselves some approximate estimate of the cost of an entire lighthouse, and of what will be necessary for its annual maintenance; and parties at home may see how much of the hard earnings of navigation are unnecessarily thrown away, in furtherance of favoritism, and in monumental extravagance.

ALEXANDER GORDON.

22, Fludyer Street, Whitehall, 1st of May.

A SUMMER'S CRUIZE ON THE COAST OF LABRADOR, in relation with an Irish Trans-Atlantic Packet Station.—By Admiral Hercules Robinson.

It is a rule in our Naval Service, that the officers shall keep a log-book detailing the weather, the navigation of the ship, the employment of the crew, and the various events and transactions of each day; and containing also as a sort of household book, the receipt and expenditure of stores

and provisions; and the *younger* officers especially are encouraged (at least they were when I served afloat) to add thereto sketches of land, and any scientific remarks which might be useful to preserve, and instructive to themselves to obtain.

It is obvious that from a record of this nature, matters of opinion, or of a familiar personal character must be necessarily excluded, and in consequence it was very common to keep private journals, in which such topics could find a place. Many did this with a view to publication, and the result has been the mass of cruizes, and journals, and voyages, and such like, with which our literature has been crowded, and in many cases enriched; whilst others (in which category I was numbered) had preserved these memoranda merely for their own edification or amusement. I have often derived a melancholy interest from turning over the notes of my earlier years, and in passing before me the dim procession of the names which I find in my journal, and with whom I started in the race of life; even at little more than three score years so few remain, war, casualties, climate, and natural mortality, having so done the work of the Chaldeans and the Sabeans in the history of the Patriarch, that I almost feel like his servant, who had alone escaped alive to relate what he had witnessed.

If the lesson thus taught be rightly understood, there may be worse instruction than the leaves of an old diary, as a sufficient reason for preserving it. However, it may be truly said, that there should be something more than reflections of this nature, or a moral essay to justify the *publication* of such an old diary, and with this I altogether agree. I have but a scanty store to produce of "moving accidents by flood and field;" can tell nothing "of men whose heads do grow beneath their shoulders," and might prudently allow my Notes of "a Summer Cruize on the Coast of Labrador," to slumber quietly with other journals and memoranda in the dusty archives of my paper closet. But circumstances have occurred likely to bring a region as little known hitherto as a portion of the moon, into notice and consideration.

The public mind has been much directed to the question of a Trans-Atlantic Packet Station, and a popular view at this moment being the communication between Galway and St. Francis harbour, or Temple bay, the entrance of the Straits of Belleisle, when *misteria incognita* came to be discussed, I remembered that I had something to say respecting it. To be sure my visit to Labrador was rather an old story: still the seas, the skies, the currents, the soundings, the harbours, the fisheries, and the capabilities of Labrador, continued unchanged; but these would not do alone. I am well aware how coldly we receive an abstract geographical description, or any other abstraction, and how necessary to have a *story* of some sort, as well as statistics. I have, therefore, resolved to submit to the public consideration, my personal notes, as a peg whereupon to hang such information as I can communicate.

I cannot but rejoice that the wonders of steam which have nearly annihilated time and space, should be about to elaborate into European notice this much maligned Labrador,

"Bleak and pitiless Labrador."

as it is called in poetical parlance, and with poetical fiction. I well remember the happy months I passed upon her shores. I well remember Sandwich Bay, the noblest of noble harbours, its inexhaustible supply of fish, of game, of timber, and its fertile soil. I well remember the brilliant days of its short-lived summer, its perfumed evenings, and the loveliness of its nights, with Mercury, and Venus, and Jupiter, and Saturn, looming down on us, like moons through the transparent atmosphere, instead of the muddy twinklings of our hemisphere. I rejoice in the prospect that sportsmen may be invited thither instead of to Scotland,—that yachts may ply thither instead of to Norway,—that my poor countrymen flying to the ends of the earth in search of shelter or starving in Conemara, may flee to Labrador, instead of a worse place; and if it shall appear in my Notes, that though St. Francis harbour is a bad harbour, that Niger Sound and Cape Charles, and even L'Ance à Loup (where the wind never blows home) are excellent for the proposed purpose,—that the Straits of Belleisle are never frozen over, and passing the Straits the finest harbours in the world for refuge or refit, namely Burin and Canso are directly in the way,—if these, or similar facts can be made apparent from my Journal, I may be excused for now bringing forward so antiquated a production.

If Ireland be made, as it would appear to be the purpose of the Creator she should be (and if his purpose it will not be long successfully resisted,) the high road between the new and the old worlds, Labrador and Newfoundland will rise into an importance which they have not (especially the former) as yet possessed: and though it must be admitted that a succession of steamers through the Straits of Belleisle to the northward, or making Cape Race to the southward (if Whitehaven were sought) would not of necessity bring Labrador or Newfoundland (as these are not the journey's end) more into notice than at present, yet it is also apparent, that mere proximity would have its common effect. Cape Breton is scarcely forty miles from Newfoundland, and Labrador not half that distance; and if not of necessity, yet by choice, these regions would be visited by tourists, and sportsmen, and speculators, and Clare and Ennis, and Joyce's country, and Conemara would become better known by a weekly influx of passengers into Galway.

Thus far, as respects Newfoundland and Labrador, but before I come to my Journal which bears upon them, I may be permitted to say a few words as to the general question of a Trans-Atlantic Packet Station, and descant a little as to its effect upon Ireland. And first as to the postal consideration, the advantage to a commercial country, in obtaining information and letters in twenty-four hours, or even a fewer number of hours earlier than at present. But this is too apparent to enlarge upon, more particularly as the subject has been so fully discussed and admitted, during recent investigations.

The conveyance of heavy goods is, as it has been well observed, an affair for producers, and consumers, and shipowners, to arrange for themselves. No doubt that when the railroads between Belfast and Galway shall be connected at Dublin, as they are about being, and if the Belfast and Cork railroads could be also connected at Dublin, the valuable

traffic between the North of Ireland and America would be directed via railroad through Dublin to whichever port should be selected as a Packet Station. But still, the great amount of commercial intercourse will flow in its present channels, so that Glasgow or Liverpool need be under no apprehensions that establishing a more perfect system of post-office, electric, and colonization intercourse between the new and the old worlds, will deprive them of their carrying trade, nor of the means of introducing such passengers as choose to go by sea to their destination, instead of being carried across Ireland. The desiderata which are advocated, it has been calculated by the highest authorities, would require the services of five steamers of an improved description, performing between them eighty-eight passages yearly.

The annual cost of such steamers has been estimated at £255,000, the probable passage money for one week at sea, would be remunerative at £10 for each cabin passenger, £5 for each intermediate passenger, and £2 for each steerage passenger; producing a probable amount of £211,200, and leaving as a charge against the Post-office about £43,800. Of course the traffic of passengers at this (as it has been called) European and American Ferry, will never reach its full extent till the Halifax and Quebec, and Halifax and Portland railroads be effected: but he ill reads the signs of the times, who does not see this great work is already "un fait accompli," and no thinking person can contemplate the adventurous spirit of our Trans-Atlantic brethren, and examine the statements in their newspapers on this subject,—nor consider the proceedings held in the city of Portland, in the state of Maine, in July last, without arriving at the conviction that Ireland is destined to be the turnpike between New York and Moscow! Whether the glory and profit of the great undertaking shall belong to ourselves, or to the Americans it is for our government to determine. So much, as to the general question; and now as to Ireland;—first with reference to the choice of a station, and next as to her claims for having one at all. The navigation of the Atlantic, and the case of American ports, should more probably follow my Journal.

In starting from Ireland the difficulty is to know which point to select as a terminus: should Cork, or Valentia, or Bantry, or Tarbert, or Foins harbours in the Shannon, or Galway be selected? I should say not Cork, inasmuch as it is no nearer to Halifax by sea, and further from Dublin by land, than Galway or other ports; and moreover the winter difficulties in reaching Cork from Cape Clear, are greater than in making a western port. I should say not Valentia as the harbour is difficult of entrance, and no railroad from thence; not Bantry as a railroad would have to be effected at an enormous cost; not Tarbert as it is too much exposed; nor Foins as it is too narrow for a large steamer to swing within it; but probably Galway, as combining in itself the several requisites for such a purpose, should be the port selected, if any were determined upon. The wind never blows home to the bottom of the bay, a phenomenon observable in some of the harbours on the north coast of Spain and elsewhere, and the weather on the coast though stormy during the winter, (of which more hereafter,) is not of the con-



tinuous thickness that makes the English Channel difficult of access; it is situate be it remembered at almost the nearest point to Labrador or to Halifax.

It is entered at once without any previous intricate navigation. Soundings are obtained to the westward of the Arran Islands, and these are designated in the day by the mountains inland, and by lights at night. Between them into the bay, are three passages of ample width and depth of water. Within the islands and sheltered by them, is room for the navies of the world to moor in safety, in from 10 to 14 fathoms; and sailing up the bay, the navigator is guided by a light on Mutton Island, and carries into the harbour 4 fathoms water at low water neap tides, with a rise in the tides of fifteen feet. A few buoys and beacons, (though scarcely needed by a man with a compass in his binnacle and eyes in his head,) may be desirable; and perhaps a second light on Mutton Island, to bring in one with the present light, in order to point out the channel with still greater clearness; and it might be well also, if a trifling outlay were undertaken to connect Mutton Island with the mainland, by perfecting a causeway already half completed by the hand of Nature. Arriving at Mutton Island, the train conveys you to Dublin, (or at least will do so after the 1st of August), and from thence steam does the rest on to Cork, Belfast, or Holyhead. And then supposing that Galway were agreed to on the ground of postal, and passenger advantages, may we not enquire what would be the further effect of introducing to an acquaintance with our neglected natural advantages, a daring, wealthy, enterprising, speculative people, people who are ready to-day to send their dollars to cut a navigable canal in Nicaragua, to-morrow to grope for gold in California, and the next day to fish up pearls in the extremity of the Indian Ocean, to decorate the bosoms of their wives and daughters.

It is said that magnificent deep-sea fisheries are to be found on the banks to the westward of the Isles of Arran, and within the Bay of Galway. Would American capital drop no line here through Irish fingers? I was at Labrador as will be seen, the year that our fisheries there were opened to the Americans; 600 sail of vessels, manned by about 6,000 seamen, cured and carried away that season, fish and oil valued at between £400,000 and £500,000. It is pretended that the fish have deserted these Galway banks; there is no proof of the fact. We know that the Dutch gave Charles II., a large sum for leave to fish upon them.

Would no American dollars work with Irish hands our neglected Western Mines, when they discovered their existence? I am informed that an individual was tempted to speculate lately in a lead mine in Oughterard, near Galway, and that the estate on which it is situate has been saved, in consequence, from the Encumbered Estates Commissioners, under whose auspices it had been placed.

Would no American dollars find an Irish partner, and such an investment as a gentleman the other day discovered for a brush manufactory near Galway, which I understand is paying abundantly? Nor for such another as was lately established by two individuals near Newport, who

have built a flax mill, which has taken, by giving employment to 300 hands, above thrice that number off the rates; and which promises to repay the entire outlay of the building during the first year? Would no American dollars turn Irish wheels on Lough Corrib, which is now pouring its boundless, but unprofitable water-power, into the bosom of the Atlantic? Would no American dollars turn loose Irish saws and chisels upon the marble quarries of the West? The best house in this, the best part of Ireland, is fitted up with the beautiful verd antique from Galway. If Ireland were made the highway between the New and the Old Worlds, would the influx of American travellers confer no benefit on Dublin, on Cork, on Waterford, on Belfast, and elsewhere? I was struck not long ago with the increase of intercourse which facilities of communication affords, by ascertaining that persons who had probably never previously seen or heard of Bristol but in a newspaper, or book of geography, went there in considerable numbers after the railroad was opened, for no other purpose in the first instance, but to eat turtle, and to return to London!

Considerations of humanity and justice, and surely as well, of sound policy should confer upon Ireland a concession of this nature.

First as to the humanity. We are told that we are an integral division of a mighty empire; and if so, it is due to the part which God in his mysterious Providence has called upon to suffer, that it should not be excluded from the blessings of that portion, which he has called upon to enjoy. But it is said we are not now suffering, that we are rapidly improving, are over the worst, and coming all right! Alas, this is scarcely the case. No doubt part of the North is in a prosperous condition, and I trust and believe that some amelioration in our state is observable elsewhere. But I have in a late short tour through the Far West, witnessed an amount of distress sufficient to furnish forth the average quota of misery to ten kingdoms of the size of Ireland. Before I reached Galway, I traversed, I may say, hundreds of thousands of acres, untilled, unstocked, almost unpeopled; the ground unploughed, and unprepared for cropping. For fourteen miles in one direction, I saw but one solitary human being employed, and he a meagre scarecrow, digging up with a spade a patch of oat stubble. The cattle did not exist, or were secreted from the clutch of the poor-rate collector; and the houses were unroofed and desolate. The rural population, such as had not perished in the famine or subsequent sickness, or had not shaken off the dust from their feet against the country of their birth, and carried across the Atlantic their sorrows, and it is to be feared, their hatred to the institutions of Great Britain, were congregated in the gigantic poor houses, consuming without reproducing, the fruits of the earth.

The hamlets I passed through, were more appalling than the adjoining country,—squalid and wretched; resembling nothing perhaps but the "Gin Lane" of Hogarth. Peter Brophy, the publican, had in one of them a blue board, with bright yellow letters, and whitewashed walls, whilst the broken windows, falling thatch, and open doors of the other hovels with the haggard women and starving children, rushing out to besiege the coach as it passed for alms, suggested for an history of the

village, the roll of the prophet, which was written within and without, with "lamentations, and mourning, and woe."

The poor houses (little towns in themselves), were undoubtedly well organised. One of them in particular; I may mention it by name—Castlebar, was in better order than any I had ever seen in other parts of Ireland; and all the rest which I visited were in excellent condition. Whilst the mode in which merchant's stores, no longer needed for purposes of traffic, were changed as auxiliary houses into comfortable pauper domiciles, was equally creditable to the humanity and the ingenuity of the Guardians. I attended on the Board-day at Westport, and witnessed the admission of the claimants; and, the wild clamour of the starving men, with women, "so withered and so wild in their attire, that looked not like the inhabitants of the earth, and yet, were on it," are still haunting my ears and eyes. The Doctor, a clever, and apparently a humane man, pointed out to me amongst the swarm of children, the standing hair and shrivelled skin, and knife-like jaws, which denoted starvation, and told me how many would probably perish under dysentery, when stimulated by healthful food. I could hardly pity their lot—and I felt that it were better for them to escape thus early from the evil to come; and how happier was this prompt release, than the long dreary years of workhouse life, and the unpitied workhouse death, which awaited their more vigorous associates. For how are the tens of thousands of workhouse children to be ultimately disposed of?

It is clearly an exercise of common humanity, (it has been felt to be so by strangers) to endeavour to improve the condition of a country where such suffering can be found. But the claims of humanity rise into the demands of justice when applied to those whose duty it is to secure the national prosperity. I have been shocked to hear it boldly openly stated, that our rulers wished to drive out by starvation and compulsory emigration, our wretched Celtic population. I have heard this even in high places; but it is a libel on human nature, equally incredible, and discreditable to those who make the charge. If our rulers were starvers, they were very bungling ones to spend so much money about it, and nobly did the people of England give us their money. Belonging to no party I may dispassionately criticise any, and look fairly at the case, and it seems to be this. In 1845, and more clearly in 1846, indications of an approaching famine were unmistakable. It came at last and we know the result. Black was the sky to windward. Certain were the prognostics of an hurricane. Down it came; over went the ship on her beam ends, and after various attempts to right her, the masts were cut away, and she emerged from the tornado a battered worthless wreck. In like manner down came the famine comparatively unprepared for. Loud was the wail of starving millions. Cutting away hills; stir about distributions; Labouchere's letter, and other measures were had recourse to; and lastly came rate upon rate, and outdoor relief in proportion as the population became unable to pay,—a process which has been compared to feeding a hungry dog by compelling him to eat off his own tail! I have no doubt that government were heartily sorry for our distresses, and did what they considered best in the emergency; and it is impossible to say

with certainty as they were not tried, that Lord George Bentinck's vast scheme of national improvement, or that of Sir Robert Peel's (much as I and others admire both, and lament that they have not been attempted,) would have answered the expectations respecting them. Nothing is more unprofitable and provoking than "Why didn't you," or, "I told you so;"—and we may spare our parliament, and our rulers the infliction. But this we may fairly say, that their measures however well meant, and excellent as possibly they may have been, have not prevented Ireland (one of the finest countries upon earth,) presenting a wretched, bankrupt, poverty stricken spectacle, to the world's wonder and the world's pity; and that she has therefore a right to demand, that any great measure of improvement or advantage which can be pointed out, *e.g.* a Trans-Atlantic Packet Station from her shores, shall be freely and ungrudgingly conceded to her.

I may at length proceed with my journal. Enough has been said as to my reasons for producing it. As to the general question of a Trans-Atlantic Packet Station, and to the demands and destitution of Ireland, it is clear that the effect of either the passage through the Straits of Belleisle or by Whitehaven or Halifax, as will be examined more at large hereafter, must be to bring us into communication with Labrador and Newfoundland. And this being so, I may endeavour to invite attention to these strange lands, to tell my countrymen, at least those who know it not, what they may expect to see, and hear, and shoot, and eat, and the description of people whom they may expect to meet there. Nor is this wholly superfluous and impertinent. Smollett describes the old Duke of Newcastle running with great glee to George II, to inform him that Cape Breton was an Island! And really this ignorance still prevails, not of course as to Newfoundland which has been governed by intelligent Naval officers sufficiently known, but as to Labrador, a dependency which they rarely visited. I have met over and over again with educated persons who reasonably well up in Sarawak or Timbuctoo, were so unacquainted with Labrador as to turn to the map to understand even its localities; and I therefore venture at such a moment as the present to cast my Labrador Notes upon the waters, to sink or swim as they may be found deserving, and throw such light as they may upon a country which it is proposed to select as a Western terminus, and which, whether so chosen or not, will be soon unsealed to Europe.

#### *St. Johns, Newfoundland.*

*May 4th, 1820.*—Arrived this day at eleven o'clock within sight of St. Johns; found on making the harbour that a barrier of ice extended across its entrance, and appeared to seal it hermetically against us. Observed the *Pelter* gun-brig, and a variety of merchant vessels lying outside the field, waiting for an opening; bore up under all sail, studding-sails on both sides, and steered for the ice—crash—bang; hung a little, and then forced our way through (our train of vessels following in the canal which we formed,) clear water within a mile of the land, sailed up the harbour, anchored, saluted the flag, moored, and unbent sails. It is a dreary looking place from its dreary climate; hills covered

with snow; twenty-one days ago we left Devonshire in blossom, brought fine weather with us, till we approached the Banks of Newfoundland. Since which time it has been wretchedly cold with silver thaws; ship like a glass toy, picturesque and uncomfortable enough. Met with a great deal of broken field ice and floating islands on the Banks: to-day, however summer appears to commence, and it is mild and temperate, with a bright sun.

Returning under much the same outward circumstances, to a well known place, (itself little changed since we left it), a strange dreamy feeling is produced in the mind as to the reality of the intervening period. It seemed as if I were still in the *Prometheus*, which I commanded here during the war, and could not well disengage her from the *Favorite*. Perhaps the company of my amiable passenger from England, Le Geyt, the governor's secretary, whom I had left in the same capacity with Sir Richard Keats, five years before, might have strengthened the delusion. He was identified in my mind with the toilsome hill, which we ascended together, and the manqué looking government house within Fort Townsend, on its summit, and all the recollections and associations of St. Johns.

Found the Governor and Lady Hamilton very friendly and hospitable. They have one nice boy, the father's self recast in finer clay. The town seemed little altered, with the exception of a handsome court-house; nor did I find many changes amongst the inhabitants or public officers whom I had known in 1814, though death, removal, and bankruptcy had not been altogether idle. The stir and "circumstance" of war were wanting, and there seemed less drunkenness, and appearance of outward vice.

*June 15th.*—Refitted and painted ship in a week of very beautiful weather, which somewhat reproached me for my strictures upon the climate. The Admiral mustered our crew, who were afterwards employed in dockyard work, for which they received one shilling per day. This is a bad disorganizing system; it were well if it could be avoided. The weather during this month has been generally very fine. It is decided by my choice, that we go to Labrador, and return to England in the winter, by the way of Cadiz. I have received 1 per cent. freight on the dollars brought out on the public account; the freight for those of private property brought out for the governor, I did not, from circumstances, feel it well to insist upon; so that my gains à cet égard, don't overburthen my pocket.

In the early part of June began our Labrador preparations. Capt. Buchan arrived from the Bay of Exploits, having gone 180 miles up the country, and failed in all his attempts to communicate with the natives.

There seems to be scarcely anything known of the Aborigines of Newfoundland. The only information I could obtain respecting their character or habits is in the history of an individual native, related to me by the Rev. Mr. Leigh, missionary at Fogo. I insert it here as it belongs to the subject.

From the war of extermination waged against the Aborigines by the

Mic-Macs, who had settled near St. George's Bay, and frequently came over in considerable numbers from Nova Scotia, and from the barbarous treatment which they formerly received at the hands of our early settlers in Newfoundland, the natives had entirely deserted the sea coasts, and by keeping within their woods and fastnesses avoided all intercourse with strangers. Capt. Buchan's attempt in 1808, ending in the murder of his two marines left as hostages, appeared also to have put an end to the hopes that were entertained of civilizing this barbarous race. They had however of late years, frequently ventured down to the houses in the Bay of Exploits, for the purpose of plunder or of mischief; and at length Mr. Peyton, a settler, having suffered much from their depredations, went up the river with a party of ten or twelve men to recover his property, and if possible to communicate with his spoliators. Having travelled seventy miles on the snow, he surprised three natives at a little distance from their wigwams. One man who appeared by his dress to be a chief was very untractable, rejected all overtures of friendship, and at last attacked old Peyton in so ferocious a manner, that the young man, to save his father's life, was obliged to shoot the assailant.

The woman who was in company, and was, as it afterwards appeared, the wife to the poor victim, did not fly or shed any tears, (a savage seldom weeps), but after a few minutes violent struggle of emotions, which were visible in her intelligent countenance, anguish and horror appeared to give place to personal submission. She went to the murderer of her husband, clung to his arm for protection, and strange to say an incomprehensible attachment appeared from that moment to have been produced towards him, which only ended with her life. To John Peyton she was all gentleness and affection, and the last act of her brief eventful history, was to take a ring from her finger and beg it might be sent to John Peyton. How this feeling was produced is a riddle which I do not profess to read. It may be the Indian worship of the Evil One, or it may be that fear was so omnipotent as to absorb and stand in the place of every other feeling,—a sort of metaphysical Aaron's rod or serpent. There are stranger things in the human mind than are dreamt of in our philosophy.

The tribe were in the neighbourhood of this disastrous meeting, and it was necessary that the Peytons should secure their retreat. They had a sleigh drawn by dogs in which Wannatpoke, or Mary March, (as she was afterwards named, and as we may now call her,) immediately placed herself, when she understood she was to accompany the party, and directed them by signs to cover her over, holding her legs out to have her moccasins laced; and both here and subsequently by her helplessness, by the attention she appeared habitually to expect at the hands of others, and by her ignorance of any laborious employment, she indicated either a superiority of station, or that she was accustomed to a treatment of female savages very different from that of most other tribes. She was quite unlike an Esquimaux in face and figure, tall and rather stout in body, limbs very small and delicate, particularly her arms, her hands and feet were very small and beautifully formed, and of those she was very proud: her complexion (a light copper colour,) became nearly as fair as an Euro-

pean's, after a course of washing and absence from smoke; her hair was black, which she delighted to comb and oil. Her eyes were larger and more intelligent than those of an Esquimaux, her teeth small, white, and regular; her cheek bones rather high, but her countenance had a mild and pleasing expression; (her miniature taken by Lady Hamilton is said to be strikingly like,) her voice was remarkably sweet, low, and musical. When brought to Fogo, she was taken into the house of Mr. Leigh, the Church Missionary, where for some time she was ill at ease, and twice during the night attempted to escape to the woods, where she must have almost immediately perished in the snow. She was however carefully watched, and in a few weeks was tolerably reconciled to her situation, and appeared to enjoy the comforts of civilization, particularly the clothes. Her own were of dressed deer skins tastefully trimmed with martin, but she would never put them on, or part with them. She ate sparingly, disliked wine or spirits, was very fond of sleep, never getting up to breakfast before nine o'clock: she lay rolled up in a ball in the middle of her bed. Her extreme personal delicacy and propriety of conduct were very remarkable, and appeared more to proceed from an innate feeling and tact than from any conventional usage which could not exist under circumstances novel and unforeseen.

Her power of mimicry was very remarkable, and enabled her quickly to speak the language she heard, and before she could express herself, her signs and dumb shew were curiously significant. She described the servants, blacksmith, tailor, and shoemaker, a man who wore spectacles, and other persons whom she could not name, with a most happy minuteness of imitation. It is a beautiful provision that savages and children who have much to learn should be such good mimics, as without that faculty they could learn nothing; and we observe it usually leaves them when they no longer want its assistance. To this we should often ascribe family resemblances, which we think organical or inherited. But to return to Mary March, she would, when able to converse, sometimes, though rarely, speak freely to Mr. Leigh, and talk of her tribe. They believe in a Great Spirit, but seem to have no religious ceremonies. Polygamy does not appear to be practised. Mr. Leigh is of opinion there are about 300 in Newfoundland. I forget the data from which he calculates. They live in separate wigwams: Mary's consisted of sixteen, the number was discovered in rather a curious manner. She went frequently to her bedroom during the day, and when Mr. Leigh's housekeeper went up she always found her rolled in a ball apparently asleep. At last a quantity of blue cloth was missed, and from the great jealousy that Mary shewed about her trunk suspicion fell upon her. Her trunk was searched, and the cloth found nearly converted into sixteen pairs of moccasins which she had made in her bed; two pair of children's stockings were also found made of a cotton night cap. Mr. Leigh had lost one, but Mary answered angrily to all questions about her merchandize, "John Peyton," "John Peyton;" meaning that he had given it to her. At last in the bottom of her trunk the tassel of the cap, and the bit marked J. L. were found, when looking stedfastly at Mr. Leigh she pointed to her manufacture, and said slowly "Yours", and ran into

the woods. When brought back she was very sulky, and remained so for several weeks. The poor creature had two children, and this was probably the tie which held her to her wigwam; for though she appeared to enjoy in many respects first Fogo and then St. Johns, when she was taken there, and her improved habits of life, she only dragged at each removal a lengthened chain.

All her hopes and acts appeared to have a reference to her return, however at variance with her insensibility on the death of her husband. She hoarded clothes, trinkets, and any thing that was given her, and was fond of dividing them into sixteen shares. She was very obstinate, but was glad to be of any service in her power, if not asked to assist; she was playful, and was pleased with startling Mr. Leigh by stealing behind him softly; her perception of anything ridiculous, and her general knowledge of character, shewed much archness and sagacity; an unmarried man seemed an object of great ridicule to her. When she was taken to St. Johns, on entering the harbour, she said to Messrs. Leigh and Peyton, "You go shore Mr. Leigh, you go shore John Peyton, when go shore, no Emamoose, (wife or woman,) ha, ha, ha, ha!" She was quite indifferent to music, did not seem to perceive it. She liked exhibiting herself to strangers, and was very fond of putting on and taking off all the dresses, ribbands, and ornaments that were given her. Mr. Leigh once drew on a bit of paper, a boat and crew, with a female figure in it, going up a river and stopping a moment at a wigwam, described the boat freighted as before, returning. Mary immediately applied the hieroglyphic, and cried out "No, no, no, no." He then altered the drawing taking the woman out, and leaving her behind at the wigwam, when she cried very joyfully "Yes, yes, good for Mary." A variety of representations more obscure than this, she perceived with great quickness, and had much satisfaction in the mode of communication.

She remained a short time at St. Johns, and acquired such facility in speaking English, that sanguine hopes of conciliating and opening a communication with her tribe through her means were entertained, and when Sir Charles Hamilton dispatched Capt. Buchan to the Bay of Exploits to make the attempt, it was hoped for this poor devoted handful of Indians, that the measure of their sufferings was nearly full, and that they were at last to be brought within the influence of civilization and christianity. It was ordered otherwise. The change of dress, or change of living, or whatever it may be, that operates so fatally on savages separated from their native habits spared not Mary. She left St. Johns with a bad cough, and died of consumption on making the Bay of Exploits, aged 24. Capt. Buchan after a laborious march reached the wigwams, but found them empty; and he deposited there the coffin of Mary, with her presents, dresses, mocassins, &c.

The experiment I think was hazardous. The Indians on returning may possibly perceive the truth, or they may, as more in accordance with their past experience fancy poison, insult, or any of the barbarities practised on their forefathers, the traditions of which they no doubt preserve.



This history interested me so much, that though writing as I do from recollection of conversations with Mr. Leigh a month after they took place, I am pretty certain of my accuracy. This description of a "gentle savage," as a pendant to the one which we remember from the South Sea, the view of untaught barbarism in its best attire, suggests some useful hints in the examination of that great puzzle of our common nature the human heart. A new subject in a dissecting room must be always profitable to the anatomist. The analysis however does not belong to me. "Non meus hic sermo." Mr. Leigh I have no doubt has, and will turn it to good account, and I trust and believe that in repayment for the lessons he may have learned from this child of nature, he had endeavoured (though I fear with no great success) to communicate to her those christian truths which he was commissioned to teach, which would have elevated both the hopes and the character of the poor captive, and smoothed that bed of death on which she was so soon to be laid. Mr. Leigh was kind enough to give me a copy of the native vocabulary as far as he had collected it from Mary March; it will be found at the end.

But to resume my Journal. It is apprehended that the Bank fishery is failing, and Labrador in consequence appears to be the favorite resort of our own subjects and our American brethren. The cause of the bank failure seems quite hypothetical. Some imagine that the French fishers being encouraged to come early, catch the female fish before they spawn; but if the roe of each contain, as is pretended, 50,000,000 of ova, the wonderful fecundity would seem to disprove the idea of reduction to any sensible extent by the comparatively insignificant numbers caught. The cause of the periodical absence of fish from their usual resorts, I have never heard satisfactorily accounted for, failure of food *not proven*; and though like *wise* fish, they might be frightened from narrow harbours by the gorry and offal being thrown overboard, that effect could hardly be produced on the ocean-banks.

I had during this week, amused myself with Mr. Baird the school-master, collecting mineralogical specimens: a countryman who witnessed the operation said, with Irish hyperbole, "Sure I see the captain of that ship hummering *the world* about like mad." Took four months provisions, fishing lines, duck shot, &c. *quant. suff.*, set up our rigging and bent sails.

*June 16th.*—Heavy rain; paid the men their working money and sent them on shore to lay it out; they brought on board quantities of little pictures, looking glasses, and other gew-gaws to ornament their berths. Received my sailing orders, commission as justice of the peace, surrogate, admiralty surrogate, and collector of the Greenwich hospital duty; the two latter of my diversified avocations will prove I suspect somewhat of the sinecure order. Consulted the chief justice (Forbes) as to my judicial conduct; took the necessary oaths. Nothing can be so vague, or so calculated to lead a person into error, as the acts of parliament, and proclamations respecting the American fishery; nothing but the enforcement of penal restrictions will preserve quiet and the good of the fishery; and there is no authority to restrain an American, or to

limit his proceedings; he violates the regulations, and disputes the governor or surrogate's authority, and what is to be done; "take his name," which\* he laughs at: if the fishery on those shores is to be relinquished to the Americans, it may be sound policy of ministers; but surely it were better to have relinquished it unreservedly, than burdened it with limitations which cannot be enforced. Got the chief justice to give me his written opinion as to my conduct; dined with the admiral, and took my leave of him and his house.

*Saturday 17th.*—“The night (like Mrs. Honor's) was fine, except a little windy and rainy;” the morning worse, could not sail,—fine evening, warped down to Magotty Cove; dined on board, walked afterwards to Signal Hill; Roberts (in every way expert and valuable,) took its altitude 494 feet, Crows Nest 392 feet. No *Egeria* in sight, by which we expect news and letters from England.

*Sunday 18th.*—Fine morning, weighed at five, baffled in the Narrows (never weigh again from St. Johns without a commanding breeze), wind sprang up from S.S.W., dismissed the *Sieur Taffe*, the head pilot very impatient; stood to the eastward in hopes of meeting the *Egeria*. Divine Service, and mustered men, (five men short). At 2 o'clock were fifteen leagues off the land; made sail to the northward, clear weather; about the ship. Heavy fog banks in the horizon, many birds round the ship, resembling gannets. The youngsters assembled in my cabin in the evening, reading the conclusion of “Paley's Evidences.” Wind increasing, moon in her first quarter of a singular brightness, the larger stars of the same complexion, a most portentous redness: glass falling.

The middies have the use of my cabin and books, of which I observe they select such as are of a light and amusing nature. On Sunday evenings I choose something for them of a more profitable description. Our school under the master-at-arms on the lower deck is again resumed: this is much valued. The captain-of-the-main-top said the other day, “Won't my old mother wonder when she gets a letter from me. What will the old gal think?”

*Monday 19th.*—Daylight, blowing fresh, heavy rain, cold weather, the worst part of the climate of Newfoundland, (*vulgus* “the land,”) are the sudden transitions from the temperature of the Tropics to that of Spitzbergen. Barometer still tells truth. Thermometer in my cabin ranges between 56° and 42°, the changes greater on deck; at 6 wind shifted to north-east, many ice islands about the ship, principally to the westward, close reefed and tacked; at noon it cleared away, got an observation of the sun, lat. 50°N., long. 52° 6' 50"W. Fogo Island W.S.W. eighty miles; Mr. Baird sick, no school in my cabin for the midshipmen. I have a little cold and headache, wind drawing to the northward. I am reading my orders, acts of parliament, and old Cartwright's account of Labrador, a quaint strong-minded old man, but “tetchy and wayward;” like most solitaires, he seems sadly disturbed when my opinion clashes with his preconceived notions. Buffon says “Beavers have a scaly tail, because they eat fish,” the old gentleman

\* Vide—Vattel on “Treatment of Foreigners.”

thinks the conclusion impotent, and asks angrily, whether the Count has one, for the same reason. This is a specimen of the style of his work, but it contains some useful local information. In the evening a bright yellow sky; strong light in the north-west, but without any corruscations of the aurora borealis; midnight cold, clear weather, wind north-west, passed a large ice berg.

*Tuesday 20th.*—Fine clear cold weather, thermometer in the sun 44°, shade 40°; ice islands round us, lat. 51° 16' N., long. 52° 19', entrance to Sandwich Bay north-west 180 miles; exercised great guns and small arms: Mr. Baird still sick interferes with our school. We find the ship sail better from being deep in the water. Observed an iceberg over-setting and many appear breaking up.

When the action of the water or the raised temperature dissolves the foundation of these floating masses, the superincumbent weight topples them over, after the manner of the splendid summerset which we have now witnessed. This change of poles however produces, of course diminished height, but no great change in their character, the submarine portion presenting on being brought into the upper world, the same appearance as before. Noon, dry clear weather: my cold nearly well.

(To be continued.)

#### NOTES AND OBSERVATIONS ON GREYTOWN, MOSQUITIA.

[The following creditable remarks are made by the Master of the *Indefatigable*.—Ed.]

In making the coast in a sailing vessel when bound for Greytown, it is absolutely necessary to make it to the northward of the port, as from the strong current setting generally to the S.S.E., at from one mile and a half and three miles per hour, if you are to southward it is very difficult to work up, the winds being very light. The coast should be made in the parallel of Round Hill, marked in the chart. This hill is close to the low shore, and when in a W.N.W. bearing appears to be elongated to the W.S.W., and the name does not certainly give you any idea of its appearance. When in a north-west bearing it shews also distinct, which appearance it still maintains as you are running to the southward. We arrived off it in September, and although the day was excessively rainy, and all the interior country enveloped in clouds, yet this hill was more distinctly seen than any other object. The coast both to the northward and southward is a low dark sandy land covered with trees and bushes about 80 or 100 feet high, and has the same appearance down to the harbour; when at Point San Juan there are several dead trees close to the shore, and appearing from a S.S.E. bearing very abrupt.

*The Bank of Juan de Fara.*—This bank is an extension of the shoal surrounding the coast between Point Arenas and Point San Juan, and stretches off to the north-east for one mile and a half, having on it constant breakers, very little water, and close to its north-east edge are 7 fathoms. This shoal receives drift trees, &c., floating out of the harbour. It is composed of small stones, drift trees, and sand. To avoid it the steamers when bound to Chagres, first steer from Point Arenas north-east for five miles, and then direct for their port.

*Greytown harbour* is not very easily distinguished, as at a distance of only

a few miles the coast appears straight and even, but on a nearer approach the houses will be discovered over the low sandy spit of Point Arenas, and then giving all that coast from Point San Juan to Point Arenas a berth of one mile and a half or no nearer than 11 fathoms, a vessel should steer for the north-western coast, and when in 5 or  $5\frac{1}{2}$  fathoms, stand for the harbour. When a high dead tree comes on halfway between the flag-staff and the east end of the town, and bearing S.E.b.E. steer in; you are then in the deepest water  $4\frac{1}{4}$  fathoms, and when the harbour head opens to the southward of Point Mandeville you will be past the shoal, and may anchor in any convenient depth less than  $4\frac{1}{2}$  fathoms over a bottom of soft black mud.

This harbour is in fact the mouth of the River San Juan, and is the recipient of its waters after they pass through its delta or percolate through the very low grounds, and out of the lagoons in the vicinity where it issues in a constant stream (Sept.) along the inner side of Point Arenas and Mandeville, and round the shoal to the north-west at about two miles per hour, and along the western shore also to the north-westward at about one mile and a half, bringing with it numerous drift bush, and small fragments of trees to the sea, or leaving them on the shoal off Point Arenas.

The shoal has gradually extended itself to the north-west from Point Arenas, and has now on it only  $\frac{3}{4}$  and  $\frac{1}{2}$  a fathom, breaking when there is any swell. It is steep to, having on its point 1 fathom and 20 yards, to the westward  $4\frac{1}{2}$  fathoms. From the reports of the inhabitants it occasionally shifts, so that a pilot is necessary, or the channel ought to be examined previous to entering.

The pilot is a good one, and as he is paid by the Musquito government the charge is not at all heavy. He says the harbour has filled up considerably since he has been here, a period of only four years and a half.

The town is built on the south-eastern part of the harbour, and contains fifty huts or wooden houses, having on the eastern side a dense bush, on the northern side the port, and on the northern side a stagnant lagoon which may be the cause of the fever and plague, now so very prevalent. The situation is so very low that after very heavy rains and a swollen river, the peninsula on which it is built is very nearly overflowed.

The only article of consumption that can be procured is very indifferent, beef at sixpence per lb., but not any vegetables, the inhabitants being careless of cultivating them; sometimes the Bongos or country boats bring down a few pumpkins, but they are not sufficient for one tenth of the people.

The port as a place for commercial purposes has long been known, but from the very little enterprize hitherto shown by the people of Central America to exhibit the produce of their country, and receive in exchange that of others, it will be some time yet before anything in the shape of a town of consequence can possibly appear. Yet from the position of the river, the communication being so constantly kept up by the Bongos, that time may not be far distant.

The Americans have now two steamers (flat bottomed), the *Director* and the *Anne*, trying to ascend the river, but they are at present stuck in one of the rapids; and from the deaths of many, and the dreadful sickness of the survivors, I fear they will not get up to the lake; yet if they do overcome their difficulties it will open a brilliant speculation to many.

The trade which is hide, deer skins, and logwood, from the interior, is brought down in Bongos, and in return they carry back with them cargoes of dry goods to supply the markets of Grenada, Nicaragua, and Leon. These boats are from fifteen to twenty tons; they are rowed with twelve or eight hands according to their size, and are about eight or twelve days ascending the river, according to its strength and depth, and the same number nearly coming down. Each rower gets from six to eight dollars a trip,

and the padrone a doubloon; they are fed by the owners of the boat, and consume an immense quantity; the passage for persons ascending is from fifteen to thirty dollars, which includes a small quantity of luggage.

These men will when ascending, commence at daybreak, and row for the whole day, exclusive of two hours about noon. When they leave the settlement they strip themselves completely, and never dress again except at night, until they arrive at their destination. The usual draft of the boats, which are flat bottomed, is when loaded, about eighteen inches, and they cost more than 1000 dollars each.

As a mode of conveyance this river may be made available, and would if the goods were intended to be carried across the continent by boats alone, answer the purpose admirably when a canal shall be cut, from either the lakes of Nicaragua or Managua, to the Pacific. But as for sailing ships or steamers leaving one ocean and entering the other by this route, I hold it to be impossible, the river as a natural stream being much too shallow, and from its fall and the nature of the country, it could hardly ever be canalled to a depth sufficient to carry up any vessel drawing more than eight feet water, or over 200 tons, and vessels under that tonnage could only be adapted to the coasting trade.

The several channels into the river from the harbour, (of which there are three), have only a depth over the shoal which is in front of them, and extends from the west extreme of the town towards Point Mandeville, of  $\frac{3}{4}$  or  $\frac{1}{2}$  a fathom, whilst in the river there is from  $1\frac{1}{2}$  to 2 fathoms water. About this shoal and on it are many drift trees, which coming down the river ground on it, and become the nucleus of future islets, extending the delta in a gradual but sure manner, until it will block up the port, and the mouth of the river will open in some other place.

From the rapidity of the currents (Sept.) the whole of the surface water of the harbour was fresh, and used by us for washing clothes. Anywhere inside the bars of the Delta, good water may be procured, but strongly impregnated with Sarsaparilla, and much better may be got at any of the wells in the town, as it filters through the sand, and any impurities that it may have had are detained there.

For more than twenty miles above the mouths of the river, the country is so low that it all forms a nearly impassable swamp, and is the rendezvous of many birds, monkeys, and wild cats. On the solid shore to the north-west there are many wild hogs, and agouti, whilst in the harbour, the Delta, and Lagoons, are numerous alligators, sharks, and numbers of fish, the shallows literally swarming with them. The quadrupeds are very difficult to come at from the impenetrable bush, and the alligators are too many to trust any vulnerable part out of the water, so that success in hunting can only be insured to one experienced in the art and knowing the country. Even then great risk is run from the bite of many deadly snakes which infest the wood and long grass; these are the whip, blood, and other snakes, all of them very small but certain death to any one bitten by them.

The guana is also here inoffensive as in any other part of the world, and equally good to eat if any one likes them.

Of the birds that were shot here during our stay, there were many species of condors, toucans, pigeons, snipes; parrots and parroquets, paddy bird and grass coot or speer wing, but the jungle is so thick and dangerous from snakes, that it is not advisable to go far in it: during the season of the norths many ducks resort here.

Skins of tigers, lions, or puma, and mountain cats may be bought from settlers, from two to four dollars, and they measure from head to the root of tail about four feet.

There are many plants both parasitical and independent growing, that are

to me rare and strange, but from my much regretted want of botanical knowledge, I cannot describe them. The most singular, and indeed it is a weed, is the sensitive plant; it is even more than a foot from the ground, and has a leaf like the fern of two inches long, and when the stalk or any part of the branch is touched the leaves close, and from a bright green turn a decayed brown, the branch droops and the whole plant appears to decay. This is always when any strange articles touch it, but the rain affects it not, and a small species of black wasp, or fly which feeds on their bark or stalk, only in their movements cause the end of every leaf to close, and in about ten minutes open again. In treading upon it the whole patch will turn immediately from green to brown. It bears a small white flower without sense or smell. In one place there is a plantation of cocoa-nut trees which bear so well that out of one of the young nuts we obtained more than a pint of milk.

The only trees we saw, and of any use were the eboe and the bastard mahogany. The first we cut down near the head of Shepherd's Lagoon, and the other we found a drift log on Point Arenas. The eboe is very hard, and its nut affords an excellent oil for the hair. The young trees make very good knees for boats, but being excessively heavy, not floating, would not be so good for building; these nuts are good food for hogs, and by lying in wait for them near any of these trees when they bear, you are nearly sure of a shot.

There is another property said to belong to this tree, that if any part of the trunk is well lighted it will burn to a tinder or charcoal, from the oily nature of the sap. The bark is thin and smooth, very like beach, the leaf is like the English bay. The whole of the other trees near this place are, from growing in a wet soil, so sappy that they are not fit for even firewood till well dried.

On Point Arenas and at the embouchure of the Delta are many logs that would be useful, the timber being seasoned, though the outside may be decayed. Wild oranges, limes, and guavas are plentiful, but any other fruits that are not known ought to be shunned as there are some that are poisonous.

The soil is a mixture of dark sand and a rich black earth, capable I imagine of bearing anything suitable to this parallel, and if drained, which it may be to the west of the town, of many other articles; the difficulty is in clearing the bush. The beaches are all a dark sand mixed with small stones evidently the deposit of the river, and the bottom that is occasionally thrown up by the norths.

The Delta is increasing and is formed in the first instance by the mud washed from the river there, by dead trees grounding upon the mud, and ultimately by these forming islets, which in time become connected, the quick vegetation of the climate assisting in a great measure to form them, retaining the moisture and turning the whole as it is into a swamp. Whenever this place arrives at any importance, the north-western shore of the harbour and round the west head of the Lagoon will be the ground for cultivation, as that part is most dry and can be drained of the heavy, excessive, and almost constant rains which occur on this coast.

The weather was described to me by Lieut. Solly, Com. H.M. schooner *Bermuda*, an officer who has been many years on this coast. He says, the winds from November to the beginning of March, are from the northward with frequent gales from the N.W. to N.

March and April are fine dry months, from May till August the winds are north-easterly, with heavy rains. In June and July the winds are strong from north-eastward, as much as double reefed topsails in a large ship: September and October light winds from S.W.b.W. to N.W., which completes the year.

Vessels may anchor along the coast with safety from Cape Gracias a Dios

to the Gulf of Darien; the strongest winds as they blow off or along the coast would always insure an anchored vessel going to sea.

The sea-breezes are very uncertain; sometimes there are not any for a fortnight.

We remained in the port from the middle to the latter end of September. The thermometer ranged from 84 to 79 degrees. The aneroid averaged 29.92 to 30.10 and barometer from 29.90 to 30.02, rain every day some time or the other in the twenty-four hours, and feel of the air damp and unwholesome. Everyone in the town, about 237 souls, have had the fever in the course of the year: the heaviest rains appear to precede the moon's passing the meridian by about five or six hours. This may be incidental, but so they have been during our stay.

In January and February from the paucity of rain up the country, the water of the river is clear and the whole port averages a foot less water.

The rise and fall of tide is about one foot, high water at full and change at one o'clock. There never is an inward stream, the current being constantly out to the N.N.W., for about two miles and then merging into the S.S.E. current of the coast.

The Lagoons are three in number, namely Shepherd's, Freeman's, and the Barca. They are formed from the draining of the adjacent country, and are from a fathom to 1½ in depth. They abound in alligators and in the Barca are many of the sea cow. The animals like a seal are easily harpooned by the natives, and the beef is not to any one hungry bad, although it has little if any taste. These Lagoons are on the western bank of the stream, and the highest (Barca) not more than six or seven miles above the settlement. This lagoon is much the largest, and during rain immediately discharges its superabundant waters.

Labour is not easily obtained. The usual price for a labourer is from 3s. to 4s. per diem; mechanics more in proportion to the abilities; carpenters being in the most request. The natives may sometimes be found, but their indolence leads them to discontinue their exertions as soon as they can procure a few dollars to live on for a month or two; these men are very useful in clearing the bush and most skilful in canoe work.

In April a number of the natives from Blewfields go down the coast in their small canoes to catch the hawk's bill turtle, for the tortoise-shell, and they return in the latter end of September. They sold at the settlement when they called on their voyage up, about 50lbs. at four dollars per pound, half in govas, half in money. There is also a good deal of indigo, but not much cochineal, and sugar is occasionally brought down from the interior, which if refined would prove excellent. In fact the only articles in request up the country appear to be hardware, cottons, earthenware, and woollen manufactures; but as all these people live simply, and the climate being genial, their wants are very few.

JAMES BODIE, *Master of H.M.S. Indefatigable.*

---

#### THE FREAK'S HURRICANE.—*Pacific.*

[The following valuable narrative by Capt. Simpson, showing what appears to be the recurring of a storm in lat. 19° 28' N., long. 138° 44' E., is reprinted from the *Sidney Shipping Gazette*, as a valuable addition to the information already obtained on the nature of storms. The commanders of ships cannot be too particular to follow the example of Capt. Simpson, and to send for publication detailed accounts of the storms they encounter, with their own

observations. The hurricane which is here described, proves that seamen should never fail to watch the indications given by the barometer, and that a gale may occur in summer.]

*Brig Freak, Hong-Kong, July 18th, 1850.*

1. Sunday, April 28th.—We passed the Marian Group, between Tiuan and Saypan, when the north-east trade hauled to southward of east, at intervals so far as south-east by east, and occasionally blew strong in squalls, the weather gloomy.

2. During the several passages I have made in this locality, through the north-east, I have invariably found, that the further the trade blew from the northward, the finer the weather and lighter the trade. In the present instance it was the *contrary*; the wind freshened as it southed.

3. From the 28th, to the morning of the 1st of May, the wind rather increased, the weather continuing hazy. The barometer was steady, rising and falling with the atmospheric tides, averaging about 29.80.

4. May 1st, noon.—A fresh gale, variable, from E.b.N., to E.b.S., with light rain and dark gloomy weather. Barometer 29.75, rather lower than usual at this hour. I did not apprehend at one time, anything more than a fresh gale for a few hours, and hesitated whether I should take in one reef or two. I, however, took in the two. At noon our position by account was 19° 28' N., 138° 44' E. No observations.

5. At 1h. 30m. P.M., a most curious phenomenon was observed, which I did not see. The mate gives the following description of it:—The sky was entirely white with light hazy clouds; suddenly to the W.S.W. the clouds rose, leaving a bright clear sky for a considerable height above the horizon. The mate reported it to me, but before I could get on deck, it was clouded over again. It was like the rising and falling of a gigantic curtain.

6. P.M.—The breeze increasing from E.b.S., the sea rising; light vapoury clouds flying to the westward, a dense mass of clouds to east and south-east all dark hazy vapour.

7. On one occasion when the vapour lifted a little, I observed in the upper stratum of clouds to the eastward, about thirty degrees above the horizon, some dark slate-coloured cirri, apparently stationary, lying east and west. A little higher above the horizon, and more to the southward, I saw others lying north and south, showing there must have been in the upper air, two different currents of wind, at right angles to each other, and not far apart.

8. The wind increasing from east and E.b.N., and more sea; I observed the heaviest did not come in the direction of the wind, but from about S.E.b.E. At 4 P.M. barometer 29.67.

9. At sunset, blowing a fresh gale, with a heavy sea.

10. At midnight, the barometer still falling, at 29.50, blowing very hard at times; due east, with a heavy sea; making scudding, deeply laden as we were, very dangerous. I now began, for the first time, to suspect we were approaching a cyclone, or rotatory storm. From the rules given by scientific men, the centre bore from us south; and, in our present position, the probable track of the storm would be to the north-west. I had been steering west since noon, and with this course, presuming the storm was travelling to north-west, we should be nearing it at an angle of 45 degrees, I considered it therefore, prudent to heave-to on the starboard tack, which would be the coming up tack as the storm progressed and passed to the westward of us. I was borne out in my conclusions that the storm was going to north-west, by the fact that we had run so many hours to the westward without altering the bearing of the centre. I accounted for this circumstance, by our having run on the above angle with the course of the storm; but the making the same quantity of westing, supposing us to be going eight or nine knots due



west, the storm must have progressed eleven or twelve on a north-west course.

11. Taking all these circumstances into consideration, I hove to. I could not scud longer. The sea was so fearfully heavy, I expected some monster sea would have swept our decks and disabled us. It was about 1 A.M., when getting sails well secured, we hove to on the starboard tack, the main-top-sail split in clewing up, but we managed to pick up the fragments. Our top-gallant yards were still aloft, but the wind increased so much that it was impossible to send them down. I was not prepared to encounter a hurricane at this season, and in our position.

12. May 2.—From midnight the barometer falling steadily about 0·25 in the four hours; it stood at 4 A.M., at 29·40. The wind, since heaving to, steady at E.b.N., heading N.b.E.; drift a mile and a half an hour. Both wind and sea increasing rapidly.

13. Shortly after 4 A.M., blowing a hurricane; from 4 to 6 A.M., the barometer oscillating 0·05. At 6 there was a decrease of wind, and the barometer rose 0·05.

14. I had now hopes that the wind had blown its heaviest, but at 8 A.M., the barometer fell to 29·30, and the hurricane continued with increased violence. The sea was awful; the masts were bending like twigs, I expected them to go every minute.

15. The barometer still falling, at noon stood at 29·22, equivalent to 0·02 per hour, since 8 A.M. Shortly after noon, the horses I had on deck were drowned in the lee-scupper, and one washed overboard. The quarter-boat, which we had taken in on deck, filled, and split. Found the brig making no water, and behaving well, proving herself an excellent sea boat; the combings of the main hatch were very frequently under water.

16. From noon to 3h. 50m. P.M., barometer 28·87, having fallen 0·035, a tenth per hour.

17. Between 2 and 3 P.M., we had the strength of the cyclone. The fore-top-mast, and main-top-gallant-mast were broken sheer off by the force of the wind, and most of the sails well furled blew adrift and went to pieces. The spars going, relieved the vessel much. The force of the wind at this time was beyond description. I could never have believed it could have blown so hard.

18. The wind remained steady to a point from midnight till noon, when it began to haul to the northward, and was E.N.E. from this time till night. The wind veered a point an hour, it then became steady for a time at N.N.W. The strength of the hurricane we had from about N.E.b.N., when its centre was bearing S.E.b.E.

19. After noon when the wind began to veer, I found to my surprise, that we were on the left or north-west quadrant of the circle, and that it was to north-east astern of us. The track of the storm when at its height, must have been N.E.b.N., had it been going more to the northward we should have had the strength of the wind, when the centre bore north of us.

20. At 4 P.M., the barometer was stationary at 29·87. From that time it began gradually to rise, and the violence of the hurricane to decrease. At 8 A.M. the barometer was at 29·08; at midnight 29·26; at 4 A.M. on the 3rd, at 29·45; at 8 A.M. 29·55, at which time the wind had moderated to a strong breeze, which gradually died away, and the barometer rose to its usual height.

21. I have my doubts, which you will most likely be able to solve, as to the track of this storm. I am still under the impression, that on the 2nd, at noon, it was going to north-west; and that we were approaching on the angle before mentioned, when it must have taken a course to the north-east.

From midnight till noon, from the fact that the wind remained so steady to a point, we must have been directly on its track. Had I scudded longer I should have been leaving it, consequently have had less of it. Under the circumstances, although I was calculating from erroneous data, what I fortunately did, proved in the end the best course I could have adopted; to run longer would have endangered the lives of all hands. Had I rounded to on the north track, I should have drifted nearer the centre, consequently have been under its influence and force.

Another fact that proves the storm must have been going to the northward and eastward, was, the drift of the vessel was inconsiderable, and not allowing for the storm tide, would not have been sufficient to alter our relative position with the storm.

I shall be able to give you more particulars when we meet. Would you kindly send your account of it to the *Sydney Herald*, as the more all the information is spread abroad, the more likely we are to procure fresh data. I shall send an account of it to Piddington. [Calcutta, author of the Sailor's Horn Book, &c].

I hope soon to see the time, when the theory of the law of storms, will be as well understood by practical seamen, as a day's work aboard ship is at present.

Whilst scientific men take such a lively interest in collecting data, we have much to expect from their praiseworthy exertions, and with such indefatigable men there is no fear but the science must progress.

T. B. SIMPSON.

To Rev. W. B. Clarke, St. Leonard's.

[With such men as Capt. Simpson, the science must progress; as the observations which they send home will be discussed, deductions made, the correct theory established, and rules laid down for the guidance of seamen; and as the subject of hurricanes both in the Atlantic and Pacific is becoming now *one of examination*, we have no doubt it will be taken up as it should be. We advise them to look into it for themselves, and they will soon find out there is no difficulty in it whatever. Long ago we gave rules in the *Nautical*, which with a piece of chalk to describe a circle on the cabin hatch, or any where else, would give all the conclusions which Capt. Simpson has mentioned, and he did perfectly right in laying the *Freak* to on the Starboard tack. But it would appear that he was in that part of the ocean, where the storm happened to recurve its track to the north-east, and as he says he therefore would have done better to have run further away to the westward. But had the storm been travelling to the north-west as he had good reason for supposing, he would then have crossed it, and possibly have suffered more severely than he did. His observations go to establish the locality in which the storms of the North Pacific recurve to the north-east, and observations of this kind in the Pacific are what we want. Some few will be found in Colonel Reid's valuable work, but good accounts of Pacific Storms are very rare indeed, and the Commander of the *Freak* has supplied a very useful one.—Ed. N.M.]

---

DEPTH OF THE OCEAN IN THE SOUTH ATLANTIC.—Letters dated Washington, March 10, publish the following passage from a letter of Lieut. John R. Goldsborough, United States Navy, formerly assistant in the coast survey. It is dated United States ship *Saratoga*, Cape Town, Cape of Good Hope, December 26th, 1850.—“During our passage from Rio de Janeiro, to Saldanha Bay, Cape of Good Hope, being in lat. 28° 21' S., and long. 29° 17' W., we sounded and obtained bottom at the depth of 3,100 fathoms,

or three and a half miles. Our sounding apparatus was a 32-lb shot, slung with wire and attached to a small line of 5,000 fathoms long, and sufficiently strong to bear a weight of 60lb. The soundings were as good and fair as any I have ever seen obtained, the line up and down as taut as it could be, and when attempting to haul it on board, after procuring soundings, it parted about 50 fathoms from the surface. The time occupied in sounding was one hour and nine minutes.

---

## NAUTICAL NOTICES.

### MORTE STONE, BRISTOL CHANNEL.

A notice of the Trinity-house, London, dated 4th April, 1851, says:—That in order to mark the position of a *Rocky Ledge*, which extends in a north-westerly direction from Morte Point on the north coast of Devonshire, a Nun Buoy of large size, painted *black*, and marked "Morte Stone," has been placed in 9 fathoms at low water spring tides, about  $1\frac{1}{2}$  cables' length to the north-west of the extremity of the said ledge, and with the following compass bearings, viz. :—

Lundy Light-house, W.b.N.  $\frac{1}{2}$  N.; Hartland Point, W.b.S.  $\frac{1}{2}$  S.; Baggy Point, S.W.  $\frac{3}{4}$  S.; Bull Point, E.  $\frac{1}{4}$  S.; Morte Point, S.E.

---

**FALKLAND ISLANDS.**—It ought to be generally known to captains of vessels trading to the west coast of South America, California, and the Islands in the Pacific, that Stanley is a free port in the East Falkland Island—the extreme leeward point of the group, lat.  $51^{\circ} 40\frac{1}{2}'$  south, long.  $57^{\circ} 49'$  west.

The port of Stanley possesses peculiar advantages: it is easily entered, well protected, has a safe anchorage, and is a most desirable Harbour of Refuge during the westerly gales so prevalent in the latitude of Cape Horn. In addition to these advantages it possesses numerous others: it is situated directly in the course of vessels going to or returning from the Pacific, and is generally sighted by them; it furnishes (which ships after a long voyage so much want) fresh water, fresh beef, cheap and abundant, and vegetables of every description, at very moderate charges.

The advantages to Emigrant ships of having an intermediate port in the Atlantic, where they can obtain fresh supplies, on reasonable terms, without incurring the heavy charges of the Brazilian ports, must be very obvious, as much of the space used for stowing provisions and water might be more profitably employed in carrying passengers and cargo.

Application has been made to the Government to erect a Tower or Light-house on Cape Pembroke, the south-east point of the east Falkland Island, on which a Telegraph may also be placed. When this is done it will greatly assist captains who have not been there before, although there is no danger in approaching the islands, all sunken rocks being naturally buoyed by the kelp.

Excellent Admiralty Charts of the group are to be purchased for 3s. each, at J. D. POTTER'S 31, Poultry, London, and at MELLING AND CO'S, 39, South Castle Street, Liverpool, and to be had at the Custom-houses of all the principal outports.

---

**CAPE PASSARO.**—The light on Cape Passaro is bright and fixed and may be seen in clear weather twelve or thirteen miles. A berth for a large ship, is,

the tower of Castello on with the Mole, and a square fort on Mount St. Elias on with the Lazaretto; the latter is situated near the beach to the north-west of the Signal Tower on the Mount, which is said to have been erected for the purpose of a Lighthouse, but no light is ever exhibited although so stated on the chart.

J. CHEGWYN, *Master, R.N.*

ROCK IN AXIM BAY.—*Gold Coast, ship struck.*

WE find the following accounts of three newly discovered dangers in a recent number of the *Vorhandeligen en Berigten*.\*

In the schooner brig *Governor* bound to Axim on the Coast of Guinea, and the first of our possessions on the coast, situated in long.  $2^{\circ} 15' W.$ , and lat.  $4^{\circ} 52' N.$ , on anchoring I brought Fort St. Anthony to bear as much east as possible, and found good ground in  $5\frac{1}{2}$  fathoms.

The plan of the Bay of Axim in 1837, drawn up by Capt. Vidal of the *Etna*, with the addition of the undermentioned, appears quite correct.

On the morning of the 1st of March, I started from Appolonia, a deserted English establishment,  $5\frac{1}{2}$  German miles above, or to the westward of Axim, and anchored in the roadstead of the latter place in  $5\frac{1}{2}$  fathoms. However, the brig by veering out the chain, tailed on a hard ground astern, which made it necessary for me to get under sail again, in order to shift my berth, which I did into 7 fathoms, the fort E.b.N., although scarcely drawing nine feet. I immediately examined the place, and found a pinnacle shaped rock, over which at low water, there was scarcely thirteen feet; and while the bow of a twenty-four feet boat rested on the shoal, I had at the stern  $5\frac{1}{2}$  fathoms. This danger lies with the following bearings taken by compass, which according to several observations had  $21^{\circ}$  westerly variation; † Fort St. Anthony E.  $\frac{1}{2}$  S., Island Bobowassie S.E.b.E.  $\frac{1}{2}$  E., Island Sagaba N.N.E.

To avoid this rock bring the fort to bear E.b.N., or E.N.E.  $\frac{1}{2}$  E., when you may anchor in safety in 6 fathoms.

The current along the whole Gulf of Guinea, mostly sets to the eastward; the rise and fall is four or five feet.

The English charts of the Gold Coast, published by the Admiralty, and mostly drawn up by Captains Vidal and Owen, are carefully done; perhaps more trouble is bestowed on the English plans, than on the Dutch, by which I mean the first named are more accurate.‡

W. VAN DER HOEVEN.

GORTER'S ROCK IN THE JAVA SEA.—*From the log of the frigate built ship Johanna Maria Christina, Capt. C. N. Gorter, Batavia Roads.* Thursday 6th of June, 1850, weighed anchor and set all requisite sail, passing slowly the islands Onrust, Hooru, Haarlem, &c. At 2 o'clock we perceived that the ship slightly touched the ground, having then  $3\frac{1}{2}$  fathoms. Our bearings then were, the middle of the Island of Middleburgh to the southward, and the Island Kleine Kombuis W.  $\frac{1}{2}$  N. After the ship had passed this bank or coral reef, we observed the west extreme of Middleburgh S.  $\frac{1}{4}$  W., and the south extreme of Kleine Kombuis W.  $\frac{1}{2}$  N.

\* A work similar to the *Nautical Magazine*, published quarterly at the Royal Hydrographic Office at Amsterdam, and edited by Jacob Swartz, member of the Royal Society, Hydrographer, &c.

† Capt. Vidal's plan gives  $20^{\circ}$ , agreeing very closely.

‡ If so it has been accidental; no such preference is observed either in the orders given to the surveying officers, or by the officers themselves.—*Ed.*

On reference to the chart, we shall find this shoal situated in about lat.  $5^{\circ} 57' S.$ , and long.  $106^{\circ} 45' E.$

As soon as intelligence is received from the commission for the correction of Indian charts, of this discovered danger, I shall take measures to have it laid down in the chart.

J. SWARTZ.

**UNKNOWN ROCK IN GASPARE STRAIT.** In one of the recent *Java Courants*, we read that the Dutch schooner *Cornelius Haja* of Schiedam, Com. J. J. Bell, sailed from Whampoa on the 25th of March, 1850, with a cargo of tea for Amsterdam. On the 9th of April, 1850, at 6h. 30m. P.M., standing for Gaspar Straits, in long.  $107^{\circ} 1' E.$  of Greenwich, and lat.  $2^{\circ} 44' 30'' S.$ , grounded on a hidden rock not laid down on any chart. The bearings were Gaspar Island N.b.E.  $\frac{1}{2} E.$ , and the north corner of Leat Island S.E.  $\frac{1}{2} S.$  By the first shock the ship lost her false keel, and in less than fifteen minutes, there was ten feet water in the hold. The commander and crew were obliged to take to the boat, and at 11h. at night, were picked up by the English brig *Marmion*, Capt. R. Hodgson of Port Phillip, who took them to Anjer, from thence by the ship *Vijf Gebroeders*, C. J. Teensma of Amsterdam, brought to Batavia. Laying down this danger on the chart of Gaspar Strait by H. L. Osthoff, or on that of the navigable waters between Sumatra and Borneo, by H. D. A. Smits, it would appear probably as belonging to the rocks that stretch north-westerly from Leat, and this fresh misfortune warns all to give the north-west part of Leat or Middew Island a wide berth.

J. SWARTZ.

[The above position places the rock nearly seven miles from the north point of Leat Island, but it is worthy of notice that the rock on which H.M.S. *Alceste*, Capt. Sir Murray Maxwell, was lost, was stated to be five miles from this point, and it was afterwards shewn that it was only one and three-quarters. We hope the question will be examined, and the limits of the reef extending north-west from that point laid down correctly, as well as any detached dangers such as the above would appear to be.—*Ed.*]

THE LATE CAPT. HEWETT'S OPINION OF REDCAR, (INTENDED) VICTORIA HARBOUR.

*Lee Grove, January 14th, 1833.*

SIR.—I had the pleasure to receive your letter of January 11th, with its accompanying plan and report of your brother's, for the formation of a harbour on the Redcar Coast,\* and I beg to say that, I will give the subject my best consideration, and should any other advantages than those already enumerated suggest themselves to my mind, I will unhesitatingly mention them. In the meanwhile I would observe that there can be but one opinion on the formation of a harbour on the spot selected, and that every way favourable to the measure; for the very overlapping description of the two distinct patches of rocks which form the Salt Scars and which constitutes the greatest danger to the lives of the crews of vessels caught on that portion of the coast of Yorkshire as a lee shore, from the total impossibility of running a *direct* course for the beach, without touching these rocks, has always struck me as

\* Plan and report by Mr. W. A. Brooks, C.E., of January, 1832, and *Nautical Magazine*, 1833, p. 95.

being their best recommendation also, so far as the weight of sea is concerned, for a harbour being formed between them.

I have had it in contemplation to recommend the erection of a beacon on with the mill, or two beacons as may be most convenient, as a guide to vessels, caught on this dangerous coast, between the rocks, so as to run on the beach and save life at the least; but I shall be happy to wait the issue of the infinitely more important proposition brought forward by your brother's ingenuity.

I should certainly have done myself the pleasure of waiting upon you in Bond Street ere this, had not my occasional visits to my vessel at Sheerness, close confinement to my professional duties here, and no small share of indifferent health, prevented me.

To G. Brooks, Esq.

I am &c.,  
WM. HEWETT.

NICARAGUA CANAL COMPANY.—The *New York Herald* states that the junction of the Atlantic with the Pacific by the Nicaragua route, will soon be completed by the Nicaragua Canal Company.

Great progress has been made with the surveys: and up to the last date the engineers have fixed upon routes for a ship canal between the Lake of Nicaragua and the Pacific Ocean, and also a road for passengers and freight from the extremity of the lake to the Bay of San Juan on the Pacific. Rio Lagos had been selected on the Atlantic side of the lake. Route, from New York to San Juan, by steam-ship; thence to the Castillian rapids on the San Juan river, by steam-boat; from this point to the river above the aforesaid rapids, a distance of one hundred yards or so, by land; thence by the river San Juan and the Lake of Nicaragua to Virgin Bay; thence to San Juan Harbour on the Pacific, a distance of twelve miles; and thence to San Francisco by steam-ship. Making liberal allowances for delays, &c., this will bring San Francisco within twenty days of New York.

From California, we have interesting accounts to February 1, confirming the reports from the Gold Bluffs, as to the auriferous character of the sands in that locality. The Bluffs were some thirty miles to the northward of Trinidad, presenting to the ocean a perpendicular front from 100 to 400 feet in height, and extending to the extraordinary distance of six miles.

CAUSE AND EFFECT.—*Allowance of Grog in the Royal Navy.*

*Sailors' Home, Well Street, March 14th, 1851.*

SIR.—I am requested by the Directors of the Sailors' Home to report to you, for the information of the Lords Commissioners of the Admiralty, that several seamen lately paid off from Her Majesty's ships *Prince Regent* and *Powerful* have been boarding at this Institution, and that the Secretary has this day reported to the Board, at their monthly meeting, that many of these men have made the most satisfactory statements of the increased comfort and happiness they have enjoyed in their messes since the regulation for the abolition of the evening grog has come into operation.

The Board feel that such direct information respecting the recent alteration in the mode of victualling will be acceptable to their Lordships.

I am, &c.,

HENRY HOPE, *Reur Admiral, Chairman.*

To John Parker, Esq., M.P., *Secretary, Admiralty.*

QUICK PASSAGE, *Liverpool*.—One of the most remarkable passages ever made across the Atlantic under sail only has been accomplished by the new American ship *Typhoon*. She sailed from Portsmouth N.H., U.S., for Liverpool on her trial trip, coming over in ballast only, and entered the Mersey, completing the passage in the extraordinary short time of 14 days from port to port.

METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. W. Rogerson, of the Royal Observatory. From the 21st of March, to the 20th of April, 1851.

Month Day.	Week Day.	Barometer.		Thermometer				Wind.				Weather.		
		In Inches and Decimals.		In the shade.				Quarter		Strength				
		9 A.M.	3 P.M.	9 A.M.	3 P.M.	Min	Max	A.M.	P.M.	A.M.	P.M.	A.M.	A.M.	
		In Dec	In Dec	°	°	°	°							
21	F.	29.32	29.28	47	53	40	54	SW	SW	5	5	qbcp 2)	qbcp 4)	
22	S.	29.16	29.00	47	47	42	50	S	S	6	8	qop (1) (2)	qop 3 4	
23	Su.	29.02	29.16	46	52	42	53	SW	SW	4	3	o	or 4)	
24	M.	29.53	29.60	46	48	40	50	W	NW	2	2	o	o	
25	Tu.	29.78	29.74	47	48	37	49	SW	SW	2	2	od 2)	od 3 4	
26	W.	29.48	29.49	51	46	44	52	SW	NW	7	5	qop (2)	qbcp 3	
27	Th.	29.56	29.58	45	55	36	56	W	SW	5	3	qbcp 2)	bc	
28	F.	29.72	29.82	49	55	48	66	W	SW	5	4	qbc	bc	
29	S.	29.56	29.46	49	53	43	65	W	W	3	5	qphr (2)	qbcp 3 4	
30	Su.	29.61	29.52	45	49	37	51	NW	NW	4	4	bcp 2)	bcp 3	
31	M.	30.10	30.14	45	47	38	48	NW	NW	4	4	bc	bc	
1	Tu.	30.14	30.15	44	52	39	53	N	NW	3	2	bc	bm	
2	W.	30.08	30.06	47	49	41	51	SW	SW	3	2	op 2)	od 4	
3	Th.	30.03	30.08	50	52	43	53	NW	NW	4	4	o	bcp 4	
4	F.	30.11	30.06	43	49	40	50	N	N	4	4	bc	bc	
5	S.	29.98	29.98	38	48	30	50	NE	NE	2	2	bc	bc	
6	Su.	30.09	30.09	38	45	29	47	NE	NE	2	12	b	o	
7	M.	30.08	30.08	40	46	28	48	NE	NE	6	9	bc	bc	
8	Th.	29.99	29.93	44	45	37	47	NE	NE	4	4	bcp 3 (1 2)	bcp 3	
9	W.	29.81	29.82	39	43	36	44	N	N	12	12	op 2	op 3	
10	Th.	29.96	29.95	43	47	36	48	N	N	1	3	bc	o	
11	F.	29.93	29.84	44	47	38	48	NE	NE	2	3	op 2)	op 3 4	
12	S.	29.90	29.90	42	50	36	51	NE	NE	2	2	o	o	
13	Su.	29.94	29.93	42	51	32	52	NE	NE	2	1	bc	o	
14	M.	29.94	29.92	44	49	33	50	NE	NE	2	2	o	o	
15	Tu.	29.82	29.82	45	49	39	51	E	E	2	2	o	or 4	
16	W.	29.86	29.88	46	54	39	55	E	E	1	3	o	bcr 4	
17	Th.	29.79	29.86	54	60	43	61	SW	SW	3	3	or (1	bc	
18	F.	29.93	29.89	55	63	47	64	SW	SW	3	4	o	bc	
19	S.	30.06	30.01	50	59	40	61	SW	SW	2	2	bc	bc	
20	Su.	29.76	29.62	56	60	41	63	NE	E	1	2	bc	or 4	

March, 1851.—Mean height of the barometer = 29.728 inches; mean temperature = 42.4 degrees; depth of rain fallen = 4.37 inches.

To OUR CORRESPONDENTS.—We have drawn, in this number, largely on the consideration of our correspondents, in reserving for our next, much that has given place to the important paper on Labrador. The proceedings at Southampton, we much desire to record, and may yet preserve the cream of them. Our friend S. J., we shall have recourse to in our next, as well as, endeavour to make up for some secondary matter which has been so unceremoniously treated in this; charts published &c., now unavoidably omitted.

London:—Hunt, Printer, Church Street, Edgware Road.

THE  
NAUTICAL MAGAZINE

AND

**Naval Chronicle.**

---

JUNE, 1851.

---

**CRUIZE OF H.M.S. ACHERON ON THE COAST OF NEW ZEALAND.**

LEAVING Port Nicholson on the evening of February 18th, the following morning we closed with the land thirty-one miles S.  $31^{\circ}$  W. of Cape Campbell, at a projection called Wai-papa-papa Point, the lowest and seaward extreme of an underfeature thrown off from the Great Kikora, a mountain range of 9,700 feet, the loftiest in New Zealand. On the south side of this point is a valley traversed by a river, which Captain Cook mistook for a harbour, and indeed from an eastern offing it so much resembles one, that it is not at all surprising he should have been deceived.

Pursuing a close examination of the coast, we found an anchorage the same evening on the south side of a low hummocky tongue of land, (330 feet high,) called after the mountains just mentioned, the name of which in Maori, signifies, crayfish; abundance of this favorite native food being found there. A bay on the northern side also affords anchorage and shelter from south-easterly winds, so that with these advantages, vessels may occupy this, the only anchorage between Banks Peninsula and Cook Strait in any weather. Its importance is further augmented by the existence there of a fertile, lightly timbered valley, offering a desirable site for a settlement, and communicating with the great plains northwards of the Canterbury Association's territory. The aspect of this singular looking point, which lies fifty-one miles S.  $33^{\circ}$  W. of Cook Strait entrance, is strongly contrasted with the rugged, abrupt character of the coast, an irregularity of feature prevailing beneath the water, ten miles southwards of Kikora Point where there is a depth of



184 fathoms two miles from the shore. A few miles farther brought us on the flat or great sloping sandy bank that stretches away southwards across Pegasus Bay, and renders it easy to approach by night or in foggy weather, the northern anchorages of Banks Promontory.

After dark, we anchored in Cooper Bay off its newly created Port Town, where a few lights and the hum of human voices broke the solitude and silence we had been accustomed to find there. The morning's light shewed a good sized village of wooden dwellings which had sprung up since our former visit, an interval of only a few months. From thence, a tolerably broad and level road cut with much engineering skill in the mountain slope overhanging Port Cooper, and carried through a gorge discovered in course of the *Acheron's* previous survey, will when finished, give easy access to the plains. Much pains have been bestowed on the construction of this road, and where walls were found necessary, in building them there was a degree of rivalry between the European and Maori labourers; the latter of course learned all they knew of masonry from carefully observing the method adopted by the Englishmen, yet short and unfavorable as were their opportunities, little difference can be discovered in the execution of their work, a remarkable proof of that aptitude for imitation and improvement by which the natives are distinguished. I was much pleased to find that a convenient landing-place had been considered to rank among the first necessities of the embryo town, and that Littleton whilst yet but a collection of huts, has the advantage of a strong well built jetty.

Rating the chronometers detained us five days, during which we experienced a severe gale from the south-east on the 23rd, for which the barometer fell to 29.25, to 29.50 for another from south on the 26th, which drove us into Akaroa.

Sailing thence on the 1st of March, we reached Otago the following evening. As the weather proved too foggy to allow of our examining the coast line, between those ports, whilst delayed for observations and coaling, additions were made to our plan of that estuary and the bar re-sounded. One or two knolls have been thrown up, but the channel remains as before with rather an increase of depth.

The settlement is steadily advancing. Coal has been recently discovered in the Saddle Hill, so named by Cook, about eight miles from Dun Edin; some of which Capt. Cargill undertook to have ready for trial in the *Acheron*.

On the afternoon of the 15th, we left Otago, for Foveaux Strait, having secured the assistance of an European and Maori pilot for a slight remuneration. After passing Cape Saunders, a northerly current of a knot an hour carried us into 13 fathoms water within two and a half miles of the shore, ten miles north of Nuggett Point, the next headland south of Otago, easily recognized from its being fronted by a group of high sugar-loaf rocks.

Wild surfwashed headlands, broken occasionally by sandy bays, are its remarkable features, trending S. 54° W. 17 miles, and S. 84° W. thirty miles, and terminating at the southern extreme in a low shingly point not without lurking danger, from the great distance the sea breaks

off it, without any corresponding inequality to excite apprehension. This point bears the same name as that formerly described, viz: Wai-papa-papa, or troubled waters.

In the forty-seven miles of coast line under examination during the day, we observed only one roadstead and that in north-westerly winds, namely Toutouk Bay, nineteen miles S.  $55^{\circ}$  W. of Nuggett Point; although the mouths of many rivers were discernable, and their upward course traced by the eye for several miles as they flowed between rounded heights of moderate elevation and densely wooded. The War-kawa, twelve miles east of Wai-papa-papa Point excepted; these streams are accessible merely to boats, in some of them only at high water.

With certain indications of fine weather, we anchored for the night in 18 fathoms, within the eastern entrance of Foveaux Strait, five miles from Ruapuke, its largest central isle. On the morning following, the ship was moved into its north-eastern roadstead. We found this a shallow rocky anchorage sheltered between south and east, by islets and reefs only, some of which do not show themselves except in bad weather. A German Lutheran Missionary, one other European, and 105 out of the Maori population of the Strait, were then residing there. The island is of moderate (200 feet) elevation, wooded on its eastern side, with several picturesque lakes and grassy valleys, pasturing about twenty head of cattle. The soil as observed in the native clearing was good; indeed both vegetables and meat furnished to the ship proved excellent.

Ruapuke was found to be laid down forty miles west of its true position, and similar incorrectness was observed in all parts of Foveaux Strait. So material a change indeed, will our survey effect in the geography of the southern end of the New Zealand Islands, that it may be almost looked upon as a new country. Only one spot, the southern cape of Stewart Island, seen by Cook, did we find correctly laid down. I must, however, except from this censure, the sketch made by Mr. Anglem, a person of considerable talent and education, who remarkably enough, terminated a wild eventful life in the seclusion of Stewart Island. To its highest part, having 3,300 feet altitude, we gave his name in memorial of the great assistance derived from his chart. Mount Anglem overlooks the southern shore of Foveaux Strait. Another eminence of inferior elevation, but more conspicuous from its isolated position, called the Bluff, or eastern entrance of Arrarua harbour commands the northern side: its distance from Ruapuke is twelve miles. We vainly attempted to reach the Bluff one quiet day, ascertaining in the way the position of a dangerous rock bearing N.  $87^{\circ}$  E., three miles and a half from a remarkable mound at the north end of the island. Just as we had got within a couple of miles of the entrance, the ship was struck by a gale from W.S.W., of such violence that it quite paralyzed the *Acheron's* steam power. The transition from calm to storm was so instantaneous, and with so little barometric or other indication, that a sailing vessel, unless well manned, must have lost some spars. In the *Acheron* we were glad to get before it, and made for the anchorage we left in the morning under Ruapuke. There we rode out this storm of four days' duration, varying from W.N.W., and moderating at south: the barometer being

as low as 28·58. Our second attempt was successful, and we reached Avarua harbour, an oval shaped estuary of three miles and a half extent, and so full of shoals as to have but limited space for ships within its entrance, which being only a tenth of a mile wide, has at times a seven knot tide sweeping through it.

Boat and pedestrian parties now explored the northern shore, in earnest; they began with the Bluff, a remarkable headland, or basaltic hill of 855 feet altitude, which we found an important station, from whence the river is most imposing. Between the points of north-east and north-west, we saw an extensive plain in form not unaptly compared to a bishop's mitre, and measuring as was afterwards ascertained, a full hundred miles. Isolated patches of forest are dotted over this vast expanse, relieving the monotony inseparable from a wholly naked surface. In the N.N.W., is a range of snow-capped peaks, the loftiest of which measures 6,700 feet, and long white sandy beaches wind gracefully along its seaward outline. On turning to the opposite direction the eye rests on Forveaux Strait, then presenting the aspect of a tranquil arm of the sea some fifteen miles wide, with Stewart Island for its southern boundary, and many clusters of small islands occupying the space almost from shore to shore.

Large openings in the northern hills afford a passage to three rivers; Aparima or Jacobs river, which winds along the western edge of the plain; New river, traversing its centre; and Matuaru, its eastern side. The last named river meets the sea nineteen miles eastward of the bluff, and like most in New Zealand, loses its velocity in an estuary, and creeps onwards to its destination by a narrow channel (of two feet depth) the more to be regretted, because passing through a fertile unoccupied country. Jacobs river and New river have their confluence with the sea at distances of twenty-eight miles northward of the bluff. The latter stream only is capable of admitting 400 ton vessels, and being separated by merely a short half mile portage from the head waters of Avarua harbour, between them is the most advantageous site for a settlement remaining on the Middle Island.

Another favorable circumstance is that these waters lead to the rich country explored by Messrs. Hamilton and Spencer of the *Acheron*, which almost joins the Otago Block in a north-easterly direction. Thirty miles of the New river have been examined. The width ranged from 50 to 500 yards, the depth from two to nine feet. Its banks are generally of coarse gravel and shingle, with a superstratum of rich mould three feet thick, clothed with good grass and very lightly timbered. In that distance the plain rose considerably, being 200 feet above the sea level at the furthest point reached, with the change of elevation marked by rapids at each succeeding steppe.

Eight Europeans and twenty Maoris resident at the Bluff, are the remnants of some large whaling establishments, which, to judge from the bones scattered in immense quantities along the beach, must formerly have been as prosperous as they are now unproductive. Not a whale spout is now seen where ten years ago, that number of fish were captured daily.

We had on the whole fine weather at Avarua, or the Two Waters, with only two westerly gales, one of which the barometer did not indicate, being as I afterwards observed, too local and short to affect the mercury. On the 16th April the ship was moved into Port William, a snug tideless harbour on the opposite or south side of the Strait, which is there sixteen miles wide, with a depth of from 15 to 20 fathoms. We found this quite the smooth side of the Strait, with a shore densely wooded to the waters' edge, a characteristic of Stewart Island, we found with few exceptions very generally maintained throughout.

Bad weather rendered it heavy work for the boats. The position of a sunken rock bearing N.  $35^{\circ}$  W., two miles and a half from the west head of Port William, was determined; a second with nine feet water on it lies in the mouth of the harbour. After sending a boat to examine Patterson Inlet, an extensive arm of the sea at the north-east end of the island, between which and Ruapuke is scattered the group of isles obstructing the navigation of Foveaux Strait.

We left with the ship to continue the survey westward. A gale springing up from that quarter, caused a change of plan, and from which we were compelled to seek shelter in Port Adventure, at the east end of the island; which though a good harbour inside, has rather deep water: and a few patches of kelp mark the position of one or two sunken rocks. Some ugly reefs front its entrance; one of which, distant two miles and a half, caused the destruction of a vessel, leaving none to tell the tale. This is the lowest part of Stewart Island, a lengthened slope from high rounded hills thickly overgrown with small timber. The soil though shallow, seemed good at a Maori clearing on its southern shore, and attached to the last village in that direction. The coast was here too much surf-washed for the boats to do much; a station however was secured by Mr. Smith on the outer Breaksea Island; and on the first change in the weather which had detained us here from the 28th April to the 4th May, we left, to pursue the examination of the coast southwards. A few hours brought us to Lord river, the entrance to which offered a most formidable appearance. The late gale had left a heavy southerly swell to which the eastern coast of Stewart Island at this spot becomes exposed from a change of direction. An entrance, one cable wide with a surf breaking against its outer black clifly head that towered above the ship's masts, had to be passed. This being done, we glided suddenly into a very picturesque, narrow inlet, about four and a half miles deep, the termination of a mountain torrent. The anchoring ground proved very limited, and by no means adapted for sailing vessels of burden. One day sufficed for its exploration. The following morning found us tracing an iron-bound coast, trending S.  $65^{\circ}$  W. to Port Pegasus, distant about eighteen miles. We found this a noble sheet of water, fronted with islands, between which are navigable passages into a port capable of sheltering the largest fleet. Several remarkable cones elevate their bare granite summits above the ordinary outline of the circumjacent hills; and the general beauty of this scene was greatly enhanced by fine weather.

The "Traps" were seen from two shore stations, and visited by the *Acheron*, whilst the boats examined the coast beyond Wilson Bay.

These are most dangerous clusters of rocks. The northern, which is two and a half miles in extent, has two rocks five feet above water, but the southern reef, filling a space of a mile and a half, is never uncovered. There is a distance of nine miles and a half between them, in a N. 11° E., or S. 11° W. direction, and a depth of water varying from 37 to 47 fathoms; and from 60 to 80 fathoms between them and Stewart Island, to which the northern Trap is nearest, bearing S. 72° E. fifteen miles from its south cape. The position of this cape, by Cook, is as follows:—Lat. 47° 19' long. 167° 48', and by the *Acheron*, lat. 47° 17' 20", long. 167° 35' 50" E.; one of many opportunities where we had the satisfaction of confirming that great navigator's accuracy.

Steaming back to the shore we picked up our boats in Wilson Bay. Just sufficient daylight remained to allow of our completing the south and south-western extreme of the island, which presented a wild and storm-beaten aspect, with some outlying islets and rocks. The southern extremity of the New Zealand Survey was then completed, and we looked anxiously for the morning's dawn to finish with this boisterous end of the island.

The ship's daylight position was two miles to the north-west of "Lone Woman's Island," so named from the circumstance of a native Australian female being left there in solitude by a sealer. The morning being hazy, and the wind freshening from W.N.W., it was not prudent to entangle the ship among the islets, in search of "Easy Cove," a place of refuge for sealing vessels, so named from the occasional facility of its entrance. Then, after securing data for the many adjacent islets, we steered northwards for Mason Bay, the dangers near which are a reef lying four-tenths of a mile in a N. 80° W. bearing from the north end of these islets, and two others at distances of three and six miles in a N. 13° W. direction from the same point. The ship lying in 4½ fathoms, the sea horizon being shut in by the Northern Ernest Isle, overlapping the western end of "Cod Fish," a moderately high and level topped isle in strong contrast to the lofty irregular outline of the north end of Stewart Island close to which it lies. Of the coal said to exist in Mason Bay, we found no traces, nor, except far up the Matuaru River were our researches for this mineral successful.

The survey of Mason Bay and the necessary observations occupied one day; the weather again favoring us, and in course of the next, we completed the remaining western and most rugged portion of Stewart Island.

The most western anchorage on the north side of the Strait is in its north-west corner, distant forty-six miles N. 58° W., from the Bluff. Beyond this bay is no level country, and a low rocky coast line extends to Preservation Harbour.

Having thus completed the south coast, we proceeded to the north-east end of Stewart Island; the harbour deserves especial notice being surpassed nowhere in New Zealand. It has many convenient heaving down coves and is generally surrounded by fine timber, among which we found rimu-rata, black pine, totara, &c. &c.

On a narrow tongue of land forming the eastern shore of this inlet, reside twelve out of the 107 European inhabitants of Foveaux Strait. They have some cattle. The remaining white men live scattered over its north and south shores. Some have passed as much as twenty-two years in this solitude, and with few exceptions are married to Maori women, and their daughters have become the wives of younger Europeans. Their small cultivations shew a fertile though shallow soil.

Speaking generally, the climate is very equal though rather wet towards the sea coast, but not so in the interior, as marked by a great contrast in vegetation, and by Mr. Hamilton having experienced only sixteen rainy days out of forty-six; whilst in the ship, out of seventy-seven days, thirty-five were wet. Snow seldom lies on the low lands, though we saw very thin ice occasionally between 15th March and 1st June. During that interval, the temperature ranged from 40 to 60 degrees, being occasionally down to 32.

On leaving Otago we returned to Wellington, where we found Com. Richards and his small party, who had traced the coast line with great accuracy from the River Waikini to New Plymouth, a service attended with difficulties and personal privation, and demanding all his known zeal and energy for its proper execution.

---

A SUMMER'S CRUIZE ON THE COAST OF LABRADOR, *in relation with an Irish Trans-Atlantic Packet Station.*—By Admiral *Hercules Robinson.*

(Continued from p. 268.)

*Wednesday* 21st.—Longest day, wind to the eastward; fine cold bracing dark weather, very much like the fine winter days at Buenos Ayres, much ice in sight, lat. at noon 52° 13' N., long. 53° 46' W., entrance to Sandwich Bay, north-west 115 miles. Thermometer on deck 40°: fog set in with the easterly winds, cleared away at noon, observed a field of ice on both bows and ahead as far as the eye could reach. Finding ourselves arrested in our progress by so effectual a barrier

“Stopped by the Elements like a whaler, or  
A Blundering novice in his new French Grammar,”

resolved to make for Cape Charles when the weather cleared, and to postpone for some time longer our progress northward.

*Thursday* 22nd.—At 6 A.M., fog cleared away, several ice islands round us, and our field of yesterday in *statu quo*; made sail for Cape Charles, found that a friendly current had carried us twenty miles towards the land, which we made at 9 A.M. covered with snow; much broken ice along the coast; passed close along the land, to recognize the different islands as they are laid down in the charts.

At 1h. I conceived we had made out the entrance to Cape Charles,

bore up and ran in among some islands ahead, boat sounding in advance, found ourselves in a fine land-locked bay, which a fisherman told us to our astonishment, was not Cape Charles, but Niger Sound: got a talkative boatman on board, but who proved "no waiter, but a Knight Templar," being proprietor of the camp, or as he was pleased to call them, (I should fear from his appearance justly,) the Scamp Islands. He undertook to carry the ship round to Cape Charles. Made sail and turned out through the narrows, wind failing us outside, bore up and anchored in the north-west arm in fourteen fathoms: this is a fine bason surrounded by rugged bare hills. I propose surveying it, and such other places as we may find so grossly inaccurate in their position; the weather is very fine; it is to be lamented that the various ships on the coast since 1760, have not added more than they have to our knowledge of it.

He of the "Scamp Islands" says the season is rather late, and they have not begun to sow their garden seeds.

*Friday 23rd.*—Foggy cold weather, boat surveying, walked across the hills with Messrs. Baird, Booth, and the youngsters to Cape Charles, a most severe peregrination. Saw the marks of grouse; the rocks are covered with a thick moss which forms in its decay the little soil that there is; some of the moss is very beautiful; the hills swarm with a large species of field mouse, which appears to burrow under the moss and to feed on the bark of the dwarf birch. We arrived at last after a walk of five miles at Indian Cove, Cape Charles, a flourishing fishery carried on by an old (and a younger) Mr. Prouse. They ship about 12,000 quintals of fish per annum, besides oil, seals, &c., and employ 180 men, and it is, I think, a fair specimen of an out harbour *Seigneurie*, and well fitted for its purpose. A strong weather boarded house, well filled with provisions, clothing, and fishing stores, is so situated as to overlook the little harbour, wharf, fish flakes, drying ground, garden and all the concern, like the jailer's den in Jeremy Bentham's Panopticon. The living apartments are dry and warm, though not very luxurious; the symposium reminded me a good deal of the cabin of a stout Danish merchantman in which as middy I enacted prize-master some fourteen years ago. We were, however, very hospitably received, and fared sumptuously on fresh caplin (like Greenwich white bait) and Devonshire cider, nowise disturbed by the proximity of firkins of butter, or bales of clothing. In the metropolis of Newfoundland, matters are ordered in a more *recherché* manner, the dwellings of the principal merchants, in which they administer a very liberal hospitality, being good roomy ricketty houses, the apartments large, though rather low, and furnished (those I had seen) with good hard sofas, Kidderminster carpets, coloured prints, and handsome calico curtains. The stores are behind the houses, and they are divided by a large yard from the wharf and fish flakes; but the rough trees employed in the construction of these latter, their loose uneven boarding, the clap boarded houses, the absence of adjoining trees, and of the mother country. imitations in building (unlike the old Dutch settlers who paraphrase Rotterdam) give even the City of St. Johns, a temporary, and yesterday look. The wooden houses, the oil, and oily stages, &c., are more-

over so fearfully combustible, that this "Babylon of straw," has suffered most grievously from fires, so as to mock any hope of antiquity of appearance. I am afraid the late act for the rebuilding and improvement of St. Johns, provides little guard against the recurrence of this calamity: the security it originally contained, having been (I am informed, not having read the act) blown to pieces, by a little side-wind puff of self-interest, in the Committee of the House of Commons. The act provided that the nests of houses in the streets should be separated by vacant spaces, to interrupt the progress of the flames in case of fire! However, some of these intervals being occupied by valuable fish-flakes, (the greasy propagators of flame) their owners instructed their representatives in the House, to save the aforesaid flakes, if possible, and accordingly the five words shall be all removed "*save and excepting fish flakes,*" accomplished the object unobserved, and reduced the enactment to the value for tailors' measures of the parchment on which it was engrossed. But, to return to Mr. Prouse, he seems a very absolute ruler *chez lui*. I suspect all the heads of our out-harbour establishments, do exercise their patriarchal authority with somewhat of a strait arm, and have a *code législatif* of their own a little at right angles with "the fixed and settled rules," of older countries; though, I believe that the power conferred by circumstances is in this particular instance, moderately and wholesomely administered.

Returned and lost our way in the fog. After wandering for some time over the hills, found our way to the beach of Niger Sound, and procured a fishing boat to take us on board. On returning on board found much progress had been made with the survey of Niger Sound. A cold rainy evening. I am afraid I shall have some disagreeable surrogate work, the other *désagrémens* of this station are trivial compared with this. Shall not sail to the northward till we have a day of strong westerly winds to drive the ice off and leave us a passage along shore.

*Saturday 24th.*—Midsummer day, hills covered with snow. Fine clear wintry summer morning, boats surveying, landed near Muddle Island, near a stream of water in the north-west part of the bay, plenty of fine wood and dwarf spruce.

In many places we found the Gneiss Rock from the iron it contained attract the compasses powerfully, or at least they were set spinning on being put on the rock. Mr. Pearce, and the master, and Roberts finished the survey. Mr. Booth undertook to walk to Cape Charles with a letter, lost his way and returned. I cut my face and nearly put my eye out, hammering a refractory piece of granite: saw several whales (hump-backs) in Whale Bay, where ships may lie in perfect safety. The felspar rocks when wet and exposed to the sun are particularly beautiful. Employed this evening examining our mineralogical specimens, and speculating thereon. Every theory of the earth which I have met with, or heard of, from Buffon's wild dreaming, to the Wernerian controversy appears liable to almost equal difficulties. Grant the postulate of any Cosmogonist, and when you call for his proofs they appear about as satisfactory as those afforded by Mr. Ephraim Jenkinson, on the authority



of "Sanconiathon, Manetho, Berosus, and Ocellus Lucanus." You have to travel some 4,000 miles from the surface to the centre of the earth, and the greatest depth we have as yet effected is, I fancy, about 1,000 yards down the mine of Cotteberg, in Hungary, the puncture (it has been well said) of a gnat's proboscis in the carcase of an Elephant. Nor does the lapse of time help us, supposing we push creation back indefinitely and make the beginning more than 6,000 years ago. A million of years will not of themselves crystallize carbon into a diamond, or convert mica felspar and quartz into granite. Some mighty agent probably electric power, accomplished the work instantaneously and as easily in a minute, as in a succession of ages. A sense of our ignorance and of our dependance upon him who has formed, as well as these wonders, "Arcturus, Orion, the Pleiades and the chambers of the south," and who has accomplished a marvel still greater in the mystery of redemption, is the point to which these considerations should lead us. Mais passe pour cela, most lovely evening, the full moon walking in brightness, the extreme rarefaction of the atmosphere revealing such marvellous beauties as may explain her worship of old, "tria Virginis ora Dianæ."—If a cloudless sky be necessary for the deification of the heavenly bodies; for a few pick nights Muddle Island at Midsummer may compete with Olympus. The name it must be acknowledged is not so well, but

"What's in a name!  
A rose, &c."

Certainly the few summer nights we have had on this coast are very beautiful, but they only last a couple of months. The early mornings also are delicious, that is when the morning does its best, which it don't always. To be sure the nightingale, and the pomegranate tree, and "the lark, the herald of the morn," are not forthcoming to remind us of Juliet that most lovely and loveable creation; but the day dawn might nevertheless suit old Capulet's garden.

Though I admit that when "jocund day" fully arrives the illusion of Verona is very speedily dispelled; tumbles the thermometer, down comes the rain, out come in bold relief, the wild weather-beaten hills; and there is a *Memento Labradori* of an iceberg with his ghastly face, which "feelingly reminds" you where you are.

*Sunday 25th.*—Fine clear cold weather, much ice set into the bay; mustered; sent Roberts with a chronometer to obtain the latitude and longitude, and take the altitude of the hill. We propose sailing at day-light in the morning.

Walked upon the hills, their actual height is inconsiderable, but it is "Pelion heaped on Ossa," if they be estimated by the difficulty of ascending them. A thin skin of light soil covers the smooth rock, which slipping off when trodden on reduced our direct ascent to some such progress as was accomplished by the stone of Sisyphus.

We were obliged to have resource at last to a sort of traverse sailing or Simplon track up the hill side, but this also we were obliged to give up, put our helm a weather and return on board. A schooner arrived

and anchored behind Muddle Island. The name proved ominous. Allowed the men to go on shore, tho' unusually they are not I am sorry to say universally sober, and a drunken sailor would extract grog from a granite rock. I did not think their baneful idol was within their reach, and yet many of them came on board in the evening, half drunk. Had the boys in the evening for reading in my cabin.

*Monday 26th.*—Cold rainy morning, postponed sailing: Geo. Pynn, master of a schooner wrecked near Fogo, came on board to swear to her loss; sent boats to sound, and others for fire-wood; quite tired of this dreary bay, now that it is surveyed our business is at an end. Humboldt says in his personal narrative, "No language can express the emotion which a traveller feels, when he touches for the first time land not European;" what twaddle! if he had commenced with Niger Sound it would have diminished his "enthusiasme." Very heavy rain all the evening, caplin coming in shoals into the bay, the clearness of yesterday indicated the approach of rain, we saw Belleisle as if it were within gun-shot. The quantity of water uniformly diffused through the atmosphere appears to increase wonderfully its transparency.

*Tuesday 27th.*—Boat brought on board last night 147 fish (cod): heavy rain as we anticipated, cold and foggy all day.

*Wednesday 28th.*—Fine morning, weighed and beat out of Niger Sound; a splendid harbour, easy of access, well sheltered, with good depth of water: in its name also the sound is an "echo to the sense," the rocks appearing in a full suit of mourning. This is really some merit when we consider the names in which hydrography delights, either merely complimentary, or vulgar, or foolish. The names are not altogether heroic, about here: "Greedy," "Pinchgut," "Fullbelly," cum multis of the same family. In America I am told the "little shallow" and "big muddy" are tributaries respectively of the rivers Madison and Jefferson: this is at all events a good story, and the moral of it seems to be that we should endeavour in our namings to keep clear of equivocal and unlucky associations. In the places to which I may be called upon in virtue of my survey to affix cognomens on this coast, I purpose to continue them as indicative as I can of the place designated "Bluff Point," "Rusty Island," "Low Rock," "Sandy Bay," and such like.

Light airs all day, much ice outside; by beating and towing with the boats we got round the point which divides Niger Sound from Cape Charles, and in the evening anchored in Ship Cove in the latter bay, a snug little anchorage. Boarded some Americans who came in with us; they are from Plymouth, New England, and give rather a magnificent account of the fishing expeditions, which are proceeding to these shores; they say that 300 vessels have already sailed from the northern ports of the United States. I do not know what motive they may have beyond perhaps mere swagger to magnify their numbers. Certainly the inferior class of Americans we are now in communication with, are so indifferent, at least to "*white lies*," that I never depend on the statements they make on any subject. Some speculative moralists (see Paley) enquire whether universal falsehood, and the consequent universal distrust would

not answer the purpose of truth, and the confidence it produces: certainly in the case of these *mendacious navigators*, I have the most confiding and implicit reliance in the *falsehood* of what I am told by them. Some vessels which sailed from Cape Charles six days ago to the northward, have put back, meeting the ice. Cape Charles is very ill surveyed; Mr. Prouse, sen., piloted us in. Not necessary I find, (to my joy) to exercise my judicial authority here.

*Thursday 29th.*—Light southerly winds, unsettled weather, it will not yet answer for sailing; ice on the coast; boats surveying; walked over the hills, observed the process of fish-making. After it is landed it is immediately cleaned and salted; it lies in salt seven days, is then washed and mopped perfectly clean, is stacked up a day to drain, and is then spread on fish flakes to dry; it is fit for shipping in about three weeks; some is merely cleaned and carried away in the salt, to be made elsewhere; but this is said to be of an inferior quality. The dirty looking French salt is the best for curing fish. Cod brings about 28s. per quintal in the Mediterranean markets. Salmon is merely cleaned and salted, and stowed in casks, it brings about £4. 10s. per tierce; oil brings about £25 per ton.

I suspect that the whole body of the rocks here are gneiss, with the mica slate, clay slate, and granite, occurring occasionally. The Americans still remain, I cannot quite "guess" what their motive is in doing so. I found the officers had likened Cape Charles to Rio Janeiro; "There is a river in Macedon, and there is a river in Monmouth, &c." Asked Mr. Prouse and son to dinner. The old man came, but Mons. le fils, was away with the other head men (the *Dii Minores* of the establishment) supplying the fishing vessels with salt. He is not allowed to eat the bread and salt of idleness; but, it will all be repaid him with usury, when his diligence shall procure for him his *piéd à terre* at Poole or Brixton, or Torquay; the latter seems to be the very paradise of Newfoundland, all that the heart can desire. "The gold of that land is good, and there is bdellium also, and the onyx stone." Wind came round to S.S.W. will blow off the ice, so I shall start D.V. in the morning.

*Friday 30th.*—Summer (properly so called) at last, 9 steady breeze, at 1 o'clock weighed, and stood to the northward, a musquito fleet of Americans in company, much ice on the coast still. The mirage over the land, as we sail along it, has a very singular effect, forming the most curious combinations and shapes; almost every head land of the English Channel is travestied by it on this coast. We observe the land grow higher as we advance to the northward: hailed a vessel four days from St. Johns, she tells us the *Egeria* arrived a week ago; we might have waited for our letters, and lost no time in making Labrador; except the opportunity for surveying there has been no benefit from this early sailing. We kept close in shore, endeavouring to follow the chart; but, it might have been of the coast of China, or Japan, or the Loo Choo Islands, for any resemblance we could discover to the matter in hand. In the evening coming on to blow, observed several vessels at anchor among the Seal Islands; stood in shore, reefed topsails, hove to, lowered

a boat down to sound ahead, and made the signal for a pilot with two guns. My little ship is somewhat "a triton of the minnows." There are forty-five American small fry crowding round us, over whom we tower rather majestically, many of them appear to be seeking shelter as we are; they are wise, the wind has that peculiar feel that in this country precedes wind and rain; it blows hot and cold without any figure; two boats came off, ran among the islands, and anchored in 9 fathoms, all clear fine ground and no sunken dangers. I find our fisher people and the Americans already at variance, their interests clash, and were it not so, such materials would hardly amalgamate.

I sat up till late contriving an abridgement of the various acts and regulations for their mutual edification, if I keep the king's peace it will be indeed *un coup*. There is a tolerable salmon and seal fishery, and they succeed well in cod: martin-skins are obtained here, and white bears are numerous, we saw three, had a fruitless chase.

*Saturday, July 1st.*—Rainy cold weather, boats bear hunting; cleared up at noon, weighed, at 1h. stood to the northward through the Islands, our Irish pilot told us, "It is a fine passage but a little particular," meaning full of rocks; the countless islands, are described in the charts as three only. Wind failed when we got as far as Batteau Harbour, a fisherman told us there was "good water;" the quality was probably unexceptionable, but we did not, however, find quite *enough* of it, as we stuck His Majesty's ship on shore attempting to get in; ran an anchor out astern and hove off; made sail out of the harbour, boats towing and sounding; happily Batteau Harbour was not rocky. I do not think we have received any injury; at 8h. after much hard work, secured the ship in Sandy Bay, the hydrography of which is characteristically astray. The charts appear constructed on the principle that "the use of speech is to *conceal* our opinions."

*Sunday 2nd.*—Lat. of Sandy Bay, 53° 27' 50"N., long. 55° 16' 15"W. An indifferent anchorage, shoal, bad wooding and watering; a cloudy day. Thermometer 55° on deck; landed after church and took a walk, soil thicker as we go north, and the country less rugged; Gneiss rock still prevailing, on the tops of the hills much schorl. Boys in the evening in my cabin reading.

*Monday 3rd.*—Rainy cold morning, glass high, sent a boat for sand which we observed near a pond. Settled a variety of disputes respecting fish flakes; and shook the terror of the law over some unlicensed venders of grog: weighed and stood out of the bay, beating up all day towards Domino Harbour, in Spotted Island (this island is well named). I fancy the large white patches are withered felspar. A marine (Leary) is left on shore, he got drunk, and went on the hills to sleep *Sub Jove*; could not find him anywhere; made sail, leaving the said Leary a charge upon the hospitality of the vender of rum, who made him drunk in the morning. Wind headed us, stood off to sea, I should rather have got into a harbour, as the ice is so prevalent, still a fine evening, cold.

*Tuesday 4th.*—Passed some considerable icebergs during the night; the sun rose with a fiery redness, portending rain, which came down accordingly, and fell in torrents till night; at 3h. blowing hard and

thick with heavy rain, hauled into Black Island harbour, and anchored in a snug cove in five fathoms, (mud,) a dreary barren looking island.

Boarded some Americans who have commenced a successful fishery; seventeen vessels sailed with those we boarded from Boston, they have been twenty-seven days out, (length of passage against them,) they conceive four hundred vessels to have sailed from the northern ports in America for this coast; they are principally schooners, carrying about ten men each; they cure some fish on the coast, and carry it to the Mediterranean, but generally take it "green" home, and make it there; they expect to get away from this the end of August. They take a yearly licence from the custom-house; the men go on shares, a great stimulus to their industry; there may be altogether six hundred vessels employed here, and to the southward, (Americans) at ten men each; there is at once six thousand, a large item in a nursery for seamen, and if every man catch one hundred and fifty quintals during the season, (and value this at 15s per quintal,) there is an enormous return of some half million worth pounds sterling. The Americans are unquestionably better, and more industrious fishermen, than we are; the owner of the fishing vessel, furnishes merely the vessels, and one-third and sometimes one-fourth of the nets, and lines, salt, and boats, the crew furnishing their own provisions, (which are in consequence more homely than ours) and the remaining two-thirds, or three-fourths of the outfit, as may be; and share two-thirds of the produce, or according to previous agreement; their fish is not so well cured as ours, either that which they take away green, or that cured on the ground.

Their government allow a premium in the shape of a drawback on salt, evidently directed to their darling object, (which *once* was ours,) the increase of shipping; they pay three dollars per ton of fish, on vessels under ninety tons, and four dollars per ton on vessels above ninety tons burden. The Americans, besides the cod, carry on some salmon fisheries to the northward. They are somewhat lawless insolent fellows, appear to consider themselves in an enemy's country, to waste and prey upon; they burn the woods, destroy the bait by throwing the Gurry overboard, contrary to order, and run counter to all regulations, in all which delinquencies they are exceeded by our own Nova Scotia, subjects. Nothing can be better calculated to create disputes, than the vague indefinite acts of parliament. Treaties, and proclamations, the deciding when a harbour is settled, the application of restriction and penalties to American participators in the trade and various other points are disposed of with sybilline ambiguity. The admission of Americans to these shores, will end, I think, in our exclusion from them. A dispute arises on some question of invasion or irregularity; they the Americans plead their treaty; a surrogate cannot try a treaty, and the treaty does not interpret itself.

It cleared up in the evening, more complaints to adjust on the subject of cross-beams, and encroachments. Wind flew round in a hard squall to N.E. and blew heavily; boat returned with a cargo of fish, went on shore, and settled some never failing cross-beam disputes. One old fellow, "cavilled on the teuth part of a hair," shouted most lus-

tily for a few yards of granite rock as if he had not 1,000 miles of it, "à discrétion." "Is not the whole land before thee?" "If thou wilt take the left hand, then I will turn to the right," is not observed at Labrador, as it was on the plain of Jordan. These men have very jealous notions about their belongings, and it is no easy matter to cram them with the 10th of William and Mary. Found many more added to the sick list, by the severe weather. Yesterday sailed across to Greedy harbour, to look for furs.

Landed to leeward of Greedy Harbour, as it blew too hard to get round the point, walked across the hill to a flourishing and populous fishing establishment, in a fine harbour five fathoms water; fifty-six vessels in the harbour, as many outside in the Roads; got a few furs and a Newfoundland dog, called *Beblo qu. Pueblo?* Collected a great deal of mica, and highly crystallized quartz, which I fancy is the Labrador spar. Of the Labrador felspar we cannot find any specimen, the matrix rock is gneiss. We found minerals crystallized more highly as we advanced to the northward; large strata of granite and primitive greenstone occur in the gneiss hills. Moderated in the evening, prepared to go to sea. Some Americans came on board, very curious is the close similarity of character amongst them. Paddy with a generic likeness has greater variety of species.

*Thursday 6th.*—Fine clear moderate weather, went on shore to adjust more fish-flake complaints. Procured an old Irish pilot as a permanent officer; his history is a common one; came young from Ireland, made some money and spent it "like a real gentleman," *videlicet* in rum and tobacco, and debauchery, and now is trying his hand at pilotage; but, he evidently does not "coin it into drachmas," as he seems wretchedly poor. Weighed at noon, and ran through the islands towards Sandwich Bay; anchored at 7h. off Carabou Point, at the entrance of Cartwright Harbour. I went on shore to explore, a breeze sprung up while I was away, Pierce weighed and tried to get the ship inside, but, it fell calm and they were obliged to anchor again. I was much gratified by the appearance of the country, which is wooded and picturesque, the shores are flat and difficult to approach in boats, and the air is darkened with musquitos; we are within five miles of the Mealy Mountains. I purpose getting some timber with which they are covered to sell at St. John's, and buy potatoes for the men. I also purpose sending a party to catch salmon, and shall turn the knowledge of the pilot in this craft, of which he professes to be *au fait*, to good account.

The country is much richer as we advance north, and we are glad of the relief from the sterile inhospitable aspect of the southern coast. We are told that we shall shoot white and brown bears, loons, geese, deer, ducks, grouse, and curlew, *ad infinitum*, (a splendid inventory enough). Pueblo performs after a very meritorious fashion all the aquatic feats of a Labrador dog, such as diving, catching fish, and picking up any thing which falls overboard. It is now 11 o'clock, P.M. I have been walking on deck, enjoying a lovely West Indian evening, the light is not out of the northern sky, and the breeze perfumed with heath, comes off warm from the shore. I expect to see a Mr. Beard

to-morrow, who lives on Dumpling Island. No appearance of inhabitants here, *tant mieux* as to surrogate work, for my poor countrymen on this coast are of an indifferent pattern, they are tractable enough, very good boys in the presence of a man-of-war, but, when left to their own devices, their good is but indifferently spoken of. The accumulation of offences in the absence of a surrogate affords him "a pretty considerable" Newgate calendar to deal with, when he has the pleasure to visit a well-peopled district.

They are very numerous at Greedy Har'our, I dare say, 200 hundred, and along the coast as many thousands. They have no priest amongst them, nor within their reach, which is much to be lamented. No man would more earnestly desire than I do to see all the world Protestant, (nor can be more convinced of the errors of the church Rome,) but if that may not be, it were surely greatly to be desired, that a Christian church which she surely is, holding the great truths and head with ourselves, should reach to, and influence her flocks wherever scattered; and I must confess with shame, that they appear to me far more observant of what their church teaches, than the members of our own communion of their purer doctrines. About here the poor fellows are perfect heathens. I enforce *virtute officii* the observance of Sunday, and read the king's proclamation in favour of virtue and religion; a very wholesome document, more needed than regarded.

*Friday 7th.*—Fine morning, the West Indian has given place to the Labrador climate. I am going on shore to survey, boats setting out in different directions for the same purpose. Took the old pilot to be useful in correcting names, but the names so corrected by him required so much correction, and he was moreover so deaf, that we were obliged to get a more intelligent guide from Huntingdon Island. Went across to Dumpling Island and saw a very nice fishing station, belonging to Mr. Beard, *qu.* Baird; dined off the staple cod, proceeded on our survey. Mr. Beard employs altogether ninety-five men on shore, and in three merchant vessels, five large boats, &c., and he averages about 10,000 quintals of cod, and 500 tierces of salmon. Collected much hydrographical knowledge, found that Roberts had discovered a very good passage into Sandwich Bay, through Cartwright Harbour: Diver Channel was impracticable.

*Saturday 8th.*—Thermometer, 77°. A siroc wind blowing off the shore, Mr. Beard came on board, to make known the spoliations which he has endured from intrusive salmon fishers who disapprove of "vested rights." This is an inconvenient place for wooding, watering, and fishing; propose going up the bay to Paradise! We are at last improving on our nomenclature. The game brought on board in the evening was a porcupine shot in a tree, a grouse shot in a somewhat primitive fashion, (with a stone on the ground), and two trouts weighing 2½ lbs. each. Pierce very clever at surveying, Brock and Roberts, able assistants; the others do not like it. Went after dinner with Mr. Beard into Sandwich Bay to dislodge some encroaching Americans from his salmon posts. One of them harangued "a long hour by Shrewsbury clock," upon Jays treaty, the acts of Congress, and the connection

lately entered into, which he discussed in *extenso*, and with considerable ability. His English could not be altogether commended, nor yet his costume, which did not comprehend such particulars as shoes or stockings. But I had not the courage to interrupt so clever a fellow whilst he was on his legs, and found out after all that the international law radiated from the mate of a schooner of 36 tons. Sounded through the Pickles (a significant phrase to express a difficult passage). Mr. Beard landed to show me some Esquimaux in his employment; he speaks of them as strictly honest, and good servants, but of wandering habits and addicted with the devotion of savages, to spirituous liquors. They have no idea of Christianity, though living with Christian masters, or of that denomination at least. They have merely a vague stupid indefinite idea of a great spirit; those within the influence of the missionaries at Main have profited accordingly; and the mountaineers have some knowledge of Christianity, and as you advance to the northward, the increasing numbers and civilisation mark the approaches toward the Moravian establishment. I tried to speak to those I saw this day, but could not make out their nasal English, spoken fast, and with the mouth closed; their own language is liquid and pleasing in its sound; a great proportion of vowels in use, the words are short, generally dissyllables. They are an industrious people, and ingenious in their own manufactures, (clothes, canoes, and fishing tackle. The women make boots of sealskins (which they say are impervious to water,) and all the clothes of both sexes. Their native dress, is pantaloons of sealskin (fur outside), a mantle made like a wagoner's frock of the same material, reaching to their hips, and boots tied under the knees; their strait black hair worn long, and a cap of seal or otter skin, or a straw hat. The only difference in the dress of the sexes is, that the women's garments reach half way down their thighs behind, and terminate in front in a narrow pointed apron, reaching to their knees, and that they substitute when they are able, English blanketing or coarse cloth for skin. But under this greasy garberdine beats a female heart, for all the women are fond of ornaments, and wear a plated trinket at their breast, resembling a Waterloo medal, and they have as great passion for a necklace of glass beads, as a London fine lady for "the morbid concretions of an oyster," or other costly gew-gaws. Nothing in the world, (we except perhaps, the hovel of an Irish road-side squatter, or the under-tenants on a farm of three acres in May,) can be more wretched, than the summer dwelling of the Esquimaux. Six sticks meeting at the top, form the conical hut, which they live in; it is covered with bark, except a hole in the top to let the smoke escape from a large fire in the centre. In one of those "fells," seven feet high and fifteen in circumference, I found a man and his wife, two grown, and three young children, besides dogs; the dogs are a mongrel fox dog. In the winter those people are better lodged and fed. They make for themselves snow-houses, glazed with ice, ice doors, ice floors, ice beds, all very warm and comfortable. (Imperial Catherine had not the merit of originality in her "most magnificent and mighty freak,") and they live upon their favorite seal, at the rate of 14*lb.* per meal, and which delicacy produces 60 per cwt. of rank oil, causing the proprietor



of an English dyspeptic stomach, to wonder at and envy such chylipoetic viscera.

*Sunday 9th.*—A fine warm morning: while we were at church the wind flew round in a heavy squall and rain at north-east, the ship fouled her anchor, we were obliged to weigh, and the wind answering, we ran through "Favorite Tickle," see our chart, and into Sandwich Bay, the first King's ship it had ever borne, (a brig has been up,) stood across to the Mealy Mountains and then anchored. The rich green glowing scenery, and the scorching sun were very West Indian. A less agreeable feature of resemblance, was myriads of musquitos; what can they be for? some good purpose no doubt; do they actually exhaust the putrid miasma of swamps? Our compasses we observe vary considerably near the shore. Iron it would seem, reaches its maximum to the northward, as the precious metals do towards the equator.

On the authority of Buffon we ate the porcupine for dinner, and tho' he says it is "un peu fade," we found it a very tolerable performer in a pie with slices of ship's pork. Boys in the evening reading.

*Monday, 10th.*—A very fine day, wood-cutting, and surveying; picked up some specimens of rolled masses from the foot of the Mealy Mountains. The Gneiss which prevailed to the southward, here gives place to the mica slate, which is the prevailing rock, and the Mealy Mountains appear composed of it; they are 1484 feet high by our measurement, and the officers who ascended them, say there are higher hills behind them to the north-west. They are covered with wood nearly to the top, and never clear of snow. There were abundance of small squirrels through the wood, and some foxes, which stopped and barked at the intruders: at the foot of the Mealy Mountains, there is a stratum twenty feet thick, of a conglomerate primitive rock (if such a formation be admissible,) the basis seems a granite sand, with quartz, mica, mica slate, schorl, and felspar, in distinct round embedded masses, appearing to be a mechanical deposit. Returned on board in the afternoon, the sultry morning, was succeeded by a chilly evening, the wood burning on Earl Island. This is a very iniquitous transaction, which I shall endeavour to suppress; the people who cut down wood for their stages and buildings, finding themselves plagued by the musquitos while at work, light fires to protect themselves from their annoyance, utterly regardless of the mischief and of the failure ultimately of their own supplies; and by this wanton, selfish improvidence, forests, sometimes miles in extent, are on fire almost every month. The burning of the wood was diminished, during the day, and proceeded with much greater intensity in the night; whether bright or dark, if it be the rays of *light*, and not of heat, which extricate the oxygen, and so prevent combustion, the moon's rays should also extinguish fire. I don't know how this is, they certainly deoxydize the fish, under the half deck, which putrified with great rapidity in moonlight.

*Tuesday 11th.*—Shifted our berth to a more convenient place, further to the eastward, held a surrogate court on board, and administered law to some very perverse recipients; boats wooding, watering, salmon catching, and surveying; a boat load of salmon, has been already caught,

near Eagle River. I am studying Burn's Justice, which if not "unprofitable," is very stale and flat. I hope to acquire such a measure of knowledge, as to shew that if not a lawyer, I know something about it, "que si je ne suis pas la rose j'ai v<sup>e</sup>cu avec elle," such a measure of legality as may carry weight.

*Wednesday 12th.*—Thermometer, 55° heavy rain, and cold raw weather, boats surveying. Mr. Beard, came on board to request help, to enforce the decision given yesterday in his favor. Sent an order to a ship-master at Eagle River, to act ministerially in my absence, but not judicially, the difference of which I explained. I added to the authority of my instrument, very considerably, by having it "horribly stuffed with epithets," of *law*; for I have discovered that, with the sort of person to whom it was addressed, it is very much "ignotum pro magnifico." Our anchorage, lat. 53° 46' 20", long. 57° 0' 45", rather to the westward of the place assigned on the chart; the weather is fine and has been generally so since we arrived here; the evenings most luxurious, the summer is shorter, even than at Newfoundland; it hardly begins before the 6th of July, and is over the 6th of September; the vegetation is therefore as rapid as in Russia, where the ground is covered with snow, sown and reaped within two months. Sent the surgeon to visit a poor Esquimaux woman, who was dying. Pulmonary complaint appears to be their scourge. It is not the marvellous crucible of their stomach that gives way.

*Thursday, 13th.*—We learn that from Marble Head, thirteen vessels have sailed for this coast, thirty from Boston, twenty-five from Newbury Port, fifteen from Beverly. We met at Cape Charles, five going to the northward, forty-five off Seal Island, ten at Batteau Harbour, twelve at Black Islands, twenty at Greedy Harbour, thirty-nine at Independant Harbour, and five at Sandwich Bay. After breakfast, went with Mr. Pearce, to examine the Main Tickle; we went from thence to Dumping Island; Mr. Beard was away at his salmon fishing, but "Le Chef" prepared us a very good dinner, with the help of a sort of "en cas de nuit," which I carried in the boat. Found more islands, called a little group, lying en famille, after Sir Charles Hamilton, his wife and son. Dumping Harbour, very good, four fathoms water; landed on the opposite island, very beautiful, full of heaths; the only place in this country, except Cape Charles, where I have ever observed them. Cold evenings.

We have established, I hope tolerably, the navigation of Sandwich Bay which has, hitherto, been a sad hydrographical reproach. The evenings here are so fine that I am almost always induced to walk the deck till midnight, there is sometimes a freshness, brilliancy and richness in a northern summer evening, that is almost indescribable, and can be hardly understood by a person who has not seen the Aurora Borealis in its perfection, and the wildness of this romantic uninhabited country.

Burns says, the Aurora Borealis is to be heard as well as seen; I do not believe a word of it. Poet as he was, he might think *more suo*, that these glorious corruscations should utter an audible harmony, like the singing-together-for-joy of the morning stars—

"But whilst this muddy vesture of decay  
Doth grossly hedge us in, we cannot hear it."

With that exception, his description seems written for our express circumstances and edification :—

“ The winds were laid, the air was still,  
The stars they shot along the sky,  
The fox was howling on the hill,  
And the distant echoing glens reply;  
The cauld blue north was streaming forth  
Her lights wi' hissing e'erie din.”

No doubt a Labrador dewy eve and star-light night are more glowing and gorgeous and enjoyable than ours.

“ Peace, how the moon sleeps with Endymion,  
And would not be awaked.”

This talk is intelligible in Sandwich Bay or at Belmont; in England it would be “ Fudge!”

*Friday 14th.*—The boat we sent to Eagle River for the Salmon Hunters (the technical phrase), returned at midnight, with five casks salted, and twenty fresh fish. The pilot remained behind to collect his nets. Propose to return to Cape Charles to-morrow. I feel a good deal behindhand with homeward news.

*Saturday 15th.*—No “ancient mariner” in the shape of a pilot; weighed at 6h., the ground was so tenacious, broke messenger, purchases, &c. got our anchor with great difficulty; bought a fine puppy which I shall try to rear on goat's milk. At 11h., passed through Main Tickle, by our own chart (we are abundantly proud of the same), anchored at noon from its falling calm; breeze sprung up at 1 o'clock, right in; weighed and beat through; chart still very faithful, “*Le vrai est le seul beau*,” in hydrography. At 2h. stood too close to North River Flats, run on shore, rather *mal-à-propos*, in the praises of our chart (See old Wraxall, “the Queen of Portugual is one of the best shots in Europe, she narrowly escaped killing the king lately, her ball grazing his temple,” &c.). Run an anchor out astern, in sail, and hove off after some labour, loosened the ship in her bed by sallying the crew across the deck, up boats and made sail again. At 4h. came to off Indian Harbour, sent boats to sound and the launch for sand, to a little point which the fishermen use as a burial place. They have a reverence for this last home of their ancestors, and bring their dead to repose there from inconvenient distances. “The rude forefathers of the hamlet” at home choose to sleep their long sleep with their kindred—and so it is with their aquatic brethren on this side of the Atlantic. Cleared in the evening. Indian Harbour is a pretty cove in Huntingdon Island; good anchorage in 15 fathoms.

*Sunday 16th.*—A fine day, and a quiet comfortable Sunday on board. Boys reading in my cabin in the evening.

*Monday 17th.*—Fine morning, boats surveying; at 1 o'clock the fog, which had set in at 10 A.M., cleared away; weighed and beat out; it blew a heavy sea breeze, and the ship was so crank and unmanageable from our water being out and a good deal of timber on deck, that we were very near getting on shore on Entrance Island. At 3h. we beat up to Dumpling Harbour, anchored in the entrance, weighed and warped

in, and moored with the kedge. A secure little harbour, 4 fathoms water, under a pretty hill, in Hamilton Island, and convenient for wooding and watering. Wrote to St. Johns and England by a vessel which we hear of going from Greedy Harbour, and sent the letters to Greedy Harbour by a fishing boat.

*Tuesday 18th.*—Fine morning, employed watering; weather unnaturally warm and close; at 1 o'clock the loaded atmosphere discharged itself in a heavy squall and rain; brought home the stream anchor; drove on shore; down masts and yards, ran an anchor out and hove off, moored afresh; heavy rain. Mr. Beard dined on board, we find him civil and obliging. Cold raw evening, twenty degrees difference in thermometer since morning; fish coming in; glass high.

*Wednesday 19th.*—Morning fulfilled the promise of the glass; employed watering; walked on shore, bought some silver fox skins from a hunter in Wild Bay, £2. each. The rocks of these islands are mica slate with a great deal of embedded granite. Observed many Americans going to the northward; conclude that the fishery has failed to the southward; they follow the fish north or south; as they drive them away by throwing the "gurry" overboard. Dined with Mr. Beard: finished watering. In the morning we propose sailing for Cape Charles.

Attended the cod manufacture in the evening; having rather a "greedy" eye, I observed and noted the process and division of labour. The boat is brought to the end of the flake which is open to receive the fish: the first performer stands in the boat with an instrument like a pitch fork with one prong broken, he sticks this through the head of a fish, into the body of another, and throws them rapidly on the stage, from whence a youngster, or greenman, carries them on a barrow to tables on the flakes, where are seated at each, three functionaries; the first takes the fish from the heap at his side, separates, with a single cut, each side of its gills; then lays it on the table and makes an incision from the throat to the tail (this man is called, in virtue of his office, "the Cut-throat,") he then passes the fish along the table to the "Header," who, through the incision, removes the entrails; the liver he dexterously sweeps into a shoot, under which is a vessel destined to receive it (and in which it dissolves into oil), the rest of the entrails fall through another shoot into the water. He then places the head on the edge of a sharp board before him, and separates it with a jerk, dropping it from under his hand, and passing the fish to the "Splitter," who is the most expert practitioner. He strikes the sound, or air-bladder, which is fast to the back-bone of the fish (with the point of his knife to prevent its incumbering him by its distension, and then in two strokes extracts the back bone, and throws the fish into a barrow by his side. A sixth operator rolls the barrow away to the heap where its contents are received by a seventh, who salts and stacks them up; they remain here a week, are taken out, washed clean in a floating rack for the purpose, laid a day in a heap to extract by compressure the water they have imbibed in their ablutio; they are then spread out to dry, a haymaking process is pursued which perfects them. In about three weeks, the rules for the use of this manufacture are sufficiently familiar. About 500 fish

an hour are prepared in the manner above described, by eight men, a very respectable result, considering what is done. A single man could prepare about twelve, and the eight men employed separately only ninety-six. This is not quite like pin making, but, still the division of labour tells.

*Thursday 20th.*—Weighed at daylight from Dumpling Island, calm, towed out; at 9h. sprung up a breeze, beat past Huntingdon Island, and bade adieu to Sandwich Bay. I was busily employed reducing my sailing directions for our chart, into as concise a form as possible, agreeing with Hudibras "that brevity is very good when we are, or are not understood." Beat all day; at 7 P.M. anchored in Greedy Harbour; ill, laid down, a bitter cold raw evening. The fish "cruel slack," i.e. very scarce, they will not "come and be killed."

*Friday 21st.*—Rainy cold morning, sent boats to survey, walked with the pilot as my guide (as a pilot should be) through Greedy Island. The names of those places are bad enough, but, are so mangled by this old gentleman, that it amounts to what has been called pronounciatory defamation. As our cicerone and instructor in the art of catching fish and game, he is always with us, and tells us a great deal of his somewhat discreditable antecedents. At first he made broad his phylacteries, and did the respectable, but now he tells us queer things, mourning and chuckling over them at the same time; not uncommon. I have seen it over and over

"A tale of weakness this that in the act,  
Of penitence indulgent to itself,  
With garrulous palliation half repeats  
The sin it ill repents."

What a beautiful scene in Southey! and how he helps it out with fire-flies, and nightingales, and cork trees, and sierras, and starlight,

"How many things by season seasoned are,  
To their right praise and due perfection."

I am reading Southey's Roderick over again with deep interest. What a charm Spanish scenery throws over Spanish stories. Don Quixote or Gil Blas would be nothing if the scene were in Holland, and we had to do with Burgomasters and straits, roads and fog. Gathered a quantity of wild parsley, (Alexandria), a tolerable vegetable. Found here the defendant in the case of Mr. Beard, who is going to "seek redress" at St. Johns.

*Saturday 22nd.*—Cold rainy morning, wind easterly, would not move; at 8h. wind came from the northward, fine weather, weighed, calm, at 3h. easterly wind sprung up, rounded Round Hill Island at 10h. and stood to the southward.

*Sunday 23rd.*—Fine morning, mustered at divisions and Divine service. At noon wind came to the southward, with a thick fog, beating along shore for Cape St. Michael; in the evening blowing hard with thick weather, close reefed and made snug for the night. There is much difference of opinion as to the mode of navigation amongst icebergs. Some heave to; I prefer to keep way enough on to tack, if necessary, on finding an ugly customer under our lee. At 11h. found ourselves in this predicament, kept our luff and weathered, thank God, but by a few yards only. These beastly nuisances, do however, give some

warning, by a sensible cooling of the vicinity, as the bit of ice in the tumbler affects the "Sherry Cobler," we hear so much of.\*

*Monday 24th.*—Fine morning, but foggy; at 4h. it cleared away, made sail to the southward towards Cape Charles, wind blowing freshly at S.S.W., beating to the southward; at noon weathered Tibbs Ribs, stood towards Ship Cove; at 12h. 30m. anchored in our old birth, were pleased to observe the surveying cutter *Inspector* at anchor in Indian Cove. Mr. Bullock came on board with our letters.

*Tuesday 25th.*—Rainy cold weather, engaged all day, and half of the night reading and writing; corrected my time-pieces by Mr. Bullock's, according to the meridian of St Johns; found ourselves seven miles to the westward.

*Wednesday 26th.*—Weather cleared up, despatched the *Inspector* with our letters for St. Johns and England; she is to go to Belleisle and some other places on the coast to ascertain the exact place, and then to proceed to St. Johns, where they hope to arrive about the 10th of August. Old Prowse came on board, very good kind of man: fishing indifferent; fine evening.

*Thursday 27th.*—Fine morning, but foggy at sea, went on shore in hopes to walk off a bad headache, held a sessions as J.P. which did not contribute to my cure; tried an Irish labourer for an outrage, and returned on board. Heard two guns outside the harbour, answered them with two, and sent a boat out; to our surprise observed the Admiral's flag on board the *Grasshopper* standing into the bay, went on board; found he had run to the northward, to see how matters were going on, being nervous as to our dealings with the Americans. Having seen me, and received my reports, charts, &c., he said he would return forthwith to St. Johns, calling on his way at Trinity. He approved of all our proceedings, and was charmed that peace had been so well preserved. Wind came in, *Grasshopper* anchored, dined on board of her, and walked on shore after dinner with the Admiral.

*Friday 28th.*—Rainy, cold, foggy weather; Admiral weighed, at 9h. I asked leave to accompany him in hopes of finding the Tender, and recovering our letters, which we lamented having sent by her. Mr. Jennings, the *déporté* from Sandwich Bay, came in while we were weighing, to seek redress from the Governor, who could not afford him any. Poor man he has a wife and family, whom I fear will suffer by his obstinacy, putting salt on the tail of the chief justice will prove costly. To our joy at 2 o'clock we saw the *Inspector*, but our joy was damped as well as our garments, by a thick rainy fog, which shut her out of our view for four hours, and when it cleared away she had disappeared. Passed close to Belleisle ledge, it always shews itself above water, sunset, rain and fog: parted company with the Admiral, he steering for Fogo, I for Croque, which I propose to visit; passed Belleisle, barren and high, flat at the top, saw an iceberg separate; very fine exhibition as if it were got up expressly.

\* During the war, in the *Prometheus* I used to work round icebergs, and batter them with shot for exercise: *en revanche*, their kindred have often frightened me out of my life, and fragments have knocked against mine ancient Favorite more vehemently than was good for her.

## THE PIRATE SLAVER.

(Continued from page 248.)

The *Curlew* arrived at St. Thomas's, on the 4th October, anchoring as before in the roadstead of St. Anna de Chaves. There was no little disappointment on board, at finding the *Esperanza* had taken her departure, and probably the pirates in her. The governor, however, declared that she had taken away no one, and maintained as before that there never had been any of the *Panda's* crew on the island. He professed to have made a strict search for them, in the *Curlew's* absence. It was of no avail telling him what had been learnt respecting them at Cape Lopez. Mr. Holmes, the American, as soon as he could do so without being suspected, put himself into communication with Captain Trotter, and told him the whole truth. The pirates he stated had not gone away in the *Esperanza*: they were still on the island, and had purchased a small vessel, then in the harbour, from no less a person than the governor himself, and had been employed in fitting her out, till the moment the *Curlew* hove in sight, when the governor made them retire into the country. Fortified by this information from an individual whose testimony was above suspicion, Captain Trotter told the governor that he would adopt measures himself for taking the pirates off the island, if they were not given up to him, as he knew positively that they were there in concealment. Matters had gone thus far when information was received from Captain Pollard, master of the American ship *Henry Hill*, who was very useful to Captain Trotter at this time, that the *Esperanza* was hovering at the back of the island, and that the pirates, by order of the governor, were being marched down to the beach, to be embarked in her. The *Curlew's* boats were dispatched to intercept her, and just after dark, Mr. Matson got alongside, and the vessel was brought round to St. Anna de Chaves. The captain was not on board, and the pirates had not embarked, but as the schooner had before brought them to the island from Cape Lopez, knowing them to be pirates, Captain Trotter was determined to take the vessel before an Admiralty Court. The governor learning that the *Esperanza* was seized and permanently detained, felt that further evasion, and falsehood would be useless. He now professed to have formed a clue to their discovery, and sent off to the *Curlew*, to say that five Spaniards had been seen at a distant part of the island, and that he had sent for them. They of course proved to be the mate, carpenter, and seamen of the *Panda*.\* During the many tedious interviews with the governor, the subject of the schooner, which had been sold to the pirates, had been but incidentally alluded to. It was now necessary to bring it prominently before him. He as might be expected, denied all knowledge of the transaction, and especially the notorious fact of himself being the vender: when closely pushed, he evaded the question in various ways, pleading at one time, the want of a good interpreter, (though there was an excellent one in Captain Fatio,) at

\* Bernardo de Soto, Mate; Francisco Ruiz, Carpenter; Manoel Boyga, Domingo de Guzman, and Juan Antonio Portana, seamen.

another time, ill health. Thus gaining time he was enabled to produce some one else who professed to have sold the vessel to the pirates. It was easy under the circumstances to manufacture a new bill of sale, for not only the governor, but every official on the island, and the population in general, were in favor of the pirates, so that Captain Trotter was obliged to content himself for the present, with insisting that the governor should seize the vessel in question, and detain her till instructions were sent from the general government at Princes; and that he should also imprison Cosmé, the captain of the *Esperanza*: all this the governor engaged to do.

It might appear incredible that pirates should be thus protected in a colony of Portugal, but be it true or not that the authorities of the island were privy to all that Mr. Holmes accused them of, the possibility of their being so will not be doubted by any one who formerly visited the Havana, where both slave and piratical vessels used to be fitted out in open day, before the windows of the Governor-General's palace! When such enormities are tolerated in the most valuable colony of Spain, it can be no matter of surprise that an insignificant island of the sister-kingdom should give shelter and encouragement to pirates.

As for honest Mr. Holmes, he scarcely escaped with his life, having been nearly burnt alive in his house by the populace, and he soon after quitted the island. Another American scarcely fared better, being robbed and maltreated by the people, merely because he had been useful to Captain Trotter.

Very different had been the treatment received from these islanders a short time previously by the captain of an English merchant ship (before spoken of) who had traded, it was said, with the pirates to no inconsiderable extent. The palm oil captains in those days (we speak of those in the rivers, and this was one of them,) were, with some highly honourable exceptions, men of low principle, and it is no wonder they were so, when it is considered how much they were in contact with slave vessels.

The *Curlew* sailed on the 4th of October for Princes Island, where the general Government was duly informed by Captain Trotter of the conduct of the governor of St. Thomas. They would not agree to give up the captain of the *Esperanza*, but gave an assurance that he should be sent to Lisbon by the first man-of-war, and that his property should be sold and the proceeds be put into the royal coffers, and that the vessel purchased by the pirates should be sold and the proceeds disposed of according to law. It was promised also that the conduct of the governor of St. Thomas should be investigated without delay.

The *Esperanza* in charge of Mr. Matson joined the *Curlew* at Princes. She had been sent to Cape Lopez to bring Captain Cosmé's trunk which had been left there, and which there was reason to think might contain papers showing the connection between the *Esperanza* and *Panda*, and throwing light upon the nefarious proceedings of various parties at St. Thomas. Mr. Matson was well received by King Passall, who appeared very much surprised, and so were the natives, to find the *Esperanza* was a prize, and the remander of the pirates prisoners. The king did not appear to bear any ill will on account of the late



proceedings of the *Curlew*. He said the trunk had been sent over to Princes. This proved to be true, and Captain Trotter being now at Princes was invited to examine its contents in presence of the Portuguese authorities. As the trunk had travelled so far and passed through so many hands, it is needless to say, that no papers to criminate any party were found in it. The visit of Mr. Matson at Cape Lopez was not without an important result. The natives on hearing of the *Esperanza's* detention and the imprisonment of Cosmé, broke into his store where his cargo had been placed, and pillaged it of everything in spite of Mr. Matson's remonstrances. When the general scramble began King Pass-all rushed out of his house, at first armed with a spear, and afterwards with a sword, and tried or rather pretended, to put an end to the pillage. His real object was to secure the greater part to himself: he used his sword pretty freely over the shoulders of all except his numerous wives, of whom he had no less than 400, and about 100 present on this occasion, by whose exertions he obtained more than the lion's share. King Pass-all might well say "It's an ill wind that blows nobody good;" and so might the seven or eight hundred slaves intended to have been embarked in the *Panda* and *Esperanza*, who at all events had now got a reprieve.

Captain Trotter had thus succeeded in securing fifteen of the original crew, including the captain, mate, and carpenter, of the *Panda*, while some he had traced to have escaped beyond his reach; but so long as any remained on the coast, or unaccounted for, he considered it his duty to persevere in his attempts to get hold of them; and accordingly, hearing that one was still at Cape Lopez, he again proceeded there, though seven months had elapsed since the *Curlew's* first visit. On this occasion he was doomed to be disappointed; and the attempt was unhappily attended with consequences of an unlooked for nature.

On the arrival of the *Curlew* and the *Esperanza* at Cape Lopez, on the 19th January, 1844, Mr. Matson who had always been so well received by the people there, was dispatched in the boat of the latter vessel, to demand the surrender of the pirate; but the king who was in a state of intoxication, without any ceremony made him prisoner, together with his boat's crew. Lieutenant Pyke was also sent from the *Curlew* in the gig manned with six Kroomen armed with cutlasses, to board a Portuguese schooner which was lying within about twenty yards of the beach: he had just arrived alongside and was engaged looking at her papers, when fifteen or sixteen canoes, previously concealed from sight, and containing two or three hundred men, armed with every kind of weapon, suddenly darted from the beach. The Kroomen were in a moment driven from the boat, and Lieutenant Pyke after receiving many wounds, and narrowly escaping with his life, was taken on shore, stripped of his clothes, and left in his wounded state to pass the night in the open air. The gig being round a point of land, this attack took place out of sight of the *Curlew*, and those on board were unconscious of any disaster having occurred. Lieutenant McNeale wishing to know what was transpiring on shore, and being unable to consult Captain Trotter, who was ill, took upon himself the responsibility of landing in the jolly

boat with six white men, unarmed, accompanied by Mr. Chapman the purser. When they reached the beach, a crowd of armed natives rushed unexpectedly upon them, making prisoners of them all.

In this unexpected manner King Pass-all made prisoners of four officers and six white men, and ten Kroomen. Captain Matsou (the officer who has been so frequently mentioned) has at our request kindly supplied us with an account of what took place on the occasion, and we shall give it in his own words.

“About January, 1834, we were informed that one of the pirates still remained at Cape Lopez, he having ran away into the bush, when the rest were given up.

“Captain Trotter, who always fancied that nothing was done while anything remained to do, determined on getting him also; as soon, therefore, as his duties as senior officer would permit, he sailed for Cape Lopez. On arriving there, Captain Trotter being himself very ill in bed, from an attack of fever, sent me to demand of the king the remaining pirate. On waiting on His Majesty, between four and five o'clock in the afternoon, I found him half drunk and in a towering passion; and on stating the object of my visit he declared he would not give up any one who had claimed his protection, and that as Captain Trotter had made war on him, he would make prisoners of all Englishmen, and would now begin by keeping me a prisoner until £500 was paid for my ransom. I saw he was very drunk, and had no idea he would do what he threatened, but on the head krooman coming to report that the natives had hauled up my boat, I saw something serious was intended. I was detained a short time in the King's house, and then told to go where I liked. On proceeding to the beach I found a great commotion and excitement, and was informed that one of the *Curlew's* boats manned by white men had been captured, and the crew stripped naked. I was conducted to a small hut, where I found McNeale, first of the *Curlew*, stark naked and both legs in irons. I then returned to the king to remonstrate against this treatment, but, found him more drunk than ever; all that I could get out of him was, ‘One time, Captain Trotter—me, now, I,—Captain Trotter,’ and this he kept on repeating in answer to my complaints. While this was going on, a white man was brought to the king a prisoner, quite naked, and his face and person covered with blood and dirt. It was some moments before I recognized Lieutenant Pyke, second of the *Curlew*; my first impulse was to throw off my coat to give him, but the old king ordered me to desist, and on my refusing he threatened that I should be stripped like the rest. I thought it politic to comply, but the old brute allowed me to give Pyke my pocket handkerchief; he also agreed to let McNeale out of irons. It was then getting dark, and we were marched off by different parties, and not allowed to hold any communication with each other. Prince Narshin, whom I formerly had a prisoner on board the merchant barque, took me under his especial protection; I asked him to look after the rest, and to give them something to eat; he did so and was very kind and attentive. This young fellow did much to alleviate our sufferings. I did not close my eyes during that night, being dread-

fully tormented by mosquitos and other vermin: the noise and excitement too on the beach, made me believe that an attack on the *Curlew* was meditated. I felt uneasiness on this account; Captain Trotter was very ill; nearly all the officers and part of the crew prisoners; the remainder sickly, and the few that were well were divided between the *Curlew* and the schooner. A surprise on a dark night might have proved successful, and even had the natives been repulsed with loss, the fate of those on shore would have been sealed. While this move was going on, I heard footsteps stealthily approaching the hut in which I lay a solitary prisoner; whispers were exchanged as some person unfastened the door, and I made sure that I was about to be assassinated; but it turned out that the intruders were two blacks who came to enquire of me how many whites remained on board the *Curlew* and the schooner. I pretended to count up numbers and then replied 'One hundred and twenty, or one hundred and twenty-five on board the *Curlew*, and twenty-five on board the schooner.' I believe this exaggeration of numbers prevented an attack.

"The next morning we were all taken before the king who received us in great state, surrounded by about forty of the head men of the place. All the *Curlew's* men were quite naked except myself, who had been allowed to keep my clothes as well as to wear my sword, on account as he said, of our former friendship. We remonstrated energetically against our treatment, particularly in having been stripped and beaten; he replied that it had been done and could not now be helped; that we should not be released until Captain Trotter paid him goods amounting to 3,000 dollars, with a promise not to molest him again, and that if these terms were not agreed to he would send us into the bush, where we should (as he said) die of fever or be devoured by wild beasts. All remonstrance appeared to be in vain, and two Kroomen were dispatched in a canoe to inform Captain Trotter of our predicament and the terms offered for our ransom. The king also permitted Lieutenant Pyke to go off in a canoe, to have his wounds dressed, under a promise to return. Captain Trotter wrote to inform us that he was ready to make any sacrifice rather than allow us to remain another day in so unhealthy a spot, and desired us to make the best bargain we could, adding, that he would send the things on shore directly. After a long negotiation with the king, it was agreed that we were to give him goods amounting to £100, and that we should be liberated on the receipt of them. The ransom was accordingly sent on shore the same evening, but as it was then getting dark we thought it better to send it off again, fearing the natives might plunder a great part. It was sent on shore early next morning, and the king had everything taken into his store, and then coolly informed us that we had not sent one quarter enough, and that we should remain until his former demand was complied with. We expressed ourselves most indignant at his conduct, but he appeared quite callous to all we said; he defied us to do our worst, saying he cared not for the English or any other nation. Our patience was well nigh exhausted, and we cared little what he did with us. That day and the next were spent in useless negotiation; he sent for us a dozen times a day, trying to make

us give something else, but we were determined to run any risk and endure any privation rather than allow ourselves to be cheated again: compliance would only have been considered as weakness and would have led to no good result. On the third day the *Fair Rosamond* arrived, which rather frightened him, and finding he could not get anything else he on the fourth day sent us all off with our boats. On approaching our vessel we were received with three hearty cheers, and our sufferings were very soon forgotten.

“As the king had behaved in so treacherous a manner in keeping us prisoners so long after the stipulated ransom had been paid, and had only released us on the appearance of another vessel of war, Captain Trotter was determined not to submit tamely to such treatment. Accordingly the next morning he sent to the king demanding repayment of the ransom, as well as restitution of the clothes which his officers and men had been robbed of. On this request being indignantly refused, I was ordered to Princes in the *Esperanza* to look for the *Trinculo*, with orders for her to proceed immediately to Cape Lopez. I fortunately found her there, and the two vessels returned together. Preparations were immediately made to attack and burn the town. The water being too shoal to allow the ships to approach, the boats of the squadron (eleven in number) proceeded off the town and opened a fire from musketry, rockets, and a twelve-pounder carronade in the *Trinculo's* pinnace. The rockets soon drove the natives out of the town, and doubtless with some loss, but they assembled in a thick wood just outside of the town, from which it was found impossible to dislodge them. They appeared to be in immense numbers; while we had been collecting our forces, the king had done his best to increase his own from the surrounding country, sending away the women and no doubt every thing valuable out of town.

“It was never, I believe, Captain Trotter's intention to attack [the *population* of] this human hive, but merely to drive the people out of the town by our guns and rockets and then set it on fire, as a punishment for the perfidy of their chiefs. But as they had assembled in such numbers, and as the wind had shifted and was blowing directly off shore, which rendered it more difficult effectually to fire the town, Captain Trotter did not think proper to risk the lives of his crew, when success appeared so doubtful. Therefore, after doing what harm we could with our guns and rockets, orders were given to return on board, much to the disappointment of “Jack,” who was most anxious to come to closer quarters, and settle scores with those who had so ill-treated his shipmates.

“It was well, perhaps, for many of us, that Captain Trotter judged more coolly and more correctly, and withheld the impetuosity of his crew. Had we landed, the utmost amount of success would have been the destruction of some empty bamboo houses, and under the most favorable circumstances we must have looked for a few casualties among ourselves, and this a very trifling success would not have justified.”

The *Curlew* had for some time been very unhealthy; the captain and several of the officers and many of the crew were ill. Lieutenant Pyke especially, was dangerously ill, but eventually recovered. Some of the

ship's company had died; instead therefore, of returning to Princes, where the *Pelorus* was expected to relieve the *Curlew*, Captain Trotter determined to go to Ascension, where the cruizers were ordered to go to whenever sickness broke out. Every one on board the *Esperanza* on the contrary continued quite healthy, though without a medical officer. Those of the prisoners who had been ill, were kept on board the *Curlew* and improved in health from the day they were brought from the shore, especially Nicholas Costa, a young Spaniard of the *Panda*, who was at death's door when he was brought on board: the gratitude of this individual, at first very great, it will be afterwards seen, did not increase with his returning health.

The *Curlew* and *Esperanza*, after being a month at Ascension, sailed together for England, arriving at Portsmouth in June, 1834.

On the *Curlew* being paid off, the Admiralty undertook the charge of the *Panda's* crew, but as the *Esperanza's* guilt could not be proved until a verdict was found against the former, the Board felt obliged to leave that vessel at Captain Trotter's "disposal." Lord Palmerston, however, on being appealed to, had a communication with M. de Sarmiento, (afterwards Baron Moncorvo) the Portuguese Minister, and the *Esperanza* was subsequently delivered over to the authorities at Lisbon. Captain Trotter a few years afterwards met her on the Coast of Africa as a man-of-war in the service of Her Most Faithful Majesty. Cosmé, her former captain, it was learnt, did not live to see Lisbon, and there was every reason to believe that the proceeds of the schooner bought by the pirates from the governor of St. Thomas, had not been sent to the Imperial treasury.

But, to return to the *Panda*. As it was thought that no conviction of the offenders could be obtained in England, and that the only probable means of their being brought to punishment, would be to send them to America, where some of the crew of the *Mexican* might be found to identify the prisoners, it was resolved to make them over to the Government of the United States; and accordingly the Admiralty had them conveyed in H.M.S. *Savage*, to Salem in Massachusetts. A British man-of-war had not entered that port for upwards of fifty years, and this, combined with the circumstances of the present visit, caused great excitement amongst the townspeople. They considered it a compliment paid by the British Government to the United States that the pirates had been sent to America for trial, and the greatest kindness and hospitality were shewn to Captain Loney and the officers of the *Savage*, especially by Mr. Joseph Peabody, the eminent merchant to whom the *Mexican* belonged, with whom Mr. G. Quintom, who was sent from England to give evidence, took up his residence.

It will be remembered that Salem was the port whence the *Mexican* had sailed, just two years before; and by one of those coincidences in which we cannot but recognise the hand of a controlling Providence, this same vessel, the *Mexican*, with the same captain, mate, and cook, on board, who had been plundered by the prisoners, was in harbour ready for sea when the *Savage* arrived. These were of course detained as witnesses, as well as one or two others who had belonged to the *Mexican* and who happened to be at Salem at the time.

THE PACIFIC OR GREAT OCEAN.—*A Nautical Sketch.*

(Continued from page 231.)

THE Polynesians possessed considerable ingenuity in contrivances to meet the calls of necessity; and the rude arts which they practiced in the construction of their dwellings, and more especially in their canoes, were in advance of those of the Red men of the continent generally. Those who were contemporary, at least, at the era of discovery, the Mexicans, Guatemaleans, peninsulars of Yucutan and Peruvians are the exceptions.

The islanders had however, made essays in sculpture, and in painting too, but after a very primitive fashion; yet, not falling very far short as to execution of the Nimroud sculptures, which are attracting such notice at present. But the design appears to be essentially different, the latter being figured representations of historical facts; the former more in caricature of objects familiar to the view, than in the truthfulness of natural delineation. But, some busts of gigantic size, were found in Easter Island, of which tradition could give no account by whom, or for what purpose erected, that were superior in execution to the images of the Morais seen generally in the islands. By the same hands were supposed to be risen, those well proportioned elongated pyramids situated in the midst of secluded groves, which offered to the eyes of the civilized voyagers objects extremely picturesque; second perhaps, in that point of view, only to the beautiful aqueduct of antiquity, or the modern viaduct, which has been so recently multiplied throughout England.

The same mystery hangs over these works of art in the solitary isles of the South Sea, that envelops the trophies of research in Yucutan and other parts of the American continent; but the former are rude in comparison with the taste displayed in the magnificence of the details, and in the surprising magnitude of the temples of the latter, which in those respects seem to vie with the Cyclopean structures of Memphis and of Thebes.

The subject is, indeed, a very puzzling one. Left alone to himself in the woods in infancy, man becomes not only a savage in the strictest sense of the word, but, has his natural instincts developed to a proportion far beyond the amount in clearness of his reason; a proof that culture and instruction are absolutely necessary to form him into a rational being. The dawn of civilization, doubtless, was from inspiration, through the mediate will, or agency emanating from infinite power; and it has been presumed that (in the subsequent retrogression among the tribes spread over the earth) no people, without intercourse with another people, who are civilized, can become so. Hence, if there be truth in this, the difficulty of accounting for the great advances which the Mexicans and other nations of the New Continent made, not only in the arts, and domestic economy, but in the science of government. There is a tribe, indeed, in the valley of the Sierra de los Mimbras in Mexico, of white Indians,

and another tribe also white, who, have been supposed to be the descendants of the Welsh under Madoc.

It is a remark, that a simple contrivance often remains undiscovered for a great length of time, whilst diligent search is made for a remedy to something which requires it. This is exemplified in a remarkable degree, among the islanders in their mode of heating water. They had discovered either from application, or by accident, the means of obtaining fire; but, never struck upon the obvious plan of placing a filled stone vessel with liquid upon the flames, so as to quickly boil the water, but contented themselves with the tardy process of heating stones red-hot, and successively placing these in the fluid to produce ebullition.

This deficiency of excogitation is the more singular, as we find the same people ingeniously adopting the ballancer as a prevention of their narrow canoes upsetting, a contrivance by no means so simple as that of placing a stone-pot on a fire. For the same reason the double-canoe was probably adopted. Their skill in naval architecture had not perhaps, reached so scientific a point as to make them comprehend, that increased beam would have answered the purpose; or it may have been the case that their trees were not large enough to admit of it in the single log-canoe. But some islanders had given to their vessels that form which is best adapted to a life-boat; and which the civilized world has been so late in discovering.

Necessity has been truly said to be the mother of invention. In these islands we see it exemplified; but although mechanical art has to a certain degree obtained, science, except in a very trifling measure, with reference to the stars, the currents, and the winds, is wanting. The idea that suggested the feasibility of a tree being converted into a floating vessel for the purpose of transport, sprang perhaps from sagacity and instinct, rather from the dictates of reason; otherwise the originators, or their successors, would have advanced from the open and frail canoe, to the decked vessel of larger dimensions, built of several pieces; to fashion which, although a tedious operation, their stone adzes were equal. The small vessel, it may be true, answered the purpose for the occupation it was intended, that of aiding the pursuit of fishing.

But they certainly employed their canoes as vessels of transport, which appears a proof that their idea went beyond the single consideration of the fitness of their hollowed log for fishing excursions. Yet they stopped short of that: the idea of forming one large vessel that would be equal to the conveyance of all their warriors, seems not to have entered their imagination. It was science to forward the art which they had obtained, which was required, and they had it not. They pushed their instinctive ingenuity to the *ne plus ultra* of their capacity, enlarging their models to the full extent that the largest tree would admit, such are the New Zealand war canoes; but the employment of many trees, cut into pieces, to be again joined and fashioned into shape so as to form a whole, which should be equal to carry as much as a dozen of their canoes, was, we may believe, beyond their conception, assuredly not beyond their means.\*

\* Applying this remark to New Zealand and the larger isles.

The nearest approach to it was the double canoe, (some of which had a platform between,) but the object appears to have been to obtain stability rather than capacity for burthen.

The mast and the sail is a device which they were in possession of prior to their discovery by Europeans; the paddle is in universal use. Some of the canoes are very beautiful models; and are extremely creditable to the taste and ingenuity of their builders, or rather to their shapers.

Some of their articles of dress were not inelegant—such as the feather cloaks, and helmets, used by the Sandwich islanders. We perceive every where among the otherwise rude children of nature, that there is a natural as well as an acquired taste. Some of their carvings are pleasing, and there appears a disposition not only to ornament their instruments, &c., but their persons too, and with respect to tattooing, some of the patterns are most elaborate, and must have called up a vast degree of patience, both in the performer and the individual operated upon. The paper-mulberry cloth, if cloth it can be called, was a very frail article of dress to the belles; and if vanity had no share in its folds round the body of the wearer, it was at least an indication of a becoming sense of the propriety of decorum, which, if it cannot be conceded to the nymphs of Matavia Bay, may, perhaps, be to the innate feeling of modesty pertaining to the sex of the less frequented isles. These island-daughters of Eve, by the way, differ only in degree from their refined and fairer sisters, in the exercise of their natural privilege in the endeavour to heighten their charms by decoration. They are in the practice of garlanding their hair, with beautiful and sweet scented flowers; a mode, which from its simplicity, many persons may consider more attractive, than all the splendour and dazzling radiance which jewels bestow on the wearer, in the saloons of the *haut ton*, of the civilized world. The cotton plant grows in many of the islands, yet, the natives had not discovered that it would be employed in the fabrication of a much more durable article for dresses than the mulberry bark yields. The idea of twisting the article into yarn appears not to have struck them, with a view to its being wove into cloth.

It is a remarkable fact that generally throughout the world, people in a state of nature, have employed the same weapons—bows and arrows, spears, and clubs. These are found in the hands of the islanders of the great ocean.

Although the arts, as may be supposed, are very limited, yet the bent of original genius is here seen as elsewhere. If there are warriors by profession and practice among the islanders, and who have gained renown, such as it is, there are mechanics whose skill has obtained for them a well appreciated celebrity in the art of fashioning canoes. These men are in the habit of making comparatively long voyages to islands distant from their home; and with extraordinary patience give their whole time to the occupation, during periods extending from eighteen months, to four or five years.

Various are the opinions as to the peopling of the South Sea islands. A recent surmise is, that the copper-coloured races sprang originally from



the Malays, and that these wanderers ultimately, by some fortuitous means found their way to the continent of America. There seems to be however, an apparent difficulty in reconciling the latter notion with physical facts. The islands generally, lie within the tropics, and in the track of the trade winds, which do not blow towards the continent. How far the currents, which sometimes run to the eastward, may have had influence, in such an event, we shall not offer an opinion. Considering, however, the approximation of Asia, at Behrings Strait, to North America, it seems but reasonable to believe that, that portion of the continent received its inhabitants from the former, in the immediate locality of the sea coast. Others consider that the islands were peopled from the American continent. The opinion that the Polynesians are descendants of the Malays is not unreasonable; by a reference to the chart, it will be seen that there is a chain of islands extending from Borneo under the Equator, to the south-eastward, down to Gambiers Group on the Southern tropic, between the 140th and 130th degrees of west longitude. The Malays as navigators were the Phœnicians of the Eastern seas, in one sense—not traffickers as the latter were, perhaps, but active voyagers, and, not improbably, as they have since been known to be, freebooters.

Where the blacks of New Guinea, and a few of the islands, as well as those of Australia proper, came from, appears to be a mystery; or rather I should say, as the African continent is the head-cradle of the sable race, that the manner of their migration is a mystery.

What will ultimately be the fate of these beautiful islands, and their not uninteresting inhabitants, we cannot pronounce, because that fate lies in the future out of mortal ken; but it is not improbable from preceding events to believe that the white man, here as elsewhere will supplant the coloured man. Hitherto, the islands generally being small, and their distance from the civilized world being great, they have escaped seizure, with a few exceptions, but commercial nations have recently cast their eyes in this direction, and we know what a set of cormorants the Russians, English, French, and Anglo-Americans have proved themselves in the political art of supplanting. Oh! but they civilize and enlighten, and; of course, “astonish the natives” indeed! Who pays the missionaries? the government of those States. And are the — no matter—the ills endured are known. We wonder how many times, and in how many different parts of the world Medea’s curse of Jason—“Forget not Jove the author of these ills,”—has been uttered silently in the depths of secluded woods? Are political sins in the category of the simply moral direlictions for atonement, or are we to fall back upon our traveller’s convenient opinion of its all being the will, or as he says, ‘work’ of a ‘special Providence’? At present, the islands are used as places of refreshment by voyagers; in what light will these be considered by and by?

That the islands may be made advantageous to commerce, there can be no reasonable doubt. They are capable of producing a large amount of cotton, cocoa-nut oil, which is superior to all other close matter for the use of the watch-maker, of sugar, of arrow-root flour, ginger, tume-

ric, cocoa, rice, Indian-corn, castor-oil, seeds, coriander, dyewoods, and, perhaps spices.

It would be to the advantage of European trade to leave the natives unfettered; and neither to seize their islands, nor to take them under "protection," which would only end in "possession." There should be another class of missionaries besides those purely spiritual—missionaries of humanity—to teach the natives the culture of the soil to the best advantage. If we look upon the natives in the light of children requiring instruction, and whom the benevolent as well as the devout are willing to serve, surely their worldly good should not be altogether neglected. We should rejoice to hear of societies formed for this special purpose.

The most extensive clusters of islands lie between the Equator, and the 24th parallel of latitude south; and the largest isles are situated on the India side of this ocean. Between New Zealand and Australia, the sea is clear of islands; and below the 20th degree to the Antarctic circle, and between the meridians of New Zealand and 120° W., there are about a dozen small isles known. Towards the western coast of America, the islands are few in number. No doubt, in so vast an area, there are yet some islands which have not been discovered.

The Spaniards claimed some of the isles which lie nearest the continent; these have passed from them to the now independent states.

Some British subjects have settled on an uninhabited group, called the Bonin Islands, in 27° N., and 142° E., which the Japanese accidentally discovered about 170 years ago.

The Russians have long since occupied many islands on the coasts of the continents at the extreme northern limit of this ocean, as well as claiming both sides of Behring Strait. On the American side they hold an extensive area, extending from Mount St. Elias on the southern coast, to Beaufort Bay on the northern, between the 60th and 70th degrees, and from the strait above named to nearly 142° W. From the Baltic to the shores of the North Pacific, one empire! Perhaps, if you were to enquire, by what right such extensive countries are seized by the powerful, the answer would be merely "*usitatum est!*" To meet the footing-want of a redundant population, the power seizing has not people to spare from home, to colonize the space upon which it has set its seal.

What the Levant is in classic literature, the Great Ocean is in maritime discovery, a never failing source of profitable enlightenment, when properly considered. There lies a large store of intellectual food for the nourishment of the mind; and the consumer need never pall his appetite with the dry, and to many indigestible, nautical bits which float in the mess of good fare provided for him.

It was a very extensive field opened to the curiosity of the "Old World," and for the display of the talent of those, whose stage of action was the "Great Waters," and many have reaped a renown far more brilliant in the estimation of the peace lover, without detracting from the peculiar merits of the battle performers, than ever graced the victory of a warrior. The conquests of the voyager on discovery were

over difficulties and perils; his mission, one of peace and benevolence; the object, an extension of knowledge, and avowedly, the conversion of the heathen. The evil consequences following these discoveries have no connection with them.

(To be continued.)

---

DESCRIPTION OF JUAN DE FUCA STRAIT.—By *Commander James Wood, R.N., late of H.M.S. Pandora.*

BEFORE entering into a detailed description of the Straits on either side of Vancouver Island, it may be as well to take a general view of them.

Juan de Fuca Strait divides Vancouver Island from North Oregon, and forms the southern boundary of our British possessions on the western coast of North America.

The Greek pilot whose name they bear may well be excused, if in 1592 when the belief of a water communication between the two oceans somewhere in these latitudes was prevalent, he congratulated himself on viewing this noble estuary for the first time, on having found the long sought passage which was to unite the Atlantic and Pacific, and open a high road by the north to China. After exploring so many miles of coast which offered not a trace of the wished for Strait, it was rather exciting to behold an opening from twelve to thirteen miles broad with a clear horizon to the eastward, and a depth of water that supplied no clue to its real nature. His mistake, however, was at length discovered, and Vancouver in 1792, with his customary energy and accuracy, both explored and described it. With the exception of Lieut. Wilks's account of the United States Exploring Expedition which does not throw much light on the navigation, the seaman had no other guide for the Straits than what his account afforded up to 1846, when they were examined and surveyed by Her Majesty's ships *Herald* and *Pandora*. Straight as they are, and for the most part free from danger, Vancouver's description was sufficient as far as the southern shore was concerned; but, on the northern or island side, by the time the Race Rocks were reached, forty-eight miles from the entrance, some better guide would be necessary. A few miles beyond these rocks, the Hudson's Bay Company have established a trading fort and farm at a small port called Victoria, which bids fair within a few years to become their principal establishment in these parts, and from its natural advantages to assume a prominent position amongst the fast growing settlements in North-west America. Bread, meat, vegetables, and other supplies may be obtained there at reasonable prices.

On the southern shore there is mostly soundings and anchorage sufficient to enable vessels to wait a tide all the way to Dungeness, also several bays which may be used for the same purpose, when beating either up or down. The first is Neah Bay, close to Cape Clasket, Callum Bay, Freshwater Bay, Port Angelos, and Dungeness. From this point to Wilson Point (between which, and Partridge Point is the entrance to Admiralty Inlet) the coast line is more irregular, and indented by two harbours, one with a very narrow entrance, but having a considerable area of deep water inside. The other Vancouver's "Port Discovery," an extensive and secure harbour, off which is Protection Island.

In most of these bays and harbours water of good quality may be obtained in sufficient quantities. Indeed, throughout the Straits this important article is easily procured.

On the northern shore there is less shelter, the coast line being more rocky, less indented by bays, with the deep water in general running closer

up to it than on the southern side. The prevailing winds also are from the southward of west, making it a lee shore, and the trend of the coast from Cape Classet being nearly south, leaves it open to the long and heavy southwest swell of the Pacific. This is experienced as far up as Sooke Bay, where the opposite shore affords protection, and from whence the coast begins to be more broken by bays and harbours.

Nearly opposite to Cape Classet is Port St. Juan, a fine and deep harbour, but open to the south-west and exposed to the full effect of both wind and swell. From this port the coast runs in one unbroken line to Point Otter, which forms the southern extreme of Sooke Bay, beyond which is Sooke Inlet leading into Sooke Basin. The next indentation is Becher Bay, beyond which lies Bentinck Island, and off this island are the Race Rocks forming the most southern point of Vancouver Island. Neither Sooke Inlet nor Becher Bay, should be attempted without a pilot, the entrance of the former is narrow and intricate, the latter full of rocks and the water deep.

From Bentinck Island the coast takes an abrupt turn to the northward, forming several bays and harbours; the hills also recede here from the coast line, leaving a more level country. The first is a long narrow inlet, called Port Pedder, the northern point of which forms a cove, well sheltered from all but south-easterly winds, having good anchorage, and being convenient for awaiting the turn of the tide off the Race Rocks. Beyond this is Royal Bay, also a good and extensive anchorage; at the bottom, or north-east corner, of which is the entrance to Esquimalt Harbour, a safe and excellent port. From Sailor Point forming the eastern extreme of Royal Bay, the coast trends to the eastward again, this also forms the western point of the entrance into Port Victoria, a narrow, intricate, as well as shallow harbour; but which, though so small, the Hudson's Bay Company have selected as the site of their establishment from the superior nature of the adjacent soil. Amongst its other disadvantages, off the entrance is a dangerous patch of rocks called Broches Ledge, with two feet water over it. The seaman may be cautioned here, that in common with *all* rocky shoals and dangers in these latitudes, this ledge is well marked by kelp, indeed, the kelp line, to a stranger is in every instance the danger line, and should be avoided, for though it will sometimes show in a depth of even forty fathoms, it is always indicative of the presence of rocks, and should not be ventured into unless well known.\*

From Port Victoria the coast is low, and indented as far as Point Gonzales, off which is Trial Island. From this point it trends northward, forming a deep but rocky and shallow bay, called for this reason Shoal Bay; it is closed up by two low rocky islets, called Discovery and Chatham Islands. The northern horn is named Cadbro Point, from whence the coast trends to the north-westward, forming the western shores of Haro Strait.

On both sides the topographical features are nearly similar. The hills mostly rise from low sandstone cliffs at the waters' edge, broken by numerous valleys, the sides of which are covered with dense forests of fir, oak, cedar, &c. On the southern side, they are terminated by the snowy peaks of the Mount Olympus range, where the hardy pines may still be seen forcing their way. Those on the northern side, though quite as precipitous, are not so high, showing no trace of snow in the summer months. After passing the Race Rock, where the Strait opens out into a great Basin, the eastern horizon, in clear weather is bounded by a snowy range of fantastic peaks, far above which towers the immense white cone of Mount Baker.

When running in for the Strait of Juan de Fuca, two precautions must be observed. The first is that Cape Flattery does not, as is generally supposed

\* The same remark is applied by Capt. King to Magellan Strait, and by Capt. Sullivan, to the Falkland Island.—Eo.

form the southern point of the entrance, but is a projection of no particular elevation, in latitude  $48^{\circ} 06' N.$  and longitude  $124^{\circ} 47' W.$  or seventeen miles to the southward of Cape Classet, which is the true southern extreme, and is situated in latitude  $48^{\circ} 23' N.$  and longitude  $124^{\circ} 44' W.$

The other is, to allow sufficiently for the usual southerly set, so as to keep in the parallel of  $48^{\circ} 28'$ , when the Strait will be well open, then make for the centre of it, as should the wind fall light, (as it mostly does at sun-set in fine weather,) before Neah Bay can be reached, the vessel will probably be set by the ebb tide, towards Duncan Rock, and its off lying danger, Duntze Rock. These are to be avoided by all possible means, as this tide sets directly over towards them, the former being nearly covered at high water, and the latter having but  $2\frac{1}{2}$  or 3 fathoms over it, and occasionally a heavy sea, breaking on it. There is also very deep water close to them; whilst farther to the north-west, towards the Vancouver side, the kedge may be let go in from 40 to 60 fathoms.

Vessels from Neah Bay, bound up the Straits to Victoria, should shape a course to make the Race Rocks, bearing  $S. 84^{\circ} E.$  forty-three miles from the north point of Wyadda Island, and when one mile north of this point, an E. b. S. course will lead one and half miles to the southward of them. Having run that distance, they should then haul up for Royal Bay, as, unless about to enter Victoria or Esquimalt harbour, this is the best anchorage.

As the winds are mostly from the westward, it is generally necessary to beat down; in which case vessels leaving Victoria or Royal Bay, should start so as to be off the Race Rocks at the first of the ebb, but failing in this there is good anchorage and shelter in the Cove, at the south-west end of Parry Bay, where they may await the turn of the tide. By being off these rocks at the first of the ebb, the anchorages either in Sooke, Pillar, or Callum Bay, may be reached before the flood makes. When leaving either of these anchorages, it is advisable to keep on the southern shore, during the rest of the beat to Neah Bay, which may generally be reached in one tide more.

When leaving Neah Bay with an ebb tide, to beat out of the Strait, care must be taken as before remarked, to avoid being set towards the dangers off Tatouch Island.

It may be as well to remark here, that the current, or tide stream within the Strait, seems to be affected by various causes, and is consequently subject to great irregularities. At springs there is generally a strong and tolerably regular set of the tidal stream, six hours each way, beginning on the shore rather sooner than in the offing, but at Neaps the tides are not so regular, for, when beating down, I have passed through even three different streams within as many miles of the land.

Between the points at the entrance, the current is affected by the coast stream which set across them, the flood going to the northward, the ebb to the southward.

Between point Angelos and the Race Rocks, the tide runs about three knots especially off the latter, and must be allowed for when hauling round them for Victoria. Beyond this the tides are not so strong, but move rather slower through the great basin before mentioned, but even here, off all the points, such as Trial Island, Point Wilson, Dungeness, &c. it runs very strong at springs (from two and half to three knots.)

Throughout the western portion of the Strait, the stream follows the general direction of the coast, except as before remarked at the entrance, where both flood and ebb are more or less influenced by the coast stream. Abreast of the Race Rocks the stream divides, the northern portion setting direct for Trial Island, and so up the Harrow Strait. The middle portion making a direct course for the entrance of the Rosario Strait, whilst the southern stream, sets past Dungeness Point, for Point Wilson, and so up Admiralty

**Inlet.** Off each of these Straits, or Inlets, the main stream of ebb is more or less affected by the body of water poured into it, till off the Race Rocks, they all unite and run parallel with the coast to the east.

It is high water, full and change, at Neah Bay, 3h. p.m. at Port Angelos, at 3h. 50m. p.m. rise 8 feet, at Victoria, 4h. p.m. rise 10 feet.

**Cape Classet.**—The north-west point of Oregon is formed by a conical hill, having several peaks covered with a forest of pine, &c., the sea face very much broken into dark, rugged cliffs, (probably slate), with numerous high off lying rocks, the principal of which, Tatouch Island, is a cluster of islets joined in several places by ridges of sand. The outer point lies E.N.E. one mile and a quarter from the Cape, leaving a passage between them of four-tenths of a mile broad, from rock to rock; but as this passage is so narrow, and has some sunken rocks in it, with a heavy swell at most times rolling through, it is needless to say it is unavailable. On the large rock are some lodges, belonging to Indians of the Callum tribe. Due north of the north point of Tatouch Island, seven-tenths of a mile, lies Duncan rock, it is low and dangerous, being almost awash at high water, and having from twenty to forty fathoms all round. N.b.W. a quarter of a mile from this lies a still more dangerous sunken rock, called Duntze Rock having three fathoms over it, but from twenty to fifty fathoms close to all round it; on this rock the sea breaks very high at times. Between this and Duncan and Tatouch Island, the passage is clear and the water deep.

From Cape Classet, the extreme point of which is fringed with low rocks, covered with kelp, the coast trends due east, three and a quarter miles to Koikla Point, the western extreme of Neah Bay. It is faced by the same bank of kelp-covered rocks, through which in one part there is a passage into a small bay, called Coe de Cabbet, where there is a village of the Classet-Indians, at which the well known chief Flattery Jack, resides.

**Neah Bay.**—From Koikla Point the land takes a sudden bend to the north-eastward, and with Wyadda Island, forms Neah Bay.\* From Koikla Point to Mee-na Point, is S. 64° E.; two miles. Wyadda Island which lies N. 29° W. a quarter of a mile from the latter, contracts this width very much, but forms the principal shelter of the bay. It is a narrow island of slate rock, about a cable's length across, and half a mile long, in the direction N. 30° W., and S. 30° E. From Koikla Point to its north-west extreme is, S. 86° E., 1.4'; off this point a ledge of rocks extends in the same direction as the island, a cable's length from the cliff. The south-west or inner face of the island is fenced by a rocky bank which extends two cables' lengths from the shore, whilst the kelp and foul ground are found nearly as far again.

From Koikla Point the shore of the main trends S. 23° E., one mile, when the cliffs give place to a fine sandy beach forming the bay; this portion of the shore is also faced by a low rocky flat covered with kelp, extending three cables' lengths from the beach, the barrier of kelp continuing as far as the middle of the sandy beach. Close to the end of the cliffs is an Indian village, and the remains of the old abandoned Spanish settlement which was formed here long ago. Near to it is a stream of good water, very convenient for the supply of shipping, as the kelp breaks the swell which at all times rolls into the bay, and the beach is steep enough to allow the boats to lie close to, except at the dead low water of spring tides. From this stream the beach makes a sweep to Mee-na Point, forming the bight of the bay, the land at the back being low and covered with forest. Mee-na Point has a village of the same name close to it. These villages are mostly deserted during the summer season when the Indians are out fishing, or roving along the banks of the Straits in search of berries, and the camas root, which forms the principal portion of their summer food.

From what has been said respecting the extent of the kelp, both from the

\* Plans of these places are published by the Admiralty.

main, and the back of Wyadda, it will be seen that the space left clear for anchorage is not great; the best berth is with Koikla Point, N. 51°W., Wyadda Island N.W. point N. 39°E., S.E. point N. 77°E. There is also anchorage in the channel between the island and the main, but it is very narrow and difficult to leave without a leading wind. There is 3½ to 4 fathoms in the best berths. It is high water full and change at 3 o'clock, the stream setting through the bay with the turn of the tide, but with little strength. When leaving the bay with light winds, care must be taken to allow for the set outside, as at the entrance the flood sets towards the rocky ledge off Wyadda Island, and the ebb amongst the foul ground which lines the coast to the westward.

This bay does not by any means offer a secure anchorage, as the heavy swell which often prevails outside is much felt. It is also exposed to north-west winds, which bring in a heavy sea, and are much dreaded by the natives.

From Mee-na Point to Kydaka Point is S. 61°E., ten and a quarter miles; the coast is mostly low cliff covered with trees and fringed with kelp covered rocks. Two miles and a quarter west of Kydaka Point these cliffs disappear, the above point forming the eastern horn of a bay and having a ledge of rocks lying off it. This bay is open to the westward. A mile and a half to the eastward of Mee-na Point is the Klaholoh or Seal Rock, a singular white rock 150 feet high, composed of sandstone. This rock shut in with the south-east end of Wyadda Island, clears the rocks off Koikla Point. Six and a half miles in the same direction, there is a remarkable white patch on the cliffs caused by a slip having bared the sandstone. The soundings off this portion are regular from 5 fathoms at the edge of the kelp out to 40 fathoms, one mile and a half off.

From Kydaka to Sekou Point is S. 61°E., three miles; the coast is composed of broken cliff, with the deep soundings nearer to the shore.

*Callum Bay*.—Sekou Point forms the western extreme of Callum Bay, and bears from Slip Point N. 86°W., two miles, which gives the bay a depth of three-fourths of a mile. It is too open to the north-west to afford good shelter except from easterly winds, but it may be used as a stopping place for a tide. The soundings vary from 6 to 14 fathoms. A small river falls into the bay, and there are lodges both at its eastern and western sides; that at the eastern is called Hygedith.

From Slip Point off which a ledge of rock extends, the coast trends S. 66° E., six miles and a half, it being one high rugged cliff with the exception of a gorge which connects a small bay at its eastern end with the bay beyond. It is faced by the usual rocks and kelp, the deep water approaching the rocks very close, not less than 40 to 50 fathoms being found a quarter of a mile from the cliffs.

From Pillar Point, which is so named from being formed by a high detached rock, the shore takes a sudden bend to the southward, forming a bay, the hills receding and leaving a passage for a good sized river, the Canel, which disembogues itself in this bight, and has nearly filled up with sand banks its best sheltered or western portion. An Indian village, called Ketsoth, may be seen on the eastern side of the mouth of the stream, the inhabitants of which do not bear the best of characters, and have a most repulsive appearance. The distance from Pillar to Low Point is S. 74°E., eleven miles and a quarter, the coast between being principally formed of broken wooded cliffs, with small sandy bays between, into which numerous little streams run from the hills, which here rise at once from the beach. The soundings are not so deep off this portion, 33 to 38 fathoms being found, two miles and a quarter from the shore, which is very flat and shallow, the kelp line extending in some places three-quarters of a mile out, amongst which, numerous patches of rocks show themselves at low water.

## CONSULAR FEES.

Shipowners will be glad to see the following order in Council, reducing the fees paid in Foreign ports to our Consuls for the certificates of exchanges in the crews of their ships, that were rendered necessary by the 6th of Geo. IV., which had the effect of imposing one dollar upon every discharge or desertion at the port, and one more upon every entry.

Some shipowners have lately resisted the dollar for *every individual* removed or entered, and have argued that one certificate including all the changes was all that was required by the act. The Consuls on the other hand maintain that a separate certificate should be given, and charged for each individual.

The present order in Council sets at rest these doubts, by imposing two shillings upon each transaction, and shews the desire of the Government to diminish as far as they can, any pressure upon our mercantile marine. But, although this is a decided advantage to the owner, we think it would have been better if a specific charge had been made upon each vessel, for exhibiting her papers at the Consulate, and no other fees allowed, rather than that fees should be levied for desertions which by being thus made a source of revenue, it becomes the interest of Consuls to promote, whereas, their duty is to *prevent* these desertions. We do not imagine our Consuls would be guilty of any impropriety in this way, but, it should always be the effort of legislation to unite the interest of the individual with the zealous execution of his duty.

WHEREAS by a certain Act of Parliament made and passed in the sixth year of the reign of His late Majesty King George the Fourth, intituled "An Act to regulate the payment of salaries and allowances to British Consuls at Foreign Ports, and the disbursements at such ports for certain public purposes," it is amongst other things enacted "that it shall and may be lawful for all Consuls-General and Consuls appointed by His Majesty, and resident within the dominions of any Sovereign or any Foreign State or Power in amity with His Majesty to accept, take, and receive the several fees particularly mentioned in the tables to this said Act annexed, for and in respect or on account of the several matters and things and official acts and deeds particularly mentioned in the said schedules; and that it shall and may be lawful for His Majesty, by any order or orders to be by him made, by and with the advice of His Privy Council, from time to time, as occasion may require, to increase or diminish or wholly to abolish all or any of the fees aforesaid, and to establish and authorize the payment of any greater or smaller or new or additional fees or fee, for or in respect of the several matters and things mentioned in the said schedules or any of them, or for or in respect of any other matters or things or matter or thing to be by any such Consul-General and Consuls done or performed in the execution of such his office;"

And whereas such Consuls-General and Consuls have under the provisions of the said Act, levied fees on certificates as to the shipment and discharge and desertion of British seamen at Foreign Ports;

And whereas it is expedient to alter the said fees; now, therefore, in pursuance of the said Act, and in execution of the powers in Her Majesty in Council in that behalf vested, it is hereby ordered by Her Majesty, by and with the advice of Her Privy Council, that whenever a British Consul-General, Consul, or Vice-Consul shall be called upon by masters of merchant ships to give his sanction in writing as to the shipment or discharge of a seaman, or his certificate as to the desertion of a seaman, it shall be lawful for such Consul-General Consul, or Vice-Consul to demand, recover, and receive from all masters or other chief officers or commanders of any ship or vessel belonging to any of Her Majesty's subjects the sum of Two Shillings for each seaman whose shipment or discharge shall have been so sanctioned, or whose desertion shall have been so certified; and that it shall not be lawful for such Consul-General, Consul, or Vice-Consul to levy a larger fee for this service.

And the Right Honourable Viscount Palmerston, one of Her Majesty's Principal Secretaries of State, is to give the necessary directions herein accordingly.

W. L. BATHURST.

2 T



OPENING OF THE PORTSMOUTH SAILORS' HOME.—*St. George's Day.*

*April 23rd.*—The Portsmouth Sailors' Home was opened this day with much *eclat*. The band of the *Victory* was in attendance, and a large assemblage of fashionables assembled on the occasion. The chair was taken by Admiral Sir Francis W. Austen, K.C.B., who was surrounded by a gallant circle of officers, warm patrons of the project. The business of the opening commenced with prayer, after which the chairman expatiated upon its benefits, and the blessings it was calculated to confer upon thousands of those classes who had so long been a prey to the sharks of the shore. Captain Sir Edward Parry, Captain Gambier, Captain W. H. Hall, and other officers addressed the meeting. Admiral the Hon. Sir Bladen Capel, commander-in-chief, inspected the building (which is situated in the chief thoroughfare in the borough—Queen Street), and warmly complimented and congratulated Captain W. H. Hall upon the success of his experiment so far. Sir Edward having in his speech forcibly pointed out the necessity for such a home for seamen, for the sake of their temporal as well as their eternal interests, said that the seamen and marines were indebted to Captain Hall, he having been the originator of the Sailors' Home at Portsmouth; and that he had established one at Dublin, and had lately been visiting all the principal ports in Ireland, Scotland, and England, for the purpose of seeing what could be done for the amelioration of the condition of seamen when on shore unemployed, and for the purpose of establishing other seamen's homes, &c.

When Sir Edward Parry had concluded his speech, a number of gallant tars belonging to the Royal yachts, the *Victory* and *Britannia*, proposed three cheers for him, which were given by all present in a way that British seamen alone can cheer.

When silence was obtained, Captain Hall, evidently feeling the high compliment that had been paid to him, rose to return thanks, and said—I wish I could express all that I feel on this happy occasion, for what can be more gratifying to a sailor than to see the seed he has sown for the benefit of his brother seamen bring forth such good fruit? My love for the profession I embarked in led me naturally to take a deep interest in the welfare of sailors, and having served upwards of thirty years afloat in every clime with them, and at times under the most trying circumstances, taught me to value the many sterling qualities they possess; and knowing the numerous temptations to which they are exposed when they are cast on shore, I determined, with God's assistance, to promote the establishment of comfortable Sailors' Homes at every port, for I am convinced that these establishments will be the only means of improving and making our seamen better men, and prevent their becoming so easily the victims of vice.

The government have done much of late to improve and better the condition of our seamen on board men-of-war, and the homes will continue to improve their condition when unemployed on shore. Everywhere I went in Ireland, Scotland, and England, during my late tour to the sea-ports to promote the formation of homes, I was received most kindly, and I found but one feeling, and that was warm and sincere, in favour of sailors and the cause I was advocating. There is nothing dearer to my heart than to continue my earnest endeavours to promote and increase the number of these valuable institutions.

No one could have had the honour of sailing with her august Majesty, the Queen, as I have done, without well knowing the warm interest she takes in the welfare and comforts of her sailors; and I have the satisfaction also of knowing that Her Majesty and His Royal Highness Prince Albert will take a deep interest in the Portsmouth Sailors' Home.

At such a moment I cannot forget what a sincere friend this and all other naval institutions have lost in the death of the benevolent and good Queen Dowager, one of whose last acts was to erect a number of cottages at Penze, for the widows and daughters of naval officers, and nearly her last request was to be borne to her grave by seamen of the fleet.

The gallant captain was frequently cheered during his speech, and at the conclusion the cheering was deafening.

Captain R. F. Gambier, chairman to the directors of the Sailors' Home addressed the meeting, and explained in a clear manner the objects of the institution, and the many advantages it held out to its inmates (namely seamen and marines) and in respect to the charges he said—for each seaman 13s. per week or 2s. per diem; boys 10s. per week or 1s. 6d. per diem, with separate charges for those who come for single meals, or a night's lodging, while on shore on leave; their provisions will be of the best quality, and each person will have a separate sleeping berth and a place to leave his chest, and should he go away for a week or a month, without any additional expense. The perusal of books, maps, and newspapers, also the security of a savings' bank, and many other advantages they would enjoy at this institute.

As dinner was provided for about forty seamen, it was laid out on three tables in the dining-room, and in accordance with the dinners to be provided in future. The Hon. James Byng asked permission to preside at one table; Captain Gambier at the second; and Captain Fead, who lately paid off the *Prince Regent*, at the third. Nothing could be more happy and comfortable than the seamen appeared to be; and afterwards the elder seamen took their pipes, and the younger ones contrived to manage, with the assistance of some well looking young damsels, to make up a dance; and they enjoyed themselves till after sunset.

"A good many valuable presents have been given to the Sailors' Home, among which we may enumerate a very handsomely-bound large bible by the Hon. Mrs. Hall, as the foundation to a Sailors'-Home library, and by her little daughter Miss Hall, the 'Voyage of the Nemesis in China;' by the Dowager Vicountess Torrington, two volumes of 'Ekins's Naval Battles;' by Captain Hall, an admirable picture of Her Gracious Majesty's yacht the *Victoria* and *Albert*, with the *St. Vincent*, and Lord Yarborough's yacht; by Mr. H. Colburn, of Great Marlborough Street, publisher, upwards of twenty volumes of naval and other works; from the *Pluto* (steamer), lately paid off, a valuable chronometer, which will be exchanged, we understand, for a handsome clock for the hall.

"Sailors' Homes" are to have the same advantage as that excellent establishment, the *Dreadnought* hospital ship, moored in the Thames—viz., to be open to seamen of all nations.

It would be unjust to terminate the proceedings of the opening of the Sailors' Home, without giving the chairman Captain Gambier, and the directors of the institution, the greatest credit for their arduous exertions.

The seamen will ever owe them and the promoters of it, a debt of gratitude for they have now a comfortable clean respectable boarding or club-house to go to, without fear of being robbed, or exposure to temptation. Hitherto they had no place to sit down in but grog-shops, or something worse, where unprincipled persons of both sexes are on the look out, to allure them to their haunts, where they manage to keep them in a half intoxicated state for weeks, or till all their hard earned wages were gone.

Her most Gracious Majesty ever ready to promote the welfare of her sailors, has given a donation of £100 to the institution.

RENEWED BRANCH EXPEDITION IN SEARCH OF SIR JOHN FRANKLIN, *By Regent Inlet, and the passages connecting it with the Western Arctic Sea.*—1851.

It having been ascertained last year that an important part of the field of search for the missing Arctic Expedition could not be explored by any of the ships then engaged, or about to be engaged in the service, it was resolved to equip a supplementary expedition for the examination of the portion thus unprovided for.

The part alluded to, includes Regent Inlet, and the passages connecting it with the Western Sea, south-west of Cape Walker, to which latter quarter Sir John Franklin was required, by his instructions, to proceed in the first instance. This search was assumed to be necessary on the following grounds:—

1st.—The probability of Sir John Franklin having abandoned his vessels to the south-west of Cape Walker.

2nd.—The fact that when Sir John Franklin sailed, he believed that an open passage was to be found from the westward into the south part of Regent Inlet, according to the chart supplied to him from the Admiralty, and which does not exhibit the discoveries of Rae, made subsequently to that period.

3rd.—Sir John Franklin would be more likely to take his course through a country known to possess the resources of animal life, with the wreck of the *Victory* in Felix Harbour for fuel, and the stores of Fury Beach further north, in view, than to fall upon an utterly barren region of the North coast of America.

4th.—He would be more likely to expect succour to be sent to him by way of Lancaster Sound and Barrow Strait, into which Regent Inlet opens, than in any other direction.

In corroboration of the necessity of this part of the search, we may refer generally to the Parliamentary Papers of 1848, '49, and '50, and may here quote the very important words of an experienced Arctic Officer, Capt. Beechey, p. 31 of the first series. "If, in this condition" (that of being hopelessly blocked up to the south-west of Cape Walker) "which I trust may not be the case, Sir John Franklin should resolve upon taking to his boats, he would prefer attempting a boat navigation through Sir James Ross's Strait, and up Regent Inlet, to a long land journey, across the Continent to the Hudson Bay Settlements, to which the greater part of his crew would be wholly unequal." And again, in his letter to the Secretary of the Admiralty, 7th of February, 1850, Capt. Beechey writes, "• • • the bottom of Regent Inlet, about the Pelly Islands should not be left unexamined. In the memorandum submitted to their lordships, 17th January, 1849, this quarter was considered of importance, and I am still of opinion that had Sir John Franklin abandoned his vessels near the coast of America, and much short of the Mackenzie River, he would have preferred the probability of retaining the use of his boats until he found relief in Barrow Strait, to risking an overland journey, *via* the before mentioned river; and it must be remembered that at the time he sailed, Sir George Back's discovery had rendered it very probable that Boothia was an island."

The memorandum alluded to by Capt. Beechey as having been submitted to the Lords of the Admiralty on the 17th of January, 1849, was the expression of the unanimous opinion of the Arctic officers assembled by command of the Admiralty to deliberate upon the best means to be taken for the relief of the missing expedition; and in this report, clause 14 is expressly devoted to the recommendation of the search of Regent Inlet.

Upon the grounds above stated, was founded the necessity of an auxiliary

Expedition, and accordingly last spring a small vessel, the *Prince Albert*, was fitted out to convey two boat parties to Regent Inlet for the search of its Western Shore, and of the passages or isthmuses connecting it with, or dividing it from, the Western Sea, including James Ross and Simpson Strait. This Expedition was equipped for an absence of two years' duration, if required; but returned in less than five months, unhappily without effecting any part of its object, a failure which was owing to circumstances that do not in any degree affect the practicability or hopefulness of a renewed attempt. The vessel has been proved well fitted for the service, whilst the intelligence which it has brought back that traces of the missing Expedition had been discovered far to the westward, on Cape Riley, in the route to Cape Walker, confirms the presumption upon which the vessel was sent out, and gives increased ground for hope in the renewed search. The necessity for its renewal will be the more apparent when it is stated, that the early return of the *Prince Albert* is unknown either to Captain Austin, Captain Penny, or the American ships employed in the search, so that the erroneous impression must exist among them, that this special service is even now in the course of accomplishment.

The resumption of the interrupted search being thus deemed necessary, the command of the expedition will be given to Mr. Kennedy, late an officer in the Hudson Bay Company's service, who has come over from Canada for the purpose of affording his gratuitous services. Mr. Kennedy was eight years on the coast of Labrador, and was the first European who ever visited its northern coast. He has had consequently very great experience in the kind of service to which he has now nobly devoted himself. A whaling captain of very great experience has been engaged to conduct the *Prince Albert*, under the orders of Mr. Kennedy, to her destination. The sum of £3,700 was expended last year in sending out the *Prince Albert*, of which nearly £1,600 was supplied by subscription, the remainder being derived from Lady Franklin's private resources. It is calculated that in addition to what remains of these private resources, about £1,000 will be required to meet the current pay of the master, his subordinate officers and crew, as well as the expenses of the necessary refittings and additional stores.

The necessity for the proposed search may be thus further developed. The very open season of 1845, in which Sir John Franklin commenced his enterprise was followed by others of extreme severity; and it is most probable, that having in obedience to his instructions, attempted to effect the passage westward, by entering the region S.W. of Cape Walker, his progress was there arrested during succeeding seasons, and that he ultimately was compelled to abandon his ships, when his provisions became nearly exhausted. Such a necessity may have arisen somewhere about the lat. of  $74^{\circ}$  N., long.  $105^{\circ}$  W.; in short, at any point S.W. of Cape Walker, not farther W. than long.  $110^{\circ}$ . And in such case, rather than return North (which might be indeed impracticable), or move south upon the American Continent, of which (upon the coast) the utter barrenness was already well known to him, he might prefer a south-eastern course, with a view of passing in his boats, either through James Ross Strait, or through Simpson Strait, into the Gulf of Boothia, and so up into Regent Inlet to the house and stores left at Fury Beach, the only depôt of provisions known to him. The advantages of such a course might appear to him very great.

1st.—Two open passages being laid down in the Admiralty chart into Regent Inlet, by James Ross Strait, and by Simpson Strait, a means of boat transport for his party would be afforded, of which alone perhaps their exhausted strength and resources might admit; such a course would obviously recommend itself to a commander who had experienced the frightful difficulties of a land journey in these regions.

2nd.—The proposed course would lead through a part, the south of Boothia, in which animal life is known at some seasons to abound: the testimony of Sir John Ross upon this point, as shown in his work, being very strong, and well known to Sir John Franklin.

3rd.—The Esquimaux frequenting this part of Boothia were found by Sir John Ross to be extremely well disposed and friendly, though they could not be induced, during his detention of three years and more, to act as guides to remote parts beyond their accustomed limits. It may be remarked, that Sir John Ross first communicated with the Esquimaux at Boothia Felix, in January, 1830, and that on the 27th July, 1834, Sir George Back first met the Esquimaux at the mouth of the Back River, at which date they knew nothing of any ship having been in Regent Inlet. In other words, the news had not travelled 200 miles in four years and a half.

4th.—It is the direct route towards the habitual yearly resort of the whalers on the west coast of Baffin Bay and Davis Strait. Indeed these ships occasionally descend Regent Inlet, to a considerable distance south.

5th.—There are two persons attached to Sir John Franklin's Expedition, who are well acquainted with this region and its resources, viz., Mr. Blanky, ice-master, and Mr. Macdonald, assistant surgeon of the *Terror*. The former was with Sir John Ross in the *Victory*. The latter has made several voyages in whaling vessels, and is acquainted with the parts lying between Regent Inlet and Davis Strait. Where so few amongst the crews of the missing ships have had any local experience, the concurrent knowledge of two persons would have considerable weight.

6th.—Opinions are greatly divided as to the part in which Sir John Franklin's party may have been arrested, and as to the course they may have taken in consequence. It would be therefore manifestly unfair, and most dangerous, to reason out and magnify any one hypothesis at the expense of the others. The plan now proposed seeks to provide for the probability of the expedition having been stopped shortly after passing to the south-west of Cape Walker. The very open season of 1845 was followed by years of unusual severity until the last. It is therefore very possible that retreat as well as onward progress has been impossible—that safety alone has become their last object. Can it be that now, when the hope of rescuing them in their last extremity depends (as far as human means can ensure it) on the multiplying of simultaneous efforts in every direction, the necessity of this one should not be recognized? The special search which is now pleaded for, must be neglected unless a vessel be sent out purposely to carry it into effect.

“In consequence of the late decision on the part of the Admiralty, not to send a steamer into Barrow's Strait this summer, the *Prince Albert* will afford the only means of communication with the vessels now in the Arctic Sea; and before commencing her appointed work she will proceed, if possible, to one of Capt. Austin's rendezvous, namely, Griffith's Island; and in the event of any important intelligence being found there, it will be at the discretion of the Commander to return home immediately.

• • • • “And in proceeding to the westward, therefore, you will not stop to examine any openings either to the northward or southward in that Strait (Barrow's), but continue to push to the westward without loss of time, in the latitude of about  $74\frac{1}{2}^{\circ}$ , till you have reached the longitude of that portion of the land on which Cape Walker is situated, or about  $98^{\circ}$  west. From that point we desire that every effort be used to endeavour to penetrate to the southward and westward, in a course as direct towards Behring's Strait as the position and extent of the ice, or the existence of land at present unknown, may admit.

“We direct you to this particular part of the Polar Sea as affording the best

prospect of accomplishing the passage to the Pacific, in consequence of the unusual magnitude and apparently fixed state of the barrier of ice observed by the *Hecla* and *Griper*, in the year 1820, off Cape Dundas, the south-western extremity of Melville Island: and we, therefore, consider that loss of time would be incurred in renewing the attempt in that direction; but should your progress in the direction before ordered be arrested by ice of a permanent appearance, and that when passing the mouth of the Strait, between Devon and Cornwallis Islands,\* you had observed that it was open and clear of ice, we desire that you will duly consider, with reference to the time already consumed, as well as to the symptoms of a late or early close of the season, whether that Channel might not afford a more practicable outlet from the Archipelago, and a more ready access to the open sea, where there would be neither islands nor banks to arrest and fix the floating masses of ice; and if you should have advanced too far to the south-westward to render it expedient to adopt this new course before the end of the present season, and if, therefore, you should have determined to winter in that neighbourhood, it will be a matter for your mature deliberation, whether in the ensuing season, you would proceed by the above-mentioned Strait, or whether you would persevere to the south-westward, according to the former directions."—*Copy of Sir John Franklin's Instructions, 5th May, 1845, vide Parliamentary Returns.*

To meet the desponding feelings with which some are too apt to regard the fate of the missing expedition, the following facts may be brought forward.

1st.—That Sir John Franklin's party would not wait to encrease their stock of provisions until the approach of want, but would avail themselves from the very first, of the resources of the country in fish, animals, and birds, and thus husband their own stores.

These resources are well known to be in certain quarters abundant, and we may add the obvious argument, that where Esquimaux live, other men may do so also.

2nd.—That the want of fuel, if even the sacrifice of one of the ships was not resorted to, these would be met by the supply of drift-wood, and of blubber, the usual fuel of the Esquimaux.

3rd.—That the non-receipt of intelligence should not be considered any argument against the probability of the party being in existence, as by a reference to article third, it will be perceived that the intelligence of Sir John Ross's communication with the Esquimaux at Felix Harbour had not travelled the small distance of 200 miles in four years and a half.

#### NAUTICAL NOTICES.

**HOY SOUND LIGHTHOUSES.**—The Commissioners of Northern Lighthouses hereby give Notice, that two Lighthouses have been built upon the Island of Graemsay, lying in Hoy Sound, opposite Stromness, in Orkney, the lights of which will be exhibited on the night of Thursday, the 15th of May, 1851, and every night thereafter, from sun-set till sun-rise.

The following is a specification of the position of the Lighthouses and of the appearance of the lights, by Mr. Alan Stevenson, engineer to the commissioners.

The high Lighthouse is in N. lat. 58° 56' 09", and W. long. 3° 16' 33". By compass, the lighthouses bear from each other S.E.  $\frac{1}{4}$  E., and N.W.  $\frac{1}{4}$  W. The high light, towards the western entrance of Hoy Sound, is a fixed red light, and the low light is a fixed bright light. When seen in one line, they lead through the western entrance to Hoy Sound, in the fairway, between

\* Wellington Strait or Channel.

the dangerous rocks of Bow, off the Hoy shore—and Kirk Rock, off the Stromness shore. After running in on this line to a point half a mile off the low light, where the depth is about 8 fathoms, the high red light will be suddenly eclipsed by the land; and it is then time to haul towards the Stromness shore, when the red light will immediately reappear.

The high light is elevated 115 feet above the sea; but, being a fixed red light, it will not be seen a greater distance than about ten nautic miles. It illuminates a small Arc towards the S.E. from S.E.b.E. to S.E.½S., facing the western entrance to Hoy Sound. Toward Stromness, the High Tower shews a fixed bright light, from S.S.E.½E. to W.S.W.

The low light, as already stated, will be known to mariners as a fixed bright light. It is elevated 55 feet above the sea, will be seen at the distance of seven nautic miles, and at lesser distances, according to the state of the weather. The Arc illuminated by this light extends from E.½S. to W.½N., and faces northward.

As a guide for vessels approaching Stromness from the southward, it is also intended, in the course of a few weeks, to exhibit a light towards the island of Cava, when a notice and description of the lights, illustrated by a tracing of the coast, will be given. The variation of the compass is  $27^{\circ} 47' W.$

The Commissioners hereby further give notice, that by virtue of a warrant from the Queen in Council, dated 14th August, 1850, the following tolls will be levied in respect of these lights, viz. :—

“For every vessel belonging to the United Kingdom of Great Britain and Ireland (the same not belonging to Her Majesty, her heirs and successors, or being navigated wholly in ballast), and for every Foreign vessel which, by Act of Parliament, order in council, convention, or treaty, shall be privileged to enter the ports of the said United Kingdom, upon paying the same duties of tonnage as are paid by vessels belonging to the United Kingdom (the same not being navigated wholly in ballast) which shall arrive at, or depart from, the port of Stromness or its dependent creeks in Orkney, or which shall pass in either direction through the Pentland Firth, between the Island of Pomona or the Mainland of Orkney, and Dunnethead in Caithness, the toll of *one furthing* per ton, of the burden of every such vessel, for each time of passing or deriving benefit from the said lights, if on a coasting voyage, and double the said toll for passing or deriving benefit on an Oversea voyage; and for each Foreign vessel navigated as aforesaid not privileged in manner hereinbefore mentioned, double the amount of the respective tolls hereinbefore specified.”

*By order of the Board,*

ALEXANDER CUNNINGHAM, *Secretary.*

*Office of Lighthouse Board,  
Edinburgh, 15th April, 1851.*

**MINE HEAD AND BALLYCOTTIN ISLAND LIGHTHOUSES, South Coast of Ireland.**—The Corporation for preserving and improving the port of Dublin, hereby give notice, that a Lighthouse has been erected on Mine Head, county of Waterford, and another Lighthouse on Ballycottin Island, county of Cork, from which lights will be exhibited on the night of the 1st of June, 1851, and which will thereafter be lighted every night from sun-set to sun-rise.

Specification given of the position and appearance of the lights, by Mr. Halpin, inspector of lighthouses.

*Mine Head Lighthouse* is in lat.  $51^{\circ} 59' 33'' N.$  and long.  $7^{\circ} 35' 8'' W.$ , and bears from Hook Tower lighthouse W.b.N., distant twenty-five nautic miles and a half; Coningbeg Rock W.b.N. ¾N., distant thirty-five miles and three quarters; Cable Island, (south point) E.½N., distant twelve miles; Ballycottin Island lighthouse, E.½N., distant seventeen miles and three quarters; Old Head of Kinsale, (south point) E.½N., distant forty-two miles and a half. The light will be intermittent, eclipsed once in every minute, appearing of

its full brightness during fifty seconds, and obscured during ten seconds. The lantern is 285 feet over high water level. The light will be shewn from N.E.b.E.  $\frac{1}{4}$  E., seaward, to W.  $\frac{3}{4}$  S. and in clear weather will be visible at the distance of seven leagues.

*Ballycottin Lighthouse* is built on the outer island, west side of Ballycottin Bay, in lat.  $51^{\circ} 49' 30''$  N., and long.  $7^{\circ} 59' W.$ , and bears from Mine Head lighthouse W.  $\frac{1}{4}$  S., distant seventeen miles and three quarters; Cable Island, (south point) W.  $\frac{1}{4}$  S., distant six miles; Smith's Rock E.  $\frac{1}{4}$  N., one mile and a quarter; Old Head of Kinsale, E.  $\frac{1}{4}$  N., distant twenty-four miles and a half. The light will be a flashing light, shewing a bright flash once in every ten seconds, or six flashes in each minute.

The Lantern is 195 feet over high water level. The light will be shewn from E.  $\frac{1}{4}$  N. seaward, to W.  $\frac{1}{4}$  N. and the flash will be visible at the distance of six leagues in clear weather.

The Tower is circular, of stone colour. The projecting gallery and blocking under the lantern sash, will be coloured red. The bearings stated are magnetic—Var.  $28\frac{1}{2}^{\circ} W.$

By order,

Ballast Office, Dublin,  
1st March, 1851.

H. VEREKER, Secretary.

---

GRAHAM SHOAL.

Admiralty, 5th May, 1850.

SIR.—Vice Admiral Sir William Parker having communicated to my Lords Commissioners of the Admiralty the result of an examination which he has caused to be made of Graham's Shoal, by Commander Lord Frederick Kerr, of H.M.S. *Scourge*, I am commanded by their Lordships to communicate to you for the information of Shipmasters, that it has not sunk, as more than once reported, but that it still exists, and carries but sixteen feet on its shallowest part.

The following is the position assigned by his lordship to the shoal:—Lat.  $37^{\circ} 11' 5'' N.$ , long.  $12^{\circ} 44' 55'' E.$ , and the bearings by compass of the adjacent land, according to the original survey, are Pantellaria Peak S.  $72^{\circ} W.$  Campobello N.  $12^{\circ} E.$ ; Peak over Cape St. Marco N.  $52^{\circ} E.$ ; Sciacca Town N.  $57^{\circ} E.$ ; Mount Allegro N.  $86^{\circ} E.$ , Rosello Point S.  $84^{\circ} E.$

I am, Sir, &c.

Captain Halsted, R.N., *Lloyds*.

W. A. B. HAMILTON.

REVOLVING LIGHT ON CAPE RECIFE, *South Africa*.—Her Majesty's Government at the Cape of Good Hope has given notice, that a revolving light was to be established on the first of last April, on Cape Recife, the position and character of which is as follows:—

The lighthouse, which is painted with four horizontal bands, alternately red and white, stands in lat.  $34^{\circ} 1' S.$ , and long.  $25^{\circ} 40' E.$ ; the height of the building is eighty feet, but the light is elevated ninety feet above the level of the sea, and is therefore visible to a vessel twelve feet high at the distance of seventeen miles, between the bearings of N.b.E. round by the southward to west. The light revolves once in every minute; or when seen from a short distance, it appears to be a fixed light with bright flashes at intervals of a minute each.

Cape Recife is low, but may be distinguished by a hummock near its extremity. The Cockscomb mountain 5,400 feet high, bears from Cape Recife N.N.W.  $\frac{1}{4}$  W., whereas, from Cape St. Francis, which is sometimes mistaken for it, the Cockscomb bears N.E.  $\frac{1}{4}$  N. Vessels passing Cape Recife should give it a berth of not less than four miles to the westward, and of two miles



to the southward, in order to avoid its dangerous reefs, towards which a strong current continually sets.

After rounding Cape Recife from the westward, and in proceeding to the anchorage off Port Elizabeth, the red buoy on the Dispatch Rock should not be approached in less than seventeen fathoms.

A white stone beacon on the shore when in one with the lighthouse (bearing S.S.W.  $\frac{1}{2}$ W.) points to the eight feet summit of the Dispatch rock; and about two miles north of the lighthouse stand two wooden Beacons, which when in one (about W.b.N.) are likewise a mark for the summit of that rock.

At night the light should be always kept to the northward of E.  $\frac{1}{2}$ N. when within the distance of five miles, and vessels must immediately run out, or tack, if within that bearing. When rounding the cape they should never come into twelve fathoms till the light bears N.W. and then they may haul in N.N.E.

#### CLIFTON SHOAL.

*Ship Clifton, Bristol, May 10th, 1851.*

SIR.—I beg leave to forward to you, for the information of all commanders of ships bound through the Straits of Sunda from the China Sea, an extract from the ship's log book, which you will oblige me by giving publicity to in your widely-spread journal.

"Straits of Banca, Friday, 15th Nov. 1850, at 8h. 30m., A.M., weighed in company with the barque *George Buckham*, wind S.E., working out of the Straits. Noon; first point of Sumatra bore S.S.E. distant two leagues current setting to the northward. Saturday, 16th Nov., commences light winds and hazy, at 5h. 30m. P.M. tacked to S.S.W. in 12 fathoms mud; the first point bearing west, distant about six miles. At 6h. 15m. depth of water 9 fathoms; took in sail; the water shoaled suddenly from 6 fathoms, when the anchor was ordered to be let go, to 4  $\frac{1}{2}$  fathoms, where she brought up and grounded on a bank in swinging to her anchor, having only 1  $\frac{1}{2}$  fathoms water on port beam (about a ship's length), and 4  $\frac{1}{2}$  fathoms, about the same distance on the starboard beam and a-head. A heavy squall from the N.E. prevented her being hove off the bank, a tort strain kept on the bower and on the kedge, which had been carried out on the starboard quarter. Midnight; calm, the ship had slued about a foot. At 6h. 30m. A.M., a squall from the S.W., made sail and braced all aback, when she floated off; whilst on the ground found the current setting strong to the S.E., ship's head N.W.b.N. This sand bears from the first point of Sumatra, S.E.  $\frac{1}{2}$ E., and from Lucepara Island, N.N.W.  $\frac{1}{2}$ W., 4 fathoms are marked close where the ship grounded, on a new Dutch chart (government), of this part of the Straits, (which government chart is on a large scale), but has not this Bank laid down in it.

"Thursday, 21st November, about 6 P.M., Brothers Island bore S.b.W., at 7h. 30m. anchored in 6 fathoms; at 5h. 30m. A.M., weighed and made sail; at 6h. 30m., struck on a hard bank not down in the English or Dutch charts. Ship gave a heel to port, but did not lose her way, had 6 fathoms water, immediately before and after she struck (and one cast) whilst passing, had a quarter less 4 fathoms, the next cast 4  $\frac{1}{2}$  fathoms. The Brothers Islands in sight from a few ratlines up the mizen-rigging—bearing S.  $\frac{1}{2}$ E., distance about 4 leagues. A high hill in Sumatra with several peaks, bore S.W.  $\frac{1}{2}$ W.

This shoal evidently being first noticed by myself, I take the liberty to call it after my ship, viz., the Clifton shoal, (ship's draught of water twenty feet.)

Whilst on this point, allow me to call your attention to a shoal I saw in 1841 when commanding the barque *Castries* from the West Indies to London. I reported this at the time, but the only notice taken of it, was a letter from a

naval officer, who coolly enquired if I "had seen a whale"? and "surmised it to be an after dinner discovery"! I re-copy it now verbatim from my journal at that time.

"Sunday 20th June.—At 6h. 20m. p.m., passed a shoal about half a cable's length to the northward of the ship: it appeared about the size of a large ship's quarter-deck, with sea-weed almost awash with the water's edge, the sea rolled over it, but did not break; it is to be regretted that the weather would not allow the ship to be brought to, to examine this startling danger. The latitude and longitude brought on by 'dead reckoning,' from noon 19th, places this dangerous rock\* in lat. 40° 45' N., long. 36° 47' W."

It will give me great pleasure to reply to any questions you may propose.

I am, Sir, &c.

To the Editor N.M.

E. W. BRAZLEY, Com-ship Clifton.

The Portland Breakwater staging is now carried out 1150 feet from the shore, and the deposit of stone about 1100 feet, on the average 1200 tons of stone daily are quarried and a similar quantity deposited, the extreme end being marked by a blue light.

GENTLEMEN.—The following particulars are contained in a letter addressed to myself by Capt. Young, dated Batavia, 26th April, 1850, received yesterday.

The ship *Ajar*, bound from Manila to London, at half-past seven on the morning of the 12th of March last, struck on a shoal in the Straits of Sunda, between Thwart-the-Way and Buttons Islands; the morning was clear, and sun high up, and every object, so far as the eye could reach, plain to be seen; Capt. Young was on deck, he had on board three charts of the Straits of Sunda, in all which they are down 40 to 60 fathoms water, he had been past and repast with the same chart several times, and to use his own words, "would as soon have expected the ship to strike four leagues at sea from Sydney Heads as where she did." The Dutch have known of this shoal since 1840: Horsburgh's Directions do not mention it. When the vessel struck, Button Island bore E.S.E., about two miles distant. After thumping about fifteen minutes the vessel came off, they continued the same course about S.b.W., set both pumps on, and pumped for four hours; there was above ten feet of water in the hold, it had fallen calm, and a steamer in sight, to which Capt. Young applied to tow the vessel on shore, the hawser fouled the steamer's screw, and rendered the steamer useless: about four o'clock a breeze sprung up, when the officers and crew succeeded in getting the vessel on the beach near Anjer, with fifteen feet water in the hold.

I am, &c.,

JOSEPH S. WILLS.

To the Editors of the *Sydney Morning Herald*.

#### PICTAIRN ISLAND.

SIR.—The following may be of some service to masters of vessels:—

Pictairn Island is about 1½ mile in length and 4½ in circumference. Its true position (given incorrectly in some of the charts) is lat. 25° 3' S., long. 130° 8' W. It rises abruptly out of the water; the highest point called the look-out ridge by the Bounty men, is 1008 feet above the level of the sea. It is iron bound with the exception of one landing place on the north side, near the east end, marked by a grove of cocoa-nut trees, and a few boat houses. This spot is easy

\* Query wreck.—P.D.

for a stranger to find. There are no shoals nor any dangers but such as can be seen; an easterly current prevails, varying however with the time of tide. There is anchorage about  $\frac{1}{2}$  to  $\frac{3}{4}$  of a mile from the shore, south of the north-west end, in from 10 to 20 fathoms, during seven months of the year, from the beginning of September to the end of March during which time easterly winds are prevalent: high water, with a rise of eight feet, takes place three hours after the rising of the moon.

The following is a list of the refreshments which can be supplied to shipping, and the prices which are fixed; the same charge being adhered to whether the season be plentiful or scarce:—cocoa-nuts 8s. per 100, fowls 12s. per dozen oranges 4s. per 100, limes 8s. per barrel, lime-juice 2s. per gallon, plantains, bananas, pumpkins, water melons, sweet potatoes, beans, &c., little of which can be spared, but prices very reasonable. When purchased and paid for the articles are brought down to high-water mark, where they are at the purchaser's risk. The islanders will bring them off in their own boats if it be wished, for which no charge is made, although some remuneration is expected.

A RECENT VISITOR.

---

#### MATES CERTIFICATES.

SIR.—I perceive that Second Mates make application to the Board of Trade for certificates of Service, and have Mates certificates sent to them. Is that right? or is it fair to the Second Mates who have passed their examination as First Mates? Availing themselves of their certificates, they are enabled to go to sea as First Mates, never having before been in that capacity.

I am, &c.,

M. W.

To the Editor N.M.

[The act does not make any distinction of mates when certificates of servitude are to be given, as all who have served as mates of any degree are entitled, and these persons undergo no examination. In fact government does not trouble itself with them, the class will very soon die off, as all who are promoted to mates since the 1st of January, must have certificates of competency, and then mates will be distinguished viz., First only and Second.]

---

#### ADMIRALTY CIRCULAR.—Log Books.

My Lords Commissioners of the Admiralty are pleased to direct that the following regulations relating to Officers' Logs, shall for the future be observed:—

1st.—The log book of a lieutenant, instead of being forwarded, as heretofore, to this office, is to be retained by each officer for his own use, and in lieu of the log book, a certificate is to be forwarded, signed by the captain, shewing that a log book, or journal, has been kept.

2nd.—My Lords do not wish the lieutenant's log book to be a mere transcript of the ship's log; they consider that when an officer is aware that the log book is to be retained by him for his future information, he would wish to make it a general remark book of professional observations on the various places visited in the course of service, besides containing the usual astronomical and other observations, with the daily position of the ship, winds, currents, with track charts, and plans, as well as sketches of harbours; in all such cases the captain is to consider such a remark book or journal, as a log book, and to grant the certificate before named; reporting to their lordships the name of any officer who may have been assiduous in collecting information worthy of their notice.

3rd.—The above regulation is also to apply to the logs of commanders serving under a captain, and the 2nd Article to the logs of mates.

4th.—The six-monthly log book of an officer in command, and likewise the six-monthly log book of the master, are to be forwarded as usual, and they

must be in all respects a correct copy of the ship's log book, and be properly signed by the above officers.

5th.—The ship's log book, as well as those of the officer in command, and master, are to contain track charts of the passages or cruising of the ship.

6th.—Printed log books, the same as those now issued for the ship's log book, will be supplied for the officer in command and master's logs at the dockyards on demand.

By Command of their Lordships,

JOHN PARKER.

*To all Commanders in Chief, Captains, Commanders, and Commanding Officers, of Her Majesty's Ships and Vessels.*

ENCOUNTER OF A SHIP WITH A WHALE.—Letters from Rio de Janeiro, dated February 14th, say, "The following statement of the exploits of a whale, and his attack upon a vessel, is abstracted from the protest of Captain Joseph Dias, of the whale ship *Pocahontas*, of Tisbury, made before the U.S. consul at Rio de Janeiro in January, 1851. It is said to be the second instance of a direct attack on a vessel by a whale. The other was the ship *Essex* in the Pacific, which was entirely lost. Capt. Dias says that, on the 12th of December, 1850, in latitude about 33° 47' south and longitude 48° 35' west, at 5 P.M., saw a shoal of sperm whales off the lee bow, lowered two boats, the larboard boat struck and had been fast fifteen to twenty minutes, and after the line had been hauled into the boats, which line had been sounded out in the attempt to lance the whale, she turned upon the boat, and literally crushed it to atoms with her jaws, and all belonging to it, except the crew, who swam to the other boats, the whale all the time staying around the fragments. The starboard boat came down, but pulled back to the ship, in company with the waist-boat and two crews. After they had come on board and boats hoisted up, the vessel was squared in and ran for the whale, which still continued about the place where she stove the boat. The crew were fully prepared with lances, &c., ready to make a dart. In about fifteen minutes wore the ship's head towards the whale, having every thing ready to attack her: vessel on the larboard tack, and whale coming to leeward of the ship. When about two boats' lengths off, the whale rounded towards the vessel's bow, and struck it with such force as to start one or two planks, and break one or two timbers on the starboard side of the bow at the water line, causing the vessel to leak at once at the rate of 250 strokes per hour. Under the circumstances, the captain bore up for Rio, where proper repairs were made. He sailed again on his cruise about the 10th of January. Whether he will meet his old foe is doubtful; but if he does, he will give battle."—*New York Express*.

#### LIGHTHOUSE ECONOMY.

*Northern Lighthouse Office,  
Edinburgh, 7th May, 1851.*

SIR.—In your May number, a letter from Mr. Alexander Gordon, c.e., appeared with the title "Lighthouse Economy," and at page 251 a foot note occurs which requires some notice.

As the statement in that note, charged the Commissioners of Northern Lighthouses, with withholding from a recent return made by them, documents called for by Parliament; I beg to state that there is not the slightest foundation for the imputation; and that every document called for by the return has been given.

The specific documents mentioned by Mr. Gordon, (applications to the Board to erect a Lighthouse on the Island of Heston in the Solway,) and

many others of a similar nature, *were not called for*, and of course are not to be found in the return.

The note contains a further charge, "that important documents which are transmitted for presentation to the Board are suppressed, and not allowed to reach them." This affects the due discharge of my duty as Secretary to the Board; but it is in itself so perfectly incredible, that I might leave it unnoticed were it not that I was called upon to contradict the charge against the Board. The statement affecting me is as groundless as the other.

There are other assertions in Mr. Gordon's letter which might be noticed, but as contradictions of them have been published some time previous to the date of his letter, and of which publication Mr. Gordon is aware, it is unnecessary to notice them.

I am, Sir, &c.

ALEXANDER CUNNINGHAM,

*Secretary to Commissioners of Northern Lighthouses.*

*To the Editor N.M.*

#### BOTTLE TRACKS.

We are indebted to a friendly hand for leaving this at our publishers.

"Ship John Bibby, in lat. 37° 0' N., long. 15° 4' W., on the passage from Liverpool to Bombay, out 16 days, all well; the wind light or N.E., with a nasty cross sea making the ship very uneasy, dark gloomy weather, we have not seen the sun more than three times since leaving old England, on the 20th ult., February 3rd, 1850"

This bottle No. 19b, it will be seen has taken the course of the rest, which started near it, Nos. 14 and 19a.

On the back of this paper we find as follows:—

"This scrip came ashore in a bottle the other day at Castle Hill."—H. G.

"The above shore was the Island of Barbuda, and it was sent from there on the 21st of March last."—J. SIGGINS, 37, *Mincing Lane*.

*Colonial Secretary's Office Belize, Honduras, April 9th, 1850.*

SIR.—I have the honour to transmit a document which was found in a Sealed Bottle, on the 5th of March last, lying on the beach about half way between this port, and the Bay of Ascension, latitude about 18° 40' north, longitude about 88° 40' west.

I have the honour to be,

Sir,

Your obedient humble servant,

GEORGE

Col. Sec.

*To the Secretary of the Admiralty, London.*

"H.M.S. *Enterprize*, 3rd of March, 1850, lat. 1° 7' N., long. 26° 48' 30". In search of Sir John Franklin, left England, 20th January, 1850; a breeze from the southward and eastward, expect to cross the line tomorrow, all well.

RICHARD COLLINSON, *Captain.*

"Parted company with *Investigator*, 31st Jan. 1850, experienced during the last 24 hours, a westerly set of 45 miles."

There is a curious fact attending this 'bottle' paper, and that of the *Investigator*, the account of which will be found in p. 699, of our last year's volume (December number). The latter was thrown overboard to the southward of the Cape Verds, in February last year, by Capt. Maclure, (now in the Polar Sea, northward of Point Barrow,) and the present one was thrown over by Capt. Collinson,

in March following, above 600 miles to the southward. But with a remarkable attachment for each other like the two discovery ships, although they have not kept company, these two bottles have both arrived at very nearly the same place, Capt. Maclure's being found at Ambergris Cay, while this has been found about 30 miles to the northward of it, after a drift of some thousands miles, with the usual equatorial current. Capt. Maclure's seems to have been picked up not many days after being washed on shore; but this of Capt. Collinson's has been lying many days unobserved.

(53a.)

A bottle containing the following written document was picked up on the Holywell Sands, about nine miles east of St. Agnes, Truro, Cornwall, by one of the coast guard, at 7 o'clock A.M., of the 17th inst.

"Brig *Mary Allan*, of Irvine, Boyd; Montreal, to Liverpool, sailed from Quebec on the 28th November, 1848, at 1 P.M. Lat. by observation  $50^{\circ} 55' N$ , long. by chronometer  $32^{\circ} 10' W$ ."

The above appears in the *Shipping Gazette* of the 25th of August, 1849. *Maritime Extracts*, p. 2, col. 6.

(26a.)

*Truro*, January 29th.—On the 25th inst., a bottle was found by Lieut. Hussey, R.N., of the Coast Guard, on Perran Beach (on the north coast of Cornwall), containing the following extract from the log of the ship *Marmion*, from New York for Liverpool: "Hove overboard, August 16th, 1850, at 2 P.M., to ascertain the drift thereof—lat.  $49^{\circ} 8' N$ ., long.  $18^{\circ} 51' W$ .; W.S.W.

(Signed)

Thomas F. Freeman, <i>Master</i> .	} <i>Cabin</i> <i>Passengers</i> .
George P. Harkness, <i>1st. Mate</i> .	
Thomas Black,	
Robert Haynes, <i>jun.</i>	
John Leach.	

(2a.)

Another bottle was picked up on the same beach during the early part of last week, enclosing a card. It was thrown overboard from the *Prima Donna*, schooner, off Cape Coast, in 1850, the month being obliterated. This bottle must first have been carried southward by the Guinea current; then westward by the Equatorial current, then by the Guinea current along the coast of South America to the Gulf of Mexico, and from thence by the Gulf stream northward and eastward to the Cornish coast.—*Shipping and Mercantile Gazette*, Jan. 30th, 1851.

## NEW CHARTS.

Published by the Hydrographic Office, Admiralty, in April, 1851, and Sold by J. D. Potter, 31, Poultry.

	s.	d.
OWERS TO DUNNOSE, including Spithcad, <i>Capt. Sherringham, R.N.</i> , 1848.	2	6
KINSALE HARBOUR, <i>Commander Wolfe, R.N.</i> , 1849.	2	6
WATERFORD HARBOUR, <i>Commander Frazer, R.N.</i> , 1848.	2	6
SANTORIN ISLAND, <i>Capt. Graves, R.N.</i> , 1848.	2	0
BOUDROUM, <i>Commander Spratt, R.N.</i> , 1847.	2	0
SYDNEY HARBOUR, (Cape Breton Island) <i>Capt. H. W. Bayfield, R.N.</i> 1849.	1	6
ANTIGUA ISLAND (West Indies, North Coast), <i>Capt. Barnett, R.N.</i> , 1848.	2	6
Ditto (South West Coast), Ditto 1848.	2	6
SOUTH AMERICA INDEX CHART, 1851.	1	0

INSTRUCTIONS FOR THE COMPUTATION OF A TABLE OF THE DEVIATIONS OF  
 A SHIP'S COMPASS ACCOMPANIED BY BLANK FORMS, by *Lichibald*  
*Smith, Esq., M.A.*, 1851. . . . . 1 0  
 SOUTH AMERICAN LIGHTS, corrected to 1851. . . . . 2 0  
 WEST INDIA ditto ditto . . . . . 0 3  
 THAMES RIVER TO THE MEDITERRANEAN, additions to 1850 . . . . . 1 0  
 GIGHA ISLAND AND SOUND (Scotland W. Coast) *Capt. Robinson, R.N.*, 1850. 1 6  
 IRELAND SOUTH-EAST COAST, KNOCKMAHON TO WEXFORD, *Com. G. A.*  
*Frazer, R.N.*, 1850. . . . . 2 0  
 ANTIGONISH HARBOUR, *Capt. H. W. Bayfield, R.N.*, 1846 . . . . . 1 6  
 ORONTES ROAD, POSIDIUM BAY, AND KUAD ISLAND, *Mr. B. J. Hooper,*  
*Master, R.N.*, 1850. . . . . 1 0  
 WANGARI HARBOUR, NEW ZEALAND, *Capt. Stokes, R.N.*, 1849. . . . . 2 0  
 EDWARD DUNSTERVILLE, *Master R.N.*  
*Hydrographic Office, Admiralty, May 22nd, 1851.*

METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. Rogerson, of the Royal Observatory.  
 From the 21st of April, to the 20th of May, 1851.

Month Day.	Week Day.	Barometer.		Thermometer				Wind.				Weather.	
		in Inches and Decimals.		in the shade.				Quarter		Strength		-	A.M.
		9 A.M.	3 P.M.	9 AM	3 PM	Min	Max	A.M.	P.M.	A.M.	P.M.	A.M.	A.M.
21	M.	29.58	29.58	55	54	50	58	SW	SW	4	4	or 2)	or 3) 4)
22	Tu.	29.42	29.39	50	50	49	51	NE	NE	2	1	or 2)	or (3)
23	W.	29.70	29.72	53	59	41	61	SW	SW	2	1	bc	bephr 3)
24	Th.	29.78	29.80	51	57	41	58	W	W	2	2	bc	bc
25	F.	29.86	29.86	48	52	43	53	N	N	2	4	og	o
26	S.	29.80	29.70	48	58	42	60	W	W	1	2	befin	betp 3)
27	Su.	29.60	29.56	40	48	33	49	N	N	4	5	bc	bepsr 3)
28	M.	29.61	29.63	42	50	33	51	NW	NW	2	2	bcp 2)	betprs (3)
29	Tu.	29.59	29.57	46	48	36	50	W	NW	2	3	op (3)	betphrs (3) (4)
30	W.	29.60	29.62	45	51	32	53	W	NW	3	5	bephr 2)	qbctphr (3)
1	Th.	29.76	29.73	45	53	35	55	NW	W	1	2	bcm	bcm
2	F.	29.68	29.72	47	54	36	56	N	N	2	4	bc	bc
3	S.	29.82	29.76	45	43	35	51	N	NE	1	3	bc	or (3)
4	Su.	29.70	29.66	40	42	33	45	N	N	2	2	bc	bephs (3)
5	M.	29.68	29.70	39	44	34	50	N	N	4	5	bephrs 2)	ophrs 3 4
6	Tu.	29.78	29.81	44	48	37	49	N	NW	3	4	o	op 3
7	W.	29.87	29.86	49	55	39	56	W	SW	2	4	bc	bc
8	Th.	29.78	29.70	53	57	42	58	S	S	2	4	bc	bc
9	F.	29.68	29.71	55	59	42	60	SE	S	5	4	qbc	o
10	S.	29.63	29.63	57	63	44	64	E	SE	4	2	bc	bc
11	Su.	29.73	29.76	55	64	43	65	N	N	2	1	b	o
12	M.	29.90	29.98	54	56	49	61	N	NE	2	2	o	bctp 3
13	Tu.	30.25	30.28	52	53	44	55	NE	NE	4	4	bc	bephr 3 4
14	W.	30.34	30.32	50	56	38	58	NE	NE	3	3	bc	bc
15	Th.	30.25	30.19	50	58	36	60	NE	NE	2	2	bc	bc
16	F.	30.10	30.04	50	64	39	65	SW	W	1	1	bcm	o
17	S.	29.98	29.95	53	59	47	61	SW	SW	1	2	o	o
18	Su.	29.90	29.85	57	59	49	61	SW	SW	4	5	o	qop 4
19	M.	29.88	29.86	52	56	43	57	NW	NW	6	6	qbc	qbephr 3
20	Tu.	30.17	30.22	52	57	40	58	N	NW	5	4	qbc	bc

April, 1851.—Mean height of the barometer = 29.851 inches; mean temperature = 45.7 degrees; depth of rain fallen = 2.50 inches.

London:—Hunt, Printer, 6, New Church Street, Edgware Road.

THE

# NAUTICAL MAGAZINE

AND

## Naval Chronicle.

---

JULY, 1851.

---

ON JULIUS CÆSAR'S EXPEDITION, *in relation to his point of departure from Gaul, and the localities of his first and second descent upon the opposite shore of England.*

THIS subject has been repeatedly investigated by men of keen and practical minds, whose fondness for antiquarian research has induced them to analyze the opinions of others, to compare them with every historical record within their reach, examining with minute criticism Cæsar's own Commentaries, and submitting them to the test of Roman Historians cotemporary with that great man; then, following through in detail, the testimony of succeeding writers, in the Saxon era, backed as they were by traditions (*in their day*) comparatively recent, and countenanced by the discoveries made also (*in their day*) of the decisive progress and route of the Roman Legions through Kantium, a country thickly strewed with the bones of the slain, and identified by the coins found among the fragments of armour, even from the sea board itself, among the marine exuviæ, to the barrows or places of burial in the interior.

Again in more modern researches where geological changes have converted the anchorage of navies into pasture land, the cuttings of the agriculturist or engineer, have laid bare quays, and jetties, the materials of which afforded positive evidence of the preference which had been given by Cæsar's descendants, to the self same line of operations, which had been selected by him *as the first invader*; and the route to and from which was marked by the Pharos at Dover, Kingsdown, Richborough, Rutupiaë, and other *unmistakable ruins*, such as do not exist upon



*any other line* or route. These taken in connexion with ancient traditions, induced antiquarians to coincide in their opinions through many centuries, that the first landing of Cæsar was upon the shore under the shelter of the South Foreland, with an autumnal southerly breeze *in smooth water*, near to Richborough, where the sand-hills upon a low shore, have been for time immemorial called Cæsar's Fleet, by the lower orders, and have been considered by the more learned, as mounds thrown up by the Roman Legions forming between each the causeways into which they drew up their ships, and constructed their naval encampment, as recorded by their own historians; and we shall hereafter be prepared to shew that these sand-hills were (*previous to the filling up of the estuary*) the line and margin of the sea; and probably the most accessible for disembarkation of any point of our coast.

If the traditions of our ancestors were in opposition to long received historical data, and inconsistent with the extraordinary changes which during a lapse of two thousand years, have completely altered the features of our coast line, they would not be worthy our attention. But I think it is presumptuous to disbelieve every thing, which will not admit of *positive proof*, for how little would scepticism leave us, upon which we could rely, *historically, religiously, or politically*, if we cast aside all the traditions which are the *handmaids of history*, and only receive for our belief, those circumstances, and things, which we could *prove to demonstration*. We read that Paul landed among barbarians upon an island called Melita, now Malta, accompanied by a Roman guard, and it is also written that a similar succession of ages *has elapsed* since Roman Legions landed in another certain island called England. Nobody doubts the locality at Malta, called St. Paul's Bay, where the viper was shaken from the Apostle's hand into the fire; and we think it is equally to be credited, that Cæsar's descent *was* where history and tradition have almost universally assigned its locality.

I am led into these reflections by a very interesting paper, in the March number of the *Athenæum*, by A. B. G. The author acknowledges, "That it has been very generally considered as *established*, that Julius Cæsar landed somewhere in the neighbourhood of Walmer or Deal, and that he himself, had accepted Dr. Halley's solution of this interesting question as *perfectly satisfactory*;" more recent investigations however, on his part, had originated certain doubts, to which he has given expression in the *Athenæum*, and by an attentive perusal of them, I think any reader will come to the conclusion, that they are put forth, most courteously to elicit replies, from all, or any, who are pleased to enter the lists, in an investigation which must confer intellectual pleasure, through the medium of scientific and literary research. The arguments in this paper are ingenious, but they have to contend with long received opinions, and what is more, it will be difficult, to explain away the premises upon which those opinions are based; such as the derivations of names of places having reference to occurrences which bear the *Stamp of authenticity*. We are reminded of the elaborate geological works which affect to despise the records of a universal deluge, although the *traditions* of all nations point through the mist of departed ages to such

a catastrophe; but in this *their denial* they find it impossible to account *satisfactorily* for the foot-marks of a *disrupted creation*, while those who *admit the fact*, unmask without difficulty, every feature and development of the organic changes, which have taken place around them. In like manner, to form an estimate of the actors in the expedition of Cæsar, we must first contemplate the stage upon which the *dramatis personæ*, were engaged. The scenery since then has been shaken by tempest, inundation, and tremora. Promontories have *receded* before the ever-wasting surge; hills have *decreased in altitude*.<sup>\*</sup> Havens have been *silted up* by their detritus, and piers *buried beneath* the waters, leaving no trace but the *names* expressive of their *derivation*, and now only known as the rocks and shoals, which mark their former site.† In reviewing then this interesting paper of A. B. G., these facts must be especially alluded to, as the subject matter requires it for the sake of elucidation.

Investigations such as these have been very cleverly handled by several members of the Cinque Ports, who had all the classical acquirements necessary to the task, combined with a long residence in the locality, and the inspection of the best museums and collection of Roman and British coins, fibulæ, and other relics, continually exhumed in their respective localities, such as originated the history of Sandwich in 1792, by William Boys, Esq., F.S.A., and the history of Dover in 1814, by the Rev. John Lyon, a gentleman within my *personal recollection* and *knowledge*, and who was assisted in his researches by the most eminent men of the day, who were making the antiquities of the Cinque Ports, their *especial study*. These gentlemen appear to have reasoned upon *general evidences* as to history; and it is fair to suppose that Dr. Halley who wrote exactly a century before them, might be supported in his conclusions by records which had in the intervening period gone to decay, for we know that Mr. Lyon found a most shameful neglect existing at Dover,‡ as to the records of that ancient port. This was much to be lamented, as every excavation in that old town proved the existence of the features of its original haven as perpetuated from generation to generation, by oral tradition.

The first doubt expressed in the *Athenæum* paper, related to the port of departure in Gaul, and as the Portus Iccius of the Roman navigators has always been conceded to Boulogne, let us at once examine the objection in detail.

Boulogne was in the country of the Morini, and it is said that Cæsar had not then *subjugated the Morini*. Admitting that to be *the fact*, there is no reason why they should not have been *passive allies*, nay, it is probable that they *assisted* him with pilots for the opposite coast in his expedition. History is not silent as to the manœuvres of political expedience on the part of the Romans, and to which in a great measure they were indebted for their *extended dominion!* The conciliating *some*

\* Shakespeare's Cliff Dover. † See *Nautical Magazine*, "Oral Traditions"

‡ The records of all the ports were originally kept in a room in the keep or tower of Dover Castle.

*tribes*, exciting the jealousies and espousing *quarrels of others*, and this they soon effected to the prejudice of Cassibelanus, in favour of Mandubratius, immediately after they had obtained a footing in Britain. Now, the Morini and the Kantii were continually in view of each other! We know that some of the headlands on either side of the Straits have a prodigious and *perpetual waste*, ours in many projections on either side of the North Foreland, not less than two feet upon an *annual average*. It has been computed agreeably with the geological formation that not only has the recession been very great, but, also the *loss of altitude* upon many points, such as that magnificent Shakspeare's cliff at Dover.\* How often have I stood upon that eminence gazing at the opposite shores of France, when with a summer's *evening refraction* it appeared merely a narrow pass, and the white tents of Napoleon's army *full in view!* and seventy thousand bayonets flashing against the rays of the evening sun, as their columns moved to and fro upon the brow of the hill on parade! Such a scene may yet again be presented to our view. If so, may similar battalies see between them and their *promised prey*, that *iron arm* again extended, which has always proved England's best security in time of peril! "*Britains best bulwarks are are her wooden walls!*" But to return to the Morini. Two thousand years ago, they (from so close a proximity) must have been intimately acquainted with every thing relating to the Kantii. A people acknowledged by Cæsar to be far more advanced in civilisation than the other tribes, and as a proof of their intercourse with the Morini,—who but them, the Morini could have acquainted the Britons with Cæsar's preparations for invading their country; and that he was about to employ the very fleet which he had equipped in the preceding year for the chastisement of themselves, these self-same Morini? Would they not relate to them his extraordinary progress *even to the Rhine!* where he had thrown over a bridge for the passage of his army? Accordingly we read "The Britons alarmed at his preparations, sent ambassadors with offers of submission, but Cæsar though he received them with kindness, did not abandon his intended scheme of an invasion.

It is here worthy of remark, that it must have been a regularly organized society which could depute ambassadors *thus accredited*, and an inference also is produced that a *British vessel* conveyed them, and that the havens of England were consequently places of *commercial intercourse*, consistently with the barter and traffic of those early times.

The painted bodies, and promiscuous intercourse of the Britons have always been considered *exaggerations*. Roman historians speak very respectfully of their arms, sword, lance, shield, and chariots armed with scythes! together with cavalry which came forth to combat, and the conduct of Cassibelanus in the management of his forces, was anything but that of a *rude barbarian*. When resistance was ineffectual from the distracted state of the country, and the divisions among the native tribes, he disbanded an army which he could not trust, still reserving *four thousand war chariots*, with which he harrassed the Romans, &c. From all this it would appear that the Britons were not the contemptible

\* Fairholm's geology.

people, which they have been described, and their having sent ambassadors to Cæsar previous to his attempt, argues greatly in favour of Boulogne. An enemy *in full view* was indeed an encouragement to *sue for terms*, but at a *greater distance*, and with a more *protracted voyage* it would not have been so readily undertaken; and it is confidently stated, by many translators of the Roman version of this expedition, "That Cæsar went into the country of the Morini to embark *because it was nearer to Britain.*" This seems highly probable when we consider that the legions of Plautius, (a Prætor in Gaul,) more than a century afterwards *refused to embark*, "*to be sent without the compass of the world,*" evidencing the timidity of the Roman soldiers, and their aversion to crossing the ocean, unless their port of destination was *visible in the distance*; and it appears the greatest possible caution was observed by Cæsar, "He waited till the arrival of C. Volusenus, whom he had sent out with a *single galley* to make discoveries on the coast."

Is it probable that so small a party would have been dispatched upon this service, in the infancy of Roman navigation without a compass to direct them, except from the nearest possible point of coast? and could this officer have explored any great extent of coast line in the short period of five autumnal days? for we must remember that although the promontories were some thousand feet nearer to each other on opposite sides of this narrow strait, yet the coast lines had in that day *very deep indentations*, bays, havens, and estuaries! The exploration therefore of Dover and Richborough Havens, were all that could be expected in so short a period, and the more distant havens would be out of the question.

The historian says, "Volusenus did not think proper to land, but having made what observations he could, he returned, and Cæsar immediately set sail for Britain." So then, Volusenus was his pilot, and he could tell him, that between those majestic cliffs *immediately opposed* to the Portus Iccius, was a beautiful little valley, through the centre of which a small river issued in a right line to the sea. Such was Dover. That the abrupt promontory to the eastward was the headland of an extended bay and estuary, having a navigable channel through, between an extensive island and the main land, trending away in a direction to the north, and offering every facility for sheltering a fleet. Such was Kent and Thanet.

This at any rate is within the scope of probability, and our surveying officers would say, pretty well too for the time, allowing for the passage to and from Gaul to Britain! It is allowed that Cape Grinez was the Iccius of Ptolemy. Surely the nearest port to the cape would be the Portus Iccius, which from the geological features I have before portrayed, would have been a superior port to the present Bologne, and Ambleteuse would have been quite capable of receiving the smaller detachment of the vessels of that day, which are mentioned as *eighteen only*.

Some of our own vessels employed in conveying the cavalry across previous to the battle of Waterloo, were not more than fifty tons burthen. I commanded a transport on that occasion of a hundred tons burthen,

drawing only seven feet water, and we could have disembarked our cavalry *quite as easy at Ambletuse as at Ostend*, for we merely swung the horses over the side into the water, and *swam them on shore* to the dragoons, who stood *ready to receive them*. It is hardly fair to *create impossibilities*.

The wise and active conquer difficulties by *daring to attempt them*. Sloth and folly, shiver and shrink at sight of toil and hazard, and make the impossibilities they fear.

Taking all these things into account the impression I think will be in favour of Boulogne as the *Portus Iccius* of the first Roman invaders, but an opinion is hazarded by A. B. G. that Cæsar's second armament requiring a fleet of nearly a thousand ships, it would have been impossible to harbour these in the *ports of Boulogne*, Calais, or any other of the smaller havens, of the North of France. Now, the best accredited histories I believe give the amount of Cæsar's fleet to be six hundred ships and twenty-eight gallees. Ships it may be observed sound very formidable to modern ears, but they were neither *line of battle ships* nor *frigates*, for we find that afterwards when they were in jeopardy in a British anchorage, they could not contend with wind and sea, and therefore "He (Cæsar) *drew all his ships on shore* and enclosed them within the fortifications of his camp, which it is also stated employed the whole of his army ten days." And well it might upon any *ordinary shore* if they were vessels even of moderate tonnage to the number of six hundred sail, and very extensive fortifications they must have been *which enclosed them!* His fleet of the year preceding was only about *one hundred sail*, which it expressly states he had *refitted, and built new ones*. We must be credulous indeed to suppose that in so short a period he had built and prepared for sea nine hundred sail of vessels in addition to the re-equipment of his first fleet. Where then did he get them? Most probably from his *passive friends*,—the Morini as coasters, bylanders, and fishermen! But let them be what they would, let us come to the point at once, by the best comparison in our power, a comparison with an event which *our own eyes have witnessed*, and then decide as to the capability of the *Portus Iccius*, even admitting that it was our own now *veritable Boulogne*. I mean the armament of a more formidable force than Cæsar ever assembled at *Boulogne* as the *most advantageous port*, for a descent upon Old England. There were at one time eighty thousand men of all arms, *infantry, cavalry, artillery, and imperial flotilla marines*, with transport praames, gunboats, and armed vessels sufficient for the success of such a service, but for what? But for a fleet of British ships which blockaded them, and which if they had attempted to leave, would have destroyed them in detail, before they could have reached the shores of England. But surely the same port which contained in battle array a fleet equal to the conveyance of such an imperial army destined to contend with a great and rival nation, would have afforded room to Cæsar's armament prepared for a descent upon a country of *unskilled warriors!* Why did not Napoleon select the Authic, the Canche, or the Somme? Depend upon it, for similar reasons to those of Cæsar. Soldiers like a *short passage*, and have "*stomach for the fight*," when

they *keep sight* of "*land ahead*," and their stomachs are undisturbed by a long one! It has been asserted by friends of Napoleon, that his hopes were based upon some *signal reverse* to our arms in one of our great naval actions. Then with a Trafalgar fleet joined by those at Brest to overawe the channel and clear the Downs anchorage, he might have crossed with his flotilla to the *self-same shore*, where history and tradition point to *Cæsar's landing place*, and where the Canterbury vale along the scarp of the rising grounds, offers the greatest facility to the advance of an invading army. Be this as it may, posterity will not dispute the *capability of Boulogne*, or Portus Iccius while his monument looms upon the lofty brow of *Iccion* or Cape Grinez!

Being thus for our own part firmly impressed with the conviction that Boulogne, was not only the most *eligible* but the most *likely place* for Cæsar's fleet to assemble, let us try the disputed premises upon which he has landed, and what obstacles were opposed to his *first landing*. It is admitted that missiles were hurled from the cliffs at the invaders. Now we cannot for a moment suppose that a skilful general would attempt to disembark *beneath the face* of a line of *perpendicular cliffs*. Where would have been the ascent? Or how would he have formed his order of battle? He must have sailed into a haven or narrow gorge, commanded by high and imposing cliffs from which masses of rock could with ease be precipitated into the valley.

Now, there is but one such place upon the whole line of coast in review; *it is Dover*. There the landing place would be exposed to such annoyance, and during the threatened invasion of Napoleon, piles of chalk rock *were* positively heaped up in readiness, which if pushed off at certain projections, would have gone careering down the green slopes into the defiles of roadway in the valley. We may easily imagine this rude species of warfare resorted to, before the invention of artillery, and as we know that the centre of this small valley, was at the time a navigable haven, from the remains which have been and are exhumed *along its whole line*, it evidently shews, that any such landing must have been attempted at the very base of these commanding heights, and such attempt on the part of Cæsar *failed*.

The Rev. John Lyon, and others engaged with him in elucidating the accounts of Roman historians, expressed their opinions in the following terms.\* "When Julius Cæsar arrived on our coast with his fleet he cast anchor *in a bay*, where the sea was confined *between two hills*, and there he intended to have landed his men. But he was opposed by the natives on their high and bold shores. By his (Cæsar's) description of the place, he first anchored in the valley, where the whole town of Dover was afterwards built, when the sea had withdrawn itself from it," &c.

If it is admitted that Dover was indeed the place thus attacked, then the promontory which Cæsar is described to have rounded, was the South Foreland. The fleet had a fair wind, but the direction of the tide being not clearly defined, may have led to great errors in the computation of

\* Lyon's History of Dover.

distances, and it is impossible to give the same date *now* for tides and eddies, which must have been so much changed since that day, along our coast *close in shore*; and in that day there was no artillery to keep them at a distance. Take for an example the possibility of restoring the navigable channel between the Isle of Thanet, and the then mainland of Kent, the armlets of the sea,\* extending into the interior of the country with its wickes, bournes, and havens, thus holding immense volumes of water upon the rising tide, to return again upon the ebb, and at right angles with the tides in the offing. These must have created counter currents, to a considerable distance from the shores. Well, with a S.S.W. wind, (*agreeably with the opinion expressed by A. B. G., of an African wind*), Cæsar rounded the promontory, and he would then find himself sailing along the land in smooth water with a shore upon a gradually inclined plane, favourable to his landing. I have no hesitation in believing that, that part of the Goodwin, now called the North Sand Head was a small island, it was much higher than it is now in the time of our immediate ancestors, who frequently in summer time made parties to land upon it, and I have an old chart without date in my possession, in which that highest part of the sand is called "*Jamaica Island*". This result I think may be explained from natural causes and effects, when the sea flowed *into* the before mentioned wickes and hamns, and *through the channel*, between Kent and Thanet, here would be *two powerful streams of ebb*, one from the Thames through Margate Roads, the other from the United Rivers in the Canterbury Vale, issuing out at the South Foreland immediately after high water. These would create a *very different tide* to that which we have at present. All the south side of the Isle of Thanet at Romans-gatt, (Ramsgate) would be in the *eddy* of the meeting tides, which united would bear away towards Goodwins Isle, and there *join the channel tide* running to the eastward till half ebb by the shore. But when this channel of the Wantsumn was suddenly choked up (which geological evidence seems to warrant) then *the eddies*, along the shore of Thanet being superseded *by the present tide*, and which is thus thrown with its *whole weight* upon our cliffs, in lieu of passing *through* between the Island and the Kentish Main, and the Goodwin also destroyed by the same sudden change, would *elongate* as a shoal, and I believe *it does* so even now, (although imperceptible to the notice of one generation) *gradually elongate* in the direction of the present tide. I have often pointed to the valuable suggestions which the *derivation of names* convey. Agreeably with the present waste of our cliffs, they must have extended in Cæsar's day to the Cud-channel formed on the shore side by a ridge of flints and chalk called the *dike*, and on the other by the *Querns* shoal; appropriate names the antiquary will say for the boundary of the shore, and the *churning* eddies which encircled it, in its more primitive condition.

I will now quote the ingenious conclusions of the Rev. John Lyon,

\* See Oral Traditions, *Nautical Magazine*.

and his antiquarian friends, which appears so natural and agreeable to common observation, that one can almost fancy oneself an actor upon the scene; bear in mind, the rev. gentleman, was assisted in his analysis by both military and naval men; he observes:—

“Cæsar finding the determined resolution of the Britons,\* to prevent his landing, and fearing that his opposing force to force, might be attended with a considerable loss of men, changed his plan, and ordered the *gallies to be rowed* to a place where they could *flank* the natives. This stratagem succeeded and the Britons were repulsed. The skirmish happened before the Romans landed, near a place where there was a sufficient depth of water for the gallies to *pass the front line of the Britons*, or the Roman soldiers could not have *flanked them*. This advantage was gained by the gallies entering the large *estuary*, which emptied itself into the sea, where the Romans afterwards built a castle, and called it Rutupix; though the sea has long receded from its ancient limits, yet by attending to the face of the country, to *Cæsar’s own narrative of his Expeditions*, and by comparing them with the ancient description of the coast, it cannot fail of leading us *nearly to the spot* where he gained his first victory,” &c.

Admitting that the conclusions of these gentlemen were correct, there can be little doubt but Cæsar would visit, and perhaps occupy by a small detachment the island *immediately opposite* to his naval camp,† and in a strait line from the sand hills at the short distance of four miles we have *Romans-gat*, now Ramsgate, where Roman remains have been exhumed in great abundance, and specimens of their very *earliest coins*, are in my possession. The nature and existence of this great estuary have been described by Mr. Lyon, as follows.

“The fruitful valley in which we now find the villages of Little-bourne, Beaks-bourne, Patricks-bourne, and Bridge, was at the time of Cæsar’s expedition a considerable branch of the large estuary leading through the central vale from Rutupix to Ashford. In the reign of Edward the III., this branch had a sufficient depth of water to float one of their *ships of war*. He granted the privileges of the Cinque Ports to the inhabitants of Beaks-bourne by a special writ, for providing him a *ship*. This branch was the first river the Romans forded, and the natives had posted themselves upon high land on the opposite side to dispute their passage.”

From these descriptions, I think it will be admitted, that a more appropriate site could not have been selected for landing; and it is probable Cæsar knew more of the topography of the country *from the Morini*, than his own, and his officers narratives would warrant. Two countries so continually in view of each other, must have had a *continued intercourse*. The Gaul had colonised the islands in the embouchures of these rivers, and no doubt had upon their banks in the interior, marts of commerce. These would offer a greater temptation to the invader,

\* Lyon’s History of Dover.

† Oral Traditions, *Nautical Magazine*.



than less civilised colonies. Motives for such aggression have been the same in all ages. *London* was Napoleon's great aim, and it is most probable that Durovernum, and other British settlements, had similar attractions for Cæsar; certainly much greater than the *swamps of Lympne*, or the *impenetrable forests* of Andredes-leah, on the South Coast. A well trained and highly disciplined army requires those *clear downs*, which A. B. G., seems to think they would avoid. We think differently; "*an open field and fair favour*" is never conceded by *barbarian bush rangers*, if they can avoid it; but it is the *great desideratum* of a firm phalanx of *veteran soldiers*, and it is rather a remarkable fact that although William the Norman, landed in Pevensey Bay, *he lost no time* in moving along to *that part of the coast* which *Romans, Saxons, and Danes*, appear to have considered the *key* to the kingdom of England, and to any treasure which it might possess. It is by no means certain that the Conqueror *intended to land in Pevensey Bay*. His fleet had experienced stress of weather, and part of them being driven into Romney received harsh treatment from the inhabitants, for which the Conqueror visited them with *condign punishment*, and then in *lieu of advancing* into the interior in a *short and direct line*, he marches, *along the coast* and *invests Dover*, where he remained eight days. How was this? He was thus traversing more than a hundred miles to the seat of *regal power and secure dominion*, in lieu of *fifty-six* from the arena of his victory, at Battle, so called from the site where the fate of the kingdom was decided, but Hume tells us why:—

"He (William) deemed it necessary before he should advance farther into the country to make himself *master of Dover*,\* which would both secure him a *retreat* in case of *adverse fortune*, and afford him a *safe landing place* for such supplies as might be requisite for pushing his advantages."

Now, William's fleet consisted it is stated of three thousand vessels "great and small," his warriors to sixty thousand. Small indeed were these vessels, as the complement to each would thus be only *twenty soldiers* taken at an average. Now my complement in a transport of only *one hundred tons*, from Ramsgate to Ostend was *twenty-six horses, twenty-six troopers*, and *thirty rank and file* of Infantry. These proportions I think will lead us to infer, that William's fleet consisted principally of *fishing craft* and *river barges*, which may account for his selecting the *Somme* for his *embarkation*; that river undoubtedly possessing, with the contiguous rivers, their *villages* and *towns*, a larger number of *such craft* than he could have engaged in his service farther north, at the port of Boulogne. Hume thus notices the preparation.

"William had now assembled a fleet of three thousand vessels, great and small, and had selected an army of sixty thousand men, from among those *numerous supplies*, which from every quarter *solicited* to be *received* into his service. There were, however, several vessels lost in the short passage from Dive to St. Valori. The army began to imagine that heaven had declared against them, and that notwithstanding the

\* Hume's History of England.

*Pope's* benediction, they were destined to certain destruction; many of them began to mutiny, some of them even to desert their colours, when the Duke ordered a procession to be made with the relics of St. Valori, and prayers to be said for more favourable weather. *The wind instantly changed, &c.*, (and well it might when the temple became such a den of thieves, it was the only medium of a riddance,) and so away they went helter skelter for the nearest land-fall; but if we calmly investigate these facts by the tactics of the present day, surely it would have been preferable to have followed the route assigned to Cæsar. The Downs anchorage would have been less hazardous to three thousand sail of vessels, than the *open shores* lower down channel, with their continual and much greater *undulation of the waters*; and the shore from Walmer to Sandwich, (then without any opposing force) offered greater facilities for landing, for *investing Dover*, (close by), and for advancing to the metropolis, or forming in battle array upon Barham Downs, to receive the defenders of their country. I am not *alone in this opinion*, but some say William feared the men of Kent, and their Saxon horses bearing for ages the *chivalry of England*: be that as it may, he became the victor, and immediately diverged from a *direct route*, to the old and celebrated Roman way, which *before his time*, and *ever since* has been *selected* and considered the legitimate route from the continent to the metropolis of Britain, not only by *warriors*, but by *saints and missionaries*.

Now to the ten hours engaged in this first passage of Cæsar, the presumption of *too long a time* for crossing the channel is attached. It is difficult to say what would be the management of a fleet without chart or compass at this distance of time, and at a season of the year near the autumnal equinox. But it seems that it was at least three days (Dr. Halley says four,) before the full of the moon, and consequently high water at Boulogne about nine in the evening, and half ebb at midnight; a very awkward time for an expedition to quit either a *tidal harbour*, or a *shallow river* like all those before named, and which are full of shoals and eddies; and again, the term, "*set sail about midnight*," is exceedingly vague. It is probable then, that they put to sea in the evening tide, and anchored in the bay in sailing order, and took their departure *in the night*, or in the common acceptation of the term, some time during the *middle watches*; and on the approach of morning, shaped their course for Dover Bay and Haven, not anticipating the severe resistance which awaited them. Commanders of military expeditions when once embarked are seldom in a *great hurry*. I have some reminiscences of the towering passion of old Strachan with the Earl of Chatham, for his dilatoriness on that memorable *Scheldt expedition!* and I can easily believe that Cæsar crossed the channel *very leisurely*, and did not approach the British shores till sunrise, or about 6 A.M.; then it would only just be young flood by the shore, and he must *wait for water* into the port or haven of Dover, and arrange his order of attack. And this may account for the *thrashing he got*, as it enabled the Britons to assemble and take up their positions. Accordingly (agreeably with A. B. G.) he reaches the British shore at 10 A.M.

naturally enough, it being then *high water* or a little after, and what was very fortunate for him, when he found he had got the worst of it, he would have the *outdraught* of the haven or *receding tide* to help him to sea again; and he drew off his ships and lay at anchor till 3 o'clock P.M. This appears to me to be very *fair generalship*, to cross the channel during the morning watches after midnight, with a fleet requiring to be marshalled in proper order! to approach the port of destination; sail into! attack it! meet with defeat! make good a retreat! attend to his vessels, and wounded warriors! and *make sail again at 3 P.M.*, with a *fair wind*; and as to the tide, at any rate he would not have much difficulty in so short a distance as eight miles *with a fair wind close in shore*, especially if Dr. Halley was right as "to the moon being full four days after the first landing," which is this very day in question. It follows that four days before the full moon at the South Foreland, it would be low water at half-past three, and the tide would be rising immediately after and close along the shore be flowing into the haven and estuary of the Stour as it does even in our day.

The vessels and galleys of the Roman fleet would *keep very close to the shore* upon a flowing tide, and four days before the full, the ebbs are very weak except in a *large offing*, and at low water there is a very *long slack*, without any *perceptible tide*. Taking all these things into consideration *with a fair wind*, Cæsar would soon *present himself off Deal*, before a sufficient force could be assembled as at Dover, where they might reasonably suppose he meditated a *second attempt*, till the instant when he again made sail. Now observe, by the time he found it necessary to manœuvre with his galleys the tide would be well advanced upon the shores, and favourable to landing, and as a fair wind must be construed to mean the south-west (*on all prevailing winds during the autumnal Equinox*), how can we fix upon any other point upon our coast answering to *all* these circumstances? The fair wind could never be *mistaken* by the Roman historians, but I have very great doubts, whether they meant in speaking of the tides, *the set* of the currents, or the *ebb* and *flow* of the tidal waters upon the shores; I find so much difficulty in making (even intelligent persons), comprehend the tidal influence in our own day. A. B. G. considers "there are three places on the coast which answer to Cæsar's topographical description. "One is the cliffs of Dover, the corresponding open beach being that of Deal;" granted, and for this beach he sailed with a fair wind along shore. "The second is the cliffs of Folkstone," but here was no gorge, or port, in which he could land, and he could not have sailed up to Romney *against the wind*, nor would he have any assistance from the tide in that *deep bay* of Hythe and Dimchurch, with which to beat to windward and with the prospect of a whole flood tide approaching. The third is the cliffs of Hastings, and here again a similar difficulty presents itself as to his first attack, and when repulsed "the corresponding beach being that of Pevensey Bay; these three beaches are all very vulnerable points, and were all strongly fortified in the late war;" but can we persuade the geologist that these said beaches possessed the same features nearly 2000 years ago, when we know the rapid rate at which

Dungeness continues to *advance into the sea*? Will not he insist that in their present site, water and swamp have exchanged places with pasturage and embankments? But even here the south-west wind would again *meet our adventurers*, and give them a job to beat up from Hastings to Pevensey Level. As I before observed, running *before the wind and swell* would suit a soldier's stomach much better than chopping *against wind and sea* with small vessels! I cannot at all see my way clear in the conduct of this fleet *thus related* from beginning to end. To pass over from Boulogne and attack Dover! with the *wind astern* is feasible; but to cross over to Hastings with the wind upon the broadside in the *trough of the channel swell*, and then *beat to windward up to Pevensey* either *with or against the tide* seems to be very improbable, setting aside the circumstance, that in steering from Boulogne to Dover, Cæsar would point to those imposing promontories, which his soldiers had contemplated day after day; while from either of the rivers farther south; nothing of headland or promontory *could be seen to direct their course* across the channel! The inference drawn by the Rev. John Lyon and his antiquarian associates is as follows: "He (Cæsar) tells us that he sailed from the most commodious port in the province of the Morini which was the *nearest passage* to Britain. This port was at Boulogne, and thirty miles from the point of land at Dover. If to the distance he afterwards sailed by estimation be added, the setting of the current, and the space which the men rowed in their gallees, before they repulsed the Britons, there will be full forty miles between the place of his embarkation, and that of his landing in our island, as mentioned by Strabo. He also passed the promontory recorded by Dion Cassius, which at that time projected into the sea near Walmer Castle, &c."

For an elucidation of distances, Boy's history of Sandwich is very interesting and convincing, and after analyzing the accounts of Ptolemy, Pliny, and others, he observes "Cæsar undoubtedly landed in both his expeditions, somewhere between Deal, and the present mouth of Sandwich Haven, and if he came from Calais, his number of miles is *wonderfully exact*. Strabo may speak of the *whole distance* that Cæsar sailed before he got on shore, taking into account the action of the wind and tide upon his fleet, in which case his number may be as *accurate as the rest*; but if Cæsar's Portus Iccius was Boulogne, then the number of forty miles which occurs in some of the best copies, corresponds *exactly* with Strabo's number of 320 *Stadia*." It should here be observed that according to many of our authors, forty-five miles British were equal to about fifty Roman.

We will now consider the second invasion, upon which most authors agree, that it was made *earlier in the summer*, and who can doubt it, when reading of the damage to Cæsar's fleet in his first attempt. We entirely coincide with A. B. G. "On the second invasion it appears, that he landed at *precisely the same place as the first*, and he sailed with an African wind S.S.W., from the French shore, which is well known to all mariners to draw to south-west, upon the English shore, I will in fairness to A. B. G., throw Dr. Halley overboard, and take his

view of the subject as to *time* and the *moon's age*. The chart will show that from St. Valery, the port of embarkation in the Somme, taking the bend of the river to sea, and thence to Hastings, is nearly sixty miles, and a very *dangerous navigation* to thread these shoals with a fleet of one thousand sail, leaving at sunset, which would be about eight in the evening. Now the tides in the embouchere of the Somme (see the French Tidal Chart) are at high water full of eddies, being to the westward of the meeting of the *great tidal column*. The fleet would no doubt leave at or before high water, or with the gentle African breeze as described or they could not have cleared the channel in the entrance of the river. If we admit this, they leave then at sunset, and as the tide in a thwart line between St. Valery and Beachy Head, *turns to the westward* about an *hour* after high water, and it was calm during the night, they would but just assemble in the Roads by the turn of tide between nine and ten, when a western drift of about seven hours would commence. I make this drift from 10 P.M. to 5 A.M. to be at least fifteen miles upon a south-west course. Now, if we prick them off upon the chart, under the most favourable circumstances, we find them at day break more than forty miles from the *nearest headland*, which would be Beachy Head, and therefore that they should have *seen the land* stretching from *right to left* is out of the bounds of probability. Now at daylight a whole flood tide comes on, and with a beam wind, I believe they would not *fetch Hastings* even with a freshening breeze; but if it continued *light airs*, their chance of reaching a place of landing during the *whole of that day*, would be *small indeed*. And why they should endeavour to do so in lieu of running before the wind does not appear, or why the preference should be given to a voyage of *sixty miles* in a more open sea to a *short passage* in crossing a *narrow strait* from headland to headland, seems to be equally *inexplicable*. We will, therefore, now try the expedition from *Boulogne*, in lieu of St. Valery. Sunset 8 P.M., high water three days before the full of the moon at 9 P.M.. A fleet of 1000 sail of vessels putting to sea! I am of opinion (from my own experience of expeditions, and from getting fleets to sea as harbour-master) that if these vessels were at sea and *marshalled in sailing order* in an *offing by the half ebb*, thus giving them *three hours* before, to three hours *after high water*, to effect this would be a smart piece of seamanship and generalship combined, and seldom surpassed. But granted that at half ebb, and near midnight, they are in the offing, having had three hours easterly set (here it is entirely different and not the Beachy Head to St. Valery tide) and it was then a calm. The western tide then for an equal number of hours brings on the break of day, and at 3 to 4 A.M., we should find them in a *larger offing*; but with respect to tide *abreast* of where they started from, *not near the Goodwin Sands*, but midway between *Boulogne* and *Folkstone*, and without any great stretch of imagination, we may believe the morning breeze increasing as it usually does from S.S.W. or S.W. and the fleet holding on their way for the Downs. Now, they have the land "*Sinistra*," and with their prows in a direction for the British Shore, the lofty headlands would be right and left of them, and as they avoided Dover for fear of another repulse,

we may believe with A. B. G. that the Britons from their lofty cliffs counted 800 sail at one time, stemming the tide to their proposed place of landing.

Now, on rounding the South Foreland and luffing up for the sandy shore, or line of beach, as then we have reason to believe to be the south side of the haven or anchorage, they would be assisted by their oars, for they would be under a weather shore where their row galleys would *come into play!* and a flowing tide in the afternoon and evening to *favour* their disembarkation. I have put this as clear as I can from my practical acquaintance *with these tides*. I know it is very difficult in a calm, or with light airs for sailing vessels to *get out* of that bight of Treport. If a line is drawn from Cape Grinez to Cape de Caux, we shall find the shore near St. Valery *embayed* to a depth of twenty-five miles; and if we draw a line from Grinez to Cape Le Hague, we shall find this *deep indentation* of the French land forty miles *out of the line* of the channel course. The tides here within that line set alternately *right on* to the shore on either side *this deep bay*, and it is about the *worst place* in the British Channel for a large fleet to *drift in* during a calm; indeed the best thing they could do would be to anchor. If then Cæsar took his departure from the Somme *at sunset*, and had been *becalmed in the night*, he could not have reached the English shores in the *manner proposed*; but if he took his departure *from Boulogne*, it is certain, that even if the fleet *had anchored* during the ebb tide, the returning flood would have been *sufficient* with the help of his rowers, to *carry him* over upon the English shores.

Thus, at sunset made sail with a light S.S.W. wind sheering over towards the English shore, and going about three knots through the water with a flood tide setting to the eastward till midnight, when the tide turned, *anchored* in the narrows, Cape Grinez bearing south about nine miles distant, South Foreland north a quarter west, eleven miles distant; calm during the whole of the ebb. At 6 A.M., light airs, weighed; vessels with *rovers sweeping ahead*, the whole fleet *heading in towards the Downs*, and going through the water about two knots with a fair tide, running two knots past the South Foreland and Deal; and at 11 A.M., *anchored off Sandown*, and immediately commenced landing from the vessels *assisted by the galleys*. Now if, A. B. G., is an *old tar* of the *Downs Squadron*, let him say, if this would not have been *practicable* to *Napoleon's Flotilla* from *Boulogne* (if there had been no blockading fleet) and on the other hand, whether it would have been *even possible* from the deep bight of Treport or *the Somme*, crossing both ebb and flood to Pevensey Level.

There must have been every inducement as to route for constructing the Roman way from Dover into the interior of the kingdom, and there are indisputable proofs that the water passage to the great rivers Medway and Thames *in that day* passed *through* between the Isle of Thanet and the mainland of Kent. What equal advantages could Cæsar anticipate in the Lympe with an *impervious forest* separating him from the most *wealthy* and *civilised* part of the kingdom. The Kantii, with their downs, and cattle pastures, offered a better chance of *subsistence* to

an invading army. But as to their progress inland, I offer no opinion. I doubt not, however, that Cæsar's return voyages *were to Boulogne*, the distance from the South Foreland to the Somme being nearly sixty miles, and as the small French Chasse Marees often lay a long while in *our Harbour of Refuge* rather than tempt the dangers of that *iron bound coast*, till *wind and tide*, and every *favourable circumstance* combines for their safety, I cannot believe it to have been a *favourite rendezvous* to less experienced navigators, before the invention of the *Mariner's Compass*, or the auxiliary *Nautical Instruments* for determining the *latitude*. If you place the leg of the dividers upon the lights, at the entrance of the Somme, the segment of a circle will sweep the coast of England at equal distance from the *South Foreland to Beachy Head*; and consequently, no part of the English coast is *ever visible therefrom*, and sixty miles was a long passage in the infancy of navigation to a people who fancied that *crossing over into Britain* was transgressing the *boundaries of the habitable globe*.

K. B. MARTIN,  
*Harbour Master, Ramsgate.*

---

A SUMMER'S CRUIZE ON THE COAST OF LABRADOR, *in relation with an Irish Trans-Atlantic Packet Station.*—By Admiral *Hercules Robinson.*

(Continued from p. 303.)

*Saturday, July 29th.*—Cold foggy morning; at 9h. saw Groais Island, made all sail towards Croque, the head quarters of the French fisheries; at 12h. 30m. passed many fishing vessels in the harbour's mouth, and saw four brigs with French colours in Irish Cove; hauled into the bay; very picturesque, green and wooded, streams of fresh water, clover and wild flowers covering the hills, air perfumed with the flower of the mountain ash: found a French brig of war, *L. Olivier*, with a broad pendant as fishery viceroy and commodore: officers went on shore after dinner. Brock found in a little romantic burying ground, a tombstone of a relation, (uncle,) who had perished in the snow, and been buried thirty years ago, his family knew not where; ordered a new tombstone to be made of timber (Hibernice,) to replace the present one worn out. Observed a French blacksmith when we came in, who has his forge near our anchorage, hoist a sheet of white paper on a pole to display his pavilion, "he decks his robe of freize with copper lace." This is a splendid harbour, secure, spacious, and beautiful, as to scenery.

*Sunday 30th.*—Cold rainy morning: after church a French officer came on board, with compliments from his Commodore, whom I went after dinner to call upon.

The etiquette in the French navy is that the last arrival shall call,

instead of being first visited; I learned it from Commodore Albert Roussin, at Bahia last year. We had nearly quarrelled on this point, but became afterwards such allies that it was almost like the sudden thought of eternal friendship of Cecilia and Matilda, in the Inn at Weimar. He was un peu de trop on the subject of gélatine and chain cables, then new in his service, but very clever and agreeable. "Commodore," said Miss Pennell, the consul's handsome daughter. "Do stop talking of your chain cable." "Mademoiselle," with his hand on his heart, "Je ne puis pas vue que je suis enchainé." Mons. Bégon, knew my friend. Some general talk, and on board again. Boys, reading in the evening.

*Monday 31st.*—A fine morning Mons. Bégon, I should add, de la Rouziere, came on board after breakfast, pour faire ses compliments. His brig had been on shore, and nearly lost in the Strait of Belleisle, and he is preparing to heave down here with the assistance of the fishing brigs. The fishery which it is his business to protect and encourage, and which his government seems anxious about, is rather unproductive; a premium is given to raise the price of fish to twenty francs per quintal; were it not for this it would scarcely pay. There are about seven thousand fishermen on the French shores here, and at St. Julians there are three hundred. Rowed up the pretty river to fish, was obliged to walk into the middle of the stream, and stand there catching small things not worth the pains. Mr. Bégon, gave us an interesting account of his fishers, whom he described as "tres moral et religieux:" they have prayers night and morning, sent them Guillaume Kelly, &c. One of our party ill at French said, he had seen a very pretty grave of one of their "Maitres des Voleurs"! We laughed, the veteran bowed so civilly, reminding one of the old story "si ce n'est pas Français, il merite bien de l'etre". Our friend meant sailmaker, not thief.

*Tuesday, August 1st.*—Rainy morning, cleared up at noon, walked on shore, very rich luxurant soil and herbage: clay slate appears the prevailing rock, and we found every where along the beach in large quantities, rolled masses of primitive limestone. Dined on board *L. Olivier*, an excellent dinner, all sort of restaurateur nick-nacs, got up I don't know how. I had given Mons. Bégon, a quarter of English mutton, which appeared in shapes that astonished our gastronomy; amongst others a gigot three inches long with a clove of garlick in the joint, et bien garnie; there were little pats of fresh butter, the result of a solitary goat, which had been sent to rusticate on the hill side, and some fresh salad! where found or produced "deponent sayeth not." The ship was very clean, and the cabin to which we retired for our café, as well as the gun-room, which had been given up to us as a salle à manger, were all strewed over with fragrant pine tops, and hung round with flowers. Where they had improvised a conservatory, I cannot fancy. Mons. Bégon, seems a very nice old gentleman; he is somewhat of a radical reformer in the articles of his national marine, and spoke of matters being sadly out of joint. He talked too very freely of Madame sa femme, et ses enfans. The lady's portrait was suspended in the cabin,



and certainly unless she were belied, it made the conjugal attachment of Mons. Le Mari the more meritorious.

*Wednesday 2nd.*—A fine morning, walked on shore. Mons. Bégon and two of his officers dined with me: had Pearce and some of our best Frenchmen to meet him. I did my best in the way of dinner, but felt that my cuisine was a very poor concern after the performance of yesterday; however, the English sheep did us good service, and some mince pies and preserves which we were able to get up helped us along. Mons. Bégon was charmed with every thing and overwhelmed me with thanks for some stores which I had sent him. I advised him to go to St. John's to refit, il S'avisera. He is a pleasing, amiable old man, and when one gets a little within his guard as to his politesse, more than we think thoroughbred, he is very agreeable. He is a projector, a naturalist, a political economist and so forth; and what is better, apparently, sincerely pious, and simple minded in his religious belief. He told me that after having escaped almost miraculously from his shoals, he shaped his course through the Straits of Belleisle, but that uncertain as to his place, blowing heavily from the south-west, and a fog so thick that he could not see his bowsprit, while Labrador and Belleisle were Scylla and Charybdis, and when in momentary expectation of striking on one or the other, he prayed earnestly to God that for the sake and through the merits of Christ his Redeemer, he would vouchsafe the mercy of disclosing to him and allowing him to escape the danger which menaced his own life, the welfare of his wife and children, the safety of his crew and the success of the service on which he was employed; and that whilst in the very agony of supplication the wind suddenly flew round to the north-west, raised the dense curtain of the fog, and shewed him his position. He said he considered this an answer to his prayer, and asked my opinion of a special Providence. I knew Mons. Bégon to be bon Catholique, and expected to have heard of other intercessions being looked to beyond that of his Saviour. There is a beautiful hymn which has been translated—

“ Hail Virgin Mother full of Grace,  
Turn on thy servant that sweet face  
And be my sins forgiven:  
On Earth impart  
Peace to my heart,  
Then take my soul to Heaven.”

And what I knew of the views thus held, led me to watch for this. I could not repudiate our “Forms of prayer to be used at sea,” or my own convictions without agreeing altogether in what I heard. I did not notice the omission of the Virgin, or touch upon any point of polemical theology, but being satisfied with Mons. Bégon's shewing, I let well alone, and assured him of my acquiescence. Before he went away, I gave him a few books of French Divinity, which a kind and pious female friend had given me before I left England. Poor old gentleman, I really believe him to be thoroughly sincere and devout, and if ever I get to Heaven shall be greatly surprised if I do not meet him there, with many another Roman Catholic against whom I have jostled in this nether world.

Monsieur's second is a regular old Frenchman, has an eye like a hawk and a face furrowed into potatoe ridges by the exercise of the gesticulatory muscles. The other Lieutenant is a gentlemanlike young man, a little egotistical or so. I listened very gravely to his observations, but I suppose Mons. Bégon observed some involuntary twitching about the corners of my mouth, for he whispered me, "Ah oui, vous avez raison, mon ami, Mons. se caresse." The ship's crew clean sailor-looking men. The boatswain piped the side with a tremendous instrument, something like that hung round the neck of Sir Francis Drake in company with the pistol, with which according to the showman, Sir Francis shot *the Gulf of Florida!*

*Thursday 3rd.*—Heavy rain all day, reading in the cabin.

*Friday 4th.*—A fine morning, weighed after breakfast, took my leave of M. Bégon, he gave me a small volume describing an invention of his, a self-working pump, the ship turning by her progress through the water the wheels which pump her; and some maritime strictures. The invention I think, has considerable merit; the strictures rather good also, but spoiled by exaggeration, and the ambitious declamatory style of a Frenchman. They are so fond of digressions and exclamations, and appeals, and "figurez vous," and that species of composition called "superbe." Stood out to sea, the day so fine, that according to the alternating state of the weather to-morrow will be wet.

*Saturday 5th.*—Rain and fog, it cleared at 9h, stood in to make the land, it proved to be Belleisle instead of Cape Charles; a current of five leagues during the night, blowing fresh at north-east, bore up for Lance à Loup: at night the wind failed, anchored four miles off the shore near Pinwire Bay in 30 fathoms, gravel, strong tide, thunder and lightning.

*Sunday 6th.*—At daylight fine weather, weighed and made sail towards Lance à Loup, heavy rain, lightning, and unsettled weather; at 2h. it came on to blow fresh at N.N.W., stood into the bay, beat up to the anchorage, and at 3 o'clock came to anchor in 13 fathoms off the Trout River, moored ship. Mr. Pinson came on board, brought us newspapers up to the 26th June.

*Monday 7th.*—This is a fine bay but open to the south-east. Fishing is flourishing; Mr. Pinson ships annually about 11,000 quintals, and disposes of goods (English) on the coast to the value of £9,000 per year; he employs here about 100 men. It never blows *home* from the south-east, the exposed point and the bay is therefore a safe one. Country level, eastern entrance very remarkable, being broken off perpendicularly into the appearance of a giant fortification, with bastions, turrets, towers, &c., looking "horrible and grim;" it is composed of old red sand-stone in thin horizontal strata, alternating red and white, it is called the "Devil's Battery. His satanic majesty governs much of the nomenclature of this country; devil's batteries, points, look-outs, islands, &c. Dined with Mr. Pinson at a very comfortable establishment in Schooner Cove; enquired a good deal into Mr. Chappel's history, his *facts* generally borrowed, and what is an aggravation spoiled in the operation. Eat curlew for the first time, very good, (like woodcock); catch cod here with lance, (a small eel which they dig out of the sand). Aurora borealis very fine here this evening, it precedes rain, and dirty

weather, and dew we observe invariably does so; this order of these phenomena I think I have observed elsewhere to be usually inverted. Dash attacked and vanquished a porcupine in a most courageous manner, and came from his attack with his nose like a pincushion. Mr. Pinson appears a respectable man, he has church for his people on a Sunday, and seems to attend to their comforts, and to their conduct.

*Tuesday 8th.*—Walked with Mr. Pinson to Forteau Bay, eight miles to the westward, a fine level country, thick grass in many places, and a variety of berries. Mr. Pinson who was of our party shot several curlew; you knock them down like sparrows. Habits of these and other migratory birds very obscure and curious; they come in very low condition with the cranberries, and in a fortnight are like butter.

The sandy bay on the east side of Forteau strikingly like Musenburgh, Cape of Good Hope; white sand, long swarth, bright sun, heavy rolling surf, and every feature of the resemblance, well preserved. Forteau a dreary little plantation. Mr. Bird, the representative of a respectable house, is settled there, and some small merchants: on the west side of the bay, there are some Jersey establishments. Lance à Loup is much the best place we have yet visited for walking, fishing, and shooting. I shall proceed in a few days to Francis Harbour, to bring some offending dealers under correction, and then purpose to return here and remain till we leave the coast.

*Monday 9th.*—Raw foggy day, went on shore for an hour to fish, caught four dozen largish trout in about an hour, at the mouth of a little river where the fresh and salt water meet: it was really hard work catching as fast as I could throw my line. Mr. Pinson dined on board. This fishing and shooting is very interesting where our daily fresh food depends on our daily catch.

*Thursday 10th.*—Heavy rain, cleared up in the evening, walked on shore.

*Friday 11th.*—Showery and cold, a brig passed to the eastward, too distant to communicate.

*Saturday 12th.*—Went after breakfast with Mr. Pinson in the galley to St. Modeste, sent the boats to survey Lance à Loup Bay: landed at St. Modeste; a pretty little well peopled cove; saw an old Patriarch fisher of 92, and a tale of past times in the shape of a lady of the same age; got some tea and hot cakes for dinner, and smoked salmon from an hospitable fine looking young fisherwoman, a friend of Mr. Pinson's, whose husband is a dealer of his, "Dealer and merchant" being the bond of affinity on this coast;—the merchant ministering to all the wants of the dealer, who transfers to him in return, the fruits of his industry: there seems to be much confidence and truthfulness in their dealings. The "litera scripta manet" is out of the question on one side where the science is unknown, and the measure of the literary accomplishments of many of the merchants of these wild places, reduces the book-keeping to a somewhat rude application of that mystery. However, I hear of no disputes or distrust, although the poor planter is, by anticipating his gains, usually sold neck and heels to the dealer. Our pretty good humoured hostess seemed as much pleased with the per-

formance of her hungry guests, as they were themselves, and she extended the creature comforts to the crew of the galley, six hungry able-bodied seamen. Women be they "black, brown, or fair," Hebe or Sycorax, as it may be, are compassionate and hospitable, and in truth these domestic graces in longitude  $56^{\circ}$  west, are more required than all the cardinal virtues put together, inasmuch as we could worse dispense with them. Returned on board at 10 o'clock half dead with cold, more hot tea; tea by the way is the beverage not only of comfort, but of honor on this coast, and must never be refused, whilst the visiter can swallow. It is the calumet of the Indian,—the pipe and coffee of the Pasha.

*Sunday 13th.*—Fine day, walked on shore after church, wind easterly, will prevent our sailing to-morrow: the men went on shore and returned sober. Wind came round to the eastward in the evening.

*Monday 14th.*—During May, thermometer from  $42^{\circ}$  to  $59^{\circ}$ , June,  $50^{\circ}$  to  $60^{\circ}$ , July,  $48^{\circ}$  to  $64^{\circ}$ , August to this day  $48^{\circ}$  to  $56^{\circ}$  of Fahrenheit. Dined with Mr. Pinson off curlew soup, roasted porcupine, and dried morse deer tongue, very choice hyperborean feeding is the above catalogue raisonné. I cannot yet manage the ultra fare, squirrels and beavers, "cela viendra avec le temps," as the Baron of Bradwardine's friend in "Waverly" said of the the sagesse of Mme. son Epouse.

*Tuesday 15th.*—Very fine day, glass high, weighed at ten, and stood out of the bay to the eastward. The general rock of Lance à Loup is old red-sand stone, in strata perfectly horizontal, with strata of secondary limestone, light airs and fine weather: at 8h. anchored off Red bay in 17 fathoms, three-quarters of a mile off shore.

*Wednesday 16th.*—Weighed at daylight and stood to the eastward; still light winds and fine weather; passed a wreck of a large Quebec timber ship, purchased by Mr. Pinson for the sake of her cargo: she was lying in "Wreck Cove," well named. At night black and heavy clouds, trusted to the glass, and disregarded the aspect of the sky; at 9h. the darkness dissipated itself in a most brilliant exhibition of the Aurora Borealis, and the atmosphere cleared; steered a course through the narrows between Belleisle and Labrador, with all the necessary precaution which the strength and uncertainty, of the currents, makes it prudent to take.

*Thursday 17th.*—At daylight found ourselves close to the Camp islands, made all sail for Cape Charles, where we anchored at 8h., sent a boat on shore for news or letters, found neither; weighed at 8h. 50m., and stood towards Cape St. Francis; passed Battle Island Harbour, and observed forty-three vessels lying there (principally Americans;) we daily observe the Americans returning homewards; as they do not cure their fish on the coast of Labrador, they are obliged to be earlier off it; hove to off Cape Saint Francis, and got a pilot, who conducted us into an excellent harbour, not described on the charts, called here Sealing Bight; much surrogate and justice work lying ready. Many invalids came on board for aid from our medical staff. A little Jersey boy was brought on board, when we were getting under weigh from Lance à Loup, with his hand nearly blown off by a powder flask, as it was a case of danger

I brought him away, that he might have the advantage of the care we could afford him; and he is this day pronounced out of danger.

*Friday 18th.*—Fine day, employed in the Surrogate Court.

*Saturday 19th.*—Fine day, employed in the Surrogate Court.

*Sunday 20th.*—Dark, foggy, cold, wet weather, church &c.; remained on board.

*Monday 21st.*—Weather cleared, wind south-west, still Surrogating.

*Tuesday 22nd.*—Wind light at north-east; at 2h. cleared up, and a strong breeze came in from sea; a fishing schooner directly in the way of the entrance, warped up to the eastern shore and made sail after much difficulty; fell on board the schooner from his stupidity in not veering, did him no other injury than carrying away his main-boom; made several short tacks in the mouth of the harbour, cleared the heads; at 5h. hove to and hoisted the boats in, found we had lost our hawsers; a dark evening, blowing a gale of wind at N.N.E., with rain; passed close alongshore to keep sight of it, made all possible sail to turn the corner at Cape Charles before dark. Passed "Tibbs Ribbs" at 7h., breaking tremendously high, rounded Cape Charles at 8h. close reefed, and shaped our course through the Straits of Belleisle for Lance à Loup; at midnight a heavy gale of wind; keeping close alongshore under all the sail we can carry.

*Wednesday 23rd.*—Blowing furiously; at daylight made the Devil's Battery, west four miles; went to bed at four, and left Pearce to turn the ship up, weather more moderate. At 8h. we were well into the harbour; at 11h. after much beating, anchored, and moored ship close to the watering place. Went on shore and dined with Mr. Pinson. On board and to bed early, regularly done up, never turned till the bell struck seven, suggesting a dream, and awaking me simultaneously. This has happened to us all a thousand times. A series of events passing through the mind ending with the noise, as the termination of the story to which it gave birth; it is easy to understand Queen Dido (to whom Dugald Stewart refers) the daily thought continued in the nightly dream,

"agit ipse furem  
In somnis ferus Æneas semperque relinquit  
Sola sibi, &c."

But that,

"Our dreams are heralds of eternity  
Curdling a long life into an hour."

is by no means so explicable. The story in the Spectator of the infidel Sultan, living through half a century whilst raising his head out of a tub of water, recognizes the marvellous rapidity with which our mental operations may be conducted; a law which, (without any new faculties) is sufficient to bring into cognizance and judgment at the last great day of account all our thoughts and actions.

I heard of a man who in the act of drowning (as far as losing his consciousness, which was restored) had the events of his past life presented to him like a flash of lightning, or a glance at a picture; but to come back to earth and the vulgar necessities of our nature, I would

(being a good performer at breakfast,) recommend any gentleman who is particular as to that *matutinal refection*, to come to Lauce à Loup and order broiled curlew and salmon fry, caught at the meeting of the waters. Not Moore's "sweet vale of Ovoca," but where the little stream at the watering place and the waters of the ocean, are as my aforesaid amatory countryman would say "mingled in peace."

*Thursday 24th.*—Cold fine weather, blowing fresh from the westward; employed watering.

*Friday 25th.*—Employed watering and wooding, arrived a brig from Hudson's Bay, left it 20th July, reports that Lieut. Franklin, left Cumberland House, seven hundred miles from York Factory, on the 2nd of last January, to prosecute his Journey towards the Copper Mine River, by the way of Isle a la Croix and Fort Chipawyan, on the Athapasco Lake, he was accompanied by Mr. Back, (midshipman,) the rest of the party were left behind at Cumberland House, to follow by water, when the rivers became passible: probably the first week in June.

*Saturday 26th.*—An American schooner which arrived yesterday from Greedy Harbour, reports that they have not averaged more than one hundred quintals per man on that part of the coast; cold raw weather, with light rain, completed our water and wooding, went on board the *Wear*, and examined the master's curiosities. He is a Mr. Thompson, a very intelligent man. Got an Indian fire bag, some birds, and necklace of deer's teeth, from Mr. Thompson, the gift of a squaw of the Saskashawan, which he like a "perfidy man" gives away. Wonderful the ingenuity of the Indians, their woods and hills supply them with a very untractable raw material of manufacture, but really their adaptation of it to their purposes is sagacity itself; the dresses of the women are quite beautiful in their way; and they arrange I am told their skins and porcupine ornaments, with as great a regard to effect as their sisters of Europe do their more costly, if not more elegant adornments. Heard much of Mr. Franklin, his is a desperate undertaking, but by next winter's end, he will, if he survive, be hardened into the habits of a moose deer, or a buffalo, and be able to undergo as much. Mr. Thompson of the *Wear*, was himself a traveller, and performed 1,300 miles in the snow, en amateur.

*Sunday 27th.*—Fine day, remained on board.

*Monday 28th.*—Fresh north-west wind, rain and fog cleared in the evening.

*Tuesday 29th.*—Fine day, walked half way to Forteau, and feasted on alpine strawberries, very good.

*Wednesday 30th.*—Dispatched Booth, who is always ready, to Cape Charles, to settle and wind up our fishing dissensions. I could not send Pearce, as he has been ill for several weeks with his asthmatic affection. Went in my galley to Pinwire and St. Modeste, to get two magnificent dogs, though unhappily named "Turpin" and "Freny," after the English and Irish robbers; the latter hero is a great favorite among the Irish on this coast; his freedom in matters of *meum* and *tuum* is quite atoned for by his dash and enterprize, and his remembrance is perpetuated in the names of their dogs. This is the third Freny, which the

old dealer has furnished Mr. Pinson with in a few years; I procured a fine young wolf to enrich my ménagerie. I took him hastily, and now what shall I do with him?

The *Wear*, which sailed three days ago, put back, not being able to make way against a current that was found setting to the eastward, contrary to expectation respecting the current. I hear that there is a French corvette on the opposite side, suspect it is my old acquaintance, Commodore Bégon; dispatched Mc.Clintoch, with a letter of greeting, I understand the Indians say Invertoche Inlet, near Sandwich Bay, communicates with the Straits of Belleisle, between this and the Esquimaux country, an interesting object to establish. A journey between them would acquaint us with the mountaineer, *Anthropophagi*, whom the Esquimaux describe as nine feet high, and necromancers. The wolf died, to relieve us of the difficulties of his house-keeping.

*Thursday 31st.*—Fine cold day, employed about the rigging.

*Friday, Sept. 1st.*—Went in the galley to Forteau Bay, a brig is about to sail from Lance à Blanc for Jersey: returned from Forteau across the hills; an old dealer of Mr. Pinson's there had a most remarkable escape from a white bear; he fired at it, and broke its jaw, but it did not fall, and attacked its apponent, threw him down and attempted to bite him, but found his jaw unhinged; he did not hug him or beat him to death, but with extraordinary stupidity merely pinned him between his fore legs like "Thames between his two banks," till he was tired, and then took his departure.

*Saturday 2nd.*—Heavy rain all the morning, employed writing for the Jersey brig; at 2h. it cleared up, sent Mc.Clintoch, to walk to Forteau with our letters; very cold evening, raw, and wretched; the cold within the fortnight, "has increased, is increasing, and ought to be diminished" by our going to the southward, which please God, I shall do early next week.

*Sunday 3rd.*—A quiet Sunday on board; very cold day, dined as I do every Sunday with the officers, they are very agreeable and gentlemanlike. Boys in the evening. Fine promising lads they are, I work their minds all I can.

*Monday 4th.*—Unsettled weather, walked on shore; some ears of barley are growing in the gardens, not yet beginning to turn; vegetables grow very well, and in great perfection, particularly lettuces, spinach, and early Dutch turnips; the black vegetable mould may be manured with cods-heads mixed with a little sand. Dash attacked a porcupine again, (against whom he wages interminable war) and killed it, but came off dreadfully belaboured; his head was covered with quills, ten or twelve in his mouth, two through his nose, and ornamented as if the animal had made a transfer of his furniture. The quills of the porcupine are finely barbed and must be carefully removed by excision or forcing through, as they will otherwise by the muscular action insinuate themselves into the wounded animals, frequently causing their death. Several Americans put into Schooner Cove, saw some of the masters and crews; remarkable national similarity in the fishermen race from all the states, all at least that I have seen; their jealousy of "the old coun-

try," is somewhat wakeful and uniform, and their love of political discussion is a perfect mania, which seems to extend to all classes, captain or cook's boy. The confidante is as mad in white muslin as Tilburina in white satin. They are over free and easy, and expectorate a little more than we approve of, but they are notwithstanding fine intelligent enterprising fellows, and in matters of business our fishers are not fit to hold a candle to them.

*Tuesday 5th.*—Fine clear cold bracing weather, wind northerly, cannot imagine what detains our boat from Cape Charles; some Americans arrived here weather-bound, who sailed from Cape Charles on Sunday. A party from the ship returned from deer hunting, but without success; they saw tracks innumerable, but no deer. Much skill is required for a successful chasseur; the power of smelling in the deer is extraordinary, and the ability of the hunter is exercised in turning up to their haunts directly from to leeward.

*Wednesday 6th.*—Glass falling, rainy morning, no appearance of our boat from Cape Charles. This cannot be a healthy climate from the sudden transitions from heat to cold, and the great quantity of rain that falls, the changes are so sudden as *sometimes*, though rarely, to anticipate the information of the barometer, and to reduce that inestimable instrument to an *ex post facto* informer; but *in general* it is fidelity itself; when it rises suddenly the weather will be fine, but not lasting: cleared up in the afternoon, and promised fine weather, glass still falling. Dined on shore.

*Thursday 7th.*—In the evening a heavy gale of wind came on at north-east which lasted all night; this morning it is fine and moderate, wind south-west. At 10h. the boat returned from Cape Charles with Mr. Booth; no business to call me there, propose sailing for the southward in the morning.

*Friday 8th.*—Blowing a gale of wind at west, rain and fog, glass rising, weighed at 7h. and stood to the eastward, cleared Belleisle at noon. (Fine bright joyous weather) bid adieu to Labrador; indifferent climate on the whole, but there are days and especially nights such as I never saw the like, and which contrast remarkably with the habitual weather, "like a rich jewel in an Ethiop's ear," dig deep and frost is found, except perhaps in the short bright summer: splendid harbours, but bottom frequently rocky. Let Commodore Roussin bring his chain cable, he might perform the cosmogomy man here upon that topic. Indeed ships coming on the coast of Labrador, should have two chain cables. I would advise all to come to Lance à Loup, on their first arrival, and make a garden there for their summer use. Lance à Loup, rich soil, most eligible part of Labrador for settlers, excepting Saudwich Bay; corn will not ripen, but does for green food: potatoes, cabbage plants, lettuces, spinach, and early Dutch turnips, do well: fish abundant, cod fishing, nearly over the 10th Sept., no weather after this date to cure fish; herrings very fine and plentiful in August, and Sept. Curlew came in 15th August, out again 15th Sept., succeeded by grouse, ptarmigan and partridge. For account of fisheries and harbours, mineralogical and meteorological observations see annexed reports. Generally much rain, weather



more equable in its temperature according to our observations, than when Cartwright made his in 1778-9. Current almost always sets to the southward, along the coast of Labrador, tides rise six feet to the northward, about four to the southward; the prevailing winds are from W.S.W. to N.W., less fog than to the southward, *Strait of Belleisle never frozen across.*

*Saturday 9th.*—Fine cold morning, light N.W. wind, passed several ice-bergs, which are diminished in size since we last saw them, or are others, "a matter of fact character." For example, the Governor of Tilbury would have had great difficulty in comprehending the power of imagination, which invests those ice-bergs with the magnificent formation and resplendent variegated colour which modern voyagers ascribed to them. To me they shewed nothing arabesque, were stunted, ugly, misshapen hills of dead white, frequently of a dirty light green or blue tinge, and the fissures of a darker blue or green.

The laugh of the Reviewer (Quarterly), at Captain Ross, for describing the Arctic highlanders astonished at a looking-glass, when they must have seen themselves in ice-bergs, is without reason; as those blocks of frozen snow are perfectly opaque, the edges alone being slightly translucent, and the rough surface as incapable of performing the part of a looking-glass as a white-washed wall would be.

Reading through *Barrow's Polar Voyages*, Ross as aforesaid, the conflicting reviews thereupon, and Humboldt's researches. The latter have gone far to introduce the present ambitious mode of voyage and travel writing, where the style is not that of *périsiflage* and banter; it is all *fine writing*, Chateaubriand and Humboldt have this to answer for; a fashion is soon given and the lively imagination of the latter and his essentially imaginative temperament give to his statements of fact somewhat of the "fine phrenzy" of poetry. He cannot tell you of a horseman on the ridge of the Cordilleras, or the burial of an Arragonese boy at sea, but the description will scan on your fingers. He talked poetry all his life without knowing it, like le bourgeois gentilhomme prose; commend me to "Captain Lemuel Gulliver, of Rotherhithe," or "Robinson Crusoe, of York, mariner," for the mode of relating. How easily I repeat it, a fashion is often given. Admiral Watson I think wrote, "We fell in with the enemy's fleet burned, sunk, and destroyed as per margin." And "brave Admiral Benbow" was not magniloquent; nor the soldiers or sailors of old. But Sir Sydney Smith talked of christian knights, and spear-heads of standards. And Lord Hutchinson of laurels and employed Mrs. Malaprop's "headstrong allegories from the banks of the Nile," and forthwith sprang up a necessity "pour raconter joliment."

My poor friend P——r P——r, fought a capital action in his schooner, which he would not relate in his own phraseology, that not being his *forte*, but got a friend to detail it in a way that must have made his hair stand on end; and so of others; we all so delight in harmonious periods.

The concord of sweet sounds is as bewildering in writing as in music. We are like a Chinese bird, which Goldsmith tells us has its brains picked out through its ears. They say, "O but if you suspect it is

sound, not sense, try the matter by translating the passage into another tongue."

There never was a greater fallacy. You may detect a pun or play upon words in this way; but a low idea instead of being exposed is elevated by a change of dress. Select any piece of mockery or burlesque, take any line of Hudibras, or Roger's famous song in the "Rovers," now before me

"O sweet Matilda Pottingen, thou wert the daughter of my Tu—;"  
or better still,

"The Captain bold in Halifax who lived in country quarters,"  
and who under "the stings and arrows of outrageous" conscience,

"Took to drinking ratafia, and thought upon Miss Baily;"  
try this in Latin Verse such as

Dux audax Halifaxis quidam in rure locatus

•        •        •        •        •  
Ratafiam bibens, hen! Baillia misera gemit,

and does not the new garb confer a new character? Christopher Sly ceases to be a tinker when he is bedizened like a lord.

*Sunday 10th.*—Fine fresh breeze, arrived in the evening in Harbour Grace; a good harbour sheltered by a breakwater of sand across its entrance; sailed along a nice English looking coast, studded with snug fishing establishments. The town of Harbour Grace, extending along the north shore, large and of a respectable appearance.

*Monday 11th to 22nd.*—Surveyed Harbour Grace; it is convenient for the purposes of the fishery, and sufficiently wide to turn through, in or out. Conception Bay is the richest and most populous district of Newfoundland. Harbour Grace is the chief town, and there are towns in Bay Roberts, Spaniards Bay, Port à Grave, Harbour Main, Holyrood and Belleisle, all within Conception Bay, containing altogether 14,600 inhabitants, a large proportion of the 86,000, which according to the most accurate, or rather least clumsy, census may be the population of Newfoundland. Remained a week at Harbour Grace, received provisions by the *Grasshopper*, and orders to remain surrogating till the 8th of October, and then return to St. Johns. Sailed on the 22nd, to the south-west, to visit Port à Grave, and the neighbouring ports. On the 22nd, the violent rains of the last three days were succeeded by lovely bright weather, and a moderate westerly wind; weighed after breakfast with Mr. Leigh, the missionary of Harbour Grace on board, and stood out of the bay; beat all day against an increasing westerly wind; at 4h. got into the entrance of Port à Grave, and at 6h. anchored in 15 fathoms, off Bare Need, about a quarter of a mile from the shore, a pretty little town, containing about 250 inhabitants.

*Saturday, Sept. 23rd, 1820.*—Went after breakfast to Church Cove, a remarkable bason, hollowed out in the southern cliffs of the harbour, by the action of frost, or by the more certain operation of time, in decaying the slate clay, of which the rocks are composed. You enter an arch twenty feet in width, twenty feet in height underneath, and get into a bason surrounded by perpendicular rocks, about 120 feet high,

with a border of dwarf spruce at top; the bason is about 300 feet in circumference, and in one corner there is a little exit among the broken masses of rock; the depth of water is about fourteen feet in the centre of the bason. After examining this pirates' nest, pulled to the extremity of Port à Grave Harbour, to visit the remains of an ancient colony, supposed to have been there established. Took considerable pains to ascertain by examination and enquiry, the particulars of this colony. Mr. Barrow imagines Newfoundland to be the Estotiland of Zeno, and he refers to a curious fact, "that a party of settlers in proceeding up the river, which falls into Conception Bay, a little to the northward of St. John's, observed at the distance of about six or seven miles above the bay, the appearance of stone walls rising just above the surface. On removing the sand and alluvial earth, they discovered the remains of ancient buildings, oak-beams, and mile stones sunken in oaken beds; enclosures resembling gardens were traced out, and plants of various kinds growing about the place, not indigenous to the island; but the most decisive proof of these remains being the remains of an ancient European colony, was in the different kinds of coins that were found, some of ductile gold, which the inhabitants considered to be old Flemish coins, and others of copper without inscriptions."

Then naturally follow speculations on this discovery. Was this the remnant of a colony founded by Zichmni, in the latter part of the fourteenth century, or one founded by the descendants of Eric and Biorn, from Iceland, in the eleventh century, against the latter conjecture it is said the Scandinavians always used wood in their buildings, and those are of stone. But there is a third supposition, which Mr. Barrow considers that they are merely remains of saw mills erected by Lord Baltimore. The people of this country are so accommodating in giving an affirmative answer to every leading question, that the framers of various hypotheses had no difficulty in procuring materials to fortify the same; coins, mill-stones, drains for carrying off water, ridges, fruit trees in rows, and a broken bridge when enquired for would almost certainly have been seen or heard of. The coins were said to have been dug up at Port à Grave, and the mill-stones to have been brought there and used in buildings. If the supposition of the settlement in 1395, breaks down on the ground of Antiquity, the Scandinavian discovery and colonization of 400 years before, must the more readily give way; and I confess it appears to me, that even the establishment of Zichmni in the latter part of the fourteenth century is somewhat like the King of Bohemia's sea port in Tristram Shandy, "A thing Corporal Trim which I think could in no way have happened," or of which at least we have nothing like satisfactory evidence. But I had better detail what we observed in our excursion up the river to "the Gold;" and I should first say that no doubt, four coins of virgin gold, defaced, were dug up at Port à Grave, and seen by Mr. Leigh, and various others at Port à Grave. Seven miles from the situation of the supposed mill, and thirteen from supposed colony; the inscription on the coins has not been made out. But Cabôt in 1500, or any of the early visitors might have left coins behind them without affording proof of any thing beyond

their visit. Leaving coins was done intentionally in all places visited by old navigators, and as to the broken pieces of mill-stones, said to have been used in building at Port à Grave, it may be remarked that the distance from thence to the mill is seven miles, and in a country abounding with building-stone it seems incredible that they should have sought it at that distance.

We entered the river called "Bare Need, Southern Gut," through a channel in the Sandy Bar at its mouth. The water runs over this bar with considerable velocity in a fall of about three feet in perpendicular height. On the left bank of the river, just within its entrance is a small stream, across which the supposed mill stood. This stream like many others in this country, has changed its direction within a few years, and now instead of running by the mill into the main river, and issuing at the common mouth, it has forced a channel for itself and an exit through the gravelly beach a mile to the northward, and is now a small and sluggish rivulet.

We found here three beams across the stream, about twenty feet wide and fifteen apart, and one transverse beam, all resting on the ground, no walls underneath. One end rested on a small island or peninsula of gravel: this peninsula we were told was, of recent formation, having been deposited in the centre of the river, which was then but a single stream, and by which it was divided as we now find it into two. If this be so, the framework which is found again on the other side of this island, must pass underneath it, and crossing the river opposite rest on the main land, occupying about 140 feet in width. The beams are the pine of the country, they are rudely squared, and the ends of the branches are frequently visible; the mortices are seen in the ends, for uprights they are too large for a house; could not have been a fishing establishment from the shoalness of the water, which would have prevented boats approaching with their cargoes and the inconvenience of the situation, (they are about seventeen or eighteen inches in the square). Our guide, who had been thirty-six years in the country said, he heard it was the remains of a saw mill, they are partly decayed, and indicate from their general appearance considerable age. We continued up the river for about three miles and a half, it is *very beautiful*, on the left bank the land is high, and both banks thickly wooded; its general depth is about six feet, it varies very much in its width; at the entrance it is narrow, about forty feet, then widens into an expanse of above a mile across, with a variety of small islands, banks of gravel washed up by the stream, and lying high and dry, small and most picturesque inlets, and short turnings round sandy spits, or bluff wooded points. The wood, is larch, Scotch fir, and birch. Many tributary rivulets run into the main stream; its general direction is to the south-west. Where we landed the river narrows to about ninety feet in width. There was the confluence of three arms at this place, running from a rich green swamp through which the river flows, and where it possibly may have its source. We landed on the right bank, and walked with our guide across the hills to the southward for about a mile and a quarter, till we came to the Gold River, and the supposed ancient colony; the river is a

narrow rapid stream, rising, we were informed, from a pond eight miles to the south-west, and running with countless turnings, through about two miles of low swampy bottom, called the Gold; and then emptying itself over a waterfall of about thirty feet in height, into Bare Need Gut; it joins the gut about two miles from the mouth of the same.

There are the remains of an old bridge, across the Gold river, but we were informed it was built fifteen years ago, by some coopers who cut wood here for casks. There are here about two hundred acres of rich swampy bottom on each side of the river, quite sheltered by hills, but so low as to be frequently overflowed; and I should think in the present state of the river incapable of drainage; and the numerous trenches which intersect every part of the bottom, appeared to me to have been channels naturally formed by the action of the water, as the river overflowed and receded from the land between the various turns of its serpentine course. The whole ground was covered with a rank thick vegetation as high as our heads, and bushes of various bog plants, mountain ash, gooseberry, wild currant, and filberts, were found on all the little eminences which rose out of the swamp, these were placed without any regard to uniformity, (which indeed could never have been preserved after the first generation of trees had died away, admitting the original design). We could not see any traces of the hand of man in any part of this territory, and after wading through it, occasionally up to our middle in water, we returned to the boat as strongly impressed against any evidence of the visitation of Zeno or Zichmni, as of Eric or Biorn. We landed in the evening at the village of Bare Need; Mr. Leigh went to an old man who had built a church at his own cost and charges, to ask leave to preach in it on the morrow; the builder of churches was too drunk to be able to give him an answer. He is an old reprobate who probably thought the pious work a set off against other practices; he had never heard of or been helped out by the example of Voltaire,

“ Who built a church, and laughed his God to scorn,

nor did he need it, for the doctrine of striking balances is the religion of human nature.

(To be continued.)

---

SHAKINGS FROM SMYRNA.—By *Mahmouz Effendi*.

(Continued from page 241.)

“ What is there to be seen ashore?” inquires the tourist who arrives at Smyrna or indeed at any anchorage on the coast of Turkey. “ *Bilmem*—I don’t know,” answers somebody in Turkish; “ but *Bismillah!* What is there *not* to be seen?” Do you, O my stay-at-home reader, now ask the first question? If so, cast off all laziness; quit the luxuries of your cushioned arm-chair; don your ugly Frank hat; make your way to the *Crystal Palace* in Hyde Park; and throw but a

glance at the compartments therein assigned to *Turkey* and to *Tunis*. After having done this, you may realize by comparison a faint idea of what is ever to be seen daily in the dazzling bazaars of *Smyrna*.

If you doubt *our* poor word, jump incontinently into the train and seek out Master Nicholas Collier, now again at Sunderland, who will somewhat astonish you with a round unvarnished tale of what *he* himself saw in the "*City of Figs.*" Try him. The "constant reader" who has kindly gone thus far with us in the four chapters descriptive of the *Saucy Fanny's* visit to *Izmeer* must now, with a due regard to the progress of our story, be made acquainted in a fifth with some of the movements of the party ashore, the happy party, consisting of Merchant Tomkinson and the consignee, the skipper and the supercargo. The last gentleman did, it is true, fall on his eagle nose in landing and thus pay a grinding tribute to Anatolia; but—let that pass. Such accidents will occur in the best regulated families. *The city of Smyrna* boasts of a classical river, the *Meles*, on the *left* bank of which it stands, and this river has as a matter of course, submitted in modern times to the "indignity of a bridge," as was said of the celebrated Araxes by Gibbon, if our memory serve us rightly. On the townward side of the *Meles*, this time-honoured stream, now rises, close to the bridge, but below its level, an humble shed, dignified by the Smyniotes with the name of a *Kav-haneh* or coffee house; and here a couple of good Muslims, man and boy, brew at all hours that "black broth," which the *sons of the Prophet* are always ready to sip with as much *gusto* as ever did Spartan a bowl of the same name, if not description.

Who knows what was the real "black broth" of the Spartan? Not I; perhaps after all nothing but coffee. Let your spectacled students dive into that, O ye sons of the Franks, and give the result in "Notes and Queries." But to our tale.

A few hours sight-seeing ashore had brought all our party into a fit state to enjoy not only coffee but a fragrant *narghileh* or a *ichibouque*; and now fronting the murmuring river, with the picturesque and camel-crowded bridge on their left, and *en-face* a forest of tall cypress trees covering the country on the opposite or right bank of the stream, Master Nicholas and the supercargo seemed for some minutes lost in silence and contemplation and almost sleep. "*Saucy Fanny!* Ahoy!" shouted the consignee bursting into laughter, "how devilish quiet you are. How's your pipe? Nearly out I fear?" "I'm jolly comfortable," replied the skipper, "but rather tired, and this *narghileh* is a regular *soother*. We never get such 'bacco as this in England, it makes me sleepy, tho' under such a sun."

"Here comes the very fellow to wake you all up!" exclaimed Tomkinson, pointing to the right, where a Frank horseman was cantering his steed across the shallow stream, and thus kicking up a shower of spray, the scattering of which seemed to please the youthful rider mightily. "Here comes Jack Chatterton, or "Chatty Jack," as we generally call him."

"Who's he?" demanded the supercargo.

"An-out-and-out British Yachtsman," replied the consignee. "His

schooner the *Flat-Fish* has been lying in or near our harbour these three months, and there is not a spot of ground round Smyrna that he has not visited. He knows the place now as thoroughly as the British Consul. I'll give him a hail."

"All right my hearty!" responded Jack to the summons. "I'll join you directly, but I must first pick out some little *pezavenk* to hold my horse. There's no end of 'em always ready to earn a *bokshish*." And on our equestrian singing out *beru quel!* a barelegged young Greek ran up cringingly to receive his orders. Mr. Chatterton soon dismounted and joined his friends, hailing the *kav-haneh* at the same time for a *tchibouque*.

"Queer road, I've come by, now, a'n't it Tomkinson? The river's rather a rum place to ride in, can you guess why I took it?"

"No," was the reply. "How should I!"

"Look up the stream then; d'ye see it turns to the left, close under the walls and trees of a solitary house, the only one on *that* bank; well, I came down that way to-day *on purpose*, because I passed up that way yesterday *by accident*, and both times I've seen close to the garden wall, such a bevy of unveiled beauties, that——" "What?"

"I intend to ride that way to-morrow, and perhaps next day after that, and now let's change the subject."

"Ah, Jack Jack" cried Tomkinson! "your search after Circassians will some day be the death of you. What do you learn by all this gallivanting?"

"I learn queer things enough sometimes," rejoined Chatterton smiling, "and simply by keeping my eyes about me."

"Nothing against our own fair Smyrniotes, I hope?"

"Don't be too sure of that! Have n't I seen 'em by scores chew mastic quids, and blow gummy bubbles!"

"Scandal, Master Jack, scandal; you ought to be ashamed of yourself."

"Ought I? Never mind. But I have seen more than that—you know my hostess, Marinoula?"

"Didn't I, myself recommend her rooms, as a nice quiet place for you when wishing to stay ashore?"

"Well then, what d'ye think *she* told me this very morning *was one* source of her little income?"

"Being a Greek, she'll draw many a long bow merely to amuse such a *milordos* as *you* are."

"That's all *bosh*," cried Chatterton. "But she told me this; she asserts she earns many dollars a week by *shaving* certain of your christian Smyrniote *belles*?"

"Too bad, Jack, far too bad, what a quiz you are!"

"Devil a bit! Marinoula swears by the *Panayia*, she shaved three noted beauties but yesterday, with a well-waxed silk thread, all over their upper lips and foreheads."

"Dash my buttons!" exclaimed the skipper, "if this isn't too bad, all these things should be under the rose."

"Anything to oblige," said Jack, "so to oblige you we'll say no more about it. Here comes my six-foot pipe at last."

"A pretty piece of water this," resumed the skipper, "I've heard before to day, you've no boats hereabouts, but as the Turks seem so fond of sitting here, under these fine trees, I wonder they don't put a few swans in the stream as an ornamental improvement."

"What are *you* so silent about?" inquired the consignee of the supercargo, quite disregarding the skipper's allusions to swans.

"I'm counting those camels crossing the bridge, I've already counted sixty-five."

"A new sight to you," said Tomkinson, "but we residents are accustomed to see hundreds of them pass by every day; to us they are no rarity."

"Now had I seen nothing but these ships of the desert," rejoined the supercargo, "I should never regret my visit to Smyrna. The camels I have noticed in England were poor puny sickly-looking things when compared to the fine animals before us."

"Those you see in England are chiefly sent thither from Tuscany, and are a very inferior race," observed the consignee.

"Undoubtedly," said Chatterton, "when my yacht was last at Leghorn, I rode over to Pisa and inspected the Tuscan camel-stud. The beasts there won't bear comparison with your Anatolian *dèvè*."

"I had no idea there were any camels in Tuscany," said the supercargo.

"Oh! yes," replied Chatterton. "The camels of 'The Cascina' are at this day employed as beasts of burden by the Tuscan Government, and it is said are descended from a stock introduced into Tuscany so early as the Crusades. But I don't believe this myself, I don't think Pisa or San Rossora\* has possessed camels for even three hundred years."

"Now," said the skipper "as we are on the subject of camels, I should like to ask you Smyrniote gentlemen a question. Is it true that the dromedary has but one hump, and the camel two?"

"Not a bit of it," replied Tomkinson.

"Certainly not," added the consignee, "there are camels with one hump, and camels with two humps; and dromedaries with two humps, and dromedaries with one hump."

"Those of Pisa have but one hump," observed Chatterton. "They are of the species distinguished by naturalists as the *camelus dromedarius*. The term dromedary properly applies to a very swift species of camel, the latter of which animal is called by the Turks a *dèvè*, and the former an *adjem dèvèsi* or a *djemmaz*, or *hedjin*."

"Bravo, Jack!" exclaimed Tomkinson, "I'm right glad to find you're getting on so well with your Arabic and Turkish."

"Steam," replied Jack bowing to the compliment, "has now brought Smyrna *within* a fortnight of the Isle of Wight, and I can assure you that, whatever may be the feeling of other parties, yachtsmen at least *know* the advantage of learning Turkish, and dozens of them are already turning their attention to that tongue."

\* See Knight's *Oriental Outlines*, p. 323.



"To tell the truth," said the consignee, "we Smyrniotes find as a rule that yachtsmen know much more about that language, than do the officers of the Royal Navy, although it is no uncommon thing for an English man-of-war to lie here on duty six months without tripping her anchor; thus affording all hands a fine opportunity for studying Turkish."

"The day will come," said Chatterton, "when two superior classes of chaplains will be appointed to the Mediterranean fleet; those who have mastered French, Spanish, and Italian; and those who have acquired Arabic, Turkish, and Romaine or Modern Greek. And under these chaplains even our middies may be properly drilled in languages. Latin and old Greek will go out of fashion at sea where dead languages must give way to living tongues. I would myself much rather be able to read a Greek passport, or a Sultan's firman, than Cæsar's Commentaries, or an Hellenic inscription at Athens. But all this perhaps is a matter of taste."

"When you gentlemen talk about languages," said the skipper, "I feel myself out of my depth."

"Well then," rejoined Chatterton, "let's *again* change the subject. You've heard where I've been; let me in return know what all of you have been about to-day, for 'shiver my top-sails' as my boatswain says, you all look a little tired, and I suppose have been sight-seeing."

"That we have," exclaimed the supercargo, "and we have not even yet done our day's work, having still to visit a Greek garden or two, taste some vaunted wine at three-pence a bottle, and pass our opinion on the fruits of Smyrna, fresh from the tree."

"A good wind up to the day's work; but where do you say you have been?"

"Oh!" answered the skipper, "we've walked from end to end of the Frank Street, where the costumes reminded me of a Vauxhall Masquerade; then we bought some knick-knacks in the glass bazaar, visited a church or two, and the custom-house, the slipper-bazaar, the black slave market, entered a bath and a *kebab* shop; tasted plenty of wine at an Armenian store, rambled up and down all sorts of narrow streets, and at last got to the top of the hill to inspect the ruins of the old castle and take a distant view of the celebrated aqueducts behind them."

"You have forgotten to mention," said the supercargo, "our call upon the Greek Bishop."

"Did you see his daughter!" anxiously asked Chatterton.

"To be sure we did, and a pretty girl she is, tho' I thought it odd she should hand us coffee and sweetmeats herself, and above all wear no shoes or stockings. The Bishop himself was in full canonicals, and that also astonished me."

"I never took so much in a day in any part of the world as I have this morning," observed the skipper yawning, "my stomach is now full of wine, coffee, sweetmeats, iced water, and tobacco smoke."

"All sustained by a good layer of Yorkshire ham," added the supercargo, "which you stowed away at breakfast."

"Touching that Bishop," resumed Chatterton, "your mention of him reminds me I have an inquiry to make relative to the Epistle of Ignatius to the Smyrnians, and the Epistle of Polycarp to the Philippians."

"Both in the Apocryphal New Testament,"\* said the consignee, "for goodness sake, Jack, don't broach that subject at present."

"Well, well," replied Chatterton, "any thing to oblige, so we'll change the subject *again*. How did you like the Castle on Mount Pagus?"

"Vastly," replied the skipper, "but of all I have seen to-day, the Bazaars pleased me most, where I observed the fellows who were making mouth-pieces for pipes *use the chisel with their toes*, and the tailors iron out their work *with their feet*, while their hands were steadying the cloth. Men of several trades seemed to me to use their toes quite as nimbly as their fingers."

"They do so in these parts," said Tomkinson.

"Your coffee-sellers must make a good deal of money," said the supercargo after a pause, "for I see no less than a hundred people drinking it, or smoking at the present moment, their costumes are really very elegant. Ah! there again comes a caravan of camels† with tinkling bells; really this place reminds me of what I have read in the *Arabian Nights's Fintertainments*."

"The people seem fond of enjoying themselves here," said the skipper, "I'm afraid there's more play than work."

"They work *enough*," replied the consignee, "but don't slave at it, as you English do at London, Liverpool, and Manchester; and at all events Smyrna has even turned out some scholars of great reputation."

"Among whom," added Tomkinson, "the name of Adeimantos Koray is perhaps the best known in England. He was born in Smyrna in 1748, and was a great opponent of the 'macaronic' system of orthography proposed for the modern Greek, by Neophytus Doukas."

"I'm getting out of my depth again," exclaimed the skipper.

"Change the subject," said Chatterton.

"Change the scene," added the consignee. "Tomkinson will settle for all of us with the *Kavedji*, and now then to show you a Greek market-garden."

Here our party moved off towards the bridge, and leaving that on their right, took the paved road on the left running towards Smyrna.

\* Published in London, A.D. 1820.

† The British Government with the view of benefitting the colony of Western Australia has notified its willingness to encourage the importation of camels and alpacas by holding out a bonus of sixty pounds to the first importer of one male and two female camels; and the sum of fifty pounds to the first importer of two male and eight female alpacas in healthy condition, within twelve months, from January 1st, 1851.—*Extract from Daily News, April 17th, 1851.*

(To be continued.)

## EAST INDIAN MAIL STATISTICS.

SUBJOINED are a set of tables, containing the dates of the departure of the overland mail from England and from India, with corresponding arrivals, from January 1846, when the fortnightly communication commenced up to the present time. These have been compiled with much care, and will, we trust, be found tolerably accurate. What is termed the arrival of the mail in London in most cases means the arrival of the express, which was wont to precede even the Marseilles despatches by some twelve, or sometimes by twenty-four hours: this difference has now in a great measure vanished. We have not been able to pick out the dates of the arrivals at Suez or Alexandria, and but seldom the despatches from these two ports, so that we have not had it in our power to give the average speed of the steamers on the other side of Suez.

The following affords an abstract of the arrivals and departures, from both ends of the line, for the past five years. The hour of despatch at either end is very close upon 8 o'clock P.M. at an average, and may be regarded as fixed: that of arrival is in the last degree irregular, and being unable to determine it with accuracy, we have been obliged to confine ourselves to days, without any attempt at fractions. The first column in both tables gives the number of mails despatched each year—the second the number of days in the aggregate taken by them on the way; the third gives this corrected for longitude, that is with five hours added for despatches from, and five hours subtracted for arrivals at, Bombay,—thus affording a close approximation to the time occupied on the way. The figures in the last column, on being divided by those in the first, afford an approximation to the mean time occupied by each year's despatches:—

*From Bombay to London.*

Years.	Mails.	Days.	Days corrected for Longitude.		Mean Passage.		
			Days.	Hours.	Days.	H.	M.
1846	23	820	824	19	35	20	39
1847	21	758	762	9	36	7	17
1848	19	640	643	23	33	21	0
1849	20	693	697	4	34	19	26
1850	21	682	686	9	32	16	26
	104		3614	9	34	18	11

*From London to Bombay.*

Years.	Mails.	Days.	Days corrected for Longitude.		Mean Passage.		
			Days.	Hours.	Days.	H.	M.
1846	23	779	774	5	33	15	52
1847	25	838	832	19	33	7	28
1848	24	772	767	0	31	23	0
1849	23	725	720	5	31	7	31
1850	25	769	763	19	30	13	34
	120		3858	9	32	3	41

It will thus be seen that the average time occupied by our mails on the journey home has for the past five years amounted to thirty-four days eighteen hours, that for their transmission to Bombay thirty-two days two hours,—a difference of two and a half days in favour of the Indian despatches. Notwithstanding the extraordinary celerity of the newspaper expresses through France, it is curious to observe, that not only is the time occupied by the homeward bound despatches longer, but that the improvement in the matter of speed has with them been going on more tardily than with the outward bound. Our improvement has been steadily progressive—33, 32, 31, and 30 days—the steamers have danced up and down from 35 to 36, 33, 34, and 32 days. During the year 1850, the former of these occupied on an average 32 days 16 hours, the latter 30 days 13 hours—being on the whole within the month.

Turning next to the extended tables, (omitted in the present summary, to be found at length in the *Daily Times*), it will be seen that the mail from Bombay to London has only on five out of 104 occasions been transmitted within twenty-nine days, and only on one within twenty-eight: and that even thirty days is by no means a frequent interval of transit. The mails out again, on a corresponding number of despatches have reached us on no fewer than twenty-seven occasions within twenty-nine days—on fourteen of these they have been under twenty-eight, and on six under twenty-seven. The most rapid transit ever made seems to have been that of the mail which left London on the 8th July, and arrived in Bombay on the 3rd August 1850, having been only twenty-five days and seventeen hours from London—the voyage from Aden having been performed in six days and seventeen hours: by this mail the tidings of the death of Sir Robert Peel reached India. The following table of the performances of our various mail packets will enable the reader to give a better guess than he has hitherto had the means of doing, at the time the mails may be looked for, in so far as this depends on the performances of the Bombay packets. The comparison we have endeavoured to institute can scarcely be made a fair one, inasmuch as the steamers have not been all anything like the same time on the Suez passage, but it is a very tolerable approximation. Their performances seem to stand something in the following order.—

	days.	h.	m.		days.	h.	m.
Feroze .....	28	8	42	Victoria .....	32	16	34
Ajdaha .....	29	4	36	Semiramis .....	32	19	
Acbar .....	29	19		Cleopatra .....	33	19	
Moozuffer .....	31	15	34	Auckland .....	33	22	25
Sesostris .....	31	19		Queen .....	34	0	32
Atalanta .....	32	11	48				

It will be thus seen that we have three steamers that, on an average of thirty-five voyages performed amongst them, give a transit of a little over twenty-nine days. But for the accident that threw the *Moozuffer* out ten days on her second voyage, she would also have been within the mark. Of the bad averages, on the whole, we may say, as Lord Brougham did on the ejection of the Grey Ministry—"the Queen has done it all." The *Queen* alone, of all other steamers, has very much behaved herself on almost every occasion, unless during the monsoon, though never, save once, entrusted with any but midmonthly mails, so that she has never had further to run than from Aden. The *Acbar* and *Ajdaha* have brought nearly all the mails right through from Suez, those of the 7th of the month, and it would be interesting to know their average speed over the entire course—including stoppages: we should think it will be close on ten knots all throughout.

For some years, the mails were despatched from both ends of the line on

the 1st of every month: it was not at this time imagined, that the transit would, except on extraordinary occasions, be accomplished within the thirty-one days, and there was, therefore, no occasion for making arrangements for anything like return of post. When it became apparent that we could almost make sure of a transit from point to point in thirty-two or thirty-three days at the outside, a slight alteration of the date of despatch was sufficient to secure return of post from one end of the line at all events; and as the European was the most important end, despatches were made to take place from London on the 7th, those from India take place on the 3rd, so that with a thirty-three days' transit, four were allowed at home for answering letters; and this arrangement has been found to work, on the whole, satisfactorily. But improved rates of speed require to be met with such arrangements as shall make them yield the greatest amount of advantage to the public. Twice within these four weeks have the steamers with the English mails reached Bombay early on the 4th—a few hours after the steamer with the Indian mail had left us; and it will be seen from the abstracts already given, that we have at least four steamers, that, in spite of all delays and accidents on the other side, secure us mails in twenty-nine days at the outside: were matters pushed to extremity, and every hour saved the importance of celerity demands, we might have average transits at all times under twenty-nine, or even twenty-eight days, extreme cases only reaching thirty. If we are to provide for the occurrence of extreme cases we must set down forty days instead of thirty as return of post, as to this it has every now and then extended. As matters now stand, and were select steamers only employed, and we have at least five of these, including frigates, at our disposal, we might ensure return of post for eight months of the year from both ends of the line, by making our steamers quit London and Bombay on the same day. When we see what a vast amount of time has, within these seven years, been retrenched at Bombay, by mere punctuality and system, after all was said to have been done that need be attempted—we say nothing of the convenience arising in other respects from this—we can readily imagine retrenchments on other parts of the line such as would bring about at once the alteration desired, and give us two-thirds of our mails, in both directions, within the month.

---

DESCRIPTION OF JUAN DE FUCA STRAIT.—By *Commander James Wood, R.N., late of H.M.S. Pandora.*

(Continued from page 320.)

Low Point is a shingle spit, thrown out by the small river Lyre, and forms its mouth.

From Low Point to Tongue Point is N. 86° E., 4.9 miles. This part of the coast is even more broken, and the cliffs higher than those last described. It is divided into two portions by a very rugged broken point; 0.4 of a mile off which is a sunken rock on which the sea breaks at low water. This point is three miles and three quarters from Low Point. To the westward of it the soundings are convenient for anchorage, but there is little or no shelter and the coast is lined with rocks. To the eastward is Crescent Bay, the western horn of which it forms.

*Crescent Bay.*—The entrance to Crescent Bay is contracted to a quarter of a mile by the rocks off its western point, and the rocky ledge extending a third of a mile off the Eastern (or Tongue) Point. It is small, and of no

depth; the soundings varying from 3 to 6 fathoms, and it affords shelter to none but very small craft or boats.

Tongue Point is formed by a spur of a conical hill, which is a very prominent object when working either up or down the Strait. Kept on with the north-west end of Wyadda Island, it will lead to the northward clear of Duntze rock and all the dangers to the westward of Neah Bay. It is called Striped Peak, from a white stripe on its eastern face, where a land-slip has left the soil clear of trees. From this point to Observatory Point is  $S. 74^{\circ}E.$ , three miles. The coast is a rugged cliff fringed with rocks, close to which the deep water approaches.

From Observatory Point to Angelos Point is east three miles and a quarter, the coast between them, forming a bay one mile deep called Freshwater Bay; this is clear and tolerably well sheltered, having anchorage in from 5 to 10 fathoms all over it. Good water may be had in the western bight. Off Observatory Point there is a small island, and some rocks. From the point the coast runs in nearly south two-thirds of a mile, then  $S. 78^{\circ}E.$ , two miles and a quarter, when it makes a sudden bend to the north-eastward and extends out a mile and a quarter to the point. The western half of the coast is cliff with a sand and shingle beach; the eastern half is low with a shingle beach.

*Point Angelos.*—Point Angelos has a beach of shingle and sand; it is a low and gradually rounding point, formed by the river Elwha, which when we were there had two mouths, but as it runs for some distance close to the beach, it is likely that both the position and number of these entrances depends very much upon the melting of the snow, and other sources of supply in the Angelos Valley, from whence this river flows. From Angelos Point the hills recede and leave a level space between them and the coast; from thence they rise suddenly to a great height, their summits capped with snow even in summer, forming some of the highest peaks of the Mount Olympus range. The most conspicuous break is a deep and narrow valley abreast this point called Angelos Valley, from whence as before remarked the river Elwha flows in a good sized stream having sufficient water to admit our boats. The whole of this country is covered with fine wood and abounds in deer and other game, but it is difficult to penetrate from the underwood and fallen trees. There are several Indian lodges on and near the coast.

From Angelos Point to the commencement of Ediz Hook is  $S. 72^{\circ}E.$ , 3·8 miles, the coast forming a slight curve or bay, the shores of which are alternately cliff and low ground. These cliffs are for the most part bare of trees and form a good mark for pointing out the position of Port Angelos. The beach is mostly shingle. The soundings off this part extend some distance out, 30 fathoms being found nearly three miles off the bight of the bay. The tide runs strongly here, and abreast the commencement of the Hook are several rippings and overfalls which are caused by the sudden fall of the lead from 9 to 30 fathoms; for here the bank terminates abruptly, and the deep water approaches close to the back of the shingle spit forming Port Angelos.

Port Angelos is one of those singularly formed harbours and roadsteads which under various modifications of size and shape that abound in the Strait. It is formed by the long, narrow, and slightly curved shingle spit called Ediz Hook, which extends  $N. 84^{\circ}E.$ , two miles and two-thirds from the cliffs which form its base. It is only a few yards broad at high water for the greater part of its length, but like all the rest its outer extreme is broader, and has a rounded form. The curve is convex from the shore. At its base, or the apex of the inner water, there is a small, shallow lake, which communicates with the harbour by a narrow channel.

It may be remarked here that in every instance these spits are thrown out

in the direction of the flood tide (stream), and I believe this to be a rule which obtains in every part of the world, for wherever a shingle spit is thrown out, it invariably (as far as my experience goes), takes the direction of the flood stream, let the prevailing winds be what they will. This circumstance may be a useful hint in the construction of works for preventing the growth of shingle spits.

One of the most singular features of the spit just described, is, that though so narrow it has deep water close to on both sides, 25 to 28 fathoms less than a hundred yards from the high water mark on the inside, whilst from 30 to 40 fathoms may be had at the same distance from the outside. From the commencement of the spit the cliffs recede, and leave a level space of no great width between them and the shore of the harbour. The rest of the coast of this port is composed of cliff and these flat spots alternately, the latter where not overgrown with trees are covered with wild oats and a strong grass. Several small streams fall into the bay, at any of which vessels may water, but all in the western or upper part of it are subject to the inconvenience of having a long flat in front of them at low water. The largest and best stream is a little to the eastward of the entrance of the harbour, and is therefore exposed to the swell, but in smooth weather it may be used with advantage.

From the end of the spit to the main, the breadth of the entrance is one mile and a half, but some rocky patches having less than 4 fathoms on them extend a quarter of a mile from the main, and reduce the available distance to little more than a mile; its depth is two and a quarter miles, and it affords anchorage in any depth from 5 to 20 fathoms all over it. It is defended from all winds, but from E. to E.N.E. and even these may be avoided by anchoring near the spit, whilst their force and the sea they bring are much broken by Dungeness Point. There are three separate Indian lodges within the harbour, one at the upper or western end, another about the middle, the other a little to the eastward of the entrance. We found these people civil, harmless, and disposed to barter their salmon, &c., which are obtained outside of the spit, where they seem to be plentiful.

When entering the harbour care should be taken to allow for the strong tide which sweeps past the spit head. This point however, is steep, from 10 to 20 fathoms, being found close to it. After clearing it a vessel should haul at once up the harbour to avoid the before-mentioned rocky patch, and anchor as convenient, observing that the water deepens from 4 fathoms close to the kelp off the main shore, to 25 or 28 fathoms close to the spit.

The time of high water is 3h. 50m. P.M., full and change. Rise eight feet.

From Ediz Hook to Dungeness Point is N. 78° E., twelve miles and a quarter, being the chord of a large but not a deep bay. From the lodges abreast the entrance to Green Point, is N. 85° E., four miles three-quarters; this coast is composed of high sand stone cliffs, mostly bare. With reference to the before-mentioned mark for recognising the position of Port Angelos, it will be seen that the cliffs on both sides are bare of trees, and composed of the same white sand stone; whilst those within the harbour are nearly covered with trees, and thus form a dark break or interval in the white line of cliff which is easily distinguished from seaward. Two miles from the lodges there is a break in the cliff, where the small river or brook before-mentioned finds its way to the beach, with another Indian lodge close to it. The beach is mostly shingle and sand, but at low water the flat portion as well as all the salient points are found to consist of boulder stones; this is particularly the case at Green Point where another small stream runs out and a break in the cliff affords access to the country by means of a narrow valley. From Green Point to the bight or turn of the bay, which is marked by another break in the cliff, is N. 86° E., two miles and a half; this part of

the coast makes a sweep or bend, and is formed of the same high and inaccessible sand-stone cliffs as before described, and it may be remarked here that they preserve this character all the way to the turn of the Dungeness cliffs having but one break in them.

At high water spring tides, the sea washes the foot of them, but as the water recedes a road is formed by the fine sandy beach which both the Indians and wild animals prefer to forcing their way through the thick forest above them. One mile and a half, N. 78° E. from Green Point, at half a mile from the beach lies a sunken rock having only eleven feet on it at low water, but 6 to 10 fathoms all round; it is well marked by kelp, and only lies in the way of vessels working up under the lee of Dungeness. From the before-mentioned bight or break in the cliff, the coast lies N. 46° E., quite straight for four miles and a half, of this only two miles are cliff, for they then make a sudden bend to east for two miles and a quarter, forming the base of the long, curved, Dungeness spit, which commences at the spot where they turn and where they become less steep and are clothed with trees. From the termination of the above straight line the spit sweeps round, and runs N. 72° E., one mile and a half to the point. The whole of this spit is composed of shingle and sand, and is very narrow except at the northern apex of the interior lake where the junction of the inner and outer coast-lines forms a broader and higher belt. With this exception when the tides are high and a strong westerly wind is blowing, the sea washes over the whole of it, covering its summit with abundance of drift wood, amongst which are some very large trees.

Within the line connecting the two points Ediz Hook and Dungeness, the soundings are regular from 18 to 25 fathoms in to 5 to 3 fathoms at a quarter of a mile from the beach. Outside the line the soundings increase very gradually to 80 or 90 fathoms, but abreast the turn in the spit the deep water approaches very close and continues to do so up to the shoal that runs out off the end of it, as much as 50 fathoms, being found less than one-third of a mile from the beach.

In easterly winds, anchorage may be had in this bay, but it is too much exposed to westerly and north-westerly winds to be recommended.

From the extreme end of Dungeness Point a shoal extends N. 41° E., one mile, having only 2 fathoms over it at low water, spring tides. It is narrow but very steep, the lead falling at once from 5 or 6 fathoms into 20 to 50 fathoms. In hauling round the point either going in or coming out, care should be taken to give this a clear berth, as the tide sets over it with considerable strength causing a strong over-fall, and in bad weather a very nasty sea.

Dungeness Bay is formed by the spit just described, and encloses a large space available for anchorage, where shelter may be found from any winds from north round by the west to south-east, in from 5 to 10 fathoms, even with the wind at south-east. The land round Ports Discovery and Protection Island is so near that very little sea could be felt till it got to east. The bottom is a stiff mud, forming very tenacious holding ground and but little tide is felt. There is very good water to be had in a cove at the bottom of the bay close to the entrance of the Lagoon. At low water however, the flat which fills up this bight and extends some distance out would be a great hindrance to a watering party. When going either up or down the Straits this is a more convenient place to wait for tide or daylight than Port Discovery, or the anchorage under Protection Island, being more easy both of access or egress, and having less depth of water.

The outside of the spit has been described, the inside is precisely similar, except that the beach, shoals off very gradually leaving a mud flat which is narrow towards the point, gradually widening as it sweeps into the bight of



the bay where it extends three-quarters of a mile off the shore, and is mostly dry at low water springs, leaving however, a very narrow channel into the Lagoon. From the spot where the Lagoon commences, the beach lies S. 22° W., for rather more than a mile, when it is terminated by its entrance. The spit is of the same character as that outside, but narrower and not so high. The entrance to the lake is small and choked with shoals, but at high water a small vessel may enter and find sufficient depth within to float her at low water. The Hudson Bay Company's schooner *Cadboro* did this, and both traded and watered; but it could only be done at spring tides, and is not to be recommended. The southern side of the entrance is formed by two points or spits, the inner one of which runs out from the east end of the cliffs before-mentioned and overlaps the North Spit. The outer point is the end of a spit of shingle which forms the commencement of the beach that runs to the eastward and makes the coast-line in that direction.

### SAILORS' HOMES.

In spite of the thousands of charitable institutions the world can boast, we are inclined to regard genuine philanthropy as one of the rarest of human virtues. We say this with a hundred well filled subscription lists staring us in the face, and apparently offering an indignant refutation. But the charity which puts its hand into an overflowing pocket, and deals forth its golden contribution, and the philanthropy which (in addition to the pecuniary aid) sacrifices time, labour, self interest, and personal comfort to the same object, are vastly different. The former is a very respectable and convenient virtue; the latter a noble and a rare one, and beyond all commendation. How many "Howards," has the world produced since the flood?

We make these remarks *apropos* of the pleasure and admiration with which we have watched the recent exertions of Captain W. H. Hall, R.N., in seeking to establish at each of our principal ports "A Sailors' Home." In 1849, being then in command of H.M.S. *Dragon*, Captain Hall, originated one of these institutions in Dublin, contributing to it the munificent sum of £200 from his own purse, besides devoting much time and energy to the organization of his scheme.

At Belfast, and subsequently at Portsmouth, Captain Hall pursued the same course, and with equal success. He then extended his operations to the Island of Lewis, to Inverness, Peterhead, Glasgow, and Aberdeen, visiting all these places personally, and he is still pursuing this noble and philanthropic course with much success.

It is scarcely necessary to remind our readers how much we all owe to our hardy race of seamen, whether in the mercantile marine or the navy; for while the one service has maintained our honour and independence among the nations of the earth, the other has carried our commerce into every port of the wide world. Yet, what race of men are more neglected by us than this very one to which we are so deeply indebted? We have only some stale joke to utter on poor Jack's proverbial improvidence on shore, while we leave him to the mercy of Jews and prostitutes to be plundered and ill-used, instead of giving him a fair chance of leading a sober and steady life under a comfortable roof, where all proper provision for his wants will be made, and encouraging him to save his hard earnings against the coming of a "rainy day."

Our space will not allow us to detail the many advantages offered by Captain Hall's Sailors' Homes. We can simply state that so far as they

have yet been established they have worked incalculable good in supplying good, clean, cheap, and wholesome board and lodging for all classes of seamen, a refuge for shipwrecked mariners of all nations, and an increased facility for sailors to procure a fresh berth in a sea-going ship.

We refer with much pleasure to the following "report" of the first year's labours of the Portsmouth Sailors' Home, by which it will be perceived that the Home has begun well, and is evidently in a fair way of being generally adopted by the seamen paid off, or sojourning at that port. The highly encouraging facts communicated by Captain Fitzgerald Gambier to the meeting show in a remarkable sense the very favourable light in which seamen are likely to look upon this national establishment for their physical and moral welfare, and worldly advantage.

At the Annual General Meeting of the Subscribers and Donors of the Portsmouth Sailors' Home, held on Wednesday, June 4th, 1851, at the Green-row Rooms, Portsmouth; on the motion of Admiral Sir Francis Austen, K.C.B., seconded by Captain Sir James Stirling, the Right Hon. Lord George Lennox, was voted in the chair.

The Rev. J. P. McGhie opened the proceeding with prayer, after which the Secretary read the following report:—

"The Directors of the Portsmouth Sailors' Home have the gratification to report to the contributors and friends that very considerable success has attended the exertions that have been made since the general meeting held the 12th March, 1850.\*

"Since that period the success of the institution has exceeded the expectation of its most sanguine friends.

"Up to the 31st of May last the total number of regular inmates was 62, and of casual boarders who had beds in the house 132, making a total of 194 persons who have availed themselves of the advantages of the Institution within 33 days of its existence; and that notwithstanding the exertions that would necessarily have been made by the enemies of our seamen to keep them still within the meshes of immorality, that they might the more easily become the victims of robbery and fraud.

"The only ship that has been paid off at this Port since the opening of the house was the *Asia*, on the 17th of May, and notwithstanding that the men chiefly belonged to other ports, yet about thirty became inmates and deposited £423, and several others left their traps for safe custody in the Institution, while themselves were gone on leave, thus preserving them from the plunder to which they must otherwise have been unavoidably exposed. Five men from Haslar Hospital entered the Home yesterday and deposited £75.

"During the short period the Home has been opened, instances have not been wanting of men expressing their gratitude to the Superintendent next day for the protection afforded to them when they were the victims of intemperance, and but for this timely rescue, would have fallen victims to still further wretchedness and fraud.

"Another gratifying evidence of the thankfulness and confidence of seamen in this first great movement for their special welfare, is furnished by the fact that the petty officers of the *Asia* offered the produce of their liberty grog to the Sailors' Home; and, although from some technical difficulty the money has not yet been received, the proof of the sailors' good will is undiminished; and this is especially to be noted as affording a strong corroboration to the

\* The institution was opened on the 23rd of April in the present year. (See the account in our last month's magazine, page 322.)

testimony of seamen at the Sailors' Home in London, and seconding the efforts of the Admiralty to suppress inebriety on board of ship.

"But the most gratifying result of good order and sobriety on the part of our English seamen is, that some few of the inmates have attended the morning and evening prayers at the Institution, which, without any compulsion, are opened to those who are willing to attend."

It is peculiarly gratifying to us to have to announce such munificent donations as one of £100 by Mrs. Shedden, one of 50 guineas by Neill Malcolm Esq., of Poltalloch, one of £30 by J. Dixon Esq., of Stanstead Park, and another of £5 by Colonel N. Norcliffe, in aid of the funds of this Institution, which we heartily commend to the most liberal consideration of every true philanthropist.

We are informed that the Directors of the Sailors' Home, Wells Street, London Docks, with a view of affording facilities to seamen at the outports to visit the Great Exhibition, have determined to appropriate for their use, at the lowest possible charge, as many bed cabins as can be spared for that purpose; and the means of conveyance to Hyde Park being near the Institution, it is hoped that many sailors both of the Navy and Mercantile Marine; will be induced to visit the Crystal Palace, a comfortable home being provided for them during their stay in the metropolis.

---

#### NAUTICAL NOTICES.

---

##### THE OXHOLM SHOAL,—*Entrance to the Harbour of St. Thomas, West Indies, twenty feet.*

Lieut. Lawrance, commanding the *Scorpion*, surveying in the West Indies, has just discovered an important danger in the entrance of St. Thomas' harbour of which he has given the following account:—

"During the course of our operations, we have very unexpectedly come across a coral shoal, at the entrance of this harbour, having only twenty and a half feet water on it at low tides. It stands directly in the fair way and is a danger of some consequence.

"The following is a description of it. The shallowest part of the shoal extends in about a north and south direction, from 80 to 100 feet, and in width from 30 to 40 feet. It appears to be of coral formation and is full of inequalities from the lead dropping off the tops of the rocks into five and a half fathoms.

"Beyond the nucleus of it, the rock extends sixty fathoms to the westward, with depths of from 26 to 28 feet, and about 40 feet to the eastward having 28 to 30 feet with holes of 34 feet interspersed.

"All round the shoal the bottom is composed of sand over rock, with a depth of 37 on the north edge, and from 37 to 39 feet on the south.

"*To avoid it*.—The highest part of Prince Roberts Rock, on with the Portico of Fredericksberg House, N.  $\frac{3}{4}$  E. mag., clears it to the eastward:—and the *outer* Green Cay on with the extremity of the point on which Muhlenfels battery is situated, clears it to the northward".

---

*Ship "Blackwall," London Docks, June 20th, 1851.*

SIR.—Having made several passages round Cape Horn from Sydney to London, I have at times been much surprised at the unusual low altitudes of

the barometer and sympiesometer, although nothing but comparatively fine weather has been the result. From the experience of five voyages round that Cape, and always about the same time of year, I must admit that I have never found the glasses act with anything like the precision they do in the middle or lower latitudes, and have mostly found they accompany a change rather than precede it. Should you deem the following worthy of insertion in your valuable pages, I herewith submit it to your notice.

Ship *Blackwall*, March 31st, 1851, latitude  $52^{\circ} 38' S.$ , longitude  $163^{\circ} 0' W.$

Begins with a moderate breeze from north-east, and hazy weather, barometers, of which there were two, stood at 29.50, from thence commenced to fall rapidly; shortened sail to close reefed main-top sail and trysails; constant rain, wind increased to a moderate gale at north, during 10 hours the bar: fell to 28.55; symp. 28.40; aneroid 28.10; shift of wind to W. S.W., moderate, and appearances of the weather very fine, made sail and proceeded on our course; in 21 hours after the glasses resumed their usual average for this part of the globe, viz: 29.50, and throughout the whole depression we might have carried double-reefed top-sails.

April 18th, 1851, lat.  $58^{\circ} 6' S.$ , long.  $77^{\circ} 30' W.$ , bar: 29.40 falling rapidly, moderate northerly wind and thick rain, heavy swell N.N.W., wind increased to a fresh gale, hove ship to under main trysail during 8 hours, the bar: fell to 28.10; symp. 27.70; aneroid 27.50; wind gradually hauled round to north-west with clear weather and moderate gale. Made sail and took advantage of it, although the glasses still continued to fall; but the appearances of the weather were so very fine. In 6 hours more the bar: stood at 27.95, symp 27.40, aneroid at its lowest limit where it had been 12 hours, viz: 27.50. This unusual depression lasted about 36 hours, with a moderate gale from north-west, with a high sea, after which they gradually commenced rising, and in 48 hours stood at 28.80 where they remained fixed four days, with exceeding fine weather and light south and south-east winds with calms intervening.

April 24th, lat.  $54^{\circ} 20' S.$ , long.  $55^{\circ} 00' E.$ , passed a bark bound to the westward, under close reefed top-sails and top-mast housed, evidently acting under the low altitude of the barometer, which still stood at 28.80, the weather at the time being very fine, with a moderate breeze from south-east, we having all sail set. After passing the lat. of  $50^{\circ} S.$ , the glasses resumed their usual course.

Two instances like the foregoing occurred to me when in command of the *Walmer Castle*, about the same time of the year 1847, bound homeward round Cape Horn.

I am, &c.,

JOSEPH THORN, *Commander.*

To the Editor *N.M.*

*Ship Blackwall.*

20, Lower Rulland Street, Dublin, 10th June, 1851.

SIR.—I beg leave to enclose, if worthy of notice the following observations (corroborative of the theory of storms, laid down by Col. Reid, in his work on the Law of Storms) made during a passage of the brig *Xarifa*, from Barbados to Dublin.

Whilst in latitude  $50^{\circ} 6'$ , and longitude  $18^{\circ} 1'$ , on June the 5th, at 1 P.M., weather unsettled, and barometer falling, the wind coming in heavy gusts from all points of the compass; at 4 P.M. settled into a heavy E.N.E. gale, veering slowly to the eastward. At 6 P.M. blowing fiercely from the S.S.E., veering south until 10 P.M., when the wind fell light. At 1 A.M. light airs from the south: judging from the foregoing that I was now in the centre of

the gale, wore ship to the eastward. At 2 A.M. met the gale again blowing strong from the S.S.W. (being then in its S.E. quarter) veering to the west but much more slowly than before, in consequence of our now being steering in the same direction as the progressive motion of the gale. At 5 P.M. of the 6th instant, the wind gradually subsided, blowing from the W.N.W. This in my opinion fully bears out the theory that the gale had a rotatory as well as a progressive motion, also that storms near the British Isles, (when not intercepted by land) are governed by the same laws as those met with in the lower latitudes.

I remain, &c.,

WILLIAM REYNOLDS, *Master,*  
*Brig Xarifa, of Cork.*

To the Editor *N.M.*

[We are glad to find the attention of Masters turned to this subject. It is an advantage to know what wind will follow another, and as gales in the above locality have frequently been found rotatory, the hurricane theory is useful also in shewing what wind may be expected.—*Ed. N.M.*]

The Swedish Government has given notice that a lighthouse is in course of construction on the Malorn Rock, at the entrance of Haparanda and Tornea, in the Gulf of Bothnia; and that another lighthouse will be erected on the rock Stora Fjederagget situated half a mile from the northern point of Holmon in the Northern Quaken outside Urnea, of which further notice will be given.

The Russian Government has caused a circular stone tower with a conical roof, to be erected on Mount Bleaubergen on the Coast of Courland, to facilitate the entrance of the Gulf of Riga. The tower is eighty-nine feet high, and 279 feet above the level of the sea; it is painted with white bands and the roof red. It bears S.  $52\frac{1}{2}^{\circ}$  W.  $12\frac{1}{2}$  miles from Domesness Light, and is in lat.  $57^{\circ} 37' 45''$  N., and long.  $22^{\circ} 17' 29''$  E.

An octagonal tower has also been constructed on Mount Bronnaia, near Oraminbaum, as a mark for entering the road of Cronstadt. It is composed of wood, and is forty-nine feet high and 294 feet above the level of the sea. It stands in lat.  $59^{\circ} 55' 7''$  N., and long.  $29^{\circ} 39' 10''$  E. The roof (which is spherical) is black, and the building is painted with three horizontal black and white bands, the black one being in the middle.

**SAILING DIRECTIONS FOR SHARK'S BAY.**—The following extract of a letter from Lieut. Helpman to Lieut. Elliot, containing sailing directions for Shark's Bay, will be of interest to readers in search of Guano.

With reference to our examination of Shark's Bay, it is necessary to point out that at the southern end of Dirk Hartog's Island, a passage is to be found by keeping within 200 yards of the small island, since named Charlotte Island, lying a little to the eastward of Steep Head; and steering a course E.S.E., for a long quarter of a mile, will take over in from 7 to 9 fathoms, inside which the passage is quite clear, and a course can be shaped for Cape Ransounet, which should be passed on the eastern side, about a quarter of a mile; and a course N.N.E., or nearly so, will carry a broad channel between the banks of  $4\frac{1}{2}$  fathoms water, until Sunday Island bears W.  $\frac{1}{2}$  S.; the edges of the banks are well defined and steep to.

Sunday Island is steep all round, and no stages are requisite. Following down to the northward, a passage of ten feet can be carried by keeping nearly mid-channel, rather borrowing on the Dirk Hartog's side, over the flats, and up to the Quoin.

The next important place is the entrance into Freycinet's Harbour, in which are situated several guano islands; the most desirable and advantageously situated being Saturday and P. M. Island; the first situated about three miles and a half to the south-east of Cape Herrisson; P. M. Island is about two miles and a half to the southward of this.

Freycinet's Harbour is nearly surrounded with banks, which extend from Cape Herrisson and Bellefin to nearly abreast of Cape Lesseure, and from which other banks extend, leaving a passage of about one mile wide at the entrance, and with  $4\frac{1}{2}$  fathoms all down the channel. The best marks for the north-west point of this channel are the Quoin, bearing (magnetic) S.  $59^{\circ}$  W. the southern of two hillocks (probably Cape Lesseure) N.  $58^{\circ} 26'$  E., and the extreme red point visible off Peron's Peninsula, N.  $80^{\circ}$  E., and a course down about S.S.E. varying only as the edges of the banks, which are easily seen, require, will carry a ship quite clear. A general leading mark is the very extreme land on the peninsula side ahead, bearing about S.E.  $\frac{1}{2}$  E. I should strongly recommend any vessel going up to Saturday Island hugging the weather shore.

Saturday Island can be approached within about half a mile on its eastern side; it is joined to the main by a long sand-flat, nearly dry at low water, and is bounded on its east side by a flat having three feet on it for about fifty yards.

P. M. Island cannot be approached less than one mile; it has the same kind of rocky ledge bounding it. The estimated quantity of guano on these islands is 12,000 tons.

A shoal, not laid down previously, will be found south-east from the extreme of Cape Le Villain, distant about three miles, on which the *Prince Charlie* struck, and was called after her; it has only eleven feet on it; I have had one or two casts of the lead on it, but purpose a better examination.—*Perth Gazette, N.S.W.*

DAVIS ROCK.—Capt. Davis, of the Siamese brig *Herome*, writing from Amoy, February the 6th, 1851, notices a rock not laid down in Chart No. VIII, of the latest surveys by Capt. Collinson, R.N., Capt. Davis remarks:—

"To the southward of Montague Island there is a line of small islets parallel with the coast nearly, the southernmost of which one called the Twins, though no way resembling each other in appearance, the outer one being a long island gradually sloping to the north-west and south-east, and the inner one is a small haycock shape islet; S.W.  $\frac{1}{2}$  S. from the largest one, is the rock on which the sea breaks occasionally when there is a heavy swell. Vessels going up the coast in shore against the monsoon, or running in to seek shelter during a gale under lee of Leeming Island, to the westward of Cape Conway, might be wrecked on the rock not knowing the same existed."

#### LIGHTHOUSE ECONOMY.

22, Fludger Street, Whitehall, 19th June, 1851.

SIR.—The letter from the "Secretary to the Northern Light Commissioners," which appeared in your last number (p. 333,) contains a professed quotation from what I said in my foot note, (p. 257,) but the words quoted are not to be found in my said foot note.

The House of Commons called for a return of the several applications, "for grants for new Lighthouses." The Northern Light Commissioners, have however, not given such. They gave only applications for grants "in aid" of New Lighthouses, having interpolated the words "in aid."

I am, &c.,

ALEXANDER GORDON.

To the Editor N.M.

A LIST OF EXAMINED MASTERS AND MATES.

E C, Extra Master.—O C, Ordinary Master.—1 M, First Mate.—2 M, Second Mate.  
O M, Only Mate.

No. of Certificate	Name.	Capacity.	Where Examined	No. of Certificate	Name.	Capacity.	Where Examined	No. of Certificate	Name.	Capacity.	Where Examined
4000	Grieves, Thomas	O C	Lon	4067	Fitzgerald, R. . . .	1 M	Liv.	4134	Barnes, W. Chas	O C	Ply. Glw
1	Jarris, Thomas. . .	O C	—	8	Roberts, John. . . .	O C	—	5	Hutcheson, James	O C	—
2	Johnson, Robert	O C	—	9	Stapledon, Wm. . . .	O C	—	6	Robertson, John	O C	—
3	Wittleton, Wm. . .	O C	—	4070	Norton, Isaac. . . .	O C	—	7	Watson, W. G. . . .	O C	Dub
4	Valint, James . . .	O C	—	1	Jones, David. . . .	O C	—	8	Jenkins, Thomas	1 M	—
5	Kennedy, W. Q. . .	2 M	—	2	Martin, W. Alfred	1 M	Lon	9	Moppett, John F	O M	—
6	Angel, Henry R. . .	O C	—	3	Duguid, J. Alex. . .	O C	Liv.	4140	Pines, John. . . .	2 M	Liv.
7	Powell, Henry W. . .	O C	—	4	Martin, Thomas	1 M	Glw	1	Flett, Magnus. . . .	O C	—
8	Hamon, John E. . .	O C	—	5	Richardson, C. . . .	1 M	—	2	Hale, T. Bladen	O C	Lon
9	Anderson, R. . . .	O C	—	6	Caldwell, George	O C	—	3	Cuckow, James	O C	—
4010	Angrove, Wm. C. . .	O M	—	7	Atteridge, John	O C	Liv.	4	Barnes, George. . .	1 M	—
1	Pedder, William	O M	—	8	Heagerty, Henry	1 M	Crk	5	Bull, Henry. . . .	O C	—
2	Bestford, Robert. .	O M	—	9	Hedges, James . . .	1 M	—	6	Henderson, Alex. . .	O C	Liv.
3	Moylan, William	O M	—	4080	Lindsay, James. . .	O M	Dun	7	Soulsby, Henry. . .	O C	Hull
4	Crowhurst, G. H. .	O M	—	1	Guilian, Davis . . .	O C	—	8	Illingworth, H. C. .	O C	Hull
5	Hall, John Vine	O M	—	2	Newton, John P. . .	O C	—	9	Barker, John C. . .	1 M	—
6	Adams, John. . . .	O C	—	3	Paton, Robert. . . .	1 M	Lon	4150	Rowan, Robert. . .	2 M	—
7	Livingston, D. . . .	O C	—	4	Loney, Chas. E. . .	O M	—	1	Crapper, Robert. . .	O M	—
8	Duncan, James. . .	O C	Glw	5	Yeale W. Henry	2 M	—	2	Chapman, Saml. . .	O C	—
9	M'Kenzie, John. . .	O C	Lon	6	Ingram, John. . . .	2 M	—	3	Smith, Wm. R. . . .	O M	—
4020	Maxwell, E. W. . .	O C	Lon	7	Dalrymple J. L. . . .	2 M	—	4	Bell, William F. . .	O C	Liv.
1	Benny, Francis	O C	—	8	Hughes, W. B. . . .	O C	—	5	Howie, Peter. . . .	1 M	—
2	Thomas, William	O C	—	9	Hellyer, Alfred. . .	O C	—	6	Arthur, Sam. S. . .	O C	—
3	Chambers, Geo. . .	1 M	—	4090	Pentreath, N. . . .	O C	—	7	M'Guire, William	O C	—
4	Cadenhead, J. S. .	O C	—	1	Cooper, Edward	O C	—	8	Nicolson, Peter H. .	O C	—
5	Pollock, John . . .	O C	—	2	Sinclair, James. . .	2 M	Liv.	9	Miles, Richard W. .	O M	Hull
6	Broadfoot, James	O C	Liv	3	Banks, Matthew	1 M	—	4160	Crossman, John. . .	1 M	Lon
7	Barret, Reginald	O C	—	4	Quirk, William . . .	1 M	—	1	Cherry, Joshua	O C	Hull
8	Jenkins, J. H. . . .	O C	—	5	Gale, Samuel. . . .	O C	—	2	Finn, Thos. W. . . .	O C	Lon
9	Foat, Samuel. . . .	O C	—	6	Rodgers, Edward	1 M	Bfst	3	Hairby, Edward	2 M	—
4030	Morrison, Hugh. . .	O C	—	7	Webster, Alex. . . .	O C	Dun	4	M'Clennand, J. . . .	O C	—
1	Mathews, Robert	O C	—	8	Tanner, John M. . .	2 M	Bat	5	Garland, M. E. . . .	O C	—
2	Gralnger, Edw. . . .	O C	—	9	Allies, John D. . . .	O C	—	6	Davis, John Jas. . .	O C	—
3	Davys, James . . .	O C	—	4100	Marshall, James	O C	—	7	Smith, Robert C. . .	1 M	—
4	Newton, James. . .	O C	—	1	Angel, C. E. . . .	2 M	—	8	Boyce, Charles. . .	1 M	—
5	Davidson, Hugh. . .	O C	Lon	2	Ovenston, W. . . .	O M	Dun	9	Rossiter, Edward	O M	—
6	Ferguson, Walter	O C	Glw	3	M'Nab, George. . . .	O M	—	4170	Jack, John. . . .	O C	Dun
7	Eagles, Thomas	O C	Lon	4	Sims, Nugent. . . .	1 M	Liv.	1	Browne, Alex. . . .	O C	—
8	Toogood, James	1 M	Hul	5	Harrison, John. . . .	O C	Sids	2	Stormont, Robert	1 M	—
9	Rouse, William. . .	O M	Lon	6	Warden Robert. . . .	O C	—	3	Barron, David Y. . .	O C	—
4040	Richards, Benj. . .	2 M	—	7	Reid, John. . . .	O M	—	4	Maxwell, David. . .	O M	—
1	Griffin, John C. . .	1 M	—	8	Gordon, Robert. . .	O M	—	5	Hamilton, Wilm. . .	O M	Glw
2	Bowen, John . . . .	O C	—	9	Helutz, Chas. A. . .	2 M	Liv.	6	Currie, John. . . .	O M	—
3	Reynolds, Nath. S. .	O C	—	4110	Smith, Peter . . . .	O C	—	7	Miller, William	O M	—
4	Walton, Thos. H. .	2 M	—	1	Bach, John. . . .	2 M	—	8	Muir, Thomas . . .	O M	—
5	Cottler, E G V W	2 M	—	2	Gideon, John F. . .	2 M	Lon	9	Gemmel, M. . . .	O M	—
6	Podmore, George	2 M	—	3	Briard, Peter. . . .	O C	—	4180	Muirhead, John. . .	O C	—
7	Collett, J. A. . . .	2 M	—	4	Cartwright, W. F. . .	O M	—	1	Manford, Charles	1 M	—
8	Belcher, E. J. . . .	O C	Crk	5	Blackmore, F A S. .	O C	—	2	Simpeon, David. . .	O C	—
9	Connell, James . . .	1 M	—	6	Jackson, Joseph	1 M	—	3	Cumming, W. H. . .	O M	Sun
4050	Long, Edward . . .	1 M	—	7	Brown, James . . . .	O C	—	4	D'Arcy, James . . .	1 M	Dub
1	Braithwaite, J. . . .	O C	Liv.	8	Caiter, Nath. F. . .	O C	—	5	Fitzsimons, M. . . .	1 M	—
2	Wardell, James G	O C	—	9	Shrewsbury, Edw	O C	—	6	Butt, John . . . .	2 M	Liv.
3	Mill, Christopher	O C	—	4120	Reynell, E. A. . . .	1 M	—	7	Sanderson T. . . .	O C	Sun
4	Brown, John . . . .	1 M	Lon	1	Olive, John. . . .	O C	—	8	Atkins, Thomas. . .	O C	—
5	Vellacott, Henry	O C	—	2	Sands, M. F. . . .	O C	—	9	Duguid, Wm. H. . .	O C	Liv.
6	Menzies, Thomas	O C	—	3	Garthon, W. Q. . . .	O C	—	4190	Hill, Samuel . . . .	2 M	—
7	Garwood, Edw. . .	O C	—	4	Purchase, J. W. . . .	O C	—	1	Jones, Thomas . . .	O C	—
8	Pickernell . . . .	O C	—	5	Jarvis, W. C. . . .	O C	—	2	Grave, Wm. Geo. . .	O C	—
9	Champhess, C. . . .	O C	—	6	Moon, John. . . .	O C	Liv.	3	Fitzgerald, Henry	O C	—
4060	Giffin, George . . .	1 M	Liv.	7	Chilton, Alfred. . .	O C	—	4	Winder, Marshall	O C	—
1	Lilley, Charles H. .	O C	—	8	Williams, Charles	O C	—	5	Sumner, T. F. . . .	2 M	—
2	Roy, Ebenezer . . .	O C	—	9	Farley James. . . .	O C	—	6	Henderson, David	O C	—
3	Hunt, Charles H. .	O C	—	4130	Wilson, Joseph. . .	1 M	—	7	Williams, T. . . .	O C	—
4	Moss, George . . . .	O C	—	1	Welch, James. . . .	1 M	Glw	8	Williams, Hugh. . .	O C	—
5	Bell, James . . . .	O C	—	2	Fisher, John. . . .	O C	—	9	Pattou, John . . . .	1 M	Lon
6	Clint, Henry . . . .	O C	—	3	Whittington, W J	2 M	Bat	4120	Strong, John G. . . .	1 M	—

## ARCTIC EXPEDITION.

We may add the following extract from the *Morning Herald*, containing an account of the departure of the *Prince Albert* again in search of Sir John Franklin.

Our journal of yesterday announced the final departure of the *Prince Albert* fitted out the second time at the expense of Lady Franklin, and, it may be said, under her own personal superintendance. She saw the vessel sail from Aberdeen; she saw it sail from Stromness, whither she had proceeded in the steamer, and arrived before her. What energies she has put forth, what anxieties she has endured, and how noble has been her conduct throughout! All the civilised nations of the world are acquainted with it, and deep sympathy is not only expressed by them, but they give other proofs of it. One gentleman alone, over the wide waters of the Atlantic, sacrifices the hard-earned fortune of a laborious life, and fits out at his own expense two vessels to go in search of our missing ships, the noble and generous Mr. Grinnell. Lieut. De Haven and Mr. Griffin, officers of the United States navy, gallantly take the command of his ships.

Russia holds out her helping hand on her ice bound territories on the Asiatic coast; and France sends her representative in the person of M. Bellot, a young officer highly distinguished in her service, who regardless of all other considerations, embarks at a moment's notice on a voyage of great enterprise, and which, under the most propitious circumstances, cannot but prove a voyage of much personal discomfort. We need scarcely repeat that he has sailed, a volunteer, in Lady Franklin's vessel, the *Prince Albert*.

*Stromness, June 3rd.*—We have been watching the *Prince Albert* getting under weigh. She showed her remarkable sailing qualities to infinite advantage, gliding out of sight in wonderfully short time. I wish you could have witnessed her departure from this interesting place, the French national flag waving over her deck in honour of M. Bellot, as well as in gratitude to him, a strong north-easterly wind displaying its folds to great advantage. May Heaven prosper the voyage, and grant those brave fellows the success they deserve.

With reference to a statement which is going the round of the press, alleged to have been made by William Millar, a seaman of the *Prince of Wales*, whaler, in 1848, and now gone out in the *Prince Albert*, we are enabled to state that Mr. Lee, who commanded the *Prince of Wales*, says that he was not at the time in question in Jones's Sound. He supposes he ran up into Lancaster Sound. He remembers guiding a boat in shore for a short time; but neither on its return to the ship, nor during the homeward voyage, did he hear of any cairn of stones having been seen. Mr. Lee entered a strait through Admiralty Inlet, steering N.N.W. (magnetic) or true about S.W., and running 150 miles in that direction, sees open water over Cape Kater in Prince Regent Inlet.

*April, 2nd.*—Captain Collinson, C.B., in the *Enterprise*, sailed from Hong-Kong to renew his search for Sir John Franklin in Behring Straits.

## NAVAL SERVICE OBITUARY.

Vice Admiral Sir Charles Malcolm, died at Brighton on Saturday. With ourselves, the whole service will lament the death of this good man—a true  
 NO. 7.—VOL. XX. 3 D



British Officer in every sense of the word—one whose characteristics were liberality, generosity, philanthropy, and gallantry; and whilst possessing all these superior qualities, which make a man estimable in every relation of life, he added to his other endearing acquisitions a warm appreciation of all that was good, noble, and admirable in those who had the honour of his acquaintance. Sir Charles Malcolm saw 26 years of active career in the Navy. It was as brilliant as it was useful, and he was no less distinguished by his gallantry against the enemy than for the improvements he has been the instrument of carrying out in his profession, and for the unceasing support he has rendered to scientific undertakings. Sir Charles Malcolm's name and rank constantly remind us of the late Sir Pulteney Malcolm, G.C.B., his elder brother, the celebrated Commander of the *Donegal*. He was also brother of the late General Sir John Malcolm, G.C.B., and of the late Colonel of Marines, Sir James Malcolm, K.C.B., who was with Lord Howe, at the relief of Gibraltar, &c. A fourth brother died, a Lieutenant in the Navy; three sons and a daughter survive, and two of the former we believe are in the Navy. His last public act was presiding at a meeting for a charitable institution.

---

BOTTLE PAPERS.

*H.M.S.V. Alban (tender to H.M.S. Imaum,  
Greytown, May 17th, 1851.*

SIR.—I have the honour to enclose a copy of a paper found in a bottle on the Coast of Mosquitia, in about lat.  $12^{\circ} 10' N.$ , and long  $83^{\circ} 40' W.$

It was found by some Indians on the 21st of April, who delivered it to Mr. Coates, H.B.M., vice consul at Blewfields, from whom I received it on the 7th inst.

The original I have forwarded to the directions on the paper in compliance with the request.

I am &c.,

FRED. A. W. CRAWFORD, *Lieut-Commanding.*

*To Admiral Sir F. Beauport, F.R.S.*

“Remarks.—Friday July 5th 1850. At noon, in lat.  $17^{\circ} 10' N.$ , long.  $25^{\circ} 28' W.$

“Just passing the Isle of St Antonio off the Cape de Verds, in perfect good condition and favourable prospect of doing well; all crew in good health, ship perfectly tight, on board of iron barque English, *Loharee*, for Ceylon in the East Indies.

“JOSEPH RAW,

“*Commander, South Shields.*

“JOHN CLAY Esq., *Owner.*

“Any person picking this up we shall feel much obliged to forward to the above address, or

“CAPT. JOSEPH RAW, 19, *Albion Street,*

“*South Shields, Northumberlandshire.*”

[This bottle has taken the usual course of the current and has reached the Mosquito shore.—*Ed. N.M.*]

## INDIAN STEAM NAVIGATION.

THE report of the Committee on Indian Steam Navigation, sets forth their reasons for recommending the Cape route for the mail service to Australia. The present course of post by sailing vessels is 257 days, without allowing any interval; and it will be seen that by the Indian Overland route this might be reduced to 109 days, with an allowance of three days. The Committee, however, do not regard rapidity of postal communication as an element to supersede everything else, but have endeavoured to ascertain the balance of advantages. Against the Indian route the inconvenience of three transhipments; the charge to passengers, which would be such as to render it unavailable in all ordinary cases; its inapplicability for goods; and the fact of its traversing the heart of Europe and Egypt, and thus being greatly dependent upon our relations with foreign powers, were considered to present insuperable objections. With regard to the line by Panama, a tranquil and secure passage is admitted to be rendered certain; but the inconvenience of crossing the Isthmus (although to be lessened by the projected railway), and the fact of that transit being through a foreign state, seem to have deterred the Committee from recommending it. The Cape route, therefore, has been decided upon as the only one presenting a direct communication without any change of vessel, and as being entirely independent of other countries, while at the same time it is the cheapest for passengers, and peculiarly adapted also for merchandize. The Committee consider it possible, that in this line there may be an uncertainty at first of six or seven days in the homeward mails, but feel satisfied, from the evidence of navigators, that when the experiment of well found screw steamers shall have been sufficiently tried, there will be little doubt of their maintaining their engagements.

The *Fox* encountered a hurricane in the Bay of Bengal. She sailed from Trincomalee on the 1st of May. The weather became rough, with a falling barometer, and wind N.N.W. to N.W.; the next day it heightened to a furious gale, the wind veering to the westward. In the evening the top gallant-masts were got on deck, and during the middle watch it blew a hurricane, the ship lurching violently—the muzzles of her lee upper-deck guns in the water more than once. On the morning of the 3rd an attempt was made to get the close-reefed main-top-sail in. The jib-boom and foretack bumkins were carried away, bowsprit working very much, and it was evidently impossible for the frigate to keep the wind without throwing her (too heavy) guns overboard. Accordingly the men were ordered down from aloft, the sail left to its fate, and the ship bore up in such weather as the Officers (several of whom have served years in India before) never witnessed here. She was going upwards of 12 knots for some time, while scudding under no canvass but the rags of the main top-sail, rolling so as to bring seas repeatedly over the upper-deck. The wind seems to have abated on the next day, and the *Fox*, hauled to the wind again, arrived at Madras on the 7th. Her guns are said to be too heavy for so small a frigate. She will go to Penang to caulk and get to rights again.

INSULT TO THE BRITISH FLAG, AND KIDNAPPING A TAILOR.—On Saturday, at the Whitechapel County Court, was heard the case of "Jamieson v Ramsay," in action of tort. The damages were laid at £50. The plaintiff is a retired tailor, possessing a villa called "Labour's Retreat," on the banks of the Thames. The defendant is an old man of-war's man, who some time ago became possessed of considerable property in Whitechapel, but preferring to live afloat, he equipped a yacht of six guns, the *Tom Bowling*, in which he lives. In the evidence it appeared that on Easter Mondays, the plaintiff (Jamieson) holds a festive anniversary in remembrance of the day on which his wife died, and cannon are let off to announce the joyful tidings. It happened that on the last anniversary,

the *Tom Bowling* was cruising off "Labour's Retreat," and when her crew smelt the powder, all hands were piped for action, and they returned fire. The firing on both sides continued some time, until the landsmen put stones in their guns, and riddled *Tom's* duck and streaming bunting. The aggression was resented, and the boatswain, shooting his guns, seriously damaged the tailor's stack of chimneys. Capt. Ramsay then landed his crew, to demand satisfaction for the insult offered to his flag, and having thrashed the tailor's friends, the captain challenged the tailor himself, politely offering him the choice of swords or pistols. The tailor, thinking it safer to faint than to fight, swooned away, upon which the defendant ordered him to be taken prisoner; and on coming to his senses, the tailor found himself under the hatches of the yacht, where he was kept the whole night, bewailing the misfortune of being kidnapped by pirates, as he termed his captors. In the morning he was brought before the defendant and tried by court-martial, for insulting the British flag, and being found guilty was sentenced to the yard-arm. He begged for mercy however, and, as a last resource, offered up prayers. The sentence was then commuted to the infliction of an operation performed on sailors when first crossing the line. In that state he was transported to Herne Bay, forty miles from home, without a farthing in his pocket. Mr. G. E. Williams, for the defendant, contended that the plaintiff deserved the treatment which he had brought on himself. The judge said that, although the plaintiff had acted most improperly in loading his guns, the defendant had retaliated too severely; but under the circumstances, he should award only £5 damages, without costs.

From the numerous reefs among the Habai Group, the navigation is quite impossible without a native pilot; banks have also been thrown up by volcanic action lately. The Feejee Islands, principally known from the account of the United States Exploring Expedition under Capt. Wilkes, is rarely visited by British ships of war, though double the extent of the Samoan Group, and containing probably seven or eight times their population. The Feejeans are reputed treacherous, cruel, and cowardly, and are certainly addicted to cannibalism to a degree not generally known or believed. Although the murder of shipwrecked persons is supposed to be a religious duty, there can be little doubt that the desire to eat the bodies is the principal cause of its continuance, *human flesh being esteemed above all other kinds of food.* The New Hebrides, &c., though rarely visited by British ships of war, are nevertheless in a commercial point of view, of the greatest importance to our Australian colonies. The inhabitants are a mixture of various races, and are generally cannibals. Little however, is known respecting the population, who on the coast show themselves in great numbers. The French surveys of these islands, by the *Astrolabe* and *Zeelee*, being very faulty, great caution must be practised by ships visiting them.

With the exception of the negroes of the Pacific Islands, a language essentially the same appears to be spoken from the Feejee to Easter Island, and from the Sandwich to New Zealand. In this language is found, in all, about 100 words of Malay or Javanese. How comes it that one language and one people should have thus been spread? The tribe may have spread itself originally from one central point with intermediate steps. From the Friendly or Society Islands, all the way to Easter Island, there exists something like stepping stones. But the difficulty is with New Zealand. With respect to the extraordinary mortality produced in some of these Islands from the hooping cough, Sir Woodbine Parish mentioned that the same occurred in South America, and that its intensity had been materially modified by vaccination, which in Buenos Ayres was for some time believed to be a specific against hooping cough as well as small pox. Mr. Catlin affirmed the same from his experience of the Indian tribes of the far-west of North America.—*Geographical Society.*

THE "NEPTUNE," LONDON AND ST. PETERSBURGH steamer lately wrecked at Elsineur, was insured in London to the extent of £150,000.

## NEW BOOKS.

**A HISTORY OF NAVAL ARCHITECTURE:** *to which is prefixed an Introductory Dissertation on the Application of Mathematical Science to the Art of Naval Construction, &c.* By John Fincham, Esq., Master Shipwright of Her Majesty's Dockyard, Portsmouth, &c.—London, Whittaker, 1851.

If England owes much to Naval Architecture, as no one can doubt, she owes little until of late years to her encouragement of it; and it is very remarkable that surrounded as she is on all sides by the ocean, obliging her people to become nautical, fewer works have been produced in this country, on the subject of building ships, than in almost any other. This state of things along with the fact that a good popular view of the rise and progress of naval architecture from the earliest times down to the present, was greatly wanted, has had the effect of producing the work before us. We congratulate the author of it on the success of his undertaking, in having put forth a practical work, and at the same time one which is replete not only with scientific detail, but also those interesting features which mark the progress of the art, step by step to its present state of perfection: these are the attractive ornaments, helping along the rigid mathematical details, while history blends both with the events of periods in the progress of nations, and forms an interesting volume rich in every valuable and useful fact relating to the subject. Such is Mr. Fincham's work, commencing with an introduction to the history of ship building, showing briefly the application of mathematical science to this art. "If we turn back to centuries that have passed, (observes our author) we perceive that ships have been built much in accordance with the tastes of the ages respectively, determined ultimately, as mechanical skill was able to give a good or only an indifferent effect to the designs of construction. But these were tastes proper to countries as well as to periods, marking a state of rudeness or of comparative refinement, long before anything like a scientific basis was laid for so important an art. The development of art *never waited for this basis*; necessity impelled it onwards; and along with many errors, it always associated some important truths; and gathering on the side of truth, and rejecting on that of error, a long course of experience produced ships of a high order of excellence, and capable of fulfilling the objects of their respective periods, before any theory of naval construction existed, perhaps fully as much to the satisfaction of those who built and those who commanded them, as ships of the present age fulfil their destinations."

It was not until about the middle of the seventeenth century that the dawn of science appeared in ship-building, but not in England; for a century later this country from its neglect of the art incurred the severe censure of leaving it to "mere carpenters," a charge which Mr. Fincham refutes by shewing that Mr. Pett, although Master of the Shipwright's Company, was a graduate of Cambridge. We then find an able view taken of the persons who have successively distinguished themselves in developing the science of naval construction and giving character and expression to the complicated motions of a ship, and the forms best adapted for securing certain qualities down to the establishment of the School of Naval Architecture at Portsmouth, from which under the liberal views of the present administration, Mr. Fincham anticipates *some* benefit to the science as *some* atonement for its utter neglect under former governments. After paying a just tribute to the memory of Colonel Beaufoy's costly experiments, and his valuable work on the law of resistance of fluids, Mr. Fincham commences his history with the mere raft. We don't know a better illustration of this, than one given by Captain King in the account of his Survey of Australia, on which the native is seated helping himself along without even a paddle. Capt. King considered these people without exception the lowest in the scale of creation. Such a picture given only thirty years ago, is a curiosity and affords proof of the slow progress, which even art without science makes in the world. Our limited space obliges us to reserve some extracts from this valuable work for our next number, and as it is likely to become our text book, we shall find frequent opportunity of referring to it.

**SIR JOHN FRANKLIN AND THE ARCTIC REGIONS:** *showing the Progress of British Enterprise for the Discovery of the North West Passage during the Nineteenth Century: with more detailed notices of the Recent Expeditions in search of the missing vessels under Capt. Sir John Franklin.*—By P. L. Simmonds, Honorary and Corresponding Member of the Literary and Historical Societies of Quebec, New York, Louisiana, &c., and many years Editor of the "Colonial Magazine, &c."—Routledge & Co.

WE have here in another garb the oft-told tale of Arctic Discovery. It is related with energy and clearness, is complete with all the more recent intelligence of our absent voyagers, and is illustrated with a chart shewing the position of the present important field of enquiry.

**AFRICA REDEEMED: or the Means of Her Relief, illustrated by the Growth and Prospects of Liberia.**—London, Nisbet & Co., 1851.

THE recent serious defeat of the Dahomans may be hailed as another step in the right way which leads towards the consummation of the above title, besides the severe check which the slave trade has recently received. That Africa will be redeemed in course of time cannot be doubted, but her redemption must be effected by the olive branch of trade, as well as the strong arm of power; the former through the means of such settlements, as Liberia, and the latter in keeping down by force all attempts, at reviving the slave traffic. The little volume before us, contains an interesting history of the origin and establishment of Liberia, with an account of its progress down to the present time, and the ills and vicissitudes it has had to encounter to reach its present prosperity.

#### THE COAST OF AFRICA SLAVE TRADE.

We extract the following letter of an intelligent Officer, the following interesting remarks on the coast of Africa service. It is dated April 1st, 1851:—

"I think for the present the slave trade is suppressed, but a number of slaves are assembled at Lagos, Agway, and Wydah; and as the boating season is over here, and thick weather coming on, no doubt but they will again commence. Some of the slave merchants would gladly give up the trade, but they are so circumstanced with the King of Dahomey that it is impossible: for instance, his Highness sends an order to a merchant for 100 pipes of rum, 1,000 muskets, powder, &c., in lieu of paying in money or produce, he marches down a string of slaves, which the merchant must receive in payment, or take nothing. With the King of Dahomey at present rests the principal part, if not the whole, of the slave trade carried on from Cape St. Paul's to Porto Novo. Lagos is an independent kingdom. The lawful King is at present in Fernando Po without a sixpence, his throne being usurped by his nephew, who is a great scoundrel. The ex-King promises to abolish slavery for ever in his dominions, and permit the British to build a fort at Lagos, if they will restore him to his kingdom. A singular fact has just occurred under my own eyes, which shows the temper of the present King of Lagos, who is doubtless ruled by the slave merchant.

"A vessel arrived in the roads from Bahia, with a great number of liberated slaves on board, but they are not permitted to land at that place; they will, in all probability, be compelled to come up to Badagry. If we can get the King of Dahomey to give up slaving (which I scarcely think possible under present circumstances, as I foretold to you the failure of Mr. Forbes's mission), and erect a fort at Lagos, we shall suppress the traffic entirely in the whole of the Bight of Benin. The fort at Lagos could be held the same as the Wydah; and nothing could be easier taken than the present town, and the ex-King restored. Palm oil is very plentiful this year along the coast; the price is about 1s. 8d. per gallon. Ivory is plentiful at some places, but the price keeps up. Few Sardinian vessels come here now, as there is no sale for them. Their flag has been a good cloak for the slave trade for many years, as they keep their national flag flying until the slaves are actually on board, so that they are never taken empty; when full their colours are thrown overboard, or the Brazilian substituted."

**THE QUICKEST VOYAGE EVER MADE BETWEEN EGYPT AND ENGLAND.**—The Oriental Steam Company's new steamship *Ganges*, 1200 tons and 500 horse power, constructed by Messrs. Tod and M'Gregor, of Glasgow, and which was placed by the Company as an extra vessel on the Southampton and Alexandria line, made her passage out from Southampton to Alexandria in 11 days and 6 hours' steaming, being an average rate of  $11\frac{1}{2}$  knots per hour for the whole passage. She arrived at Southampton on the 8th inst., having made her passage home in 11 days and 6 hours' steaming, or nearly at the same rate as on the passage out. Including the stoppages at Gibraltar and Malta, the actual time occupied on the voyage has been a little under 12 days, being within one day of the actual time now occupied in transmitting the overland portion of the mail to Alexandria through France. Messrs. Tod and M'Gregor are now constructing three large steamers for this Company. The *Ganges*, will take out the India mail of the 20th inst., from Southampton.

**CAPTAIN GEORGE DAVIES, R.N.**—The thanks of the French Government have during the past week been officially communicated in highly appreciative terms to this officer, late Inspecting-Commander of Coast Guard at Penzance, through Lord Palmerston, Secretary of State for Foreign Affairs, "pour le devouement dont il a fait preuve lors du naufrage du navire *La Meuse*," French East India-man, wrecked near the Land's End in December last. A valuable sword and appointments, with suitable inscription, have also been presented to Capt. Davies, on the part of the underwriters of the "Chamber of Commerce," for his services on the occasion, through Richard Pearce, Esq., Vice-Consul for France at that port.

**MR. GRANT'S COOKING AND DISTILLING GALLEY.**—We are most happy to say that our former opinions and encomiums respecting this most useful and clever invention are most fully corroborated by the very satisfactory reports that continue to be received from the different vessels in which it has been placed on board. From the *Dauntless*, steam frigate, we hear that the quantity of fresh water obtained by distillation has averaged about 400 gallons daily, without other expenditure of coals than those used for the actual purpose of cooking the daily rations. From the *Birkenhead*, steam troop ship, recently employed in taking out the relieving companies of the Royal Artillery, and bringing home the relieved from Halifax and Quebec, which occupied this steamer about forty-eight days, the quantity of fresh water she obtained from the galley was 16,000 gallons. The water was highly approved of, not only for drinking, but more especially for the purpose of making tea and pea-soup, for which, from the perfect absence of all calcareous matter, it is said to be preferable to the tank water. In a troop ship, where, from the large number of persons they have on board, they are frequently obliged to put the troops on a very limited allowance of fresh water, this galley is a grand desideratum. We are glad to hear that preparations are now being made for the manufacture of these most necessary articles on a large scale, both at Portsmouth and Woolwich, for the purpose of their being supplied to all men-of-war.

### NEW CHARTS.

*Published by the Hydrographic Office, Admiralty, and Sold by J. D. Potter, 31, Poultry.*

	s.	d.
THAMES TO MEDITERRANEAN, corrected to 1851 . . . . .	1	0
APPROACHES TO HARWICH, Capt. Bullock, R.N., 1851 . . . . .	2	6
DOWNES, corrected to 1850, Ditto . . . . .	2	0
IRELAND W. Coast, Newport, Com. Beechey, R.N., 1850 . . . . .	2	6
Ditto Westport, Ditto . . . . .	2	6

MEDITERRANEAN, GRAHAM SHOAL, <i>Lord F. Kerr, R.N., 1851.</i>	1	0
Ditto MILO, ANTI MILO, &c., <i>Capt. Graves, R.N., 1849.</i>	2	0
Ditto SKYRO ISLAND, <i>Ditto 1848.</i>	2	0
BRETON ISLAND, ST. ANN'S BAY, <i>Capt. Bayfield, R.N., 1850.</i>	1	6
Ditto POMQUET AND TRACADIE ROADS, <i>Ditto, 1847.</i>	1	6
BRITISH NORTH AMERICAN LIGHTS TO 1851.	0	3
EAST INDIES, JAVA ISLAND, with numerous plans of Batavia, &c., <i>Baron Melville de Carnbee, and other officers of the Danish Navy, 1848.</i>	2	6
Ditto SUNDA STRAIT, <i>Lieut. Rietveld and Boom, Danish Navy, 1848.</i>	1	0
SCOTLAND, EASDALE SOUND, <i>Capt. C. G. Robinson, R.N., 1851.</i>	0	6
VANCOUVER ISLAND, SUCHARTIE BAY, <i>Mr. W. W. Dillon, Master R.N., 1851.</i>	0	6
Ditto Western Entrance to Beaver Harbour, <i>Mr. W. W. Dillon, Master R.N., 1851.</i>	0	6
<i>EDWARD DUNSTERVILLE, Master R.N.</i>		
<i>Hydrographic Office, Admiralty, June. 21st, 1851.</i>		

METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. Rogerson, of the Royal Observatory  
From the 21st of May, to the 20th of June, 1851.

Month Day.	Week Day.	Barometer.		Thermometer				Wind.				Weather.	
		In Inches and Decimals.		in the shade.				Quarter		Strength			
		9 A.M.	3 P.M.	9 A.M.	3 P.M.	Min	Max	A.M.	P.M.	A.M.	P.M.	A.M.	A.M.
21	W.	30.24	30.23	56	61	49	62	W	NW	1	2	o	bc
22	Th.	30.28	30.27	60	68	51	69	W	W	2	2	o	o
23	F.	30.30	30.28	58	60	50	61	N	N	2	2	o	o
24	S.	30.35	30.34	53	62	43	63	NE	SE	1	1	bc	bem
25	Su.	30.29	30.05	58	66	50	72	SW	SW	2	2	o	bcp (4)
26	M.	30.92	30.93	53	55	47	57	N	N	3	3	bc	bc
27	Tu.	30.08	30.08	50	57	41	58	N	N	3	2	b	o
28	W.	30.23	30.24	57	66	52	66	N	N	3	3	bc	bc
29	Th.	30.40	30.28	57	71	46	72	N	N	1	3	bm	b
30	F.	30.44	30.44	61	69	50	70	NE	NE	2	2	bem	bem
31	S.	30.50	30.50	56	62	48	64	NE	NE	2	4	b	bc
1	Su.	30.39	30.32	54	67	42	68	NE	NE	2	2	b	b
2	M.	30.21	30.16	59	67	49	68	NW	NW	2	1	b	bc
3	Tu.	29.92	29.80	63	71	50	72	SW	SW	4	5	bc	qbc (4)
4	W.	29.83	29.91	50	56	44	58	N	NW	4	3	bc	bc
5	Th.	29.88	29.81	55	58	41	59	SW	SW	6	6	qbc	qop (3)
6	F.	29.86	29.92	60	65	50	66	SW	SW	5	5	qo	qbc
7	S.	29.98	30.00	59	68	54	69	SW	SW	5	5	qo	qbc
8	Su.	29.98	29.98	65	71	56	72	W	W	4	4	bc	bc
9	M.	30.00	29.86	58	54	54	58	W	SW	2	1	o	qop (3)
10	Tu.	29.64	29.66	50	48	47	53	NW	NE	2	2	o	or (3) (4)
11	W.	29.97	30.00	51	62	45	63	W	W	2	2	o	bem
12	Th.	29.78	29.76	58	62	47	62	S	SW	3	4	od (2)	od (3) (4)
13	F.	29.78	29.88	62	66	56	68	SW	SW	3	4	o	o
14	S.	30.07	30.10	57	65	52	66	W	W	2	3	bc	o
15	Su.	30.09	30.09	60	60	49	61	SW	SW	4	5	bc	qor (3) (4)
16	M.	29.92	29.98	59	66	52	68	W	W	4	5	bc	qbc
17	Tu.	30.22	30.32	54	63	48	64	NW	N	5	4	qbc	bc
18	W.	30.12	30.06	57	59	46	60	W	W	3	2	bc	op (3)
19	Th.	30.20	30.17	65	74	55	75	W	W	5	4	qbc	bc
20	F.	30.17	30.15	66	76	55	77	W	SW	2	1	bc	bc

May, 1851.—Mean height of the barometer = 30.018 inches; mean temperature = 57.3 degrees; depth of rain fallen = 0.780 inches.

THE  
NAUTICAL MAGAZINE

AND

**Naval Chronicle.**

---

AUGUST, 1851.

---

AN INVESTIGATION OF THE TIDES BETWEEN THE OWERS AND PORTLAND, FROM OBSERVATIONS MADE DURING THE PROGRESS OF THE SURVEY ON THE SOUTH COAST OF ENGLAND.—*By Captain Sheringham, R.N., Admiralty Surveyor.*

THE following paper on the marginal tidal streams of the English Channel by Capt. Sheringham, R.N., whose zeal and intelligence peculiarly fit him for prosecuting such an enquiry, is a valuable contribution to hydrography. A correct knowledge of the inshore set of the Channel tides was required for completing the examination of its tidal streams, which had been so successfully commenced by Capt. Beechey, R.N., the result of whose enquiries has been communicated to the Royal Society in two papers of considerable interest; one of which we have already noticed in our number for February 1849, and the other we hope shortly to present to our readers. As Capt. Sheringham, has adverted to the subject, we may here briefly state that these papers advocate a system of tidal streams peculiar to channels, in which a combined wave is formed by the meeting of two tidal waves from opposite directions, such as Capt. Beechey has shewn to be the case in the English Channel and in the Irish Sea. In channels so circumstanced it is found that the turn of the stream, instead of being progressive as was hitherto supposed, takes place nearly *simultaneously throughout*, and that the times of slack water coincide nearly with the times of high and low water at the apex



of the combined wave, or as it has been otherwise called the *virtual head of the tide*. This theory has greatly simplified the question of the streams of our channels, and will no doubt be thankfully received by the navigator. Numerous carefully conducted observations have confirmed the correctness of the system, and Capt. Sheringham's bear witness to the same effect.—*Ed. N.M.*

*To Admiral Sir Francis Beaufort, K.C.B., Hydrographer to the Admiralty.*

SIR.—I cannot conceive a more interesting or a more useful study than a careful investigation of the phenomena of the tides and their effects on our own shores; and as it appears to you that local knowledge combined with a connected series of observations is indispensable in order to grapple effectually with the subject, I have been induced at your desire to undertake their discussion on that portion of the coast, the survey of which has been confided to my care by the Lords Commissioners of the Admiralty.

I am fully impressed with the difficulty of the subject, and the danger of being carried away by crude theories, and I am equally aware of my want of ability to cope with it. But, nevertheless, apart from the consideration that there is always something new to be learned even from the most humble labourer, I feel it is the duty of every honest officer, not to excuse himself by a false pride, from giving to the world the result of labours purchased at his country's expense.

The admirable paper on the tides in the Irish Sea, &c., published by Capt. Beechey so fully deserves the attention of every enquiring mind, that I can scarcely convey an idea of the pleasure and instruction I received from its perusal; and I may add that it gave no small impulse to the determination which induced me to undertake my humble share in the enquiry.

The paper in question has brought to light many important facts, some of which, that officer will be gratified to hear explain certain phenomena in our local tides, to account for which, has heretofore baffled the endeavours of many.

Asking your excuse for these preliminary observations I will at once enter upon my subject.

To render more intelligible the following remarks I have annexed an explanatory plan, diagrams, &c., the symbols on which, and the rules adopted in their construction should be explained.

On the plan the arrows shew the directions of the stream at the different quarters of the tide where they appear, as actually observed, the feathered indicating the flood, and the plain arrows the ebb, according to the rise and fall of the tide in Portsmouth harbour. It is manifest in order to shew where the tidal streams cross, merge, or deflect each other, that the observations, should be simultaneous. But as in practice, that is unattainable, it was therefore necessary to refer them to one time and place, and Portsmouth Harbour has been selected for that purpose.

The expressions flood, or ebb, are used according as it was a rising or

falling tide at the guage, and the dots on the arrows denote the quarters of the tide.

To avoid a repetition of the plan and to shew the probable progress of the tidal wave, deduced from the observations on it, the *continuous* line on it indicates the eastern or in-coming stream, and the *broken* line the western or out-going stream.

The hours inserted in Roman figures shew the time that the stream turns where they stand on the days of syzygy, and those marked on the land express the establishment of the port and the range of an ordinary spring and neap tide.

A few of the greatest velocities are introduced in the lines of direction for the purpose of shewing where the wave acquires or loses its force. The limits also of the shoals of three fathoms water, and ten fathoms water are defined by dotted lines.

Captain Beechey has stated that, in every part of the English and Irish Channels, that is to say, in their navigable portion, the important fact may be accepted for all practical purposes, that the time of slack water is simultaneous, and that time he has assumed to be at XI and V on the days of syzygy.

As far as my observations have gone, I can confirm this statement; and where discrepancies have been found, they are either of small amount or to be accounted for by some local influence.—For example:

Outside the Owers half a mile the stream turns at	X ... 30	IV ... 35
One mile east of Bembridge	X ... 30	V ... 30
Five miles east of Dunnose	X ... 40	IV ... 30
Three miles south of St. Catherine's	XI ... 0	V ... 0
Two miles south of St. Albans Head	X ... 45	IV ... 45
Near the east end of the Shambles	X ... 55	IV ... 30

Travelling in one wave about six hours each way.

It may be conceded even if we had not conclusive evidence of the fact, that the intervention of islands, promontories, and shoals, and the reflux tide, even from small estuaries, would have a material effect upon the set and velocity of the tides, not only by deflecting them from their natural course, but in some instances completely reversing their direction. This fact is manifested in a very remarkable manner, in the tides at Spithead, and along the adjacent coast, producing phenomena which although familiar enough to those locally acquainted, as far as I know have not yet been explained.

Lient. McKenzie, the old surveyor, who must have been a shrewd and close observer, appears to have been forcibly struck with the peculiarities in the set of the tides inside the Isle of Wight, and infers that they are not to be accounted for.

In treating of the rise and fall of the tide in Portsmouth Harbour, he says;—"The first four hours flood rises only about three inches more than the three last hours, and it is equally remarkable, that the two last hours ebb fall about four feet three inches more than the three first hours ebb, (vide his table following) by which it appears that the

hourly rise or fall is by no means in proportion to the time, and baffles all common calculation."

<i>Hourly Rise of an extraordinary spring tide.</i>			<i>Hourly Fall of an extraordinary spring tide.</i>		
Hours.	Fect.	Inches.	Hours.	Fect.	Inches.
1	2	... 1	1	0	... 11
2	1	... 8	2	1	... 0
3	1	... 6	3	3	... 0
4	2	... 0	4	5	... 8
5	3	... 5	5	3	... 6
6	2	... 1			
7	1	... 4			

It is shewn then by the above table which I find to be very nearly correct, (see the *diagram of ranges*,) that contrary to the usual laws of ebb and flow in rivers, the flood tide in Portsmouth Harbour is of longer duration than the ebb, by about two hours, as indeed is more or less the case at Southampton, Langston, Chichester, and all the harbours in the Solent, &c. The cause of this as well as the unequal rise and fall may be thus accounted for.

It is to be observed that with the exception of Chichester and Southampton, there is little or no *back water* to affect, prolong, or increase the volume of the ebb, and therefore, for the sake of argument we may treat the range and duration of the tide as the simple effect of *tidal water*.

We find at Portsmouth that for the first four hours of the flood the water rises pretty equally but slowly, altogether seven feet three inches, which seems to be supplied by that portion of the in-coming wave, which splits off the Needles, and flows up the Solent through Spithead. But we prove from actual observation, that four hours after the in-coming tide has made in the offing, or about nine o'clock on full and change days, the western stream has made in-shore the whole way from Selsea Bill to the westward, (see plan). This stream unites with the last of the flood round the island and runs back again through Spithead, giving increased effect to the gradual swelling of the channel or in-coming stream, filling all the different harbours in its progress to the westward, not only in an increased proportion, but prolonging its duration until the stream has turned in the offing a little after eleven o'clock, making a flood, or rising tide of seven hours.

The unequal fall of the ebb also may be thus explained.

It is to be presumed that if no local cause existed to overrule the natural fall of the tide, it would do so soon after high water by the shore, as the out-going stream had already made in the offing; indeed we know this to be the case, for at St. Helens and Selsea Bill, there is a regular rise and fall of six hours. But it is reasonable to suppose

that as long as the ebb tide maintains its strength through Spithead, the water would be pressed back or prevented from falling out of the harbour as quickly as it otherwise would, and so we find that the check lasts until the Spithead tide has slacked, when both Southampton and Portsmouth rapidly empty themselves, causing the tide to fall at the accelerated rate which is shewn by the table and diagram.

The ebb has a still greater influence over the rise and fall of the tide in the little harbours of the Solent and to the westward. We will take Yarmouth as an example, the establishment of which may be called X and III $\frac{1}{4}$ . At ten o'clock the tide slackens at the Needles, at which time it is also high water at Yarmouth; the tide on shore is then observed to fall from four to six inches, but about half-past ten o'clock the ebb has acquired considerable strength down the Solent, which is no sooner the case than the tide is forced up again and rises to the same level as before making a second high water at about twelve o'clock, when, as the channel ebb or out-going stream has made nearly an hour, the tide begins to fall regularly until low water between three and four o'clock, about the same time as the stream slackens near the shore.

Before we follow the effect of the ebb tide along the coast to the westward, where similar phenomena, within certain limits are observed, I will endeavour to explain more clearly, why the last half of the ebb runs to the eastward at Spithead while it is setting to the westward elsewhere.

To return to McKenzie we find him to say,—“It is further worthy of remark, that whereas the duration of the south-east stream at Spithead is two hours longer than the duration of the north-west stream there, yet in the channel between Old Castle Point and the Bramble the stream runs as long to the north-westward as it does to the south-eastward. I mention this remarkable circumstance without being able to account for it, as I believe it impossible.”

The truth of the above is proved by many observations, which may be seen and readily understood by referring to the plan; but let us again state the fact in words.

At Spithead or any where between the Bramble and the Horse Sand the eastern stream runs seven hours, and the western stream five hours, that is to say there is a strong counter tide running from Southampton Water to Bembridge for nearly two hours; see the broken line on plan. This fact has puzzled people amazingly, but it appears to me that the simple reason is this. As soon as the western stream at Spithead has slackened, the rapid discharge from Southampton Water and Portsmouth Harbour produces such an increased velocity in the back water as absolutely to turn or beat back from its course the languid stream through Spithead, converting the ebb or out-going into an in-coming tide, maintaining its superiority until the channel widens between the Horse and Bembridge Point, some where near the Nab, where it meets the regular channel ebb, their confluent streams sweeping round to the southward of the Isle of Wight. Thus the ebb tide for the last half of its duration runs in opposite directions on the two sides of the eastern half of the island.

Again, the flood stream makes in the Solent at four o'clock, and near the Bramble at 4h. 30m. by which time it is low water in Portsmouth Harbour, and, therefore, although the streams from that estuary and Southampton water, cease to have any effect, the regular in-coming tide having made in the same direction, the easterly set is prolonged to seven hours.

We have a strong evidence of the truth of the foregoing hypothesis, viz:—

It is proved by actual experiment, that there is a marked and extraordinary difference in the set of the tide and in the time of its turning on the opposite sides of the entrance to Southampton water, as shown on the plan,—for example, near Hill Head, full under the influence of the Southampton tide, the eastern stream makes at two o'clock and the western stream at 9h. 45m., running rather more than seven hours, one way, and less than five hours the other, as it does at Spithead; whereas, on the opposite side out of the influence of the river tide, the time of turning is 4h. 30m., and 10h. 45m. setting six hours each way, about the same as at the Owers and outside the Isle of Wight.

Beyond a doubt the Bramble, a high hard gravel bank of some extent, has a considerable influence in directing the tide and giving impetus to the velocity of its eastern set. The stream splits a little above Calshot, one part running to the westward and the other to the eastward, scooping out in their progress two channels, one on each side of the shoal.

Thus, then do I account for the phenomena which exist in the Spithead tides, as well as for the inequality of the rise and fall in the harbours inside of the Isle of Wight, viz:—that the first is wholly to be attributed to the strength of the back water out of the Southampton and Portsmouth estuaries, and the other to the first half of the western stream which sets between the island and the main, filling the different harbours in its progress.

It would be highly interesting if experiments were made to ascertain whether the counter tide from Southampton, &c., was confined to the surface, or to what depth it reaches—in fact, whether during the last half of the ebb, there are not two streams running in opposite directions through Spithead.

Lieut. McKenzie alludes with considerable surprise to the difference of the rise and fall in the tide at Yarmouth and Lepe,—and says “that a spring tide falls about two feet and a half lower, and the high water level rises above two feet and a half higher at Lepe and at Cowes than it does either at Newtown River, Yarmouth, or Hurst, &c.—and then adds, it is I think a phenomenon, that human wisdom or philosophical reasoning cannot account for.”

Nothing can prove more clearly the value of a minute course of systematic observations for clearing up such imaginary mysteries.

We find that Capt. Beechey has fixed what he aptly calls the node or hinge of the English Channel tide to be at or near Swanage. The accompanying *diagram of ranges* (see plan) of a spring tide will shew how nearly, if not completely he is right in his position, and that there is little more to be accounted for in the difference of rise and fall, than what may be attributed to the progressive increase of the range east of the node.

It is to be observed that McKenzie is wrong in calling the range at Newtown and Yarmouth the same, there being a difference of two feet and a half. But it must be admitted that this may not account for all the difference, something must be allowed for the contour of the land. The projecting Point of Stansore would naturally deflect the tide—and by throwing it off from the entrance of the Beaulieu, relieve the river of a pressure which is felt more or less in the harbours lower down. Besides, we find that the low water at Lepe is about fifty minutes later than at Yarmouth, and we also observe that during that fifty minutes the water falls vertically about two feet, during the whole of which time it is kept up at Yarmouth by the young flood through the Needles.

Let us now return to the effect produced by the ebb stream along the coast to the westward, for it is a remarkable fact that similar phenomena in the rise and fall of the tide occur as far as Portland, and what is equally remarkable there is no further indication of it, at least as far as I know, beyond that Peninsula.

If we turn to the *diagram of ranges*, while considering the question, we shall be greatly assisted in arriving at a satisfactory reason for this.

We have proved by actual observation, that although the tide turns in the fair navigable channel at a little after eleven o'clock, inshore it makes to the westward about an hour and a half earlier, practically speaking at half-past nine o'clock, and during half of the tide one portion of it returns through Spithead, increasing the velocity down the Solent nearly two knots, and through the Needles three knots and a half. We have traced the effect of this on the rise of the tide at Portsmouth, and we have also seen that it makes what is called a second high water in the harbours of the Solent; and it is only a second high water, because it happens that the proper high water takes place at ten o'clock, about an hour before the time that this western stream begins to take effect.

As we get to the westward, the time of high water is earlier, and from some local cause very irregular—and what is the consequence,—why that we find at Poole, where the establishment is 8h. 50m. the water falls for two hours and a half, and vertically two feet and a half, before the second rise takes place, in fact very little before half tide. It is therefore, a mistake to call the second rise at Poole and Swanage, &c., a second high water, as is usually done, when in fact the second flow does not occur until the water has fallen about one-third of its whole amount.

Again, it is high water at Portland a little after six, and therefore soon after eleven o'clock, it is approaching low water, at which time the western stream round St. Albans Head has made strongly, and running up along shore checks the falling tide, and forces the water up again at the same time, and precisely to the same amount, as we find it does to the eastward; consequently the phenomenon here takes place at low water, and is called by the local pilots the *gulder*, but why I have not been able to learn.

In all cases this second rise or swelling of the tide ceases about twelve o'clock, on the days of *syzygy*, being about the same time that the out-

going stream in the channel has acquired strength. From hence all indication of a second flow of the tide ceases, for although at the Bill there is an evident manifestation of some interruption to the ordinary rise occurring about the same time, still on the whole, there is a pretty regular rise and fall of six hours, and at Exmouth every indication of it has ceased as will be seen by the diagram. May not Capt. Beechey have assisted us with a reason for this, when he says "The out-going stream from Beachy Head encounters the in-coming stream of the offing tide somewhere about the Start, and both are turned down into the great Gulf of St. Malo, which seems to receive the accumulated waters of these opposite tides."

There yet remains to be noticed a remarkable coincidence in the time of high and low water, along the coast between the Lizard and Beachy Head. Capt. Beechey in page 106, alludes to a very peculiar feature of this subject, viz. that while it is high water at one end of the Channel, it is low water at the other, a circumstance no doubt extraordinary enough in itself, but how much greater will be our astonishment when I prove that this inversion of the tide is not progressive, but literally takes place at a leap. Let us investigate this with the aid of the plan, and the diagram of ranges. We find by the former, that the Bill of Portland and St. Catherines Point, are about forty-five miles apart, and as nearly as necessary for the argument, that the assumed position of the English Channel node or hinge of tide Swanage, is equi-distant between the two. Now if we turn to the diagram of ranges we see with astonishment, that it is high water at Atherfield, when it is low water at the Bill of Portland, viz., on or about noon on the day of syzygy, in fact that the whole six hours difference is confined within this space; and what is equally extraordinary, the range of the tide is nearly the same in both places, increasing east and west in about the same proportion. But our astonishment does not cease here, for, it would appear not only that the inversion of the tide takes place entirely somewhere near the node, but that in all places to the westward of it, it is high water nearly at the same time, at least as far as Devonport, viz., between five and six o'clock, and at all places to the eastward of it as far as Beachy Head, between eleven and twelve; and as the tide turns everywhere in the Channel at eleven and five, the western or out-going stream drains all the harbours to the eastward of the node, while it is filling those to the westward, and *vice versâ*, the eastern or in-coming stream empties all the harbours to the westward of the node, and fills those to the eastward, in fact that the same stream makes a high or low water, according as the position is east or west of the Channel node.

Thus, Sir, I have described, and attempted to account for, the peculiarities which are observed in the rise and fall, and set of the tides between the Owers and Portland, and cannot avoid observing how frequently our local observations have tended to strengthen Capt. Beechey's important theories, proving the soundness of his remark, that there is a probability of forming into a system, the apparently contradictory directions of the stream, not only as he says at the mouths of the Irish and English Channels, but in every part of them.

Although the accompanying plan will, I trust, sufficiently explain the probable course of the inshore tidal wave, it may be well to add a few words on that important head of our subject.

Commencing our observations at Portland, I will endeavour to follow and explain the progress of the flood or in-coming stream, digressing for a moment in order to draw attention to the remarkable discrepancies which exist in the set of the tides near this peninsula. On the plan I have laid down in detail nearly all our observations, which must be referred, as I said before, to the rise and fall of the tide at the Portsmouth gauge. By the plan then we see, that there is an outset from West Bay from half ebb to the end of the flood, of nine hours duration, which closely skirts the rocky shore of Portland, and gradually increases in strength as it approaches the Bill, where it acquires such velocity during the flood, as to project its wave far beyond the point, before it turns to the eastward, leaving a strong eddy tide inside of it. Having assumed its easterly course, it rushes past the pitch of the Head at the rate of six or seven knots, leaping and foaming over the broken ground of the Ledge with terrific violence.

At a short distance to the eastward of the Ledge, it is met at nearly right angles by a counter eddy tide, which sets for nine hours out of Portland Bay, running with great velocity past Godnor Point; their united streams pressing on towards the "Shambles," which shoal it crosses obliquely about east, at the rate of three knots and three-quarters, clearly pointing out its limits by a well defined line of broken water.

I infer that the flood tide, which for half its duration, runs out of Portland Roads, does in concentric curves meet the eastern stream or in-coming wave near the Shambles, which will afford a plausible, if not an all-sufficient cause for the formation of that dangerous shoal. It is a reasonable conclusion that there must be a great deposit some where hereabouts, when we consider with what rapidity the flood with all its suspended matter has reached this spot, and how suddenly it is checked and crossed in its progress by a counter tide.

At the west end of the Shambles the velocity of the flood for three-quarters of the tide, is fully three knots and a half, whereas at the east end of the shoal it has decreased to little more than two, and indeed for the first two hours there is scarcely any tide at all. It will be seen moreover by the plan that in two positions close to each other, the direction of the stream is very irregular. I will just notice that the ebb stream is likewise crossed near the bank by the outset from Portland Bay, which it may be presumed would also materially assist in its aggregation.

We will now return to the progress of the flood wave, which when disentangled from the influence of the shoal, sets in for the shore to the westward of St. Albans, soon however, bending to the eastward with the direction of the coast, sweeping round the head at the rate of four or five knots. At a mile and a half distance the tide does not appear to feed into Poole and Christchurch Bays, but in all probability sets in a gentle curve outside of St. Catherines Point, which it passes



at about two and a half miles, having regained the same velocity as it had off St. Albans, upwards of four knots.

To the eastward of St. Catherine's the wave is again slightly sucked into the deep bight between the island and the main, but not sufficiently so to overcome in any appreciable degree, its onward course towards the Owers, as it leaves those shoals nearly five miles to the northward.

We will now return to the westward and follow the course of an inner wave.

Half a mile inside the Shambles the tide sets deep and dangerously into the bight towards Kimmeridge, brushes sharply and closely round St. Albans Head, which it has no sooner passed than it is again abruptly deflected to the northward, turns Durlstone and Peverel points with decreasing velocity, and having passed "Old Harry" expands and expends itself in Poole Bay, &c.

From thence it proceeds slowly round the Bay towards Christchurch, running smartly over the ledge, but soon relapses into its former tranquil course, depositing in its progress the vast accumulation of sand and gravel, which fills up and faces the whole extent of coast from Durlstone Head to the Needles.

The tide acquires considerable strength as it approaches the Needles, and runs round and over the high banks Dolphin and Shingles with velocity.

The flood divides near the Bridge, one portion of it running up the Solent, while the other flows round to the southward of the island, following every bend and turn of the coast until it reaches Bembridge Point, where it reunites with the other portion of the tide through Spithead. From hence, their confluent streams set towards Selsea Bill, partly through the Looe and partly over the shoals, at the rate of two or three knots according to the distance off shore.

We cannot fail to observe, in retracing our steps to the westward, that near, about the position off Bembridge, where the tides meet and become weak, the shoal called the "New Grounds," is deposited—and also, the "Solent Bank," which was discovered in 1847, is somewhere near the spot where the first of the flood through the Needles meets the last of the ebb from Southampton Water.

As the reverse of the foregoing remarks is equally applicable to the course of the ebb or out-going stream, it appears unnecessary to say more than what the plan shews, unless we repeat, that at any moderate distance from St. Albans Head, from one to two miles the tide sets for the "Shambles,"—whereas, the inshore portion of the wave runs smartly along the coast as far as Whitenore Point when it loses its strength, expanding over Weymouth and Portland Bays in successive curves, which again converge near the north-east end of Portland, from whence it rushes furiously round Godnor Point towards the shoal and past the Bill, catching up the last half of the ebb out of West Bay in its course down channel. In consulting the Portsmouth tide gauge for the tide drift, it is important to bear in mind that, during the last quarter of the flood, there is a western set of the stream *close in shore* the whole way

from Selsea Bill to Portland Bill, running through Spithead and down the Solent.

We see, therefore, that there is a considerable indraught on both flood and ebb into all the deep bights from Portland to the Owers, particularly on the flood round Durlstone Head into Poole Bay, but, of course in some positions more than others the radii of the curves increasing in proportion to the distance off shore.

It appears almost needless to point out what a dangerous tendency this has of leading the unwary navigator into peril, particularly in thick weather, should he allow himself by a culpable neglect of the lead to be attracted within its influence. With the land in sight there can be but little risk of this, for it may be safely presumed that anywhere to the southward of the Shambles, a mile and a half outside of St. Albans, two miles south of St. Catherines, and four or five from the Owers Light ship, a vessel would not be materially affected by indraught on either tide.

At night, or in thick weather, suspicion should always be awakened by the appearance of a strong race or overfall, as they infallibly indicate either the near approach to some salient point or the presence of a shoal; and it may be generally inferred, that two miles outside the fair streamage of headlands there is no indraught; and as that distance is decreased, the strength of the tide will increase, obviously, because, the wave which expands and courses round the different bays in curves converges and meets again in the vicinity of the points where its strength is re-united, causing races and overfalls of the tide in its progress round them.

I have the honour to be, &c.,

W. L. SHERINGHAM,

Exmouth, 1st July, 1851.

Captain and Surveyor.

A SUMMER'S CRUIZE ON THE COAST OF LABRADOR, in relation with an Irish Trans-Atlantic Packet Station.—By Admiral Hercules Robinson.

(Continued from p. 366.)

*Sunday, September 24th.*—Fine day, walked on shore after service, and collected the following information, which certainly goes to shew the existence of a colony at the Gold, by whomsoever formed (probably by Lord Baltimore,) or at least of gardens and cultivation, and of a mill at the entrance of the Gut. J. Richards, a respectable old man, aged seventy-eight years, born here, son of W. Richards of Stepney Parish, informed me that his father came to this country ninety-two years ago, at which time the mill was just as it now stands, and as it was sixty-three years ago when he (J. Richards) first saw it he remembers perfectly having seen a millstone lying between the two easternmost beams of the frame; it was a dark green stone, about three feet in diameter, he heard that it was brought away by one of the Muckfords,

inhabitants of Port à Grave, to make a back for a fire-place. J. Richards was never at the Gold, but always heard of there being ridges, drains, wild wheat, remains of enclosures, &c.; remembers a tradition of a Portuguese settlement; has gathered wild wheat close to the mill, it must have been brought there, as spontaneous corn was never found. In digging a foundation for a house at Bare Need, three years ago, found a clasp for the collar of a cloak of a sleeve button form, large, made of silver, much decayed, and ornamented with beads on both parts. Walked over to Port à Grave to see Muckford, he confirms the report of Richards. William Muckford is 68 years old, the son of Anthony Muckford, he has seen corn growing wild at the Gold; ridges, and drains four feet deep, he tried to bring the millstone away but found it too heavy, he says that twenty years ago the Gold was a bare fallow, no shrubs, or even high weeds; his son's wife remembers the Gold before it was over-run with bushes and weeds, and says the ridges, trenches, and patches of wild wheat were then very visible. Returned to Bare Need, went to afternoon service, and returned to dinner on board. A fine evening; propose sailing, in the morning.

*Monday 25th.*—Heavy fog, and easterly wind; could not sail; went in the boat to "Bare Need Southern Gut," to examine more closely the mill. Found another old man who had seen the millstone; the little island, or rather peninsula, which we thought yesterday was of recent formation, I find on closer examination it could not have been so, but appears contemporaneous with the rest of the land, as it must have been covered with large trees, the roots of them being found by digging. We found a fourth beam across the smaller stream, little further apart from its adjoining beam than the other three, the main beam is about eighteen inches in the square, the others rather smaller. We dug into the island a deep trench of about ten feet wide in the direction of the main beam to get at its end; over it was found stones and gravel with about a foot of vegetable earth at top, which must have formed since the beam ends were covered in, and roots and stumps of very considerable trees were found immediately over the beam ends (the beams and stumps of trees are all of pine); it is clear then that the peninsula was not formed over the frame work as it was supposed, but that the beams belonged to separate buildings; the beams were in both instances on the bottom, the boat passing over them. Probably on the smaller stream at the other side of the island was a bark mill or saw-mill: the river here is about forty feet wide, the shoal arm about twenty, the stream is very rapid, running perhaps five or six knots an hour, well calculated for a mill race; between the two beams was the millstone, lying nearly buried in the shingle bottom of the river. Upright posts were placed at the sides of the river to prevent the banks falling in, and the old inhabitants remember them; they said they were some half century ago reduced to about the thickness of the handle of a spade, but the roots of the branches not having decayed so rapidly as the body of the tree, protruded about three or four inches on every side of it, indicating that the trees were, when placed there, seven or eight inches in diameter.

On reviewing the account I am afraid it may be said why this is all

“much ado about nothing.” However, as this supposed colony in Conception Bay was thought to bear upon the disputed question of the discovery of Newfoundland, and throw some light upon the difficulty, I felt it right (being on the spot,) to investigate the matter and record the result. I had the places mapped out and marked with letters of reference, but as the fact of what we found rather than the topography is important, I may omit my map from my journal and trust to the description.

*Tuesday 26th*—Sailed from Port à Grave after breakfast, and at 12 anchored in Lance Cove, Belleisle. This island is truly Belle; wheat ripens well and produces ten fold, potatoes twelve fold, oats, hay, and vegetables do equally well; (five fathoms water over the rock laid down near the west end of Belleisle). Belleisle will be a fine nursery garden for the great embryo cities of Conception Bay; indeed, it is a reproach to Newfoundland that it should have been hitherto dependant on Prince Edward's Island and Halifax for any supplies; but during the long war labour was so valuable, that fishing paid better than husbandry. Now that the hot bed system is at an end, money, labour, and subsistence are returning to their natural level, Newfoundland will become daily more independent. The artificial stimuli of high prices and unnatural demand for fish and oil put the labouring classes out of their sphere, and the present want and misery is owing to the reaction. It is hard for a man whose wants increased with his means of supplying them, and who from his abundant wages, had accustomed himself to consume daily a pound of pork, half a pint of rum, a pound of bread, tea, butter, molasses, flour, peas, &c., to limit his expenses to those of an English labourer. Money begins now to recover its value, and the articles of daily consumption are not dearer than in England, meat at 7d. a pound, eggs three a penny, potatoes, butter, tea, sugar, wine, fowls, sheep, washing, &c., all reasonable. Walked over some nice farms belonging to very good people of the names of Pitt and Gordon, (there are about three hundred inhabitants on this nice little island). Sent Booth who volunteered the trip in the jolly boat to Portugal Cove to walk across to Saint John's for news and letters.

*Wednesday 27th*.—Light airs, weighed at 7, and beat towards Harbour Grace, arrived at 5, went on shore after dinner.

*Thursday 28th*.—Cold rainy day, fine evening, engaged at session and surrogate court. Mr. Leigh resigns his functions as surrogate this day, and turns over to me the staff of office: after wielding the same at Labrador, returning to it here is more than I bargained for.

*Friday, October 1st*.—Fine cold day, rode out to search for a sulphureous spring and iron mine, disbelieve in the same. I have been much pleased by my visit to Harbour Grace: the harbour is as I have said very good; the space between the end of the bar and the north shore is rather narrow, but a good sized ship well handled may beat through or back and fill in and out with the tide. Approaching the town from the northward, you pass a large looking house, surrounded by some considerable trees, that has something of an English appearance, as indeed, has also the little town, the parsonage with the sitting rooms opening

into a pretty garden, and the little weather beaten church, have an antique and *un-Newfoundlandish* air. Mr. Leigh, the resident missionary, is a kind hospitable man, he is surrogate J.P., but resigns his office, finding it interferes with his time, and his clerical duties. It is moreover, a bad business in a mere fiscal point of view, he receives a salary from government as surrogate, and the good people of Harbour Grace being as fond of *vicarious payments* as their neighbours, leave him to his employers, and reduce their contributions greatly beyond the amount of the salary he so receives as surrogate. Mr. Leigh will be a great loss as a magistrate, but the practice of making clergymen magistrates is a bad one. Itinerant nautical magistrates may be suitable enough for the old ocean queen, but are also objectionable. They are impartial and honourable, and dispense good substantial equity, but can never make themselves up in the complicated enactments which would, as Jack, says "puzzle a Philadelphia Lawyer." But there is no help for this as many of the out harbours afford indifferent materials for justices. One of them I remember to the southward in an out of the way place, wrote his compliments to me on board the *Prometheus*, and begged my acceptance of a *hair*. Paper, orthography, folding, and wafer to match.

The priest here seems a very worthy person. He was educated abroad, lives respectably and hospitably, and keeps his flock in good order. The principal merchant is a Mr. Danson, an obliging well educated young man, he has a comfortable dwelling with more of the west end air of St. Johns than the Wapping of an outport. He has a nice sheltered garden in which I saw some beautiful looking currants and gooseberries, and as to eat fruit when it is seen, is up to the age of thirty a necessity of our nature, I set about to fulfil my destiny; but let all future guests of Mr. Danson eschew this acid elixir of vitriol. He had selected the fine English sort, which did not find as much caloric as they fancied to ripen them.

*Saturday 2nd.*—Surrogate Court. Dined on shore with Mr. Leigh, and slept: he is very kind and hospitable, has a nice dwelling.

*Sunday 3rd.*—Service on board, I could not attend Mr. Leigh's church having to officiate in *my own*; purpose sailing in the morning.

*Monday 9th.*—Sailed this day from Harbour Grace, held my last Surrogate Court on Saturday—wearisome enough. Capt. Nicolas who succeeds me seems to have no dislike to this duty, "*de gustibus, &c.*" Knowing the ignorance of a young surrogate in the laws and customs of the fishery, encourages attempts on the part of the litigants to puzzle him (very annoying.) A Dr. Mc. Ardell is an instance of this practice. I decided that he was to be paid several charges he brought into court, after the current supplies, or supplies for the present year, (which always come first,) and that he was to be considered and paid as a current supplier, *pari passu*, with the other current suppliers of the year, but not to come first and eat up their fund with his arrears. "Claim allowed as a current supplier," was my finding, he said he was satisfied; and that "of course I meant, as current was derived from *curro*, to run; and as his accounts had been running on for four, five, and six years, that *the entire* amount was to be included in the current or year's account." I

thanked him for his erudition, but observed that *curro* was not *re-curro*, to runback, and confirmed my finding as above in accordance with surrogate precedent. I was jealous of the little Latin which had been flogged into me as a boy.

Blowing very hard all day; at one anchored in the narrows off St. Johns Harbour, too heavy to warp ahead. Landed Mr. and Mrs. Birt, a Church Missionary and his wife, whom I brought from Harbour Grace both very sick. I laid all night on thorns, ready to slip and go to sea if the wind flew into the northward; a very difficult harbour of entrance and exit. In the year 1814, I ran in one dark night, but this was unusual.

*Tuesday 10th.*—Wind more moderate; warped into the harbour, and moored.

*Wednesday 25th.*—Occupied during this fortnight in dockyard work, and preparing for sea; arrived *Egeria* and *Grasshopper*, exchanged some men. Yesterday the Admiral gave the officers and me a farewell dinner, every thing “*couleur de rose.*” He wrote a commendatory letter to the Admiralty and Colonial Office, very flattering respecting our surrogate and hydrographical proceedings: I shall subjoin the document in a note, and my digest of the statutes respecting Newfoundland; these are sufficiently multiplied and peculiar. She has enjoyed a sort of amphibious existence, in which the *terra firma* gave place to the fishing banks; the governor, the inhabitants, and the curlew, all taking flight in the winter. She is now in a transition or chrysalis state, and will no doubt blow out hereafter into some constitutional and more approved political formation.

It is necessary for a naval surrogate who has to graduate at Fort Townshend to instruct himself, especially in the 33, George III, c. 76, 49, George III, c. 27, a great many other statutes, and a volume of miscellaneous matter in the shape of proceedings of the House of Commons, where the petitions of Harrison, Wilkinson, of Greystoke, respecting the National debt, of the inhabitants of Belfast, against the usury laws, of the inhabitants of St. Johns for reforms in the courts of justice, and of the inhabitants of Ferryland setting forth the punishment inflicted on the bodies of Philip Butler and James Lanigan, with a mass of similar matter are jumbled up together, for his delectation. He needs also to be well up in a lengthened treaty entered into between His Britannic Majesty and the United States of America on the 20th October, 1818, with a Commentary still more voluminous.

If the law had been as clear as the pebbled brook it would have been muddied in its application by inexperienced administrators. But this not being quite the case as to the matter of transparency, it was not greatly to be wondered at that apprehensions were entertained of dissensions between our settlers and fishers, and a body of several thousand jealous and litigious strangers introduced for the first time amongst them, nor were these fears unfounded. Two rival parties were to enjoy equal rights, which rights were to be interpreted and administered by the representative of one party alone. The suspicions of the Americans therefore, were not unreasonable, nor that they should call as they threatened for the presence of a ship of war of their own flag, to protect their peculiar interests, and it is perfectly clear that had she arrived a

collision between her and the *Favourite*, would have taken place in twenty-four hours. However, the jealousy gradually abated; the fears and the difficulties set forth in my Journal at page 21, 39, 40, 44, 51, 60, 85, and elsewhere gave way; the attempt to act with impartiality and equity met with its just reward, assistance afforded to an American vessel in distress, circulated through the body and the cream of the laws and treaties which I attempted to skim off into the abridgement (A) was understood and acquiesced in, and will, I have no doubt, continue to be. The presence of the corvette from the States was not insisted upon, and the season of trial passed over as described in the despatch I have referred to. (B)

*Thursday 26th.*—At 8 A.M. the wind blew out, sent to the Chief Justice for a copy of his decision in the Baird case, which was tried on appeal and given against my finding. Thank you, Mr. Chief, for justifying my decision, though you saw good to reverse it. This was a hard hit to a man who piqued himself somewhat on his legal acumen, but you broke my head with a "precious balm." I felt a good deal for the poor man against whom I had decided, and I remembered his bitter

(A) *Regulations for the Fisheries at Labrador and Newfoundland.*—The Americans have liberty to take fish of every kind in common with British subjects, on every part of the coast, bays, harbours, and creeks of Labrador, and to cure the same in any part unsettled, but so soon as any part shall be settled, it will not be lawful for them to cure there without agreement with the inhabitants. Americans thus fishing at Labrador are subject to the same protection and the same laws and regulations as British subjects, no strangers are to lay their nets for salmon or herring in brooks fished by British subjects, nor within three miles on either side of such brooks, but the fishing must be actually carried on to justify this exclusion. The abandonment of a creek leaves it open to others, the circumstance of having once fished there cannot in itself give any exclusive right after it has been abandoned.

The person first arriving may hold the beach or shores he occupies as long as he actually carries on the fishing, but loses his right if he neglect to carry on the fishing for one entire season.

The first person arriving from England to fish after the 25th of March has a right to as much of the beach as is necessary for his fishing, but any person who has built, or made, or shall build or make any conveniences for fishing that did not belong to fishing ships, since the year 1685 shall enjoy the same without disturbance.

Americans have liberty to enter any harbour of Newfoundland as well as Labrador, for the purpose of repairing damages, taking shelter and procuring wood and water, but all trade and barter is strictly prohibited; they are not to make any permanent establishment to settle, or to interfere with the future settlement of the land by British subjects, but they have equal right of fishing and curing as above stated with the subjects of His Majesty, and they are not to be in any way molested or hindered.

(Signed)

HERCULES ROBINSON, *Surrogate,*  
H.M.S. *Favourite*, Coast of Labrador.

July, 1820.

(B) *Extract of a Letter from the Governor of Newfoundland to the Admiralty and Colonial Office respecting the Proceedings of Capt. Robinson at Labrador.*—"This being the first year of acting upon the treaty respecting the American fisheries near this island and its dependencies, and having apprehensions of the misunderstandings and contentions which were likely to occur, determined me to select an officer, whose temper and judgment could be relied on, and I therefore dispatched Capt. Robinson in the *Favourite* as early as possible. Indeed, before the Labrador was clear of ice, to guard against disputes which might lead to

grief and its expression. The *hysterica passio* of a ruined fisher is as real as any produced by Regan and Gonerill. The small afflictions of a small man, are as effectual to "break the heart into a thousand flaws," as the sorrows of one who is

"Every inch a king."

Mr. Baird, the defendant, is, I think, unjustly dealt with by this decision, but not by me, and it is not ruin to him, "liberavi animam meam," in having ruled in his favour, and I may reflect that the little Jonathan's will not be taught experimentally the meaning of our Euphonious localities of "Bare Need," and "Pinch Gut." "But tell it not in Gath!" The governor's proclamation, &c. are pronounced by this contumacious lawyer, (not as we thought them of old like the decrees of King Ahasuerus, but) just good for nothing,—the lion and the unicorn, and the exordium, and declaration, and penalty, so many "inky blots and rotten parchment (*qu. foolscap*) bonds." This as Sir Lucius O Trigger would say is "a mighty pretty quarrel as it stands." Forbes, the aforesaid chief justice, is a terrible man to talk, but a very good fellow, and clever and agreeable in spite of his volubility; his wife a very nice creature. He and I are great friends. He is of Yankee blood, and blood will out, kind and friendly, but punctilious and unceremonious at the same time, changeable I should say of purpose, and though very shrewd and able, yet not having had (as far as I could judge) any severe educational discipline, hasty, rash, and wordy in talk

"Give me my tablets—

Meet it is I set it down—"

that the way to influence such an one is by *dissimilarity* of conduct from his own great civility, and firmness whether you are right or wrong—"et pauca verba." Started under all sail set, and fired a salute together; whilst doing so, as we passed the *Egeria* and *Grasshopper*, they gave us three cheers.

In every exhibition of this kind we were very successful. Up top-gallant masts from the deck, and they are fidded and the yards across in little more than a minute, and by good stationing and practice we had succeeded satisfactorily in making and taking in all sail together. I had always a fancy for this manœuvre, it may often be well to go at full speed and pull up short like our Buenos Ayres horses, (see the practice at Trafalgar, studding sails set till actually in the enemy's line),

---

the most unpleasant consequences if not guarded against in the first moment of acting on the treaty, and indeed so essential did I consider these precautions, that I shortly after followed in His Majesty's ship *Grasshopper* to communicate with Capt. Robinson, which I did at Cape Charles; and feeling perfectly satisfied with the arrangements and decisions he had made on that coast I proceeded immediately elsewhere, feeling no necessity for any interference of mine; and there has been only a single instance of complaint of an American vessel having committed any impropriety out of six hundred sail, and that one I trust will be settled amicably. I beg also to refer their Lordships to their Hydrographer, for ample proofs of Capt. Robinson's exertions in surveying the harbour and passages he has visited, of which we had not before even an outline, that could be depended on and of which he has left copies at this office.

(Signed)

CHARLES HAMILTON.



we had early accomplished "silence." The *Boanerges* of my youth who used to bellow through their trumpets enough to deafen a ballad singer, was all a mistake; the horrid row might have been avoided by more accurate stationing.

I remember when I was a lieutenant how proud I was of having a strong voice; and that I somewhat envied my old Captain, (Blackwood), and Billy Walpole and others, their stentorian organs; here a whisper is sufficient. I don't take to myself the credit of the improved system in my small man-of-war, ("quorum pars minima fui,") the truth is that Pierce and Booth are capital officers. The others also very good, and the middies fine, zealous young fellows. Those who have gone and those who remain, Roberts and Boulton, Elliott and Blackwood, Tucker and Mc'Clintock, Brock, Maxwell, and Robinson, will all do me credit. The enthusiasm is something like the Agincourt muster-roll of "Harry the king, Bedford and Exeter, Warwick and Talbot, Salisbury and Gloucester." But let it stand, and see what comes of the prediction; more of the good order of a ship depends on the mids (if you can get them to love their profession,) than is often thought. I have heard it said, that the First of June was won in a great measure by the multitude of passed midshipmen in the fleet; our ship's company moreover are the finest handful of fellows I ever laid my two eyes upon. They would carry the old beast of a pig trough of a ship upon their shoulders, and some half dozen times, when we plumped her on shore at Labrador, they used to carry out an anchor like a grapnell, and heave her off as if they were launching a jolly boat.

But to come to our departure; cleared the harbour, dismissed the pilot, and took our leave of Newfoundland, which we shall probably never see again. There is always something melancholy in doing any thing for the last time; and besides this, Newfoundland has afforded me many a happy day. She was the scene to me during the war, of some little measure of professional adventure and success, and I have been now brought to feel considerable interest in her fortunes. I have also found within her rugged coasts many kind friends, some of whom I trust may prove exceptions to the proverbial instability of that relation, (about the bitterest drop perhaps in our cup,) and may I trust grow into *old* friends. An *old* friend it is truly said cannot be *newly* found, though it strikes me (as a bachelor) that an exception should be made as to a good wife; the great advantage of which ingredient appears to be, that this friendship, and this alone, interweaves itself with our past history, and antedates the commencement of the affection, making a new friend an old one.

Jack however has none of these reflections as to friendship, or regrets at leave-taking, and can never sing or say,

" 'Tis sentiment kills me says I,"

but is of all men alive, the most forgetful of the past, most hopeful for the future, and the most happily ignorant of the melancholy truth, that, *to-morrow is a convicted cheat*, and the gloomy declaration.

"That all our yesterdays have lighted fools  
The way to dusty death—"

They assemble of a fine evening such as this is on the fore-castle, and whilst one sings a verse the others repeat it in hoarse chorus, and are now probably in the expectation of seeing Cadiz, shouting the old ballad of Dibdin, which after informing us that,

“Until we strike soundings in the Channel of old England,  
From Ushant to Scilly is forty-five leagues;”

(for which fact by the way with various others as to the weather, the days of the month, the kings of England, and such like, I acknowledge myself indebted to this sort of memoria technica,) then goes on with the nautical val-diction,

“Farewell and adieu to you Spanish ladies,  
Farewell and adieu to you ladies of Spain,  
For we’ve received orders to sail for old England,  
And proba-*bly* never will see you again.”

DA CAPO.

My journal of a Summer’s Cruize on the Coast of Labrador with such remarks as it contains on Newfoundland statistics concludes as above. The facts and statements are as they were then written on preparing it now for the press. A few quotations have been changed where those I found did not appear to apply, a few passages and reflections here and there added to make the meaning more plain, and some expurgations made of illustrative matter. At the time I wrote, steam was in its infancy. Dr. Lardner and other high authorities had declared that the idea of crossing the Atlantic in a steamer must be ever chimerical. It was a physical impossibility that the day should ever arrive when a periodical succession of these impossibilities might be looked for along the south coast of Labrador. On the south coast of Newfoundland, it was beyond all rational calculation; and, in consequence the quantum valeat of my familiar remarks in commendation of those countries, cannot be affected by the idea that they were written to disarm the fears of the timid traveller, who might approach Labrador with something of the feelings that Sinbad did the Loadstone Island. Nor could they be written to invite amateurs of sporting, or of scenery, to visit and inspect these lands, or emigrants to settle in them, seeing that my notes were produced when facilities of communication by steam were considered impossible. My journal then may be good, as to its object, but it is not enough now that the impossibility (like so many other impossibilities), has given way to skill and zeal, and courage, and perseverance; something more should be said as to this great branch of my subject. I feel that to publish a journal to shew what may be found in a comparatively unknown country when steam finds it, and to say nothing more than a few general remarks at the outset as to the way of finding it, would be something like “the play of Hamlet, with the part of Hamlet left out by desire,” and I shall therefore insert here the outline of the projected steam navigation, and add some references and details respecting an object of such stupendous importance.

Going something more into details and particulars than in the preliminary observations, in the first place with respect to the general

navigation of the Atlantic from North America to the Western Coast of Ireland, it is pretended by those who would seek objections that the weather is so thick and the storms so violent, that it must be unsafe during the winter to run down upon that coast. If there be any mistake in the latitude, the ship must go upon the iron bound shore, and though there are banks on which soundings may be obtained, it is said that the mountainous sea, will prevent the possibility of a ship rounding to sound.

My own experience in crossing the Atlantic, in every season of the year is, that the thick hazy weather, but without fogs, is very frequent in the winter; but seldom or never lasts for many hours together. A distinguished naval officer, Commodore Bruce, who commanded a ship of war on this coast, and has often been in Galway Bay, assures me that such is his experience; and Capt. White, R.N., who commanded the coast guard on the Galway station, and was intimately acquainted with the bay for fifteen years, I am told testifies that he "never witnessed a fog that lasted an hour, or that would at all impede navigation."—As to a mistake in the latitude being fatal, such a mistake is not likely to occur where the distance is all difference of longitude and the ship runs almost on a parallel; and is the more improbable if there be no such continuance of thick weather as would prevent (for any long period) sun or stars being seen, and the latitude thus ascertained. But should such a mistake occur, the wide trumpet-mouthed entrance to the Shannon or Galway, would render the mistake of little importance.

As to the impossibility of rounding to to sound, I have never in the course of a pretty long sea service, seen such an event. Commodore Bruce, already referred to, informs me that the winter sea on the west coast of Ireland is a high but a safe and regular sea, and not such as could prevent a ship rounding to for any necessary purpose, but should such a gale as blew once when the Spanish Armada was dispersed, and was repeated in 1839 again occur, Massey's patent index machine will allow a ship to sound without rounding to at all, or diminishing her speed.

But it may be said, "we have been told of fogs on the coast of Newfoundland, and Ice Islands: what of these impediments?" Just this, that these rocks of unknown position, are summer visitants, floating to the southward when the northern ice breaks up, and most abound in June, when the days are longest. The fogs no doubt are objectionable during the 250 miles of the iceberg region, which a steamer would have to pass through, and she would have to exercise the third of the great precautions of "*lead, latitude, look-out,*" and be it remembered that the fog and ice difficulties equally exist, whether the course be shaped for the Straits of Belleisle, for Cape Race, or 100 miles to the southward of Cape Race, supposing Long Island be made for. So much for the nautical difficulties, and now for the saving of time. Upon this point I will refer to the evidence of Mr. Hemans, the very able Engineer of the Midland Great Western Railroad, and other public works, who being directed to collate the various testimonies brought before the public, and

report for the information of his employers, does so on this subject as follows. After a good deal of valuable information he says:—

“When it is considered that the tide of Emigrants into America, from Great Britain and Europe, is now at an average considerably over 1000 persons per day, it does not appear unreasonable to expect, that great energies will be brought into play to reap a rich harvest from so vast a traffic, daily on the increase, and quite capable of richly remunerating the undertakers, irrespective of all business in goods,” and he goes on to make the following statement, which corresponds with the general evidence on the subject.

*Table of proposed route from New York to London, via Whitehaven, in Nova Scotia, and Galway.*

	No. of Miles.	Rate per Mile, $\frac{\text{p}}{\text{Hour}}$ .	Hours.	Days.
<i>Rail</i> , from New York to Whitehaven in Nova Scotia, (410 miles made.)	860	31	28	
<i>Steam-boat</i> , Whitehaven to Galway	2090	17	123	5½
<i>Rail</i> , Galway to Howth	137	34	4	
<i>Steam-boat</i> , Howth to Holyhead	60	17	3½	} Short stop.
<i>Rail</i> , Holyhead to London, present time	263	32	8½	
New York to London, by Galway, 3410 miles, 167 hours, or 7 days.				
New York to London, by present route	} miles present sailing		} 3480 time, say average 10 days.	
New York to Liverpool, about Present route.	} 3450 ,,		} say 10 days.	

N.B.—The Telegraphic communication, according to this route, should not, with the aid of the submarine wires in the Irish Channel, exceed five days between London and New York.

“The rate for the steam-boat passage herein assumed, of 17 miles an hour, may appear high; but I beg to call attention to the recently reported experiments with “*The Arctic*,” a new steamer built for this line by Messrs. Collins, of New York, which, with a steam pressure considerably below what she is intended to work to, 15lbs. per inch, fully achieved seventeen knots an hour.” He then dwells upon the following fact that, “in connexion with the conveyance of mails and first class passengers, a large auxiliary income may be derived from this traffic, a very considerable portion of which goes from Ireland. In all steamers suited for trans-atlantic communication a large space must remain after providing for the mail service and first class passengers. This may be made available for the second and third class passengers; and considering the short period they would have to be fed and provided for on the voyage,

these could be carried with a good profit at rates which would command as large a number of them as the vessels could accommodate, and be quite as remunerative as the goods now carried from Liverpool, whilst a most important saving of time, and, in very many instances, of great loss of life would be effected.

In the discussion of the important consideration of steam improvement, a vast body of evidence has been brought before the public. The summary may be found in the following arguments of the *Advocate* newspaper:—

“A packet for the West of Ireland station ought to be of not less than 800 horse-power, adapted for the conveyance of intelligence and passengers *exclusively*: no larger than is requisite for obtaining a good form, and for carrying well the engines, and the fuel to be consumed in spanning the 2,200-mile ferry. Goods must go in separate vessels—viz, in auxiliary screw merchant ships. The small end of the wedge to bring forward the pretensions of the Irish station must be a highflyer. The voyage would only occupy five or six days. It is only one of those things that are impossible simply because it is thought to be so, but for no other reason; the only difficulty is to create a belief in its possibility. If enquiry could only be aroused, the result would follow. Perhaps inquiry may be aroused by specifying a *few* of the leading elements of improvement within reach.

By discarding engines of the antiquated construction of those now employed in all the Trans-atlantic steamers, and which are long since discarded in every well appointed service, that of Government included, the weight of 800 horse-power engines can be diminished

360 Tons.

This involves no untried novelty; neither does lightness involve slightness; on the contrary, the parts may be stronger, the lightness being obtained by simplicity.—(See *Mechanics' Magazine* of 21st Sept.) H.M.S. *Retribution*, *Sphynx*, *Furious*, and a great many others, afford examples, of improved engines.

By building the vessel of iron, or else—if a wooden vessel be preferred—of diagonal plank for the skin, and adequate timbers, &c., on a plan somewhat similar to what is extensively used in H.M. Navy, as exhibited in the *Niger*, *Basilisk*, *Porcupine*, H.M. Yacht, and various packets, a further saving of weight may be effected, with equal strength of at least

300 ”

By carrying no cargo, further weight is dispensed with, of, say

400 ”

By starting from the West of Ireland with a fast vessel, instead of from Liverpool with a slow one, several days' supply of coal may be dispensed with, to the extent of, say, at least

400 ”

Diminution of weight to be carried by proposed dispatch vessels, as compared with present Trans-atlantic steamers, at least 1460 Tons.

“Now, one of the Cunard steamers of 800 horse-power, as they start from Liverpool for New York, displaces, or weighs, more than 3,000 tons. Abstract 1,460 tons of *lumber* from this, the power of 800 horse being still retained, and see what an improved form, improved sea worthiness, and *tremendous* increase of speed, with the diminished resistance, is to be obtained. The foregoing is almost incredible, but

fact is sometimes stranger than fiction; and this is fact. I purposely abstain from incumbering these hints with details, and allusions to minor improvements."

But a question now arises, supposing all this to be admitted, why should it not be applied to Belfast, the distance is scarcely greater, and she is the emporium of the North. And is it true that they there desire a Trans-Atlantic Packet Station? I may here quote the opinion of Mr. Kennedy, a manufacturer so eminent, as may be considered a fair representative of that interest. He sends his goods largely to America and to all parts of Europe, where he sells them by his own agents. He has written very extensively on the subject, and in a recent letter sums up his argument as follows:—

New York to	Liverpool, by North Channel,	3,000	nautical miles.
"	Belfast,	"	2,880 "
"	Liverpool, by Cape Clear,	3,040	" "
"	Belfast,	"	3,045 "
"	Queenstown,	"	2,825 "
"	Galway,	"	2,756 "
Boston to	Galway,	"	2,580 "
Halifax "	Galway,	"	2,210 "

This statement shows that Belfast is 120 miles nearer to New York than Liverpool is, and that it is only fifty-five miles further removed than Queenstown, so that if the Government intend to establish a *port of call or packet station* at either end of Ireland, Belfast, has undoubtedly the best claim. It is true, the sea voyage will be longer by fifty-five miles, but the passengers will be saved the travelling by railway from South to North, and they will have no trouble in crossing hence to England and Scotland. Besides, this is the seat of the linen trade; they can do their business here, and we have an excellent harbour. After a great deal of statistical information, he goes on to say, "I repeat, therefore, that, if the Government intend to establish a packet station in either end of Ireland, they will make a great mistake in selecting Cork in preference to Belfast. On the other hand, Galway is nearer New York than Queenstown by sixty-nine miles; it is nearer New York than Liverpool, 284 miles, and nearer Boston 285 miles, and nearer Halifax by 294 miles, and it might be well to examine what saving will accrue from the establishment of a packet station there.

The Cork Committee say, that the contracted price of the Welsh coal the Cunard steamers use is 21s. per ton; that the same coals cost, in Cork, 16s. per ton, free on board; and I am informed the price at Galway, for a similar description of coal, is 1s. 2d. to 1s. 6d. higher than at Cork, which makes a saving of 8s. 6d. per ton. The quantity of coals burned per voyage, as you will see by Mr. Crook's letter, varies from 1,000 to 1,200 tons, (the *Arctic*, on her last trip, consumed 1,230 tons before she reached Halifax.) The distance between Boston and Liverpool is, 2,865 miles; and the saving of distance, by stopping at Galway, is 285 miles; consequently the proportionate saving in coals mile for mile, is 99 tons 9 cwts. 2 qrs. 3 lbs., which I take at 100 tons, for the sake of brevity in calculation. One cubic foot of coals, in a solid

mass, weighs from 79lbs. to 81lbs. Some of our steam-boat agents say the ton of coals measures twenty-nine to thirty feet. I calculate it at twenty-eight feet; and, as the ton of goods measures forty feet, it follows, that, for every 100 tons of coals saved, 70 tons of goods can be taken, the freight of which, at present is £7 per ton. As I presume the port charges from all the Western and South-Western ports are the same, and as I have no means of knowing this matter, I take the Cork Committee's statement as correct, that there will be a saving, in these items, of £157. 10s. in addition to the saving of 2s. 6d. per cent. in the insurance upon the value of the vessel.

If, therefore, in five or six days, and at an expense of about £10, we can cross the Atlantic, instead of going to the Continent for pleasure, we shall have an opportunity of seeing the Canadian Lakes, the Falls of Niagara, the Caves of Virginia, the wonders of the New World. But there are other considerations of infinitely greater importance, compared to which these sink into insignificance. In consequence of the cheap short sea passage, travellers from the various countries on the Atlantic and Pacific will be crossing and re-crossing this country, to and from Great Britain; they will pass through our own colonies, which, in this way, will be brought as near London as Dublin used to be; they will scatter their money, and, what is better still, information, and habits of industry, and active energy, will be diffused. And what are our North American colonies? A territory as large as all Europe, with millions of acres of rich and fertile land, unbroken up and tenantless. Our landed proprietors, impelled by stern necessity, unable to get their rents, in vain hope of keeping themselves afloat, are consolidating their farms, evicting their unfortunate tenantry, filling the poorhouses of the South and West, adding burthens upon people unable to bear up against their present taxation. Surely economy and humanity direct us to send them where, in the words of the Hon. Mr. Howe, there is "by a little judicious management, a home and plenty for all of them, and, once removed there, they will never know want again." Our labourers, our artisans, and our farmers are emigrating in thousands and tens of thousands to the United States. Would it not be for the interest of Great Britain to induce them to go to our own colonies, *to grow flax for us there, instead of importing from the Continent*, and of which, from present appearance, we shall require a great additional supply, increasing the power and resources of this country, creating a sure and extensive market for our manufactures, unburthened by hostile tariffs? We are pursuing a suicidal policy, sending our people to the States, a country, even *at present* rivalling us in the manufacture of cotton goods, whose people, to use the language of the American Minister, Mr. Abbot Lawrence, are clothed from head to foot in home manufacture—who are busy erecting cotton mills in the South, driven by water, wrought by slave labour—who have power-looms superior to the British, and who, to use the words of Mr. Lawrence again, will be able to show, at the great exhibition, styles and designs from which the Manchester manufacturers and printers will be able to get information and ideas.

I had stated in the commencement of my journal that the Straits of

Belleisle, had been suggested as the most eligible western point to which a steamer should be directed. The Straits of Belleisle are never frozen over, and for six or seven months in the year the passage is perfectly practicable, and as the adoption of this route is german to my notes and journal, I should not do justice to them nor to the subject without letting the originator of the idea speak for himself. After some general matter he states:—

“It is to me clear that our mails for North America during six months in the year, summer and autumn, should go direct from Galway to the St. Lawrence, (the other six months by Halifax) by which route passengers, letters and goods could be delivered thirty-six hours sooner in New York and the United States generally, and several days sooner in British and Western America, than by the present route of Liverpool and New York; whilst at the same time, it would essentially serve, indeed make great, the at present depressed countries, Ireland and British America, which have for a long period of years, suffered severely from neglect, mismanagement, and misgovernment.

“Every intelligent and well-disposed Briton is aware, and admits, that Ireland and British America have strong claims on our government for their aid and support, in return for the neglect, mismanagement, and misgovernment they have had forced upon them; and I am sure that every well-disposed Englishman, Welshman, and Scotchman, would cheerfully submit to any moderate sacrifice, and cordially unite with Irishmen in carrying out any measure that would be for the solid advantage and peace of Ireland; and I feel that the establishment of steam communication between Ireland and America would be the greatest boon that could be conferred on Ireland, as well as British America; that it would be the making of them, and thus rendering Ireland a source of strength, instead of being, as she now is a source of weakness and danger to England.

“If such a meeting as I have suggested was convened, ably conducted, and carried out, and the result submitted to government, I do not hesitate in saying that when they (the government) saw, and they could not avoid seeing, that the project was to effectually serve Ireland, as well as our American possessions, and British interests generally, they would be too happy to apply to Parliament for a grant in aid of the undertaking—for, depend upon it, every government will now be most anxious to conciliate Ireland and British America.

“The importance of our American possessions is not generally understood and appreciated; as one instance of it, the valuable and magnificent but neglected St. Lawrence is the most direct and proper highway, not only to Western America, but California, the Pacific Ocean, China, Australia, &c.; and the day is not far distant when the passengers, postal, and goods route to these vast and rich regions will be by this mighty and transparent stream, which is generally acknowledged to be the queen of all the known rivers in the world.

“My suggestion would be that the steamer from Galway should stop at Temple Bay, Labrador (the nearest land—1,500 miles—in the direct course to the St. Lawrence—only five days passage and a most excellent



and safe harbour,) where there should be three steamers of, say 500 tons, ready to start on the arrival of the steamer from Galway; the first to Quebec, Montreal, (where the passengers, letters and goods for the New England States, New York, &c., would be landed, and a steamer waiting to convey the like to Ogdensburg, Oswego, Rochester, and Lewistown, from which there is a railway to the Niagara Falls, Buffalo, and the far west of the United States,) Kingston, Toronto, and Queenstown, from which there is a railway also to the Niagara Falls, Chippawa, and the far west of Canada; the second to Chaleur Bay, Miramichi, Chediac, Charlotte Town, Prince Edwards' Island and Pietou; the third to St. Johns, Newfoundland, Cape Breton, Halifax, (from which a steamer would start for St. Johns, New Brunswick, and the Bay of Fundy generally), Portland, Boston, and New York—thus grasping not only the postal but the passenger and goods traffic and profits to British America, the New England States, the State of New York, Western America, &c.

“By stopping at Temple Bay, Labrador, or the route to Boston and New York, it will enable a steamer of 1,500 tons from Galway to carry there at least 150 additional passengers, and effect a saving of at least £150 per trip in coals, which are found in great abundance and are very cheap at Cape Breton and Halifax. At least 130,000 Irish emigrants have lately gone per annum to America, which is an average of 5,000 per week for twenty-six weeks (whilst the St. Lawrence is free from ice); and Western America is where servants, labourers and artisans should go to, are most wanted, and paid the highest rate of wages. It is asked, can such an undertaking as a line of steamers to British America and the United States, from Galway, answer? I say it would: and that alone by human freights there, and animals and provisions back. For depend upon it, if such a line is established, the importation of cattle and bread-stuffs from the Canadas and Western America will be increased, as the freights will be much lower and the voyage much quicker by the St. Lawrence than any other route to Great Britain. It is the Western States of America that produce by far the greatest portion of the bread-stuffs and provisions which come to Great Britain, and the direct highway from these States is the St. Lawrence.

The most serious consideration of all I have reserved till now, and with this I shall conclude. The able chairman of the Galway Harbour Commission, the Rev. Peter Daly, in a clever summary of the claims of Ireland in general, and of Galway especially states that:—

“Galway Bay is estimated to be 2090 miles from Whitehaven Harbour, near Cape Canso, in Nova Scotia, and the American people, in union with the British Colonies, are now absolutely engaged in the execution of a railroad that will bring either Halifax or Whitehaven within 850 miles of New York, and of this 420 are already open, namely to Waterville, in the State of Maine, and the other 430 miles in preparation of being executed, the surveys being completed. Men of science, eminence, experience, and influence having combined with the legislatures of the different provinces through which it is to run, to effect the one great object of bringing Galway Bay within five days

steam way of the first British Colony that is met in America, and through it within seven days, at the most, of the Commercial Capital of the United States."

This indeed is a topic of great delicacy, and of infinite moment in a nautical and political point of view.

America has spoken and we cannot as I have before observed, contemplate the proceedings at Portland during the last summer, and the map printed by the authority of the Legislature of Maine, in order to elucidate their views, or read the all but universal enthusiasm on the subject in the United States, without feeling convinced that if we don't do our own work, America will do it for us. An article in a New York paper, in February, was put forth as a feeler on the subject, and again a more decided opinion was promulgated last month in the *New York Sun*.

"*Transatlantic Packet Station in Ireland.*—The propriety and importance of establishing a packet station on the coast of Ireland, and of making such station the point of departure of the lines of steam-ships plying between this country and Great Britain, is under discussion in England and Ireland; and a careful perusal of all that has been said on the subject, confirms us in the opinion which we have always entertained, that, sooner or later, mails, passengers, and merchandize, must be conveyed to and from America, via, some port on the western coast of Ireland. The saving of distance—the avoidance of the risk incurred in navigating the St. George's Channel—the consequent saving in insurance—the fact, that by the construction of a magnetic telegraph from Galway or Cork, to Dublin, a saving of at least thirty-six hours could be effected in the transmission of intelligence—the fact that a continuous line of railroad from Galway to Dublin will be open in June next—the fact that steam-ships starting from Dublin to the United States direct, might take at least two hundred tons of coal less than what they require in leaving Liverpool, which would be not only a saving of expense, but which would be a great source of profit, for the space thus occupied could be filled with goods—all these facts prove conclusively to our mind, that Galway, or some other port on the west of Ireland, must, at an early day, be made a station for the arrival and departure of the ocean steam-ships running between Great Britain and the United States. In fact, the advantages which are held out are so obvious that the wonder is the subject has not been acted upon before this."—*New York Herald, Feb. 20th.*

"*Steam Communication with Ireland.*—Our article on Saturday last, on the subject of steam communication with Ireland, has given new life to the agitation of the subject, and we are convinced that, with judicious exertion on the part of the friends of the project, it will be successfully accomplished.

"We say *judicious* exertions, because from the letters we have received, we find that several of our correspondents lay more stress upon where the Packet Station should be on the coast of Ireland, than upon the great question to be first considered—namely, whether or not the capital can be secured to establish a line. One correspondent who seems to

take a great interest in the subject, speaks of a public meeting; but he misunderstands the suggestion in our former article. We are opposed to calling a public meeting, because we believe that the end will be better attained by the private efforts of individuals possessing capital, and by the encouraging aid of the press. The line must be established in the same way that the Collins' line, the Chagres line, and other lines of the United States steamers have been established. Our merchants and capitalists must first be satisfied that the enterprise promises sufficient advantages to repay them, with profit for the investment of their capital.

*"This line must also be an American, that is, under American control or management, though this will not necessarily prevent subscription to the stock being made by Irish merchants and capitalists. The line must also be an American Mail Line, and in consideration of its mail service, to receive an annual appropriation from Congress, the vessels for the line to be constructed under the supervision of a government inspector, and to be serviceable to the government for war purposes, in the event of there being such necessity. In other words the Irish line must be an augmentation to our naval steam marine—useful and profitable in peace, and a strength and defence in war. We beg our friends to bear these facts in mind, and by regulating their actions in accordance with them; they will avoid errors that might retard, if not defeat the project.*

"We speak with confidence, because we are well informed of all the advantages the enterprise promises; of all the facts connected with the necessities of the commercial and industrial interests of Ireland, and of all the arguments that can influence men in capital, and our government, to favour the immediate establishment of the line.

"We, therefore, recommend that a Committee be appointed, of the friends of the project, and that this Committee wait upon our leading capitalists, especially those engaged in the ship-building and shipping business, and by laying before them the facts showing the advantages promised by the enterprise, induce some to enter into it as its chief head and projectors. With such men as Howland and Haspinwall, or any one of our leading shipping merchants taking the lead, a Company could be immediately organised, and stock to a sufficient amount, would be subscribed within less than three months. The enterprise is sufficiently attractive to induce capitalists to engage in it, merely as a profitable business speculation. If it were not so, we would despair of its success on principles of national sympathy alone. The prospect of profit is what excites the sympathy of capital, though while capital is thus seeing its own benefit, it necessarily creates and diffuses benefits wherever it is employed. This will be the case with Ireland, if our citizens establish a line of steamers from New York to Galway—for Galway is necessarily the port with which the line will connect. Belfast is the chief manufacturing and shipping port in Ireland. Its manufactures have found their way to our market; and its passengers and freight with New York are very considerable. By August there will be railway communication completed between Galway and Dublin, and from Dublin to Belfast, the line of railroad is almost complete, and is progressing rapidly. This line, therefore, opens

up the readiest and best communication with all parts of the country. It is the best for Dublin, the nominal capital, and it is the best for Belfast, the commercial metropolis of Ireland. The Galway line will command the trade of Limerick, by means of the Shannon, the finest and largest river either in England or Ireland. Railroads will also connect with Cork and Limerick, and the chief agricultural towns of the central and southern portions of Ireland; and from all parts of the country there will be rapid and cheap modes of travel, by which emigrants can reach Galway with infinitely less danger and less expense than they incur in crossing the Channel to Liverpool. It is a well known fact that ninety-nine out of every hundred accidents which occur to the shipping leaving Liverpool, occur before the vessels clear the English Channel; and for the past year scarcely a mail has arrived from Europe that did not bring news of some disasters to steamers or other vessels plying between Irish, Scotch, and English ports. Had the *Great Britain* sailed from Galway, she would not have met the disaster she did. The great danger of collisions exists in steamers entering and going through the channel, and the Cunard steamers have actually run down vessels. For speed, safety, and convenience, and for connecting with the trade and business of all parts of Ireland, Galway presents advantages over any port in the three kingdoms, while it would shorten the distance between New York and London three full days at least! There is not a single town in England or Scotland that would not be brought nearer to New York; and even France and the European continent would be brought into closer and speedier communication with the continent. The submarine telegraph, connecting England and France will also be laid down between England and Ireland. By this means news could be received from France to the morning of the steamer's sailing, and calculating two days, which is the very least difference in the time between Liverpool and Galway, the distance between Paris and New York is reduced to eight or nine days! This, of itself, would go far to induce our government to aid the project of a line of steamers to Galway. A petition will be drawn up, so that the friends of the movement may have an opportunity to give it the support of their names."—*New York Sun*.

And with reference to this topic it is quite apparent, that the Trans-Atlantic postage will fall into the hands of America or of England, as our government shall determine the matter. A Mr. Mc Calmont who has published a short but very able article on the question, states as follows:—

"The traffic of passengers at this European and American ferry, will never attain its due expansion, however, unless the Halifax and Quebec, and Halifax and Portland Railways be undertaken; but, on their completion, the traffic would be ten times as great as the above estimate, and a very much larger class of steam-vessels would then be required.

As regards the indirect prospective economy to the post-office, that would arise from this Trans-Atlantic Trunk Ferry being perfected, it is to be observed, that the West Indies would be more speedily reached by this line, with an offshoot from Halifax, than by the Royal West India

mail route; and here there would be the elements of a future saving of public expense on that line, to the extent of, at least £150,000 per annum. *It is also to be observed, that with the proposed vessels in operation by the British Government upon this ferry, the whole entire Trans-Atlantic postage would be received by the British post-office, to the complete exclusion of the United States Mail Steamers, which on the voyage from New York to England, could not approach in speed vessels adapted to the shorter ferry from Halifax. This point cannot be too forcibly insisted on.*"

It follows of course, that if the British Government monopolize the Trans-Atlantic postage, by having a line of British steamers, the American Government will stand in their place if the steamers be American and not English.

It is no unworthy jealousy of America which should dispose us to grudge her these gains, but the plainest instinct of self-preservation. English blood flows in American veins—from us have sprung the men who established this mighty empire in the wilderness. It was the inheritance of English energy, and the observance of English example, which under God's blessing made them what they are. Nor is the measure of his improvement (like that of older countries) yet filled up. For centuries to come, she must advance in her stupendous course of development. The immeasurable extent of her fertile and as yet uncultivated lands; the salubrity of the climate, her inland navigation and natural productions; the safety of her harbours as well as the spirit of her sons, and the liberality of her institutions, point her out as the seat of future wealth and greatness, and civilization; nor should we repine at this, but on the contrary rejoice—rejoice in the prosperity of so large a portion of the inhabitants of the earth, and rejoice especially that the glory should fall upon the head of those who are bone of our bone and flesh of our flesh; we should hold out to her the right hand of fellowship, and cheer her onwards in her magnificent career. But between this and resigning our birthright there is a wide interval; between navigating amicably in company, and allowing her to take the wind out of our sails, there is all the difference in the world. We may be happy to see Americans come amongst us. We might well exult that Galway should be made another New York. We might well rejoice to see American capital doing in Ireland, and for the benefit of Ireland, what English capital may neglect to accomplish. We might well rejoice to see her more adventurous sons disregarding a measure of Irish political risk which (though in a great degree imaginary and fallacious) seems to deter from her vast capabilities many a less daring English adventurer. But we cannot and should not so approve of seeing America take up for her own advantage work which belongs to us and should be originated by ourselves. A Trans-Atlantic Packet Station between the West Coast of Ireland and America is inevitable. Every inducement and argument should be urged upon our Government to institute the great movement, but if they decline to do so, we may then, but not till then, see with complacency and thankfulness the work undertaken by others.

The desire for the rapid communication of intelligence and of personal

transit, seems to be amongst the most insatiable longings and necessities of the present age. Why else is the world becoming a gigantic gridiron of railroads! And why does the electric telegraph "put a girdle round about the earth," faster than Robin Goodfellow? In furtherance of this law the mighty tide of human intercourse between the old and new worlds, must sooner or later (with the certainty of the tides in her ocean boundary) flow across Ireland, bringing wealth and influence to those who undertake the operation. If it be conducted under the flag—

"Which spread its cross o'er Juda's sea,  
And waved in gales of Galilee;"

if the proud old banner "which braved a thousand years the battle and the breeze," shall be seen upon the stern of the Atlantic steamers, it is all as it should be. But if our government will not effect this object and that the government of America will, then will it assuredly be said by the Irish "very pleasant art thou unto us our Brother Jonathan," open shall our arms be to receive thee.

HERCULES ROBINSON.

*Rosmead, Castle Town, Delvin,  
April, 1851.*

• I had actually inserted charts of parts of Labrador and a map of the routes between New York and London, but I find the expense of lithographing would be more than this work would justify. I must therefore omit their publication here, and would refer the enquirer for the former to the surveys made by the *Favourite*, in the Hydrographical Office, at the Admiralty, and for the latter to the map which is affixed to Mr. Hemans valuable report, and I will merely subjoin the figures as given in such map.

1. New York to Whitehaven .....	860 miles.
2. New York to Whitehaven }	
3. —Galway and London, }	3410 "
4. New York to Liverpool .....	3100 "
5. Whitehaven to Galway.....	2090 "
6. Boston to Galway <i>via</i> Whitehaven.....	2600 "

In all cases from Whitehaven or Halifax, Cape Race first, and then Canso would be the land made, the course to New York would lie some 30 or 40 leagues to the southward of Cape Race.

From Galway to the Straits of Belleisle, the distance appears to be about 1550 miles. This line would shorten the distance to Quebec, but prolong it something to Whitehaven or Halifax.

Sketches of the land and various views as well as a map of the supposed ancient colony in Conception Bay, and also a return of the fisheries; a vocabulary of the native language; meteorological remarks during the summer, and a mineralogical report of the parts we visited; and sailing directions for the different harbours are also omitted here. If the anticipated interest in those countries shall be realized these particulars may appear in a second edition. As yet their appearance would be premature and unnecessarily expensive.

## ON TRANSFORMING PLANE TO MERCATOR'S CHARTS.

The surface of the earth cannot be developed on a plane, viz. cannot be peeled off and laid out on a plane, some of the consequences of which force themselves on the notice of a practical surveyor, whenever operations are conducted on an extended scale. For instance he will observe the bearings of different places from each other, and will find that the line joining two stations does not cut the meridians at a constant angle, or in any other words, the sum of the two bearings observed, back and forward, referred to the elevated pole will always be less than two right angles, and the difference between this sum and two right angles will in the same latitude vary with the departure between the two places.

To do away with this change of bearing, in passing from one point to another, in the line joining two stations on the chart, Mercator's projection was introduced, and has the property that the straight line joining any two points on it, cuts the meridians at a constant angle. It must however be recollected that Mercator's projection is a distortion, no bearing on it corresponding to that which would be observed at the place, and differing therefrom by a quantity depending on the departure between the two places; and that places in different latitudes do not preserve their relative proportions, those towards the elevated pole appearing in larger proportions than those towards the equator.

This being premised, we will endeavour to determine

1. The amount of inclination of the meridian at two points on the earth's surface, supposed spherical, and apply it to reduce all the bearings observed to one point, in order to take the mean of all the bearings observed within the limits of the sheet.

2. The Mercatorial bearing of points from the observed bearings.

3. Apply the above results to reduce a plane chart to a Mercatorial one.

First Let A, B be two points near each other on the earth's surface supposed spherical, P the elevated pole, P C the meridian bisecting the angle A P B cutting A B in C, through which let E C F pass at right angles to P C cutting P A and P B in E and F respectively.

Let  $i$  = inclination of P E A to P C

$\therefore 2i$  = that of P E A to P B F

P C the complement of the middle latitude  $l = c$

E F the departure between A and B =  $2d$

$\therefore$  F C =  $d$   $i = 90 - E$

From the spherical triangle P E C right angled at C we have

$\sin d = \cot E \tan c$

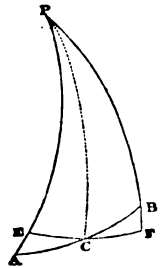
$\therefore \tan i = \sin d \tan l$

$\therefore i = d \tan l$  very approximately (A)

since  $i$  and  $d$  are both very small unless  $l$  near a right angle or at places in high latitudes.

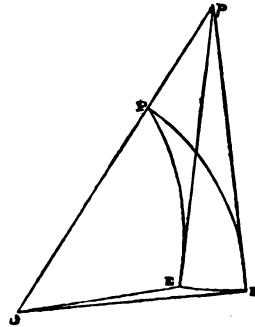
Hence the Rule.—To log distance expressed in miles add the log sine of the mean\* bearing, and the log tangent of the middle latitude the sum will be the logarithm of the inclination of the two meridians expressed in minutes of a degree.

\* In practice either observed bearing will suffice.



To make this clear to those who have only an acquaintance with plane Trigonometry.

Referring to the above, let  $E_p, F_p$ , the tangents to the meridians  $PE$  and  $PF$  at  $E$  and  $F$  respectively be drawn and meet  $OP$ , the axis of the earth produced in  $p$ . From  $O$  the centre draw  $OE$  and  $OF$ . Then  $E_p F_p$  is the inclination of the meridian at  $E$  and  $F$ . Let  $E_p F_p = i$   $EF = d$ , the other quantities as before.



$$\text{Then } i = \frac{E_p F_p}{p E} \text{ very approximately (1)}$$

$$d = \frac{EF}{OE} \text{ (2)}$$

$$p E = OE \tan p O E = OE \tan c \text{ (3)}$$

$$\therefore \text{ from (1) \& (2) } i = d \frac{OE}{p E}$$

$$\begin{aligned} \text{(3)} \quad &= d \frac{OE}{OE \tan c} = \frac{d}{\tan c} \\ &= d \tan l \quad \text{the same as (A)} \end{aligned}$$

Example.—At Cape Sable station, Cat station bore N.  $55^\circ 37' 32''$  E., mean of 5 observations, distant 42,854 feet; at Cat station, Cape Sable station bore N.  $124^\circ 16' 45''$  W., one observation. Lat Cape Sable  $43^\circ 23' 40''$  N., and 6,075 feet to a mile of latitude determine the inclination of the Meridians through Cape Sable station and Cat station to each other and take the mean of the bearings.

Log 42854	4.631991
6075	3.783546
-----	
Log dist. in miles	0.848445
Log sin $55^\circ 40'$	9.916854
Log tan $43^\circ 25'$	9.975985
-----	
Log inclination	0.741289

$5'.512 = 5' 30.7''$ inclination of two meridians.	
Observed bearing at Cat Station	N. $124^\circ 16' 45''$ W.
Corrections for inclin. of meridians to reduce to Cape station	+ 5 30.7
Cape Sable, bearing	N. $124^\circ 22' 15.7''$ W.
or (1) observation	N. $55^\circ 37' 44''$ E.
Observed bearing at Cape (5) obs.	N. $55^\circ 37' 32''$ E.
Difference	+ 12
$\therefore$ Correction due to Cape, bearing or mean of sin, bearings	+ 2
	N. $55^\circ 37' 34''$ E.

Note.—The traverse table may be used to determine the departure, and then to the log departure in miles add the log tan of the middle latitude, the log inclination of meridians in minutes will result.

To determine the Mercatorial bearings from the observed true bearing.

To the observed bearing reckoning from the elevated pole, add half the inclination of the meridians at the two places, and the results will be the Mercatorial bearing.



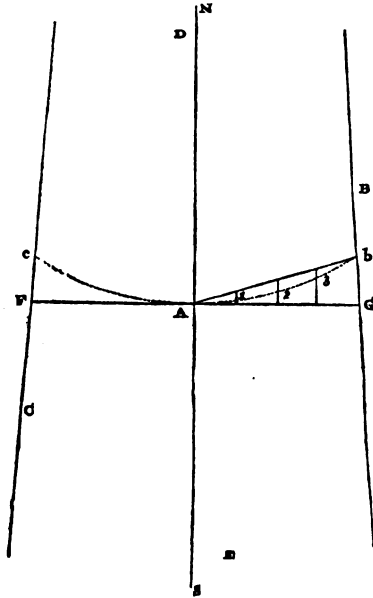
**Example.**—Cat Station observed bearings from Cape Sable station  
 N.  $55^{\circ} 37' 34''$  E.

+ 2 45 half the inclination of the meridian.

N. 55 40 19 E. the Mercatorial bearing of the two stations.

*To reduce a plane chart to one of Mercator's construction.*

First prepare a sheet with a Mercator's scale, viz. with parallels of lat. and longitude comprising the limits of the latitude and longitude of the portion of the chart to be reduced, according to the usual mode, the parallels being drawn at convenient distances and dividing the sheet into a series of oblongs.



Select some of the main stations as A, B, C, D, E, &c., in the figure, A, being some where in the middle of the plane chart, determine the differences of latitude and longitude between A, and each of these points by means of the triangulation, and reducing all the astronomical observations to A, mean the results, and thus determine its latitude and longitude.

Through A draw the meridian N A S; N being the north supposed elevated pole, and draw the straight line F A G perpendicular thereto and through B and C the extreme east and west stations on the sheet draw the meridians B b G, c F C inclined to N A S with their respective inclinations, and cutting F A G in G and F respectively. From A draw A b inclined to A G towards the elevated pole, at an angle G A b equal to half the inclination of B b G to N A S and in like manner draw A c inclined to A F towards the elevated pole at an angle c A F equal to half the inclination of C F c to N A S. Divide A b, into any convenient number of equal parts

such that each part be equal to two or three miles; suppose this to be four equal parts; through each of the points of division draw meridians duly inclined to N A S and divide each of the parts 1, 2, 3, of these meridians intercepted between A *b* and A G into four equal parts respectively, and reckoning from A, and on A G let 1 be the first division on the first intercepted meridian, 2 the second division on the second, and 3 the third on the third, join A 1, 12, 23, 3 *b*, the polygon thus described will differ very slightly from the curve\* of equal latitude through A; the nearer the meridians 1, 2, 3, are taken, the nearer will be the agreement. In like manner the polygon of equal latitude through A and *c* may be drawn, and we shall obtain a line through the chart differing from the curve of equal latitude through A as slightly as we please; by referring to the longitudes of A, B, and C, sub-divide this line so that the meridians drawn through the points of division correspond to the parallels drawn on the Mercator's chart, and through them draw the meridians with their respective inclinations to N A S. Take two stations on the extreme north and south of the sheet respectively and by means of lines of equal latitude through them refer them to a common meridian, sub-divide the distance between the points in which these lines intersect the meridian, and thus obtain a scale of latitude for the plane chart, from the points in which each meridian is intersected by the line of equal latitude through A, set off on the meridians respectively, the distances corresponding to the difference of latitude of A, and each parallel of latitude already drawn on the Mercator's sheet, and by joining the points we shall obtain curves at polygons of equal latitude corresponding to the parallels on the Mercator's sheet, and shall thus obtain a trapezium corresponding to each oblong on the Mercator's sheet, and which trapezium will differ less and less from an oblong the smaller they are taken.

The portion of the plane chart included in each trapezium must by means of proportional compasses be reduced into the corresponding oblong on the Mercator's sheet, and thus from the plane chart one constructed on Mercator's principle will be reduced.

P. F. SHORTLAND, *Commander.*

*H.M.S. Columbia, Halifax.*

---

#### DISCIPLINE IN MERCHANT SHIPS.

SIR.—Perhaps the following statement relative to the inefficiency of the laws to enforce discipline in the Merchant Service, may not be unworthy a page in your valuable publication.

Being on a passage from London to Shanghai, I was obliged from stress of weather, to put into the port of Singapore for repairs. It was my misfortune to have on board two very refractory characters, the cook and one of the seamen. On engaging the crew in London, I particularly told the cook that he would be expected to assist when all hands were called to shorten sail, and also to attend the fore-sheet in working ship, to which he very

\* This curve is a circle.

readily consented; and as I had never known an instance in which a cook refused to give such help, I did not anticipate any trouble.

He soon showed himself to be a very quarrelsome fellow, for ever wrangling with the steward, for which I had often to reprimand him severely. This might, however, have been put up with; but when he refused to lend a hand at shortening sail and swore\* he would not do any other duty than that of cook, while he was in the ship, and told me that I might put him in irons and keep him there as it was the only thing I could do, this was quite a different case and could not be passed over. But I think, Mr. Editor, you will agree with me, that it would be no punishment to put a lazy scoundrel in irons in a place where we were constantly either making or shortening sail, and a great deal of boisterous weather to contend with, especially as it would have caused the work to fall heavily on the rest, having four men on the sick list at the time. As he did not refuse to cook, I kept him to that alone, intending on my arrival in port to represent his conduct to the proper authorities, not doubting that I should get redress.

But what was my surprise, on my arrival at Singapore, to find the magistrate affirm that such commands could not be enforced as the man had not shipped in the capacity of cook and seaman. Now the agreement entered into by the crew is to be obedient to all the lawful commands of the master. Surely no one can assert that it was not a lawful command, to require the cook to help when we required it so much; indeed I think his refusal was tantamount to a refusal of duty. On my urging this to the magistrate, he replied that "he ought to have done it, but you cannot compel him". On the same grounds, therefore, the carpenter, sail-maker, steward and others, who do not ship as seamen may refuse to do anything but their own particular work: if this is really the case, the sooner it is altered the better.

On our arrival at Singapore the cook sent a note to me, stating that now we had reached port and I was dissatisfied with him, he would thank me for his discharge, but this I would neither give him nor any other man, and therefore took no notice of it: accordingly one morning, without any provocation, he coolly came aft, and with many blasphemous oaths swore he would knock me down if it was not for the laws. I had him taken out of the ship for this threatened assault, and he was sentenced to imprisonment for ten days, through which I got rid of the greatest vagabond I ever had to do with.

The other refractory character was one of the A. B's., a grumbling dissatisfied blasphemous fellow, who would have made the rest of the crew as bad as himself if he could have prevailed, but fortunately, I had some very good men, who were not altogether influenced, though they did not do their work so cheerfully as they would have done without him. When spoken to for using abusive language, his reply was, "Well, put me in irons—put me in irons, I am willing to go:" this apparently was his chief aim. But I thought to reserve him for a better punishment, by touching his pocket. But here I was as much out as in my former case, being told by the magistrate, that "I could not punish him for abusive language, that I could not stop a man's mouth, and if dissatisfied with them you had better discharge them." What satisfaction is this, Mr. Editor, to the Commander of a ship, who during the voyage had to put up with all manner of abuse, and had his authority set at defiance, to be told by a magistrate, that the only way we can punish them is to give them their discharge and wages. Why, Sir, this is the very object that such a man as the one above referred to, had been aiming at all through the passage. This system of paying off men in a Foreign

\* With an oath not to be repeated. —P. D.

port is I regret to say too much resorted to by Commanders of vessels. No doubt they are heartily glad to get rid of troublesome characters, but this, instead of lessening, has tended to increase their numbers.

I believe that there are many men who never intend to go the voyage, but merely to make a passage out. Such characters do all that they can to annoy their officers, and when they get out, especially if the wages out of port are a little higher than they have been getting, will come and request their discharge; this many are inclined to comply with to get rid of them.

I once paid off part of my crew in Calcutta, and was obliged to pay double the amount of wages to the men I shipped in their room, since which I do not pay off. If they are dissatisfied, I let them remain so. At the same time I give them the option of Her Majesty's Service or "run;" and I have invariably found that when they have been beaten or foiled in gaining their point they have returned to their duty and been quite reconciled.

But to return to this refractory character;—when the constable with a police force came on board to take the cook out of the ship, this man came aft to the chief officer and swore by a very common oath with him, that he would do no more duty on board the ship, at the same time using a great deal of foul and disgusting language. The chief officer ordered him to the fore-castle, and to keep quiet till I came on board, instead of which he got his shirt, intending to make a private signal to a man-of-war. He was ordered down, and told that the Captain always allowed any man desirous of volunteering in Her Majesty's Service a boat and six hands with an officer to see him safely taken on board.

The order he set aside, and swore, in spite of the officer, he would hang it up. My chief officer followed him out to the fore-yard and told him if he hung it up, he would cut it down, the man immediately drew his knife and swore by a horrid oath that if he cut it down he would plunge it into his heart, but when he perceived that the chief officer was determined to foil him, he laid down off the fore-yard and desired the constable to take him to jail also. The constable gave him to understand as well as he could (for he could scarcely speak a word of English, being a Frenchman) that he had no warrant to take him, at which our seaman began to jabber away, thrusting his fists very near his face. The Frenchman alarmed called out lustily to the steward. "Bring the pistoles, steward, bring the pistoles," which caused a hearty laugh amongst the rest of the crew.

For this outrageous conduct he got twenty days' imprisonment, and I was obliged to pay him his wages to the day he was taken out of the ship.

I will leave your readers to draw their own inferences on these two cases, and the punishment awarded them. I cannot of course find fault with the magistrates, they are the executors of the law, and therefore cannot exceed it. But I complain of the inefficiency of the law itself. Commanders of vessels are intrusted with a large amount of valuable property; they have also the lives of the ship's crew in their charge, and unless they can maintain order and discipline on board, the ship and all that it contains are at the mercy of the crew.

I am, &c ,

E. G. P. MARCH.

To the Editor N.M.

[A Mr. Rowett, who writes to the *Shipping Gazette*, advocates the removal of all control from seamen, a course which we could not suppose any one in his senses could adopt. We quite agree with the editor of that journal in his reply, who asks are we not all under a certain amount of control? and concludes his reasoning in the following terms. Much however yet remains to be done to rectify all this disgraceful state of things, and it is hoped that their proper representation will produce their remedy.—ED.]

"Now, it unfortunately happens that seamen, for the most part—through the neglect of early training, and the wandering and uncertain habits of their after life—stand more in need than any other class in this country of that coercion which society requires to secure obedience to its laws of morality and propriety. If Mr. Rowett were to spend one shipping season in Quebec, where—from the profligacy of the place, the *corruption of the magistrates*, and the impotency of the colonial government—seamen set all law at defiance, he might there experience that they are not a class of men who can be released from all restraint. By the very last accounts from Canada, we learn that two hundred seamen, deserters from our ships at Quebec, are embodied, with bludgeons in their hands, bidding defiance to every legal authority. In short, they are in that state in which, if we rightly understand Mr. Rowett, he would have all the seamen of the kingdom—they are under no coercion to obedience. It is unnecessary to say more upon this subject; the principle speaks for itself: its laxity is its condemnation. Although we appropriated more than three columns of our journal to Mr. Rowett's communication, we cannot afford anything like that space for an article in replying to him; we shall, therefore, very briefly dismiss his long dissertation upon "Sailors' Homes," having in former articles sufficiently explained our opinions respecting them. Their excellence and usefulness have been so well established, and are so fully appreciated, that they require nothing in commendation from our pen, nor can they suffer from Mr. Rowett's condemnation of them."

---

#### PROGRESS OF SAILORS' HOMES.

*The Sailors' Home at Aberdeen.*—We are happy to be able to announce, that the Committee appointed on the occasion of Capt. Hall's visit to the City of Aberdeen, have carried out his wishes, and converted a large double house into a comfortable "Sailors' Home." The accommodation is capacious, embracing dining room, reading room, library, and bed rooms, all admitting plenty of light and air, and excellently adapted for health. The Committee have appointed Mr. and Mrs. Mackenzie as superintendents of the institution, under whose arrangement there is no doubt the inmates will find every thing done to render them comfortable. The provisions provided will be such (and charges also) as Jack will have no reason to complain of.

This Institution, designed as it is to minister to the wants and improvement of a useful class of men, has been opened now nearly three months, and answers well. It has our cordial wishes for its continued success, and we cannot entertain a doubt that seamen will largely avail themselves of its many advantages.

*At Dundee* a similar establishment as above described is nearly finished, and will be opened very shortly for the reception of seamen. At Glasgow and Greenock, large sums of money have been cheerfully subscribed for the erection of "Sailors' Homes" where they are much wanted.

The "Sailors' Home" at Portsmouth is progressing most satisfactorily. From the influx of seamen, another range of sleeping cabins has been put up, which are to be paid for by the gallant Admiral Sir Charles Napier, who, with the most laudable charity, which does honour to his old age, most handsomely volunteered to be at the cost of their fittings up to the amount of about £30. The seamen have found out the many advantages which the Home Capt. W. H. Hall originated possesses over the common lodging-houses, and the Home is now the peaceful resort not only of the seamen out

of employ, but of others when on shore on leave from the ships in commission.

Since the opening of the Home, they have had nearly 100 regular inmates, and 500 casual for beds and meals. Last month they had the seamen gunners of the *Caledonia* waiting to receive their pay, also several invalids from Haslar Hospital. A number of disposable men have obtained ships from the Home; many went to the *Trafalgar*.

The sailors appear to like the clean beds, and the certainty they find in being called out in the morning in time for their going off in the liberty boats. This is not only a great object for themselves, but also for the public service, and no doubt in time will be appreciated by the commanding officers afloat.

---

#### HINTS TO THOSE WHO VISIT ST. MICHAELS.

THE Island of St. Michaels, the largest and wealthiest of the Azores, occupies 224 square miles. The chief town Ponta Delgada, lies on the west side of a wide bay on the south coast, situate in lat.  $37^{\circ} 45' N.$ , and long.  $25^{\circ} 35' W.$ , where ships anchor at about a mile from the shore, in between 25 and 30 fathoms water, and can easily slip and go to sea, to avoid the S.E., S., S.W., and W. gales. The number calling to trade annually is about 250 British, 150 Portuguese, and ten foreigners. The tide falls, five feet and a half by S. to N.W. winds, and rises by S.E. The flood tide sets to the eastward, and the ebb to the westward of the island. The thermometer in winter months varies from  $75^{\circ}$  to  $48^{\circ}$ ; in summer, from  $84^{\circ}$  to  $52^{\circ}$ .

The population of the whole island amounts to about 90,000 inhabitants. 20,000 live in Ponta Delgada (not including 200 foreigners, of which two-thirds are British subjects). The natives are generally industrious and sober; their dress consists generally of British fabrics, yearly imported, amounting to about £34,000.

The climate varies in heat and humidity, but is temperate, and does not affect health. The diseases of the people are few and simple. The boiling springs are held in high repute for their physical qualities, and very well known to scientific men, useful in rheumatic cases, restoring strength, particularly to the female constitution. There are also cold springs recommended by medical men as an excellent drink.

An hotel and a few boarding houses are established in the island. A few more would be built if invalids should choose to visit it in preference to Madeira, where springs do not exist, and the expenses are double.

The landed rental is £160,000 a year, exports 38,000 quarters of corn, one half to Ireland valued at £60,000, and 100,000 London size boxes of oranges to England, with the exception of about four cargoes sent to the United States, valued at £40,000. In 1801 the value of fruit exported was £10,000 and in 1850, about £65,000. Next season's crop is expected to amount to about 150,000 boxes, one fifth of which will be sent to the United States in the beginning of the season in British vessels, considered the best adapted for the fruit trade, having been greatly improved of late years in swiftness, and properly commanded by experienced and well conducted officers. There are nine exporting houses, four merchants, and five companies. Two extra companies have been formed in the north side of the island where they have commenced building quays. The best charts, with correct soundings, by Capt. Vidal, are to be sold at the Admiralty publisher's office,\* in London.

\* Mr. Potter, 31, Poultry.

The average prices of fruit in the island are 7s. 5d. per London size box of 800 oranges, free on board 10s. freight 7s. duty in England 4s. extra expense 2s. The expense of planting and walling an acre of orange garden is £15 for the wall, £8 for 65 trees, and labour £2. It yields half a crop of beans or Indian corn during seven years, but no oranges. From eight to eleven years half a crop of oranges only. Afterwards a full crop, sold for £10 to £15.

It is a great wonder that such an active port like Ponta Delgado is deficient of mail packets and a dock. Letters are sent to Lisbon monthly, by private ships during the summer time, and by obliging British shipmasters in winter. A large dock opposite the town for 400 ships, has been in project a century since, to be built at an outlay of £150,000. The residents and foreign companies have refused to undertake it, in consequence of insufficient guarantees. Nearly 12,000 ships annually cross the Azores, their cargoes amounting to a hundred millions sterling, without a secure harbour to shelter or repair.

An English hospital for our sailors has been for the last few years supported by the shipping, under the inspection of Mr. Hunt, the British consul, (previous to Mr. H.'s arrival, the sick used to be sent to the public hospital, where our medical men are not allowed to attend,) who is very well known by his great talents and endeavours in promoting our trade, as well as for his kind assistance to strangers that call at the island for the benefit of their health.

The current rate of exchange is from 5,700 dollars to 5,800 for sovereigns, and 4,500 dollars to 5,700 dollars for his bills on England.

As soon as the ship arrives in the roads of Ponta Delgada, three boats are sent off from the shore, the first from the health department, the second from the customs, and the third from the tobacco contractors. The master is to deliver to the first boat his bill of health, or, in default, to perform three days' quarantine, and more if from infected or suspected ports. To the second he has to fill up a form, in duplicate, supplied by the British consul, of all his provisions, stores, and parcels, whether to land or for the ship's use (formerly seizures often took place, caused by the deficiency of this document). One of the forms, after being filled and signed, he delivers to the officers before the search is made, the other he delivers himself to the custom-house in twenty-four hours' time, where he signs the book of entry. To the last boat he delivers all his soap and tobacco which is taken on shore, and not returned till the ship sails, so that the putrid stuff sent by the Lisbon contractors may be used instead, which has created a very extensive smuggling trade. Good tobacco could be grown in the island, if the Portuguese government would allow its cultivation. It would certainly be a piece of charity if our minister accredited at the court of Lisbon would represent these grievances to the Portuguese government, on the part of our shipping interests. But it is to be hoped that the late ministerial change in that country will remove such abuse, as well as moderate the very heavy duties charged by the customs on our fabrics.

Shore boats have of late years been employed by the trading vessels, and considered good sea boats, the charge being from five to ten Spanish dollars each, according to the ship's size. Previous to the employment of these boats many accidents and wrecks used to take place, in consequence of the boats' crew being on shore intoxicated. Provisions are to be had at very reasonable prices, as in Wales, and excellent water at 1½d. for every ten gallons, free on board, the best in the Archipelago.

*Precautions.*—To mark the bower anchors with the vessel's name, as the easiest way to identify them when left behind in foreign ports; to study Colonel Reid's valuable work on the "Law of Storms;" to purchase

the Aneroid barometer, (which contains no quicksilver,) of the size and shape of a large inkstand; also to provide themselves with Capt. Vidal's "Charts of the Azores," sold at 2s. at the Admiralty publisher's office. To lend their log-books (or copies) on every voyage to Mr. Hunt, the British consul, who intends soon to furnish them with important information so as to avoid a gale. To hoist the burgee, and the consignee's signal, when they return to port, after having been blown out, as the first vessel that returns has the advantage of being loaded immediately. The following is a description of the Merchants' flags, namely:—The white, red, and white signal belongs to the Old Company; the red to the New Company; the white and red divided at right angles to the Union Company; the white and blue to the Good Faith Company; the blue with a red eye to the Providence Company; any three other flags to Ivens, the tricolour to Brander, the white with an A to Adam, and the union jack and pennant to Dart.

No lighthouse exists nor ever existed at St. Michaels, as erroneously pointed out in all the charts by different officers who have been sent out to survey the Azores by the British government.

[Mr. J. F. H. Parkin Schott has addressed the foregoing very useful information to the *Shipping Gazette* from which excellent paper we have transferred it, promoting Mr. Schott's object in not only giving our own readers the benefit of his experience, but also preserving it for easier reference hereafter. We cannot imagine where Mr. Schott could have found a lighthouse said to be established at St. Michaels. No chart that we have seen contains any such statement, nor will he find it in Capt. Vidal's chart, the only officer, "sent to survey the Azores by the British Government."—*Ed. N.M.*]

#### OCEAN SOUNDINGS.

##### *U. S. Ship John Adams, Madeira, May 29th, 1851.*

SIR.—I have the honour to report the following "deep sea soundings," viz:—

May 3. Lat. 33° 50' north, lon. 52° 34' west, temperature of the air 64°, water 65°, had a fair "up and down," sound with (2,600) twenty-six hundred fathoms of line. Time of running out, 1h. 23m. 10sec.—one 32-pound shot on the line.

May 9. Lat. 32° 06', long. 44° 47' west; temperature of the air, 66°, water 68°. Got bottom with (5,500) five thousand five hundred fathoms of line out. Time of running out, 2h. 44m. 28sec. Drift of ship, three miles. Lost two 32-pound shot and 5,500 fathoms of line.

May 10. Lat. 31° 01' north, long. 44° 31' west; temperature of the air 68°, water, 68°. Got bottom with (2,300) twenty-three hundred fathoms of line out. Time of running out, 1h. 4m. 35sec.

May 17. Peak of Pico, bearing north 18° east, distant twenty-four miles, found bottom with (670) six hundred and seventy fathoms of line. Time of running out, 12m. 04sec.

May 21. Lat. 35° 07' north, long. 25° 43' west; temperature of the air 65°, water, 64°. (1,040) one thousand and forty fathoms found bottom. Time of running out, 19m. 58sec.

We have made frequent other casts, but in consequence of the swell and motion and large drift of the ship, without any satisfactory results.

I have the honor, &c.

*Washington Republic.*

S. BARRON, *Commander.*

[We find the foregoing in a New York Paper, which has been sent to  
NO. 8.—VOL. XX.

3 K



us by a friendly hand, and hope in course of time to receive an authenticated statement of these deep soundings. In our number for February last (page 102), we shewed that the originator of the method adopted by the American officer is Admiral Sir Francis Beaufort, the present Hydrographer to the Admiralty, and we are glad to see it followed up with so much success by our neighbours on the other side of the Atlantic.—*Ed. N.M.*]

---

#### PROGRESS OF HARBOURS OF REFUGE.

[The following extracts from a recent return to Parliament shews the progress of the works of our Harbours of Refuge.—*Ed.*]

##### DOVER.

*Dover, 21st of June, 1851.*

**SIR.**—In obedience to directions contained in your letter of yesterday, desiring me to report whether, in my opinion, any beneficial effect, so far as respects shelter to shipping, has already been produced by the works now in progress for the Harbour of Refuge at Dover, and to what extent;—

I beg to report that, even in their present state of progress, these works have, by preventing the accumulation of shingle at the mouth of Dover Harbour, enabled the Commissioners judiciously to co-operate, by deepening the harbour generally, but particularly the entrance; insomuch that 3 feet 9 inches depth of water has been gained up to the first jetty inside the port. The detrimental influence of the tide, which always rendered it a work of extreme peril to point a vessel for the harbour in strong westerly winds, and caused this manœuvre to be difficult at all times, has been removed far off; and the heavy sea which in such weather broke up to the very pier heads, frequently lifting a vessel's rudder out of water at the instant she was shooting from the open sea into a channel only 133 feet wide, has been exchanged for perfectly still water, thus rendering the entrance smooth and easy of access.

These facts have already given Dover Harbour many of the advantages of a harbour of refuge, and it is constantly occupied by vessels which have sustained damage at sea, twenty-five of which have been repaired here during the last twelve months.

The Commissioners of Dover Harbour have now extensive operations in progress towards deepening the port and its entrance, the results of which will be of immense national importance, but could not have been undertaken had not the commenced Harbour of Refuge prevented the approach of shingle to the harbour's mouth.

One instance has lately occurred strongly illustrating the advantages which the improved state of this port affords to the trade navigating in the narrow seas. A French merchant vessel belonging to Dunquerque having been disabled by getting on shore on the coast, was brought into Dover Harbour, and supposed to be irreparable. Tenders were however, issued for her repair, and, as she could be easily towed to Dunquerque, the ship-builders of that place having fully examined the ship, made an offer, as did those of Dover, when it was found that the Dover offer was lowest; and the ship having been taken on the patent slip, which the Commissioners of Dover Harbour have judiciously constructed, the ship has undergone a perfect repair (having been almost rebuilt) at Dover.

Thus a French ship, close to her own port, to which she could safely be moved at an expense under £20, can be repaired cheaper in England, and this not at a great ship-building port, but at a harbour which, until the recent improvements, could not at times be entered even by the smallest vessels.

With respect to the advantages to shipping in Dover Bay, the incomplete state of the works renders these inconsiderable; still I am of opinion there is already shelter afforded, and I think when the pier is extended 200 feet further, being the extent of the present contract, the anchorage in the bay will be rendered comparatively secure against the prevailing gales, and perfectly so, should it be deemed proper to extend this great work 500 feet more into the sea, even though the full extent of the proposed Harbour of Refuge may not be completed.

In addition to the above advantages of the works in progress, the mail packets and other vessels now land and embark mails and passengers at low water, at that finished portion of the Harbour of Refuge which is known as the Admiralty pier.

I am, &c.,

THOMAS BALDOCK, *Commander.*

*To the Secretary, Admiralty.*

*Dover, 8 A.M., 25th June, 1851.*

SIR.—Although it may not be necessary to trouble their lordships with every operation connected with the Admiralty Pier;

I beg to report that, during twenty-four hours ending at 11h. 40m. last night, five mail packets, British, French, and Belgian, embarked and landed mails and passengers there with great facility, and immense advantage to the public service.

I am &c.

(Signed)

THOMAS BALDOCK, *Commander.*

*To the Secretary, Admiralty.*

#### HARWICH.

*Her Majesty's Revenue Cruizer "Scout," 24th June, 1851.*

SIR.—In answer to your question of this day's date, relative to the improvements of Harwich Harbour, I beg most respectfully to state, for your information, that I consider Harwich Harbour very much improved since they commenced clearing it out. In former days, where there was only five or six feet water at low water, there is now twelve or fourteen feet, and in some places 3 fathoms; and the more they work, the better the harbour will be; and I consider Harwich Harbour a most excellent place for shelter when in, being protected from all winds; and should a ship drive on shore, they cannot come to any harm, as there is never sea enough to hurt them.

I have, &c.

(Signed)

J. SAKBY.

*Inspecting Commander, Harwich.*

#### JERSEY AND ALDERNEY.

*H.M. Steam Vessel, "Cuckoo," Portsmouth, 26th June, 1851.*

SIR.—I have the honour to acknowledge your order of the 21st inst., directing me to report whether, in my opinion, any beneficial effect, as regards shelter to shipping, has already been produced by the works now in progress for harbours of refuge at Jersey and Alderney, and thereupon to state, that considerable progress has been made at St. Catherines Bay, inasmuch that the work, which extends in an easterly direction (1,600 feet) from Verclut Point, affords shelter from northerly winds; but the bay being quite open from S.b.W. to E.b.S., no vessel, until the Archirondelle Arm shall have been proceeded with, should seek shelter there, and, consequently, the works, as a whole, are not sufficiently advanced to offer any secure advantage.

The *Cuckoo*, from her great draught of water, has frequently been kept out of Gorey in stormy weather; and I have invariably preferred the open roadstead to the insecurity of St. Catherines Bay

This vessel visited Alderney on the 2nd inst., when the advanced state of

the breakwater enabled me to place her inside that work, and land the relieving detachments almost from her deck.

Though still open from N.E. to E., it already gives fair shelter to small vessels, with 5 fathoms water, low spring tides, and with good moorings, I should not hesitate to lie there during the winter months.

This work is progressing rapidly, and its importance will soon be felt by our vessels generally.

I have, &c.

(Signed) N. LE FEBVRE, *Commander.*

*Admiral the Hon. Sir Thomas B. Capel, K.C.B.,  
Commander-in-Chief.*

#### PORTLAND.

*Weymouth, June, 23rd 1851.*

SIR.—In reply to your letter, dated June 21st, I beg leave to state, that I consider very great benefit has already been derived by the coasters and vessels loading stone, 40,000 or 50,000 tons of which is annually exported.

The breakwater protects them from south (the inner end) to S.S.E., already in from four to five fathoms good holding ground, and with S.W. gales much less roll is experienced. It is not sufficiently advanced to afford shelter for large ships at S.S.E., generally speaking, though, from knowing the holding ground, I should not hesitate, if in command of a line-of-battle-ship, receiving the same shelter, viz., from a S.S.E. gale, by anchoring close up to the breakwater.

A larger class of shipping sought shelter the last winter than during the preceding.

In January 1851, twenty-four sail came in for shelter: on the 14th, the wind moderating (S.S.E.), five sailed. Many of the others shifted their berths, evincing their sense of the benefit of the breakwater: the same night and following day it increased to a gale; the five that sailed were either lost or damaged, as was reported by the newspaper at the time, one of them being a schooner, lost at Lyme; all hands saved; another supposed to have foundered in West Bay, with all hands; but having made no note at the time I heard these reports, I only mention the two preceding cases as those which are authentic:

One hundred and thirty sail have been lying at one time during last winter, and half that number deriving benefit from the breakwater. It only requires that the place should be better known to be more frequented; and I feel it my duty to suggest the expediency of their Lordships promulgating information that no dues are levied for anchoring there, as it appears to be the practice of the Cowes pilots, or some of them, to misstate this; for an outward-bound vessel put in here, the master of which would not listen to the Cowes pilot, who wished him to bear up, and return to the Isle of Wight, assuring him they levied heavy dues for building the breakwater.

No pilot is requisite to anchor a vessel in Portland Roads, and ships with charts do not require one; but I understand by law they are compelled to take one the moment they arrive in a line from Lulworth Cove, to the east end of the Shambles. If this be the case, and allowed to remain, the Harbour of Refuge will lose a portion of its benefits, and many a man will keep the sea, rather than pay a pilot, with the trouble of anchoring and weighing a few hours afterwards. Should this be removed, the Portland Harbour of Refuge, during the coming winter, will be much more resorted to by shipping of larger size, and in greater numbers, particularly by foreigners, if it should be publicly made known there are no breakwater dues, and a ship may take shelter in a long winter night without any payment.

I am, &c.

(Signed)

J. H. HALL,  
*Inspecting Commander.*

## NAUTICAL NOTICES.

SHOAL BETWEEN TONGA AND FEEJEE ISLANDS.—U. S. Consul at the Feejee Islands, in a letter to the *Salem Gazette*, says:—"A very dangerous shoal has been discovered between the Tonga and Feejee Islands, parallel of latitude and longitude not given—a sand bank two miles in length, eight feet of water on the middle, and deepening at both ends. In strong S.E. winds it does not break, nor can you discern coloured water, like that of a reef, any distance off. It is described to be a most dangerous shoal, lying directly in the track of our whale ships cruising in this vicinity, and running down to the line."

[We find the foregoing in the *Shipping Gazette*, and shall be obliged to any of our readers who will take the trouble to send us any further information on it, for the benefit of seamen.—*Ed. N.M.*]

FIXED LIGHT ON THE COAST OF PORTUGAL.—The Portuguese Government has given notice that the new lighthouse on Cape St. Mary has been completed, and that it is intended that the display of the light therein shall commence on the 24th of this month.

It is a *fixed light*; and the lantern being 109 feet above high water, it will be visible at the distance of seventeen miles from the deck of a vessel ten feet above the water. Its position is 36° 56' N. lat., and 7° 51' long. west of Greenwich.

THE Danish Government has issued a notice dated the 21st of June last, stating that the light of Giedserodde on the island of Falster was to cease, and that a temporary fixed light from a lantern was to be shewn close south of the lighthouse, at an elevation of 51 feet above the level of the sea, while alterations are being made in it.

LIGHT AT SISAL.—Capt. Hardie, of the barque *Emblem*, at Boston (U.S.), states that the light at Sisal, of which notice was given some months since, has been discontinued. It was not established by the government of the country, but by private individuals. Shipmasters having refused to pay the light dues demanded, led to its discontinuance.—*Shipping Gazette*.

## BOTTLE PAPERS.

(94a) *Nassau, New Providence, Bahamas, May 15th, 1851.*

SIR.—The enclosed paper was picked up on the beach by a labouring man at the *south-east point of Andros Island*, one of the Bahama Islands on the 7th February, 1851. This being the earliest conveyance by which it could be transmitted since that period, owing to his want of communication with the seat of Government it is now forwarded as requested by

Sir,

You most obedient servant,  
SAMUEL MINNS.

"*H.M.S. Scorpion, 5th day of Nov. 1850.*

Lat. 21° 40' N., Long. 60° 20' W., wind south-east, light and fine, from

Bermuda to St. Thomas, all well: slight set to the south-west about a quarter of a mile per hour.

“GEORGE B. CARMAN, *Commander.*”

Found at High Point, south-east end of Andros Island, Bahamas.—7th February, 1851.

[This bottle has taken the usual westerly direction of the current.]

We find the following in the *Shipping Gazette*, of the 7th July.

“Report of the *Timbucto*, at Bristol, July 15th; sailed from the West coast of Africa, May 14th:—

“A bottle, with a slip of paper enclosed, containing the following: “Thrown over-board from the barque *Windermere*, bound to Hobart Town, the 20th August, 1850, in lat.  $4^{\circ} 24' N.$ , long.  $20^{\circ} W.$ , was picked up by the natives on the beach at Picaniny, Lahou, West coast of Africa, March 6th, 1851, which is in lat.  $5^{\circ} 8' N.$ , long.  $5^{\circ} 18' W.$

The *Windermere*, appears to have been on the outer edge of the Guinea current, when this bottle was thrown overboard, and it has followed the usual course of that current to the eastward. The bottle No. 43a, is another instance of the same kind.

---

#### SMOKING SHIPS.

[The following on the subject of smoking ships addressed to the *Shipping Gazette*, we think so likely to be useful to our own readers that we quote it here.—*Ed. N.M.*]

*Albion Tavern, Lower East Smithfield, June 18th.*

STR.—I have just had a conversation with an intelligent mariner on the subject of smoking ships for the purpose of killing vermin. He has told me of a simple and effective method I never heard of, nor do I think the idea is much known amongst seamen in this country. The most common way in smoking ships for rats at present in use, is by making a fire of charcoal and sulphur, or new oak chips, in a vessel's hold, closing up every hole where smoke can escape from, and allowing the hatches to remain closed for about twenty-four hours before opening them. This method is oftentimes found efficient for the purpose of killing rats, but many other descriptions of vermin that infest ships have been found to live after this operation has been performed.

The improved method suggested by my informant, and who is owner and shipmaster, I will give in his own words. He said:—“Latterly my ship was infested with rats and other descriptions of vermin. I was speaking with the master of a Dutch vessel on the subject, who told me when he smoked his vessel he always did it with quicksilver. After ascertaining the process of doing this, I made the experiment in my ship, and, what is gratifying to add, found it completely successful. The method of smoking a ship with quicksilver is upon the same principle as regards preparing the ship to be smoked with charcoal or new oak chips, &c.; the hatches and portholes are also closed, and provisions, &c., removed on deck. The quantity of quicksilver used was about two pounds and a half, or 10s. worth. The quicksilver was put into an iron pot, hung up to a beam over the ballast. A lighted torch was hove into the pot, and the hatch closed immediately, and secured with clay to prevent the vapour from escaping. Half an hour is sufficient time for the hatches to remain closed. Rats, mice, bugs, cock-

roaches, fleas, centipedes, tarantulas, scorpions, and everything that had life when the hatches were closed, all ceased to exist, from the killing effects arising out of the vapour from quicksilver."

I am &c.,

H. DEMPSTER.

#### FRANCIS'S LIFE CAR.

*Steamer Indus at sea, June 17th, 1851.*

SIR.—In looking over some of your back numbers, I find a full description of "Francis's Life Car," which according to the writer has done excellent service, and particularly in saving over 200 lives from the wreck of the *Ayrshire*. I observe also that an account of the localities of the life preserving apparatus would be interesting to you, and I doubt not the publication of the same will be useful to the tempest-tost mariner.

I am surprised that the party who furnished the article on "Francis's Life Car," should not have forgotten his own interest so far as to say a word about the means of preserving life in Massachusetts Bay, where the "Massachusetts Humane Society," has for more than sixty years been busy in promoting the means for saving life and restoring those who may have been partially drowned. The article alluded to informs the public that the New York Society, under the patronage of Government, has located boats, rockets, &c., on the coast, from Nantucket to Texas. I have to request you to enlighten the public further by publishing the printed account of the locations of the boats and apparatus of the "Massachusetts Humane Society," which I now enclose, whereby you will perceive that they extend from Tuckernuk Light on the western end of the Elizabeth Islands, fronting Buzzards Bay to Newburyport, where there is another Humane Society, whose operations extend further east. I might also say, and truly, that the "Massachusetts Humane Society," procured in 1848-9, an appropriation of about £1500 from the General Government, and about £500 from the State of Massachusetts for the purpose of adding to the means already employed in saving life in and about the waters of Massachusetts Bay, and that these appropriations awakened the New Yorkers to the necessity of providing means for the same purpose on the coasts of Long Island and New Jersey, where so many lives have been sacrificed, in times past for want of action. The Massachusetts Humane Society considered fully the subject of iron boats, as compared to light lap streak boats for the purposes indicated, and came to the conclusion that the people who man the life boats should be consulted, as to the vehicle best adapted to the dangers of the coasts, and so they built and ordered boats. If a longer experience should show that some boats are superior in a surf and for durability they must be adopted. I have been acquainted with Francis's Metallic boats for a long time, and in giving my verdict as to the superiority of wooden boats for the "Massachusetts Humane Society," I took into consideration the fact that the models of the Metallic Boats in 1848-9, for surf boats were defective. If in the natural course of things, Mr. Francis has got up new dies for corrugating metal, so as to make good models, I shall most heartily go for metallic boats for the many good results stated in your Magazine.

There are no selfish reasons connected with my recommendation, so far as my experience goes, of the wooden boats protected by strong India Rubber cloth fenders and buoys as described, whereas the accounts of the metallic boats, smack a little of the recommendations of interested parties.

I am, &c.,

R. B. FORBES.

A LIST OF EXAMINED MASTERS AND MATES.

E C, Extra Master.—O C, Ordinary Master.—1 M, First Mate.—2 M, Second Mate.  
O M, Only Mate.

No. of Certificate	Name.	Capacity.	Where Examined	No. of Certificate	Name.	Capacity.	Where Examined	No. of Certificate	Certificate.	Capacity.	Where Examined	
4260	Arkley, Errington	O C	Nctd	4271	Fraser, J. Alex.	2 M	Lon	4394	M'Kenzie, John.	O M	Dun	
	1 Mather, Thomas	O C	—		8 Wishart, James.	O M	Glw	5	Main, Donald	O C	Belf	
	2 Harrison, T.	O C	—		9 Arnot, John	O C	—	6	Enright, Anthony	O C	Abn	
	3 Hemsley, G. S.	O C	—	4330	Keebles, James.	O C	—	7	Murray, Robert.	1 M	—	
	4 Harrison, John	O C	—		1 Steers, John	O C	Lth.	8	Maxwell, John	O C	Liv.	
	5 Watson, John	O M	—		2 Deuchars, Wm.	1 M	Dun	9	Curwen, Eldrod	1 M	—	
	6 Pailles, C. English	O M	—		3 Cable, William	1 M	—	4400	Lakeman, John.	O C	—	
	7 Jenkins, John	O C	Liv.		4 Herald, George	1 M	—	1	Orr, J. Simpson	O C	—	
	8 Crawford, Walter	O C	—		5 Lawrence, Wm.	1 M	—	2	Ashcroft, Robert	1 M	—	
	9 Griffith, William	O C	—		6 Phillip, James	O M	—	3	Price, Wastel B.	1 M	—	
4270	Rey, Thomas	O C	—		7 Ewan, George	O M	—	4	Harding, Thomas	O C	Lon.	
	1 Reed, Samuel	E C	—	4340	Le Gallais, Philip	O M	Lon	5	Coulcher W. C. M.	2 M	—	
	2 Hughz, John	O C	—		9 Jarman, Stephen	O C	—	6	Graham, John	O C	—	
	3 Fisher, Thomas	O C	—		4340	Templer, George	2 M	—	7	Clark, J. Brown	O C	—
	4 Taylor, William	O C	—		1 Budd, Vincent	O C	—	8	Hudson, W. T.	O M	—	
	5 Coyle, George	O C	—		2 Hammond, H. H.	2 M	—	9	Conradi, Charles	O M	—	
	6 Calloway, Charles	O C	—		3 Bewicke, John	O C	Slid.	4410	Mundon, William	O C	—	
	7 Jonas, Edw rd.	2 M	Lon		4 Morris, Francis	O C	—	1	Salter, George J.	O C	—	
	8 Pitt, William H.	O C	—		5 Stephenson, J. R.	O M	—	2	Wells, Lyman	O M	—	
	9 M'Kie, George	O C	—		6 Holland, B.	O C	—	3	Smith, John	1 M	—	
4290	Bristow, H. B.	1 M	—		7 Denham, G. T.	O M	—	4	Shute, John	1 M	—	
	1 Johnston, C. Geo	O M	—		8 Greig, Jas. B.	O C	—	5	Lumley, Alex.	O C	—	
	2 Norris, Edmund	1 M	—		9 Ward, William	O M	—	6	Cuthbert, Wm.	O C	Dub	
	3 Harrison, Richard	O C	Liv.	4350	Robinson, James	O M	—	7	Ward, Samuel	O C	—	
	4 Elder, David	2 M	Glw		1 M'Cormack C.	O M	—	8	Le Fanu, Peter	1 M	—	
	5 Petrie, Richard	1 M	—		2 Stocks, Walter	O M	—	9	Taylor, George	2 M	—	
	6 Wiley, P. J. N.	O C	Liv.		3 Thompson, R. S.	O M	—	4420	Rayll, Henry R.	O M	Sun	
	7 M'Naught, Wm.	2 M	—		4 Caton, Henry W.	O M	—	1	Dawson, W. Wood	O M	—	
	8 Bell, John	2 M	—		5 Hempseed, Foster	1 M	—	2	Davie, William	O C	—	
	9 Howson, John	2 M	—		6 Butemot, James	O C	Hull	3	Darling, James	O C	—	
4290	Crosby, Thos. R.	O C	Dub		7 Parker, John	1 M	—	4	Howard, James	O C	—	
	1 Bridson, Henry	1 M	—		8 Gray, Joseph J.	O M	—	5	Brown, James S.	O C	—	
	2 Stevens, Robert	1 M	—		9 Smith, Samuel J.	O M	—	6	Simonds, James	O M	—	
	3 Dunn, George	O C	Abn	4360	Moor, Joseph	O C	—	7	Handford, James	O C	Flm	
	4 Noble, Peter	O C	—		1 Coudrey, Thos.	O C	—	8	Hayes, Stephen	O C	—	
	5 Dathie, William	O C	—		2 Stephenson, John	1 M	—	9	Quick, Edwin	O C	—	
	6 Jameson, George	O C	—		3 Bell, Charles	1 M	—	4430	Hill, William	O M	—	
	7 M'Hardy, George	O M	—		4 Gordon, John	O C	Lth	1	Clapp, John	O C	—	
	8 Hector, John	O M	—		5 Watson, George	2 M	—	2	Downing G. W. Y.	O C	—	
	9 Hardie, Robert	1 M	—		6 Mitchell, R. Cant	1 M	—	3	Woodgate, T.	O C	—	
4300	Hackney, G. W.	O C	—		7 Riddoch, William	1 M	—	4	Nash, Jas. C.	2 M	—	
	1 Cobban, Richard	O M	—		8 Waterstone, J.	1 M	—	5	Mackie, J. Duff.	E C	Glw	
	2 Irons, David	O C	Liv.		9 Stewart, A.	O M	—	6	Grierson, A.	1 M	—	
	3 Boyd, William	O C	—	4370	Taylor, Alex.	O M	—	7	M'Millan, Donald	E C	—	
	4 Rickard, Joseph	O C	—		1 Gibb, Walter	O M	—	8	Scott, William	E C	—	
	5 Henderson, G. G.	O C	—		2 Richardson, J.	O C	Lon	9	Davie, Walter	O M	—	
	6 Benton, James	O C	Glw		3 Franklyn, W. H.	O C	—	4440	Hicks, Thomas	O M	—	
	7 Meldrum, Peter	O C	—		4 Breakenridge, M.	2 M	Glw	1	Heriot, James	2 M	—	
	8 Watt, William	O C	—		5 Bruce, David	1 M	—	2	M'Kellar, A.	O M	—	
	9 Hardie, Thomas	O M	—		6 Robertson, Wm.	O C	—	3	M'Ewan, John	O C	—	
310	Ford, John	2 M	—		7 M'Crery, George	1 M	—	4	Carnachan, Wm.	O M	—	
	1 Murray, William	O M	—		8 Simpson, Andrew	1 M	—	5	M'Kellar, James	2 M	—	
	2 Allan, William	O C	—		9 Campbell, D. M.	O C	Lon	6	Chiney, Thomas	O C	—	
	3 Allan, William	O C	—	4380	M'Carty, Robert	O C	—	7	M'Arthur, E. G.	O C	—	
	4 Nightingale, J. H.	O C	Liv.		1 Woolgrove, G. P.	2 M	—	8	Duncan, John	O C	—	
	5 Stevenson, Wm.	2 M	—		2 Bishop, Thomas	2 M	Liv	9	Keachie, A. A.	O C	—	
	6 Jew, William	3 M	—		3 Darrie, James	O C	—	4450	M'Kandy, A.	1 M	—	
	7 Milman, William	O M	—		4 Boyd, John White	O C	—	1	Wylie, James	1 M	—	
	8 Douglas, K. S.	2 M	—		5 Lamb, William	1 M	—	2	M'Kellar, John	O C	—	
	9 Wheatley, James	2 M	—		6 Fletcher, H. B.	O C	—	3	Langlands, G.	O C	—	
330	Harries, Wm. H.	O C	—		7 Thompson, T.	1 M	—	4	Bakor, Thomas	1 M	—	
	1 Kelly, William	1 M	—		8 Wallace, Charles	1 M	—	5	Kirkaldy, Robert	O M	Dun	
	2 Wats, R. S.	2 M	—		9 Smith, David	O C	—	6	Jack, John F.	O M	—	
	3 Glendinning, H.	2 M	—	4390	Loughton, James	O C	Lon	7	Dickson, John	1 M	—	
	4 Soott, F. Hurry	2 M	—		1 Keith, David	O C	—	8	Pearson, John A.	1 M	—	
	5 Marshall, H. T.	2 M	Lon		2 Moore, James	O C	—	9	Scott, David	1 M	—	
	6 Willis, John	O C	—		3 Laverick, Alex.	O C	Dun					

## THE WHALE FISHERIES.

*Official Guide to the Finest Fisheries.*

THE following document has been recently issued by the United States Government for the guidance of its whalers in all the important regions of the whale fisheries:—

*To Commander L. Warrington, Chief of Bureau of Ordnance and Hydrography.*

SIR,—I have the honor to inclose for your official action the accompanying "Notice to Whalers," which is derived from the investigations that have been carried on at this office with regard to the migratory habits and places of resort of the whale, sperm or right, I have reason to believe that the right whale, of the southern hemisphere is quite a different animal to that of the northern; that the two are separated by (to them) an impassable barrier. I have also reason to suspect, from results that have been elicited in the course of these investigations, that the same whale which is taken in Behring's Straits is taken in Baffin Bay also; and, if this be so, these investigations prove beyond question that this animal cannot pass from one region to the other except through the Arctic ocean; and hence we are entitled to infer that there is, at times, at least, an open water communication, between these and the bay; in other words, that there is a north-west passage. This interesting piece of circumstantial evidence in favour of a passage there was called to the notice of Lieut. De Haven, when he left this office to take command of the expedition in search of Sir John Franklin and his companions. So much was that enterprising officer impressed with the importance of this suggestion, and the considerations growing out of it, that he expressed his intention, after reaching the Arctic sea, to observe closely the habits of the whale, and should this fish take a westwardly course, to use them as pilots by the way. The wind and current charts give me reason to conjecture that the whalers who attempt to cruise in high southern latitudes will find it a region of heavy weather, for though our researches have not yet been extended to that quarter, the results attained with regard to the trade winds indicate, that in the general system of atmospherical circulation the prevailing winds are less liable to interruption, and that the general system of circulation is more active in the southern than in the northern hemisphere; and therefore it may be suggested, by way of precaution, that none but staunch, well fitted and found vessels should undertake the high southern cruise.

I am, &c.,

M. F. MAURY, *Lieutenant, U.S.N.*

*National Observatory, Washington, April 16th, 1851.*

*Notice to Whalers.*

Captain Dainel M'Kenzie of New Bedford and George Manning of New York, have been engaged for a year in procuring for this office information from whalers and others concerning navigation and its industrial pursuits of the sea. The log-books containing this information have been used here by Lieutenants Herndon, Leigh, and Fleming, of the navy, in making a chart to show when and where our whalers have searched for whales; when and where they have found them; with what abundance; and whether in shoals or alone. This chart divides the ocean into districts of 5° latitude by 5° longitude, perpendicularly through each of which districts are twelve columns for the twelve months; and horizontally through each of which districts are three lines; one to show the number of days that have been spent in each month in every district, and



An inflated buoy is laced to the battens, rivetted through the timbers, like those on ships top-gallant and royal-yards to bend the sails to; they are blown up by a pair of bellows; three buoys or cylinders are made of double vulcanized India Rubber canvas, and resist a heavy shock; in each end of the boat is a bag shaped like the end of the boat, and made of some material inflated in the same way, and under the thwarts on each side another cylinder with five or six distending hoops, ten feet long, by ten inches diameter, *nearly* self inflating.

These boats have been found to be difficult to capsize, and when capsized by any unexpected casualty they are easily righted, in consequence of their buoyant properties causing them to float very high out of the water;—thus the ends when bottom up have a constant tendency to get out of the water.

[Our correspondent gives a sketch of a life boat in his letter: it resembles so much in appearance an ordinary whale boat that with the above description, no more is necessary. The Massachusetts list shall appear in our next.—Ed.]

---

FORBES'S NEW RIG FOR SHIPS, &c.

48, *Stall Street, Boston.*

Herewith I have the pleasure to hand you a sketch of my "new rig," as adopted in the following vessels within the last few years in the United States.

Auxiliary steamers—*Massachusetts* and *Edith*, steamer *Midas*, the masts being in these cases fidded abaft, which mode is recommended for steamers as it enables them to have topmasts, without any interference with the lower topsail, the lower yards, &c., the fore and aft sails being set on trysail masts.

Sailing ships—*Samoset*, *Reindeer*, *Lantao*, *Race-Horse*, and several others whose names have escaped my recollection.

The advantages of this rig especially for large merchant ships and whalers are numerous, and largely outweigh any small objections, as the unsightliness of the doublings.

Among the most prominent of the advantages are, the ease with which the ship may be brought under sail equal to double reefs, namely, by simply taking in the top-gallant-sails, or in a squall merely clewing them down, leaving the watch to stand by the main-sail and thus do justice to the ship. In narrow waters, particularly in squally weather, this rig offers great advantages, as it does also in sounding while running large, in running for land in thick weather or by night, as the ship can be hauled on a wind instantly under sail equal to double reefed top-sails, simply by clewing down the top-gallant-sails. It is seldom necessary to call all hands, as the watch can take care of the ship with this rig, more effectively and with less loss of time and distance, than all hands can do with the ship rigged in the old style. In Atlantic navigation more especially, there is great saving of labour, and time, and wear and tear. And I do not hesitate to say that in crossing the Atlantic to the westward in winter, a ship rigged after my plan will gain an advantage at the least, of two or three days over the old rig and with less cost of labour and much less wear and tear and anxiety to captain and officers. It will be observed that the yards on the main-mast spread considerably more canvas than those on the fore, and that the same time the sails can be raised on both masts, that is to say, the fore-top-sail, is the same in size as the main-top-gallant sail, the fore-top-gallant is the same as the main-royal, &c., or in other words all the square sails on the fore-mast except the fore-sail fit the main-masts and yards, one *story* higher up, and the same relative difference between the mizen and the fore.

I could write a volume on the subject of the advantages of the rig for all vessels of war or merchantmen, and whether for the Atlantic or the Indian and Pacific Oceans, Coast of China, &c., but I am aware that to attract the attention of your readers I must leave something to their experienced imaginations. As to the plan being entitled to the name of "new rig," I would remark that this mode of setting a topsail, at the heel of the topmast, under the cap, is not new, for I have seen many schooners so rigged, with a large top-gallant sail above what may be called a close reefed topsail; and I have since maturing and adopting this plan in several ships of my own, heard of one or two ships trading between India and China, similarly rigged, that is to say, with two yards on the old top-mast, thereby dividing the old topsail into two parts, but the plan has never before been completely and symmetrically carried out in large ships, and so I think I am entitled to call it "*my rig*." I have had the satisfaction of introducing many improvements in the rigging and fitting of ships, and I think, I am entitled from many years experience of ships at sea and in port, to the attentive consideration of your nautical readers.

I am, &c.

R. B. FORBES.

[Mr. Forbes has sent us a rough lithographed outline of his new rig, but had better have sent us a cut more adapted to the size of our page. The main features of it are, more drop to the lower course, and a longer head to his lower masts; the topsail is divided into a lower and upper one, the yard of the lower topsail travelling on the part of the topmast below the lower cap; the topgallant sail and royal remaining as before. The yards are very square having long yard arms, and an additional one aloft (both fore and main,) is so much additional top weight.—ED.]

#### EDWARDS' PATENT PRESERVED POTATO.

We are gratified in finding that Edwards' Patent Preserved Potato, after its general use and acknowledged value in Her Majesty's Services, on board ship as well as the Mercantile Marine for several years, is now meeting with the favourable consideration of the Home authorities, for certain seasons of the year when no doubt this wholesome vegetable, and antiscorbutic diet, would be found a great acquisition to the scale of victualling for Hospitals, Prisons, Unions, and similar public establishments, as well as for shipping generally. In confirmation of this we refer our readers to the extract of a Report by that eminent authority, Dr. Baly, to the Directors of Convict Prisons.

#### EXTRACT OF REPORT FROM DR. BALY.

"Millbank Prison, June 20th, 1851.

"Being requested by you to report whether, in my opinion, it is desirable to introduce into the prisons and hulks the use of Edwards' Preserved Potato, I beg leave to state that this article of food will, I believe, be very useful under certain circumstances in prisons and hulks and very generally in convict ships.

"I have examined the sample which accompanied your letter and find no reason to doubt that it possesses (at least in a great degree) the *nutritious* and *antiscorbutic* properties of the Potato.

"For convict ships on long voyages, the Preserved Potato is much to be preferred to the potato in its natural state, on account of its less bulk, and of its *keeping* well in all climates, and a supply should in my opinion, be taken out by every ship going to the more distant penal settlements.

"In former years it has for several weeks during the summer been found impossible to obtain an adequate supply of good potatoes for the prisoners; the same thing must occur in other prisons and the hulks, and under such circumstances in all these establishments Edwards' Preserved Potato, would I believe, be the best substitute for the fresh vegetable."

(Signed) W. M. BALY, M.D., Medical Inspector.

To the Directors of Convict Prisons.

NO. 8.—VOL. XX.

3 L

A LIST OF EXAMINED MASTERS AND MATES.

E C, Extra Master.—O C, Ordinary Master.—1 M, First Mate.—2 M, Second Mate.  
O M, Only Mate.

No. of Certificate	Name.	Capacity.	Where Examined	No. of Certificate	Name.	Capacity.	Where Examined	No. of Certificate	Certificate.	Capacity.	Where Examined
4260	Arklay, Errington	O C	NctH	4327	Fraser, J. Alex.	2 M	Lon	4394	M'Kenzie, John.	O M	Dun
	1 Mather, Thomas	O C	—	8	Wishart, James	OM	Glw	5	Main, Donald	O C	Belf
	2 Harrison, T.	O C	—	9	Arnot, John	O C	—	6	Enright, Anthony	O C	Abn
	3 Hemsley, G. S.	O C	—	4330	Keebles, James	O C	—	7	Murray, Robert	1 M	—
	4 Harrison, John	O C	—	1	Steers, John	O C	Lth	8	Maxwell, John	O C	Liv.
	5 Watson, John	O M	—	2	Deuchars, Wm.	1 M	Dun	9	Curwen, Eldred	1 M	—
	6 Pailles, C. English	O M	—	3	Cable, William	1 M	—	4400	Lakeman, John	O C	—
	7 Jenkins, John	O C	Liv.	4	Herald, George	1 M	—	1	Orr, J. Simpson	O C	—
	8 Crawford, Walter	O C	—	5	Lawrence, Wm.	1 M	—	2	Ashcroft, Robert	1 M	—
	9 Griffith, William	O C	—	6	Phillip, James	O M	—	3	Price, Wastel E.	1 M	—
4270	Rey, Thomas	O C	—	7	Kwan, George	O M	—	4	Haulding, Thomas	O C	Lon.
	1 Reed, Samuel	E C	—	8	Le Gallais, Phillip	O M	Lon	5	Coulcher W. C.	2 M	—
	2 Hughs, John	O C	—	9	Jarman, Stephen	O C	—	6	Graham, John	O C	—
	3 Fisher, Robert	O C	—	4340	Templer, George	2 M	—	7	Clark, J. Brown	O C	—
	4 Taylor, William	O C	—	1	Budd, Vincent	O C	—	8	Hudson, W. T.	OM	—
	5 Coyle, George	O C	—	2	Hammond, H. H.	2 M	—	9	Conradi, Charles	OM	—
	6 Calloway, Charles	O C	—	3	Bewicke, John	O C	Sids	4410	Mundon, William	O C	—
	7 Jones, Edw. rd.	2 M	Lon	4	Morris, Francis	O C	—	1	Salter, George J.	O C	—
	8 Pntt, William H.	O C	—	5	Stephenson, J. R.	O M	—	2	Wells, Lyman	OM	—
	9 M'Kie, George	O C	—	6	Holland, B.	O C	—	3	Smith, John	1 M	—
4280	Bristow, H. B.	1 M	—	7	Denham, G. T.	O M	—	4	Shute, John	1 M	—
	1 Johnston, C. Geo	O M	—	8	Greig, Jas. B.	O C	—	5	Lumley, Alex.	O C	—
	2 Norris, Edmund	1 M	—	9	Ward, William	O M	—	6	Cuthbert, Wm.	O C	Dub
	3 Harrison, Richard	O C	Liv.	4350	Robinson, James	O M	—	7	Ward, Samuel	O C	—
	4 Elder, David	2 M	Glw	1	M'Cormack C.	O M	—	8	Le Fanu, Peter	1 M	—
	5 Petrie, Eichard	1 M	—	2	Stocks, Walter	O M	—	9	Taylor, George	2 M	—
	6 Wiley, P. J. N.	O C	Liv.	3	Thompson, R. S.	O M	—	4420	Rayll, Henry R.	OM	Sun
	7 M'Naught, Wm.	2 M	—	4	Calon, Henry W.	O M	—	1	Dawson, W. Wood	OM	—
	8 Bell, John	2 M	—	5	Hempeed, Foster	1 M	—	2	Davie, William	O C	—
	9 Howson, John	2 M	—	6	Butemert, James	O C	Hull	3	Darling, James	O C	—
4290	Crosby, Thos. R.	O C	Dub	7	Parker, John	1 M	—	4	Howard, James	O C	—
	1 Brideon, Henry	1 M	—	8	Gray, Joseph J.	O M	—	5	Brown, James S.	O C	—
	2 Stevens, Robert	1 M	—	9	Smith, Samuel J.	O M	—	6	Simonds, James	OM	—
	3 Dunn, George	O C	Abn	4360	Moor, Joseph	O C	—	7	Handford, James	O C	Flm
	4 Noble, Peter	O C	—	1	Couldrey, Thos.	O C	—	8	Hayes, Stephen	O C	—
	5 Duthie, William	O C	—	2	Stephenson, John	1 M	—	9	Quick, Edwin	O C	—
	6 Jameson, George	O C	—	3	Bell, Charles	1 M	—	4430	Hill, William	OM	—
	7 M'Hardy, George	O M	—	4	Gordon, John	O C	Lth	1	Clapp, John	O C	—
	8 Hector, John	1 M	—	5	Watson, George	2 M	—	2	Downing G. W. Y	O C	—
	9 Hardie, Robert	O M	—	6	Mitchell, R. Cant	1 M	—	3	Woodgate, T.	O C	—
4300	Hackney, G. W.	O C	—	7	Rlddoch William	1 M	—	4	Nash, Jas. C.	2 M	—
	1 Cobban, Richard	O M	—	8	Waterston, J.	1 M	—	5	Mackie, J. Duff	E C	Glw
	2 Irons, David	O C	Liv.	9	Stewart, A.	O M	—	6	Grierson, A.	1 M	—
	3 Boyd, William	O C	—	4370	Taylor, Alex.	O M	—	7	M'Millan, Donald	E C	—
	4 Rickard, Joseph	O C	—	1	Gibb, Walter	O M	—	8	Scott, William	O C	—
	5 Henderson, G. G.	O C	—	2	Richardson, J.	O C	Lon	9	Davie, Walter	OM	—
	6 Benton, James	O C	Glw	3	Franklyn, W. H. O.	O C	—	4440	Hicks, Thomas	OM	—
	7 Meldrum, Peter	O C	—	4	Breakenridge, M.	2 M	Glw	1	Heriot, James	2 M	—
	8 Watt, William	O C	—	5	Bruce, David	1 M	—	2	M'Kellar, A.	OM	—
	9 Hardie, Thomas	OM	—	6	Robertson, Wm.	O C	—	3	M'Ewan, John	O C	—
	10 Ford, John	2 M	—	7	M'Creery, George	1 M	—	4	Carnachan, Wm.	OM	—
310	Murray, William	O M	—	8	Simpson, Andrew	1 M	—	5	M'Kellar, James	2 M	—
	2 Allan, William	O C	—	9	Campbell, D. M.	O C	Lon	6	Chiney, Thomas	O O	—
	3 Allan, William	O C	—	4380	M'Carty, Robert	O C	—	7	M'Arthur, R. G.	O C	—
	4 Nightingale, J. H.	O C	Liv.	1	Woolgrove, G. P.	2 M	—	8	Duncan, John	O C	—
	5 Stevenson, Wm.	2 M	—	2	Bishop, Thomas	2 M	Liv	9	Keachie, A. A.	O C	—
	6 Jew, William	2 M	—	3	Darrie, James	O C	—	4450	M'Kandy, A.	1 M	—
	7 Milman, William	O M	—	4	Boyd, John White	O C	—	1	Wylie, James	1 M	—
	8 Douglas, K. S.	2 M	—	5	Lamb, William	1 M	—	2	M'Kellar, John	O C	—
	9 Wheatley, James	2 M	—	6	Pletcher, H. B.	O C	—	3	Langlands, G.	O C	—
520	Harris, Wm. H.	O C	—	7	Thompson, T.	1 M	—	4	Baker, Thomas	1 M	—
	1 Kelly, William	1 M	—	8	Wallace, Charles	1 M	—	5	Kirkaldy, Robert	O M	Dun
	2 Watts, R. S.	2 M	—	9	Smith, David	O C	—	6	Jack, John F.	O M	—
	3 Glendinning, H.	2 M	—	4390	Loughton, James	O C	Lon	7	Dickson, John	1 M	—
	4 Scott, F. Hurry	2 M	—	1	Keith, David	O C	—	8	Pearson, John A.	1 M	—
	5 Marshall, H. T.	O C	Lon	2	Moore, James	O C	—	9	Scott, David	1 M	—
	6 Willis, John	O C	—	3	Laverick, Alex.	O C	Dun				

## THE WHALE FISHERIES.

*Official Guide to the Finest Fisheries.*

THE following document has been recently issued by the United States Government for the guidance of its whalers in all the important regions of the whale fisheries:—

*To Commander L. Warrington, Chief of Bureau of Ordnance and Hydrography.*

SIR,—I have the honor to inclose for your official action the accompanying "Notice to Whalers," which is derived from the investigations that have been carried on at this office with regard to the migratory habits and places of resort of the whale, sperm or right, I have reason to believe that the right whale, of the southern hemisphere is quite a different animal to that of the northern; that the two are separated by (to them) an impassable barrier. I have also reason to suspect, from results that have been elicited in the course of these investigations, that the same whale which is taken in Behring's Straits is taken in Baffin Bay also; and, if this be so, these investigations prove beyond question that this animal cannot pass from one region to the other except through the Arctic ocean; and hence we are entitled to infer that there is, at times, at least, an open water communication, between these and the bay; in other words, that there is a north-west passage. This interesting piece of circumstantial evidence in favour of a passage there was called to the notice of Lieut. De Haven, when he left this office to take command of the expedition in search of Sir John Franklin and his companions. So much was that enterprising officer impressed with the importance of this suggestion, and the considerations growing out of it, that he expressed his intention, after reaching the Arctic sea, to observe closely the habits of the whale, and should this fish take a westwardly course, to use them as pilots by the way. The wind and current charts give me reason to conjecture that the whalers who attempt to cruise in high southern latitudes will find it a region of heavy weather, for though our researches have not yet been extended to that quarter, the results attained with regard to the trade winds indicate, that in the general system of atmospherical circulation the prevailing winds are less liable to interruption, and that the general system of circulation is more active in the southern than in the northern hemisphere; and therefore it may be suggested, by way of precaution, that none but staunch, well fitted and found vessels should undertake the high southern cruise.

I am, &c.,

M. F. MAURY, *Lieutenant, U.S.N.*

*National Observatory, Washington, April 16th, 1851.*

*Notice to Whalers.*

Captain Dainel M'Kenzie of New Bedford and George Manning of New York, have been engaged for a year in procuring for this office information from whalers and others concerning navigation and its industrial pursuits of the sea. The log-books containing this information have been used here by Lieutenants Herndon, Leigh, and Fleming, of the navy, in making a chart to show when and where our whalers have searched for whales; when and where they have found them; with what abundance; and whether in shoals or alone. This chart divides the ocean into districts of 5° latitude by 5° longitude, perpendicularly through each of which districts are twelve columns for the twelve months; and horizontally through each of which districts are three lines; one to show the number of days that have been spent in each month in every district, and

the two others to show the number of days in which whales, sperm or right, have been seen. Thus:—

(Extract from the whale chart.)

85° W.		A.					80° W.	
		Dec.	Jan.	Feb.	Mar.	April.	May.	
5° N...	Days of search .....	124	11	2	7	72	90	
	No. of days sperm .....	0	0	0	0	N 0	0	
	Whales seen right .....	0	0	0	0	0	0	
Equator.								
5° S...	Days of search .....	81	67	102	179	138	97	
	No. of days sperm .....	25	0	0	0	M 25	13	
	Whales seen right .....	0	0	0	0	0	0	
	Days of search .....	148	96	39	54	P 25	5	
	No. of days sperm .....	5	6	12	17	7	3	
	Whales seen right .....	0	0	0	0	0	3	

85° W. A.—Continued. 80° W.

		June.	July.	Aug.	Sept.	Oct.	Nov.
5° N...	Days of search .....	155	148	175	138	108	94
	No. of days sperm .....	0	0	0	0	0	0
	Whales seen right .....	0	0	0	0	0	0
Equator.							
5° S...	Days of search .....	157	173	181	167	118	75
	No. of days sperm .....	30	35	40	45	40	6
	Whales seen right .....	0	0	0	0	0	0
10° S...	Days of search .....	8	0	26	116	222	255
	No. of days sperm .....	26	21	11	14	3	10
	Whales seen right .....	0	0	0	0	0	0

80° W. B. 75° W.

		Dec.	Jan.	Feb.	Mar.	April.	May.
40° S...	Days of search.....	148	96	39	54	25	5
	No. of days sperm.....	2	3	0	16	2	0
	Whales seen right.....	27	7	1	0	2	0
45° S...	Days of search.....	48	58	16	8	9	0
	No. of days sperm.....	5	0	3	0	0	0
50° S...	Whales seen right.....	5	1	0	0	0	0

80° W.

B.—continued.

75° W.

		June.	July.	Aug.	Sept.	Oct.	Nov.
40° S...	Days of search.....	8	0	26	116	222	255
	No. of days sperm.....	0	0	7	41	76	105
	Whales seen right.....	0	0	7	41	76	105
45° S...	Days of search.....	6	0	0	5	4	22
	No. of days sperm.....	0	0	0	0	0	1
	Whales seen right.....	0	0	0	0	0	10

The above is an extract from the chart, which, not being ready for publication, nevertheless affords information that I have thought might prove of some value to the great national interests which attaches to the American whaling business.

It will appear from the above sample that I have examined the log-books of whalers, who, altogether, have spent 1,124 days in the district (N) between the Equator and 5° N., 80°, and 85° W., without ever having seen a whale, either sperm or right, within it; whereas in the district (M) that joins it on the south sperm whales have been seen in every month of the year, except January, February, and March, and right whales never; and it appears that the district (P) which joins this one immediately on the south, is frequented by the sperm whale all the year round, but never by the right.

If the information afforded by the great number of vessels whose logs have chanced to be examined for these districts be a fair sample of what the whole would show, as it is supposed to be, then it would appear altogether useless to look here for right whales; or in the first-mentioned district (N) either for right or sperm.

In the sample marked B, off the west coast of South America, between 40° and 50° S., 75° and 80° W., it appears that the upper district (Q) is not much frequented by the whalers in May, June, and July, nor by the whales in January, February, and March, except sperm, which are most abundant in March, April, and August. Whether it be a place of much resort for either kind in May, June, and July, we have not found log-books enough to show.

It is almost of as much importance for whalers to know where whales are not to be found, as to know where they are; for this is a case in which negative information is almost as valuable as that which is positive.

I have, therefore, selected from the whale chart, those districts of the ocean in which most whales have been found in former years; whether they have changed their places of resort my information does not enable me to say.

(To be concluded in our next.)

#### DESTRUCTION OF THE ARDASEER.

Penang, 17th April, 1851.

We have been favoured with the following account of the loss, by fire, of the ship *Ardaseer* of this port:—

MR. EDITOR.—The ship *Ardaseer*, under my command, was destroyed by fire, on the night of the 10th inst.; may I request you will insert the following account of her loss in one of your columns. The ship *Ardaseer* left Singapore on the morning of the 4th of April for Calcutta, with a general cargo, besides a quantity of treasure, and was in sight of Pulo Bouton, which island bore N.N.W. about ten miles, when the sad disaster, which it is my painful task to narrate, occurred. At 8 P.M., I had just returned from forward after taking the bearings of the island, and requested the chief officer (Mr. Rogers) who was in charge of the deck to look out for the same, when the gunner and his mate rushed up from

the after hatch reporting a quantity of smoke in the gunroom. Immediately the chief officer, and myself, entered the gunroom with other hands, and found no appearance of fire, but a dense smoke issuing from the after part of the ship, our first care was to hand up copper powder magazines; whilst doing this the 2nd officer (Mr. Chapman) with other hands were hoisting up water and passing it down below, great quantities were thrown where the smoke was most thick.

The carpenters were now ordered to scuttle the gundeck over the place we supposed the fire to be, and through these scuttles water hoses were lead, and water thrown as fast as all hands could hoist it up. We were now about an hour using every exertion to get the fire under, but apparently to no purpose, and no one could remain below from suffocation, the smoke being so dense. I now thought it best to try and smother the fire with wet sails, which was accordingly done, every scuttle and aperture from whence the smoke issued being completely blocked up below. After this we battened down the hatches fore and aft and also covered them with wet sails. Before putting on the after hatch I am glad to say we were enabled with difficulty to save a portion of the treasure. I now wore ship with her head towards Penang, hoping to get to this place before the fire destroyed the vessel, supposing it to be a smouldering one. Orders were given to get the long boat out and the quarter boats in readiness; before this could be accomplished, the after hatch burst open and volumes of smoke issued forth, the smoke was so thick in the cabins, by this time, that I could only save one out of three chronometers.

The fire had spread fore and aft, and as the decks were no longer tenable, I ordered all hands into the boats, and only had time to get a small keg of water which was in the galley, and a few pounds of biscuit. With this we left the ship and laid off till she was in a blaze up to her trucks. The interval of time between the first announcement of the smoke until the vessel was enveloped in flames was scarcely two hours, the extraordinary rapidity of the fire precluded the possibility of either myself, officers, passengers, or crew, saving any of their private property. I was in the long boat with the greater part of the crew and treasure, the chief officer in the gig, and the 2nd officer in the cutter (with the passengers) and each having a portion of treasure, I steered for Penang, ordering the boats to keep close company. We sailed and pulled until noon next day, it had fallen calm, and the sun intensely hot, and the crew and passengers suffering much from want of water.

We were now fifty miles from Penang, when a sail was descried in the offing, for which we pulled, and after three hours great exertion on the part of the crew, who behaved admirably well throughout this trying situation, we succeeded in reaching the vessel which proved to be the Bremen ship *Leibnitz*, Capt. Wieting, by whom we were received on board, and shown the most unremitting attention and kindness. Capt. Wieting on consideration thought it best to bear away for this port, where he landed us on the afternoon of the 12th. As to the cause of this disastrous event I can only ascribe it to the supposition of there being inflammable matter in the China cargo, which was all stowed in the after part of the ship. My suspicions are excited the more on this point from the total destruction of the ship in so short a time.

I am, &c.

HENRY LOVETT,  
Commander of the late ship *Ardasfer*.

The royal mail steam ship *Magdalena*, of 2250 tons burthen, has just been launched from Mr. Fitcher's dockyard, at Northfleet. Her dimensions, &c., are the same in every respect as those of her sister ship the *Orinoco*, which was launched from the same yard on the 17th ult. The ceremony of naming the vessel was performed by Miss Chappell, daughter of Capt. Chappel, R.N., Secretary to the Royal Mail Steam Packet Company.

**NAVAL AIDE-DE-CAMP TO THE QUEEN.**—On the nomination of the First Lord of the Admiralty, the Queen has been pleased to appoint Capt. Frederick William Beechey, (1827) F.R.S., the distinguished Arctic and Surveying officer, to be one of Her Majesty's Naval Aides-de-Camp, in the room of Rear-Admiral Sir James Stirling, promoted.

**QUICKEST PASSAGE ON RECORD FROM CORFU TO MALTA.**—Her Majesty's Mail steam packet *Caradoc*, S. H. Derriman, Esq., Lieut. commanding, arrived at Malta on the night of July 9th, in forty-six hours and twenty minutes from Corfu, touching at Samos, Patras, and Zante.

Com. Hall, of the Coast Guard Service, has received from the underwriters of the *Seringapatam*, which grounded near Portland a few weeks since, an elegant silver tea service as an acknowledgment of the valuable services rendered by him on the occasion.

A paper was read at the late meeting of the British Association, on the Rise and Fall of the Barometer, by Mr. W. H. B. Webster.—The object of this communication was to show that there was a compensation and reciprocation of temperature going on at distant places on the earth at the same time and from time to time, and that the direction of the wind was determined by the relative rise and fall of the Barometer, the current of air setting from the place where it stood high towards those where it stood low, and that heat and cold were the great moving causes in these changes and not evaporation and condensation. These views were illustrated by several examples of the comparative heat and cold of the same days in polar regions and in London, and the course of the wind in tropical and temperate, arctic and equatorial places,—and the manner in which these facts corroborated his views were pointed out.

Commodore Aulick, of the United States frigate, *Susquehanna*, sailed lately from San Francisco for Japan, with full instructions to open a commercial intercourse with that kingdom if possible. He took with him a number of shipwrecked Japanese. Both California and the older states look with longing eyes towards the Sandwich Islands, the chief depot and entrepot for American whalers, and the half way house to Asia.

A letter from Stockholm of the 24th ult., states that the Swedish Government has decided upon sending the corvette *Eugenie* on a voyage of circumnavigation, and invited the Royal Academy of Stockholm to name a scientific committee to accompany the expedition. The academy, the correspondent adds, has already appointed M. M. Skoyman, a Zoologist, Anderson a Botanist, and Kindal a Physician, to form a part of it.

#### NEW CHARTS.

Published by the Hydrographic Office, Admiralty, and Sold by J. D. Potter, 31, Poultry.

			s.	d.
IRELAND, SOUTH COAST, KINSALE HARBOUR, Com. Wolfe, R.N., 1849			2	6
Ditto do. Sheet 16, BRATTIN HEAD TO WEXFORD, Capt. Frazer, R.N., 1847,			2	0
Ditto do. YOUGHALL HARBOUR, Com. Frazer, R.N., 1850			2	0



SCOTLAND, NORTH COAST, LOCH, ERIBOLL, *Com. Otter, R.N.*, 1844 1 0  
 ARCHIPELAGO, SALONIKI BAY, *Capt. Graves, R.N.*, 1850. . . . . 1 0  
 CYPRUS ISLAND, *Capt. Graves, R.N.*, 1849. . . . . 3 0  
 MEDITERRANEAN LIGHTS, corrected to July, 1851. . . . . 0 6  
 BELGIAN, RUSSIAN, &c., Ditto do. . . . . 1 0

EDWARD DUNSTERVILLE, *Master R.N.*

*Hydrographic Office, Admiralty, July 21st, 1851.*

METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. Rogerson, of the Royal Observatory.  
 From the 21st of June, to the 20th of July, 1851.

Month Day.	Week Day.	Barometer.		Thermometer				Wind.				Weather.	
		In Inches and Decimals.		in the shade.				Quarter		Strength			
		9 A.M.	3 P.M.	9 A.M.	3 P.M.	Min	Max	A.M.	P.M.	A.M.	P.M.	A.M.	A.M.
21	S.	29.92	29.81	71	79	64	82	SE	S	2	4	b	b
22	Su.	29.83	29.90	61	64	58	66	NW	NW	5	3	bc	bc
23	M.	30.18	30.23	57	63	47	64	N	N	4	4	bc	bc
24	T.	30.28	30.28	59	68	45	69	NE	NW	2	2	bcm	bc
25	W.	30.30	30.28	66	73	52	74	SW	SW	2	2	bcm	bcm
26	Th.	30.27	30.26	67	79	52	80	SW	SW	1	2	b	bm
27	F.	30.21	30.20	70	83	54	84	E	E	1	2	b	b
28	S.	30.20	30.22	70	78	57	79	SE	NE	1	2	b	b
29	Su.	30.21	30.21	70	76	55	78	N	SE	1	5	b	ob
30	M.	30.18	30.17	58	75	54	76	NE	SE	2	4	b	b
1	Tu.	30.06	30.03	69	77	56	80	SE	SE	2	2	op 2)	bclr 4)
2	W.	29.91	29.92	65	79	59	81	NE	NE	2	4	bc	bc
3	Th.	30.04	30.03	57	64	55	65	N	N	5	5	qbc	qb
4	F.	30.04	30.04	54	64	52	66	NE	N	4	2	bc	b
5	S.	30.04	30.00	53	71	44	72	NE	NW	1	1	bc	bcm
6	Su.	30.08	30.09	63	67	51	69	NW	W	2	1	bc	bc
7	M.	30.07	30.01	64	72	56	73	NW	W	2	1	bc	bc
8	Tu.	29.81	29.78	64	71	57	72	NW	NW	2	3	o	bctlp 3)
9	W.	29.86	29.76	57	63	51	65	SW	SW	2	2	o	bc
10	Th.	29.71	29.73	58	55	50	60	NW	NW	2	2	bcp 2)	bcpt 3)
11	F.	30.14	30.15	56	64	43	65	NW	NW	4	4	bc	bc
12	S.	30.04	30.00	65	74	57	75	SW	SW	2	2	bc	bc
13	Su.	29.88	29.82	66	70	54	72	SW	SW	4	5	bc	qbcp 3)
14	M.	29.53	29.55	67	68	58	70	SW	W	6	5	qbcp 1)	qbc
15	Tu.	29.78	29.78	62	67	59	69	W	W	4	5	bcp 2)	qbcp 3)
16	W.	29.78	29.80	56	64	45	65	NW	N	3	2	bc	bc
17	Th.	29.83	29.85	58	65	51	67	W	W	2	2	bcm	bcmtr 2)
18	F.	29.89	29.92	54	64	46	96	N	NE	2	2	bc	bc
19	S.	29.99	29.97	59	59	46	64	SW	S	2	5	bcp 2)	qor 4)
20	Su.	29.76	29.76	64	68	51	70	SW	SW	5	5	qbc	qbc

June, 1851.—Mean height of the barometer = 30.052 inches; mean temperature = 58.5 degrees; depth of rain fallen = 1.33 inches.

*Erratum*,—p. 380, line 22, for Oxholm read Axholm.

TO CORRESPONDENTS.

The letters signed *Spraty* and *March* are received, and will appear in our next.

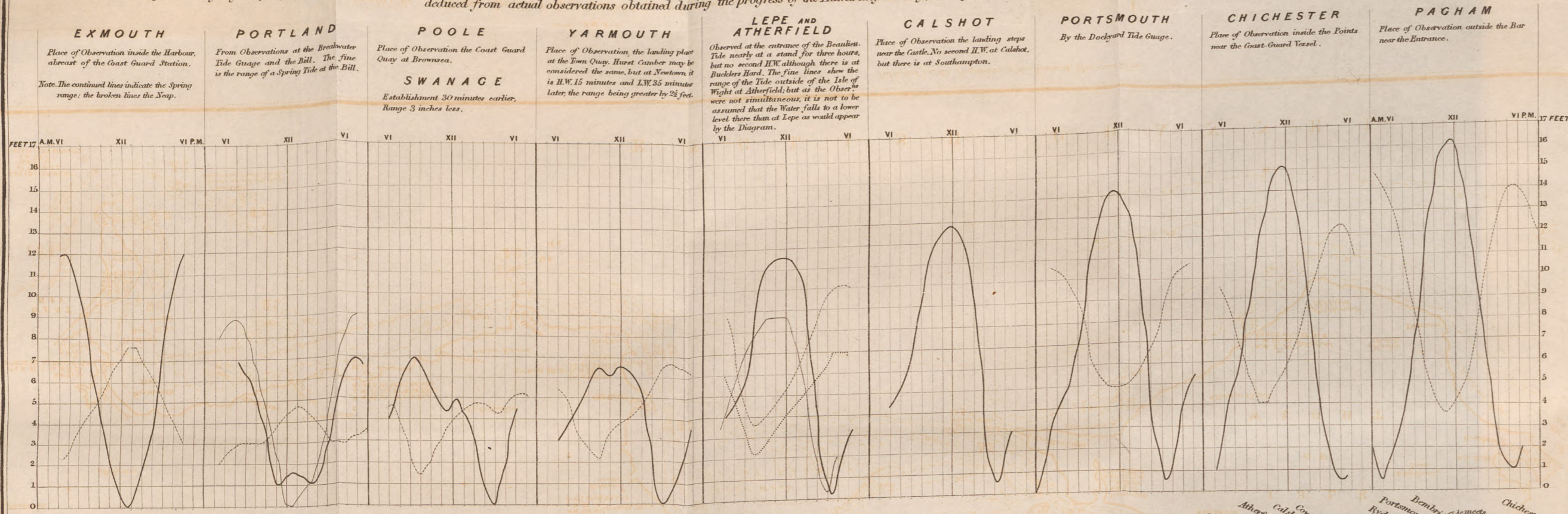
The plan accompanying *Capt. Sherringham's* paper, is unavoidably deferred for our next.

Hunt, Printer, 6, New Church Street, Edgware Road.



# DIAGRAM OF RANGES

Shewing the Range of a Spring and Neap Tide, the first on the day of Syzygy, at ten places on the Coast between Eamouth and Paghams; and the irregularity in the rise and fall of the Tides in the Harbours from Portland to Portsmouth; deduced from actual observations obtained during the progress of the Admiralty Survey; — by Captain W.L. Sheringham R.N.



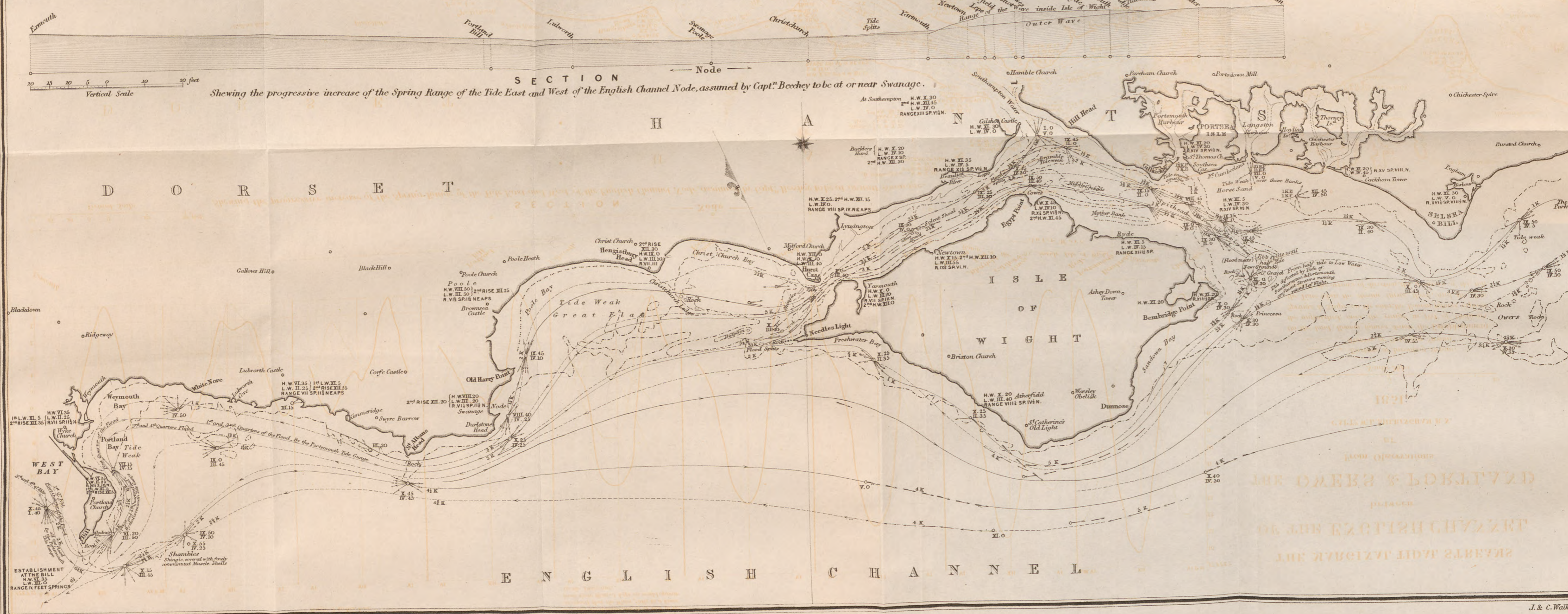
## THE MARGINAL TIDAL STREAMS OF THE ENGLISH CHANNEL between THE OWERS & PORTLAND

From Observations BY CAPT W.L. SHERINGHAM R.N. 1851.



→ Eastern or Incoming Stream.  
← Western or Outgoing Stream.

On the land, Roman figures denote the Establishment, the unfinished ones, the range in feet of Ordinary Springs & Neaps; on the water, the Roman figures express the Time when the stream turns there, and the dots against the arrows of direction, the quarters of the tide.



THE  
NAUTICAL MAGAZINE

AND

**Nabal Chronicle.**

---

SEPTEMBER, 1851.

---

REMARKS ON A PASSAGE FROM SINGAPORE TO SHANGHAI, *in the ship Viscount Sandon, during the strength of the north-east monsoon.*

*October 17th, 1850.*—Sailed from Singapore with light variable airs, which obliged us to anchor every tide, and observed that these set very strong to the westward, but quite weak to the eastward or out of the strait.

*October 18th.*—At 10h. 30m. P.M., passed Pedro Branco, having light easterly airs, and stood to the northward. On the 26th passed the North Natunas, having experienced strong southerly currents, with the wind variable from south-west and west. Steered to pass between the Louisa and Royal Charlotte Shoals, and sighted the latter, bearing N.E.b.N. at 6 P.M. on the 30th, having as we advanced to the eastward gradually drawn out of the southerly current.

*November 3rd.*—Sighted Balabac Island, the weather excessively hot, and nothing but faint variable airs and calms, with showers occasionally, and lightning during the night. On the 6th, in lat.  $10^{\circ}$  N., and long.  $117^{\circ} 45'$  E., got the north-east monsoon, strength 4, worked ship to the northward. On the 10th, strength 2 and 3, wind N.E. to E.N.E. From this date to the 19th the wind continued light from north to east, the weather being remarkably fine, barometer being steady at 29.90, thermometer  $80^{\circ}$ . On the 19th the wind freshened up very rapidly, and although no change in the barometer I anticipated a blow, being just at the change of the moon. We were now thirty-three days from Singapore, and only in  $17\frac{1}{2}^{\circ}$  N. and  $120^{\circ}$  E., with a strong monsoon gale and a very high short sea. Kept the Coast of Luconia close aboard, as we found the sea much smoother near the land

than in the offing. In reaching in towards the land in the afternoon, I discovered that the coast was not correctly laid down on Horsburgh's Chart; when within two miles and a half of the shore, I took observations for the longitude, knowing that my chronometers were very accurate, and having obtained a good meridian altitude, there was no difficulty in ascertaining our exact position—latitude at time of sights  $17^{\circ} 28' N.$ , longitude by mean of three chronometers  $120^{\circ} 26' E.$ , which would place me seven miles inland; latitude by bearings  $17^{\circ} 18' N.$ , long.  $120^{\circ} 23' E.$ , making Point Dille, which is very low and extending far to seaward, to be laid down  $10'$  too far south. Neither can I reconcile Horsburgh's remarks respecting Bigan Road, unless Point Dille be further to the northward than the position assigned to it, which is lat.  $17^{\circ} 26' N.$ , long.  $120^{\circ} 18' E.$ , for he says, that Bigan Road is in about lat.  $17^{\circ} 35' N.$ , and sheltered from north-east winds by Point Dille, which projects far out to the northward, consequently Point Dille must be to the northward of  $17^{\circ} 35' N.$

There are a number of villages on this part of the coast, apparently defended by Martello Towers; there were also many trading craft at anchor.

With a succession of strong monsoon gales and against a high sea, we continued working to the northward, and on the 24th made the North Bashees; between these and the south end of Formosa experienced a very heavy gale. Ship hove to under a close reefed main-top-sail for two days, the sea running tremendously high, expecting to have the decks swept every moment; one sea broke aboard, which smashed all the hencoops on the poop, broke the glass of the skylights, although well secured with tarpaulins battened down; there was also an immense body of water on the main-deck, causing the ship to stagger under the enormous weight.

The heavy sea which is always experienced here in blowing weather, is occasioned by the current which generally runs to the north along the coast of Formosa. The first day of the gale we were set N.  $22^{\circ} E.$  twenty-seven miles. It appears that these gales repress the current, for on the second day we had only eight miles, and on the third day, November 28th, there was no perceptible current. Finding that I could not gain anything to windward by working along the Coast of Formosa, against such a series of strong gales, and a high turbulent sea rising like a wall against the bows, and rolling in over the top-gallant-forecastle in an immense body, besides this, that the ship pitched so heavily that her jib-boom was often in the water and we were obliged to carry a heavy press of sail to hold our own;—in the midst of these difficulties, the continual heavy straining of the ship, the great wear and tear of rigging and sails, the crew worn out with fatigue and constantly wet, often immersed, I deemed it advisable to stand out in the Pacific as it appeared my only chance of effecting the passage, and I expected more moderate weather as I advanced, or rather receded from the coast. In this I was not mistaken. On the 29th I passed to the northward of Botel Tobago Xima, and stood to the eastward, occasionally making a tack to the north-west, kept between the parallels of  $19^{\circ}$  and  $20^{\circ}$

north until I reached the long. of  $133\frac{1}{2}^{\circ}$  east, which I did on the 8th December.

Having to navigate through an unexplored sea, I had now a look out stationed at the mast-head day and night, besides the usual look out on the fore-castle head. On the 8th, the wind hauled to the E.N.E., tacked and stood to the northward. I had now gained a position which enabled me to make a fair wind of the north-east monsoon, and was spanking up at the rate of 170 to 195 miles in twenty-four hours. On the morning of the 12th, I sighted Harbour and Bungalow Islands, and up to this time I had not met with any dangers. I passed a group of islands at a distance of about fifteen miles, as laid down in my chart, but being in the night although I had a well defined horizon and it was quite clear I could not discern them. As day advanced I steered to make a shoal laid down in lat.  $26^{\circ} 58' N.$ , long.  $131^{\circ} 36'$ , but could see nothing of it. Having reached Harbour and Bungalow Islands, and there being no other dangers laid down on the chart in the route I had to pursue, I began to congratulate myself at being free of them; but I was soon undeceived, for the man on the look out at the mast-head, reported a rock ahead; then islands on the port and starboard bows: these were only the beginning; I kept my course and at noon being close to the rocks, I sent the chief officer to examine them. The highest is about twenty feet with two low detached rocks a cable's length to the westward, and a reef between them; a quarter of a cable's length on the north-west side of the rocks, there is 12 fathoms: sounded over an uneven bottom half a mile to the north-west having overfalls from 22 to 15 fathoms coral, no other danger visible near them. Not being aware that these had been reported before, I named them the "Sandon Rocks," they are in lat.  $28^{\circ} 44' N.$ , long.  $129^{\circ} 38' E.$

As a few remarks on the group of islands I passed through may prove of service to a stranger adopting the same route, I will give a brief statement of them, while I would not affirm that the position I have assigned to the several islands named hereinafter is accurately correct, yet, I do not think that it is far from the truth: any commander navigating these seas in a dark night, knowing that they existed, would give them a wide berth, as in all probability there are many low dangerous rocks between the islands.

Bungalow Island is long low and flat with a small peaked hummock about the centre of it. There is another low island on the north-east side of it which is not open to the east point until the west end bears to the southward of south-west. I made the east end, lat.  $28^{\circ} 28'$  north, long.  $129^{\circ} 28'$  east; north-west end, lat.  $28^{\circ} 35'$  north, long.  $129^{\circ} 18'$  east. At 7 passed between Peaked and Roy Islands and within two miles and a half of the latter; the distance carefully measured between the two islands is nine miles and a half, with no dangers visible from the mast-head as far as the eye could reach: took several casts of the patent lead, but had no bottom at 60 fathoms. These islands are on a transit line bearing N.E.b.E., and S.W.b.W.

To the north-east of Roy Island there are several low detached rocks from two to three miles apart, being very dangerous in a dark

night. I had no opportunity of examining them as the night set in dark, dirty, and wet, but I have no doubt that these rocks are connected with Roy Island by a reef. There were a number of large islands to the north-eastward. The following are the positions in which I made some of them,—

Pinnacle Island	Lat. 29°	26' N.	Long. 129°	28' E.
High Island	" 28	50 N.	" 129	5 E.
Roy Island	" 29	7 N.	" 129	16 E.
Peaked Island	" 29	1 N.	" 129	7 E.
Harbour Island	" 28	22 N.	" 129	50 E.

Many of these islands are inhabited, as we saw large fires and smoke on several of them.

After leaving Roy Island it set in very thick with incessant rain and lightning all around, wind veering from E.N.E. round by south to S.W. and W.S.W., strength 4 and 5. Not knowing what other dangers might exist, being unable from the darkness of the night and the phosphorescent state of the sea to observe any distance from the ship, I kept under easy sail till daylight, but we met with no other dangers; and on the 17th made the Amherst Rocks, at the entrance of the Yangtze Kiang. The wind during the five days, that we were coming across was from W.S.W., N.W.b.W., N.W.b.N., and N.N.W., at times blowing so hard that we could barely carry double reefed top-sails and reefed courses.

I had anticipated a leading wind right across, but found it dead on end. Having reached a good position to the westward of the Amherst Rock and the tide making down came to an anchor for the night. In the morning, December 18th, got underway, the wind being from the north-west and the weather so hazy, that we could not discern anything. Captain Bethune's remarks for the entrance of the Yangtze Kiang are no doubt very good, providing the weather is clear, but should it be thick, which is generally the case when the sun is far to the southward and the weather moderate, it is of the greatest importance to know what course to pursue to reach a place of safety before it sets in to blow.

I think that the best plan is to steer for the south bank, taking care to shoal your water on that side of the channel which may be known (especially if you occasionally take a cast of the deep-sea lead) by the tenacity of the ground. I stood nearly into the ship's draft, which was above eighteen feet, and worked round the bank until I sighted the low land, when I knew that I was clear of the north sand head. If there was a light vessel placed on the sand head the navigation even to a stranger would be comparatively easy, but to have to grope your way over a vast expanse of muddy water after a long sea voyage, and that just in the ship's draft, without a knowledge of the place is truly harassing; and I trust it will not be long (especially as Shanghai is becoming such a great port of trade) before we have a pilot establishment, and also a light vessel, on the north sand head. Both would be very highly appreciated by commanders, who sail to this port, and would be the means of

protecting life and property, at present imminently exposed to shipwreck.

Ships bound to Shanghai in the strength of the north-east monsoon, and adopting the eastern route, after leaving the south end of Formosa, should steer to pass to the northward of the Loochoo Islands at any discretionary distance; from thence a direct course may be made for the Barren Islands, borrowing to the northward or southward, as circumstances may require. Several ships in getting too far to the northward before bearing up imagined they would carry the north-east monsoon right across, but by my own observations and the information derived from commanders of opium vessels at Woosung, it appears that the prevalent winds in the Yangtze Kiang during the winter months are from the north-west, or say between north and west, and these winds appear to extend far to the eastward, as we had them 300 miles to the eastward of the Barren Islands.

During my stay at Shanghai, from the 18th December, 1850, to the 1st of February, 1851, the winds were generally from north and west, the weather was very cold, quite clear over head, but hazy on the land. On two occasions the wind veered to the southward with rain which continued for two or three days, after which the wind set in strong from the north-west with clear weather again.

The barometer seldom gives any indication of ordinary gales during the north-east monsoon, either in the China Sea, or on the east coast. In the heavy gale I experienced off the south end of Formosa the fall of the mercury was only two tenths of an inch in fifteen hours, but should you have the wind moderate from the eastward or southward of east, for a day or two, you may expect a hard blow from the northward, which generally comes on very suddenly.

It is my opinion that a ship leaving Singapore, in or about the middle of October, and bound to Shanghai would do far better to take the eastern passage, particularly if she be deeply laden or not weatherly, as she would thereby escape a great deal of heavy weather, and probably make as good, if not better passage, than by pursuing the route I adopted.

Should you deem these remarks worthy of a place in your valuable publication from which I have from time to time derived a great deal of information, I shall feel obliged by your inserting them.

I am, Sir, &c.,

E. G. P. MARCH.

---

#### AFRICAN INFORMATION.

[The following replies to the (hastily drawn up) questions by which they are preceded, may possibly be useful to those who are proceeding to the African Coast. They are inserted at the request of a correspondent.—ED.]



I. The Bonny, anchorage off the town, lat by observation  $4^{\circ} 30'$  long. by chronometer  $7^{\circ} 10'$ , variation of compass  $19^{\circ}$ .\*

The River Bonny has a wide entrance but is rather difficult of access to strangers, in consequence of two bars or necks of sand that cross in a south-east and north-west direction. From the western breakers to the Balour Bank there is a space of one mile and a half between the two bars, in which there is from 3 to 6 fathoms water.

II. Specify the particular part of the town, village, or anchorage, of which you have given the position, (2) and state the difference of longitude by the same chronometer between this and the place where it was last rated, (3) and the number of days that elapsed between the observations.

To anchor off the Bonny bring Fochee Point to bear by compass N.  $\frac{1}{2}$  W., and Rough Corner N.E.; you will then be in  $4\frac{1}{2}$  fathoms at low water. The anchorage is exceedingly good here (mud below a sandy surface). If you should wish to enter the Bonny and it is clear weather, keep Peter Fortis Point two ships' length open of Rough Corner, which will lead you over the first bar in  $3\frac{1}{2}$  fathoms clear of the Balour Bank. Steering directly for Rough Corner after crossing the first bar keep Rough Corner two points open on your port bow, until you close Peter Fortis Point with Rough Corner, then steer directly for it and you will carry 3 fathoms over the inner bar, and you will afterwards have from 17 to 10 fathoms up to Bonny Town keeping the starboard shore onboard.

III. How long have you known this particular part of the coast? (2) during which months? (3) how long have you remained at any one time.

I have sailed eleven voyages to the Bonny during the last twelve years, and have been there at all times of the year, and have remained there seven months at one time: my last visit was in 1839.

IV. Mention the name of the nearest town or place of resort for shipping, in each direction along the coast; and, as nearly as you can, its distance, with the *true* or magnetic bearing. (2) Mention the same in regard to the nearest river, stating whether it is navigable for vessels or boats.

There are many places of resort for shipping; throughout the Windward Coast it is almost impossible to pass any without a canoe coming off to acquaint you where to anchor, but there is a general instruction throughout the Windward and Gold Coast to anchor with the towns bearing by compass from N. to N.N.E. I have not visited any of the rivers on the Windward or Gold Coast.

V. In what month does the rainy season generally begin? (2) and when end? (3) and whether about the beginning, middle, or end of the month? (4) what is the character of the weather immediately preceding it? (5) and the signs by which it shows its approach?

The rainy season commences about the beginning of June, and ends about the 1st of November; clouds and squalls from seaward precede the rains, and frequent heavy showers during the night, whilst the day is fine.

VI. Is there much variation as to the time of the commencement? (2) and end of the rainy season?

There is sometimes a month's difference in the commencement and also in the termination.

\* I think the position may be depended upon, as it is the result of many v. agcs.

VII. Is the rainy season to which you allude, healthy or unhealthy? (2) and if the latter, what effect has it upon Europeans? (3) and what upon the Natives? (4) and which part of the rainy season is the least healthy?

There are various opinions; I think healthy, if not much exposed. In cases of sickness during the rains the European is generally affected with dysentery. Upon the natives colds and intermitting fever. The most unhealthy part of the season is the beginning and the end.

VIII. Is it healthy or unhealthy after the rainy season is over, both in regard to Europeans, (2) and Natives? (3) and for what length of time is it so? (4) are fogs (usually called "the Smokes") known or prevalent? (5) at what period? (6) what effect have they upon Europeans? (7) and what upon the Natives?

The season after the rains (say all November,) I consider unhealthy for Europeans; the Natives are not affected much. December is a healthy month throughout the coast. The fogs commonly called "smokes" commence about the end of December, and continue with perhaps a few days intermission all January. I consider this season healthy; it has the effect of parching everything animate and inanimate. Fever is very prevalent amongst the Natives.

IX. Is there any other periodical rain during the year? (2) if so, when does it generally begin? (3) and when end? (4) and what effect has it upon the health of Europeans? (5) and the Natives?

The latter part of the rainy season is termed the "after rains," but the difference is undefinable. From my observations, this part of the season is very unhealthy for Europeans, and the contrary with the Natives.

X. What is the most healthy time of the whole year for Europeans? (2) and what for the natives?

During the months of December, January, and February, and for the Natives, February, March, April, May, and June.

XI. What is the most unhealthy time of the whole year for Europeans? (2) and what for the Natives? (3) in what manner is each affected at this time.

During the months of April, May, and November; and for the Natives January, July, August, September, and October, the European is affected with fever, and the Native (in January) with small pox, and during the rains with rheumatism, colds, and elephantiasis.

XII. What diseases prevail among Europeans during the different seasons of the year? (2) and among the Natives?

The fever prevails during the sickly months (before mentioned), and dysentery during the rains, and the Natives as before named.

XIII. Are there any places on the coast, within a few leagues of this, which differ materially from it in point of healthiness? if so, add a list, stating (1) whether they are more or less healthy, (2) and the probable cause of their being so?

Camerouns is considered much more healthy than perhaps any other river, in consequence of the land being much higher and clearer of wood.

XIV. During what month do tornadoes take place? (2) from what quarter do they blow? (3) in what months are they most frequent? (4) in what months most violent? (5) Is there any particular period of the moon's

age at which they take place? (6) Give a description of a tornado, its mode of commencement and progress to its conclusion. (7) How long do they generally last?

Tornadoes take place during the months of March, April, and May, and blow from north-east. They are most frequent in April and May, and also most violent. They take place at change of moon, and are most violent at that period. A small bright cloud appears near the horizon, which in a short time extends itself, and becomes a dense mass of dark cloud, which rises very rapidly; at this time there is heavy distant thunder and lightning; it forms an arch a little time before it breaks forth, and comes so sudden, that if a vessel was not prepared, she would suffer very materially; it continues from one to four hours.\*

XV. During what months does the harmattan blow? (2) and from what point? (3) is it a healthy wind? if not, what are the probable causes of its unhealthiness? (4) Is it accompanied by fogs? (5) is it a cold or a hot wind?

The harmattan commences about the latter end of December, and continues until the beginning of February; it generally commences at north-east, and gradually draws to the south-east; it is considered healthy for Europeans but not so for the Natives. It is accompanied by fogs produced by very fine sand, which completely covers all that is exposed. It is very cold during the morning and evening, but hot during the day.

XVI. During what months do land winds prevail? (2) do they continue throughout the twenty-four hours? (3) or do land and sea breezes blow alternately? if the latter, at what time of the day does each begin? (4) Does either the land or sea breeze cross any marshy land before arriving at the anchorage?

Land winds prevail during the months of February, March, April, May, June, November: and December; they commence about midnight and continue with a little variation until 8 A.M. The sea breeze sets in about noon and blows direct from sea. The land wind blows off all marshy land, there being little else but marshy land in this part of the country (Bonny).

XVII. During what months do fogs prevail? (2) are they unhealthy for Europeans? (1) or Natives?

The fogs prevail during January and February: I consider them healthy for Europeans and the contrary for the Natives.

XVIII. State the limits of the coast within which you consider the above remarks to be applicable in regard to the rainy and healthy seasons? (2) and the winds?

Throughout the Windward, Gold Coast, Bights of Benin and Biafra with little variation.

The wind during the fine season is from west to south-west, and during the rains from W.S.W. to south.

XIX. Fill up as correctly as possible the following Table, regarding the temperature and the prevailing winds and currents on this part of the coast, &c.

\* Roussin's Directions, and all the published directions of the African Coast contain a description of a Tornado: it is even to be found in Murray's Family Library.—P.D.

Place.	Thermo- meter.		Winds.		Currents.				General State of the Weather.
	The river Bonny.	Highest in day-time in the shade Lowest in the 24 hours.	Day.	Night.	In Shore.		In the Offing.		
					Direction	Miles in 24 hours.	Direction	Miles in 24 hours.	
Jan.	95	80	N.E.	...	West	12	variable	...	Hazy thro'- out
Feb.	97	85	SE to SW	N.N.E.	variable	...	E.S.E.	20	Changeable
March	80	80	SE. to W	E.N.E.	variable	...	E.N.E.	24	Fair & sultry
April	85	80	S.W.	E.N.E.	E.N.E.	30	...	30	Variable and Tornadoes
May			S.S.W.	W.N.W.	E.N.E.	40	...	40	Cloudy, Calm & Tornadoes
June			S.W.	variable	E.N.E.	60	N.E.	70	Do. do.
July			S.S.W.	South	E.N.E.	60	...	70	Cloudy and heavy rains.
Aug.			S.W.	variable	E.N.E.	60	...	60	Very strong breezes and rain.
Sept.			S.W.	South	E.N.E.	48	...	40	Moderate with rain.
Oct.	80	75	S.W.	S.S.W.	variable	...	...	...	Unsettled
Nov.	83	75	West	variable	E.N.E.	50	...	40	Vble Cloudy and sultry
Dec.	79	23	variable	North	Westerly	10	variable	...	Hazy Har- mattans

XX. Is the anchorage good? (2) what are the marks for it? (3) to what quarter is it open? (4) what is the depth of water? (5) what is the direction of the flood and ebb? (6) what is the time of high water at full and change? (7) what is its rise and fall? (8) if it is inside a river, state the nature of the bar, (9) how it lies by compass, (10) the depth upon it at low water at spring tides, (11) the marks for crossing the bar, (12) and its distance from the shore. (13) Are any hills or mountains visible from the anchorage? (14) If so, state their magnetic or true bearings, and how far distant, (15) and their general appearance, whether table, or peaked, or with rounded outlines; (16) and whether wooded, rocky, or otherwise?

The anchorage off Bonny Town is very good, in 10, 12, and 14  
NO. 9.—VOL. XX.

fathoms: there are no particular marks: it is open to the south-west: the flood on the Weather Bar, runs north-west, which is dangerous for vessels crossing with a light wind, as it sets directly upon the western breakers; the ebb on the same bar sets south-west which is directly over it: the flood over the east or lee bar runs W.N.W., three knots spring tides: the ebb runs over the same bar E.S.E. six knots: when on the lee bar, Rough Corner will bear by compass *north*: you will then have two and a half fathoms at low water spring tides on the lee bar, close under the breakers on the north-east spit of the Balour Bank. It is high water, full and change, at four hour on the bars and rises about ten feet. It must be observed that the water is at its highest one hour before the flood ceases.

There are two bars that intercept the weather passage, called the outer and inner. In the commencement of these queries I have given directions for crossing the bars in clear weather, when all marks are distinguishable; but a ship may get safe into the Bonny by giving the western breakers a berth of one mile, and steering round them, keeping in three fathoms until over the first bar and then in four, and so crossing the inner bar in a  $\frac{1}{4}$  less 3 fathoms at low water: immediately after crossing the inner bar you will have 10, 14, and 17 fathoms: you may then approach as near to the Spit Bank as 10 fathoms, keeping it on your starboard hand, and steering round Jew-Jew Point, which is very low and covered with trees.

The directions for running down that part of the coast are to make Formosa, (improperly called a Cape), and approach so near as 7 fathoms, you will then be about five miles off shore: you will then keep in those soundings until off Rio Sombbrero, when the water will shoal fast, and you must haul to the southward to avoid the western bank that extends as far west as Fochee Creek: proceed then to the south-east and anchor as directed off the Bonny.

XXI. What is the average length of passage from the English Channel to this port in a quick-sailing merchant ship? (2) How long is the homeward passage? (3) Give any information about making the port, (4) and the route taken on leaving it. (5) How near is the Island of Anno Bon passed on the homeward, (6) and outward voyage?

Six weeks is considered a good passage: the homeward passage is much longer, ten weeks being considered a good passage: in making the Bonny, Fochee Point will be seen high and tapering to the water's edge, with a high solitary tree upon the top of it. In leaving the Bonny, you will proceed close hauled to the southward, say until you make Princes Island, then if the wind should incline to the southward, tack and stand to the westward, and you will find as you get to the westward, the wind will gradually veer more to the south: it will be seen from this route that the Island of Anno Bon, is not approached nearer than three degrees.

XXII. What is the general character of the coast—sandy, abrupt or shelving, rocky or in cliffs? (2) Is there much surf on the beach? (3) During what months can ships' boats embark and disembark men and provisions? (4) can canoes do so at all seasons of the year? (5) are canoes easily obtained for this or other purposes? (6) what is the length and

breadth of the largest canoes? (7) how many paddles are used? (8) how many people can they carry besides those who use the paddles? (9) How are the natives armed? (10) Are fire-arms in general use?

The general character of the coast is that the soundings are very regular all the way into a flat sandy beach with a heavy surf: it is very dangerous for boats to attempt to land on the open beach, but there is every facility for landing in the rivers. Where boats cannot land, canoes may be obtained in any quantity. In the Bonny, and all other rivers on this part of the coast there are many canoes from fifty to sixty feet in length which use forty-four paddles and are capable of carrying one hundred men with all their arms, consisting of boarding pikes, muskets, pistols and two long guns, one in the fore part of the canoe and the other abaft, each of two pound calibre.

XXIII. What is the number of the inhabitants of the town? (2) what the chief's name? (3) what presents would be most acceptable to him? (4) What ceremonies pass between the chief and captain of the ship on the arrival of a British merchant-ship? (5) State the nature of any treaty, commercial or otherwise, which has been made between the chief of the place and the British government? (6) How long since it was formed? (7) And whether it is still considered binding?

The town of Bonny contains about twelve thousand inhabitants: they are governed by a King, Peppel, and a chief Anna Peppel; on the arrival of a British ship the captain proceeds on shore where he is met by some of the King's attendants, whom he accompanies to the principal Jew Jew House, where he remains a few moments to take off his hat and bow to the Fetish: a bell is then tolled and he proceeds to the presence of the King.

There is a treaty of the date of the 9th April, 1837, between the British Government and King Peppel for the protection of British commerce, and regulating the custom or comey to be paid to the King before a ship can open trade.

The above mentioned treaty is considered binding: the King presents it to all masters immediately on their arrival.

XXIV. What kind of provisions can be procured? (2) and in what quantity? (3) what kind of goods will they receive for provisions? (4) will they take Spanish or other dollars? (5) or cowries? (6) are fish plentiful? (7) which is the best kind? (8) Is any particular fish poisonous or unwholesome? (9) what are the facilities for getting a supply of water? (10) is it good?

Provisions are very scarce: a few goats, pigs, and fowls, may be procured with tobacco, common Manchester cottons, beads, and cutlery. Spanish or other dollars are only taken on the sea coast; cowries are taken in the interior: fish are very plentiful in all the rivers; sufficient for half a dozen men may be obtained for one empty bottle. Two deaths have come under my particular notice from eating *oysters*, but I never heard of any other fish being poisonous: water in the dry season is difficult to be obtained, and very indifferent at all times.

XXV. Is fuel plentiful, and easily obtained? (2) which is the best kind of wood for the purpose? (3) to whom must application be made for it? (4) Is coal found— if so, where? (5) and in what quantity? (6) What is its quality?

Any quantity of fuel may be obtained, canoes come off laden with wood cut for the purpose of fuel; it is small white mangrove. I should say from a few days' notice two hundred tons might be produced: there is not any coal, wood being the only fuel.

XXVI. What has been the state of the Slave Trade at this place for the last twelve months? (2) to what nations do the slave vessels belong? (3) under what flags do they sail? (4) from what place in the interior are the slaves brought? (5) if from a place situated on the river, mention how many days they are on the passage down to the sea? (6) also by what branch of the river the canoes reach the sea, carrying either slaves or merchandise, in the dry season, (7) and also in the rainy season.

During my last stay in the Bonny, namely from January to July, 1839, not one slave vessel arrived in the river, and the natives supposed they should never see another: those I saw previously were under the Portuguese, Spanish, and Brazilian flags: slaves are brought down from every part of the country and through every large creek, but principally from Eboe,\* it has been frequently known for slave vessels to leave empty and proceed off the Nun, and there embark their slaves that were taken in canoes through the creeks.

XXVII. What is the native language here? (2) are there any words of other languages found in it? (3) is there any general language for this and other parts of the coast? (4) are there any interpreters to be obtained here? if so, what European language do they speak?

Their language is peculiar to themselves: there are scarcely two towns that speak exactly the same: there are any quantity of interpreters that speak the English and Spanish language.

XXVIII. What notions have the Natives about a Supreme Being, (2) and a future state? (3) is Mahometism known here? (4) what proportion do its adherents bear to the Pagans? (5) is the notion of a fetish prevalent here? (6) what is the fetish of the place?

They believe in the existence of a supreme being, whose spiritual essence is reposed in the *Guana*. Mahometism may be traced even to the sea shore; for instance circumcision and several other tenets of their creed. They pay great respect to the *Guana*, which is their greatest fetish: this latter word is substituted by that of Jew-Jew.

XXIX. Do you think the natives would be favourably disposed to receive Christian missionaries here? (2) If they have been already introduced, state to what church or sect they belong? (3) what length of time they have been established? (4) and what success they have had. (5) Are there any schoolmasters? if so, how many children are educated? (6) what are they taught?

Missionaries have never been introduced here and from my inquiries the natives would not receive them,† and I think it impossible for an

\* Not only from Eboe (or more properly Aboh) on the Niger, but from the Eboe country, north and north-east of Bonny.

† We have much pleasure in informing our readers, that the Scotch Missionaries have recently visited the Bonny from Old Calabar, and that they have been earnestly entreated by King Peppel to send Missionaries to the Bonny. No one will rejoice at this more than Mr. Dawson, who is a liberal supporter of the noble Scotch Missionaries of Old Calabar.

European to live on shore in this immediate part of the coast for many months.

RALPH DAWSON.

*Liverpool, September, 1840.*

---

#### A VISIT TO LABUAN ON ITS BECOMING A BRITISH POSSESSION IN 1847.

AFTER a pleasant sojourn of nearly a month, at the picturesque Island of Pulo Penang, in the Straits of Malacca, where, we experienced the kind and generous hospitality of Samuel Garling, Esq., the resident councillor, and his amiable lady at Suffolk house. Her Majesty's sloop *Columbine*, under the command of Charles Conrad Grey, Esq., was ordered by His Excellency Rear Admiral Sir Thomas John Cochrane, G.B., the commander-in-chief, to proceed to Pulo Labuan, for the protection of the British Flag, and the suppression of piracy along the extensive coast of Borneo, unhappily too celebrated as the arena of some of the most bloody acts of piracy the history of the world can produce.

The *Columbine* sailed from Penang on the 19th February, 1847, and touched at the well known Island of Singapore for provisions and water on the 22nd, whence we finally departed for Borneo on Thursday the 25th.

We made Point Api on the 28th, and anchored in Santubony Roads at the mouth of the Sarawak on the afternoon of Sunday the 1st of March 1847; there was a heavy sea running at the time, the coast being exposed to the violence of the north-east monsoon, at this period of the year blowing with considerable strength, as we soon had to experience.

Captain Grey was directed to call off Sarawak, and communicate with Mr. Brooke's establishment, about thirty miles up the river of the same name. The Rajah himself was at Penang, a guest of Sir Thomas Cochrane, waiting the arrival of the newly appointed commander-in-chief, daily expected in the *Vernon*. In the event of the services of the *Columbine* not being urgently required, we were to lose no time in getting to Pulo Labuan for the relief of Her Majesty's sloop *Wolf* under orders for England.

Captain Grey accompanied by several of the officers of the brig, and Commander Vansittart, appointed to the *Wolf*, (vice Gordon deceased) ascended the river in the gig and cutter armed. Starting at daylight on the 2nd, they reached the settlement the same afternoon, where they were most cheerfully and hospitably received at the Rajah's residence, by Mr. Cruikshank, (in charge during Mr. Brooke's absence) and the rest of the gentlemen of the establishment, and prepared early the following morning for the return to the brig, which at this time, although unknown to them, was in imminent peril.

A heavy sea during the night of the 2nd, had set into the bay, increasing towards morning, with a lowering sky, but there was little or



no wind. This was unpleasant during the night, but, on the morning of the 3rd the sea increasing, and the weather assuming a still more threatening aspect, it became alarming, when at 10 A.M. the ship struck heavily abaft. Not a moment was lost in getting her under way. There being little wind and a heavy sea, with considerable difficulty she was rescued from impending destruction; even then we could only get a little further out, the depth of water remaining very nearly the same.

The captain and his party left Sarawak early that morning. We saw from the ship soon after noon, the two boats struggling with the surf on the bar. The gig succeeded in crossing one of the heaviest surfs ever seen, and the captain reached the brig, at about 4 P.M. Learning from those on board the state of affairs, he was desirous at once, of putting to sea, but the remaining boat (the cutter) could no where be seen; unable to pass the bar, the officer in command of her, Lieutenant D. B. Dawes, re-entered the river in the hope that as the tide slackened he should succeed in reaching the ship.

We lifted the anchor notwithstanding, again, and with a light air moved a little further out, but were obliged to come to for the cutter. As night approached the darkness concealed every thing except the raging surf which was breaking at least four miles outside of us. Heavy rain falling, and a threatening sky, naturally cast a gloom over us. To leave the cutter and her crew to their fate, and put to sea, was not to be thought of a moment. However, to our great satisfaction at 9 P.M. the cutter, safe, came alongside; her crew being exhausted they had put back, were refreshed with a few hours repose, and making another dash succeeded in getting out, and fortunately saw our blue lights and other signals.

There being then no wind, the night of the 3rd was an anxious one, the weather, if anything, looking still worse; nor did the morning of the 4th break with brighter prospects for our apparently devoted bark. Tumbling about in all directions, heavy seas breaking into her, with little water under her, we had but faint hopes of saving her.

At 10 A.M. a very light air sprang up, we weighed to try our luck. The *Columbine* a beautiful sea boat at all times, never had a more trying task, to the astonishment of all on board, she stemmed the mountainous sea, and in an hour we found ourselves in safety, thankful indeed, to the Almighty for his merciful interposition. Had we been wrecked, few would have escaped a watery grave, for under our lee was as ugly a looking shore as was ever seen. That night (the 4th) it blew a gale, increasing from the time of our departure, and we had a continuation of stormy, rainy weather, until the 8th, when we made the land about Point Sirik.

We saw no suspicious looking prahus along the coast, and met with nothing worth relating till we arrived at Pulo Labuan on the 17th (March), where we found Her Majesty's ships *Wolf* and *Royalist*. The former had been lying as guard ship at Labuan since the island was taken possession of on the 24th of September last, by Captain George Rodney Mundy, of Her Majesty's ship *Iris*. Her late commander, the son of the gallant and much respected Rear Admiral Sir

James Alexander Gordon, K.C.B., expired on the 6th of January, of fever and dysentery; his remains lay interred in the burial ground at Labuan, covered by a neat and appropriate epitaph.

The latter vessel had been some months employed in surveying along the coast, her commander, Lieutenant D. M. D. Gordon, a most zealous and excellent officer, had surveyed a great extent of coast line, and his charts reflect great credit on him for their neatness, and acknowledged accuracy. Commander N. Vansittart, with whom we parted with much regret, having assumed the command of the *Wolf*, she sailed for Singapore and England on the 20th. The *Royalist* sailed on the 22nd, and at last we found ourselves alone, at the uninhabited Island of Labuan, for the purposes already mentioned.

Labuan is so well described in the agreeable and excellent work of Captain the Hon. Henry Keppel, that little can be added to it, for it has not altered much.

The island is covered with dense jungle, excepting at a small area abreast of the anchorage, proposed, as the site of the intended settlement. The only thing to be had at Victoria Bay was water. It was by no means so plentiful as we were led to expect, the wells and reservoirs we heard of from the *Iris* and *Wolf*, as yielding seventeen tons daily, soon dwindled to three and less, a very material affair, as far as supplying a fleet is concerned.

On digging wells, however, water is obtained at a depth of five or six feet, but care is requisite, or they dry one another. The natives from the main of Borneo, only fifteen or eighteen miles off, bring plenty of a very small, but symmetrical cattle, with fowls, eggs, yams, sweet potatoes, bananas, small pines, and cocoa nuts, with pumpkins, and occasionally onions, but no other kinds of vegetables; taking in exchange calico shirting, with which we were prepared, and coloured handkerchiefs, empty bottles, old buttons, &c. Our men found this all very fine, but like every where else, dollars are becoming known and in request, and before another month passes the days of barter will be gone, and daylight will have broken in so far on this long benighted people and country.

From our own observation we find the Brunians docile, courteous, and honest.

A few days after our arrival, Captain Grey, accompanied by some of the officers, proceeded to Bruné to pay a complimentary visit to his highness the sultan. They set out on their expedition in the *Columbine's* pinnace, a fine boat pulling twelve oars, mounting a 12-pounder carronade, and when away on active service, having also a party of marines.

The entrance to the Bruné River, lies about S.S.W. from the anchorage at Victoria Bay, Labuan, at the distance of about fifteen or twenty miles, when the island of Moarea is approached, and shortly after, the beautiful islet of Pulo Cherimin forms a prominent feature in the magnificent scenery of the river; and the surrounding luxuriant country. Fifteen miles further is the town of Bruné, built on piles on the banks of the river, with 10 fathoms water in some of the streets.

Without exception it was the most remarkable city we had ever seen. Mr. Brooke graphically describes it as the "Venice of Hovels."

Our party arrived at Bruné the same night, and found shelter at the shed of a Chinese, who had recently settled there for the purpose of trade, where some rested the night, others preferred the pinnace.

Early in the morning they proceeded to the house of the Rajah Moumein, one of the most intelligent Malays we have seen. He is considered the sultan's prime minister, but we find his highness does not trouble himself with ministers, merely calling on his Pangerans for assistance and advice, when he is in trouble, which is by no means unfrequent.

The rajah accompanied Captain Grey to the sultan's palace, where he was most graciously received by his highness in the customary state, becoming his rank.

Nothing worthy of remark appears to have occurred at this interview, which was entirely introductory; Captain Grey presented his highness with an old uniform sword and a piece of red calico, with which he appeared very well pleased. After a short interview with the lion of these parts, they returned to Labuan.

We passed our time for the first month in exploring the island as far as the climate and jungle would admit. Sickness soon made its unwelcome appearance amongst us, and put a stop to some of our amusements. Occasionally the arrival from Singapore of a speculative trader brought us a newspaper, and by chance a stray letter or two from the post office.

Dull enough we have been at this newly acquired British possession, it must be confessed, away from all society, and that intercourse so essential to civilized beings, but duty is not always agreeable although imperative, and those embarked in the service of their country are not to choose for themselves, but to obey.

Not a house to be seen, nor a stranger's face, save of some tawny Malay, in a wild and little known country soon makes the wanderer long for other scenes, and spite of all our efforts, the spirit becomes depressed, and discontent, not loud, but deep, takes possession of the most resolute, and a tone of melancholy pervades every action. How can it be avoided? A jolly messmate is a valuable companion, but when the wine runs short, the ale and porter gone, the mess-stock of creature comforts low, affairs wear a serious aspect; there is an old saying amongst sailors, "Touch my stomach and you touch my honour;" experience leads to the suspicion that there is some truth in the adage.

On the 8th of April, 1847, accompanied by two messmates we left the *Columbine*, on a trip to Bruné for a week to see the people as they are, and visit the Sultan as private individuals. We took the opportunity of proceeding thither, by a fine little English schooner, called the *Ariel*, just arrived from Singapore, and bound on a trading voyage to Bruné.

Owing to light unfavourable winds, it being about the period of the changing of the monsoons, we did not reach the city of waters until the afternoon of the 10th, which under any circumstance would have been

tedious, but the magnificent scenery of the river, and the surrounding country fully repaid us for our delay.

To our infinite satisfaction we found shelter at the house of an Englishman, who had recently brought his wife, an interesting young woman, with two children, to settle in the country for the purpose of trading.

This was particularly fortunate, as rain falls constantly at night in this country, and we had been compelled to sleep on deck, owing to the heat of the little schooner's cabin; a good roof overhead was not therefore despised. We had not long arrived, 'ere his highness the Sultan summoned us to his presence, showing that he was not ignorant of the arrivals and departures.

We proceeded as we were dressed "en bourgeois," to the palace of "Omar Ali, Sif Fuddeen," descendant, as he describes himself, of the deceased "Saint," the royal Sultan Mahomed, "the elegance of the world," and found his highness in his hall of audience or usual sitting-room, waiting our arrival. We soon learned the cause of our sudden call to the palace, a report had been circulated in the city that the "Rajah Saint," and the "Tuan Basar," (the Admiral and Mr. Brooke) were on their way with the squadron to thrash him again. He was considerably alarmed. We assured his highness that we had heard nothing about it, and that the report was quite unfounded.

The old man was condescending and communicative, assured us he loved us very much indeed, gave us betel nuts (Penang) and offered siri from the royal box. The nuts we took and quietly pocketed, the siri we could not stand, so, after politely backing out of that piece of killing kindness and a little talk, which is a favourite amusement with these people, we took leave of his highness and returned to our unexpected good quarters and a cup of tea, no trifling refreshment in a place like Bruné.

Omar Ali is a short, dark, tawny man, about 60 years of age, of no commanding appearance, has two thumbs on his right hand, has but few teeth and those jet black, and is continually filling his mouth with the universal siri, the juice of which mixture gives his lips a bright crimson colour. He wears a common shawl turban, dresses in a kind of light blue jacket, peculiarly made after the Malay fashion, with loose figured calico pantaloons, without shirt or shoes, round the waist the sarang, in which, like his subjects, he secures his kris, the handle ever ready.

His palace is poorly furnished. A few old mahogany chairs are all he can boast, on one of which he sits; on another close to him his siri box and kris of state are placed, (frequently the sword given by Captain Grey is used for that purpose.)

The highest of his subjects approach on their hands and knees in a kind of dragging fashion, and none sit near him, or in the same little chamber, except a Pangeran in waiting to hand him his siri or light his leaf cigar, and then with his body touching the ground as near as possible.

There is nothing like intellect displayed in the countenance of this fierce old man; he deserves this appellation at our hands, for his murder of the unfortunate Muda Hassim and Budrudeen, with 100 of their

relatives in the City of Bruné, the firm friends and devoted adherents in political views of Mr. Brooke and the British nation: men, who saw the value of an alliance with our powerful country, as leading to their ultimate gain of wealth and happiness, from the security of person and property, and a protected trade, apart from the uncertain and sinful profits of piracy.

The sultan has a quick eye, but it is the quick of a cunning old fox; he is both avaricious and grasping, and examines with almost childish curiosity every little trifle, his present "foiblesse" being a "penchant" for red calico, of which he seems to think he cannot get enough. His palace having been burnt on the occupation of the city last year by our forces, he is now re-establishing himself in a new one, on the site of the old. It is the most unlike a palace that one can conceive, and may be compared to an old English barn, hung round with coloured calico and ceiled with white; the floor over the water is of "nebong," with which the jungle abounds; it is very light wood but tough and strong, which they split into strips and fasten over rafters with rattan, sometimes covering it with mats; great care is necessary in walking over these floors, or one is apt to trip up.

The water is visible through the floor, and anything dropped on it is lost. At low water the smell from the mud is most offensive, pervading alike the palace and the hovel, discolouring both gold and silver ornaments.

On great occasions the sultan gives his visitors tea, after the Chinese fashion. Report assigns him two wives, and about forty women altogether in his harem, which was entered by our country-woman in Bruné (by his highness's special invitation) from whom I obtained the following description.

The sultan requesting his visitor to attire herself as finely as she could in the custom of our country, led her to the Haram, a building in the rear of the palace, of structure so low, as scarcely to admit of any person of moderate stature standing erect, the light to it being admitted from the roof.

Omar led her to his usual place of rest, separated from the apartments of his women by a crimson and yellow curtain only: in the centre of this room the sultan sleeps on a couch a little raised from the floor, covered with a crimson and yellow cloth, or coverlid.

The curtain being put aside by his highness's command, their usual sitting-room was seen: two women of good age, who appeared like guards at the portal, called the ladies to pass before the sultan and his fair visitor, in succession, in order that she might see each, distinctly. Many were exceedingly good looking and of good figure; all were magnificently arrayed in gold and jewelry, their dresses (skirts only) loose according to the Malay custom, of crimson and bright yellow satin and silks, they wore tiaras of massive gold studded with diamonds and other precious stones round their heads, with ornaments of a similar description round the shoulders, arms, legs and ancles. On the armlets there were Malay inscriptions or charms. Some were much finer in complexion than the generality of Malay women, the ladies altogether

it appears prove the exquisite taste of the old sultan in these matters. He has a little girl, his daughter, to whom he is devotedly attached, she was so massively (and is generally so) covered with gold, that there are always two attendants in waiting to lift her arms, legs and body when she may wish to move them, with a young slave girl fanning her. Having seen all that were to be shewn (about 40), His Highness led her from the building. The visit no doubt was as much to gratify his ladies as our countrywoman.

There are two of his natural children generally sitting cross-legged "à la Turque" on either side the anti-chamber door. He is most anxious before his visitors leave the presence that they should recognize these young men, by shaking hands with them.

He flatters himself, that the elder of the two, is to succeed him in his honours; vain man! the son of his murdered relative, Muda Hassim is the lawful heir.

This foul and treacherous murder before alluded to, of one hundred unoffending friends of good order, because they were the open and avowed enemies of piracy, and attached to the British nation, at the instigation of Hadji Samoun, a notorious character, (who is powerful in Bruné), and some of these his near relations, will for ever deprive Omar Ali under any circumstances of the sympathy, or good opinion of our country. Bitter no doubt has been his repentance; humbled indeed has been the descendant of the deceased saint. Driven from his palace to the jungle, where he was hunted like a wild beast, by our people, he was compelled to ask forgiveness and mercy, at the hands of the man he had so deeply injured, Mr. Brooke. Mercy was extended to him, and he begged from Sir Thomas Cochrane and Mr. Brooke, to be allowed to return to his capital. His request was granted, but Mr. Brooke refused to see him. He wrote a most penitent epistle to the commander-in-chief; and on his promise of better conduct in future, he was conditionally pardoned.

His lesson was a severe one, I doubt not that repentance has made a better man of him.

---

SHAKINGS FROM SMYRNA.—By *Mahmouz Effendi*.

(Continued from page 371.)

WHILE the captain was "disporting" himself ashore with his messmate, the supercargo, and their two Smyrniote friends, Mr. Surtees had to go through a hard day's work on board the *Saucy Fanny*, in preparing to discharge cargo on the morrow. Nevertheless towards sunset he found time to take another peep at *Merchant Tomkinson's Manuscript*, and being alone he naturally followed the bent of his own inclination and preferentially sought out information relative to religion. Guided by the *index* to the book before him, he soon pitched upon a page or two in which *inter alia*, *Merchant Tomkinson* had penned down the following

notes; and these proved much more to the taste of our worthy mate, Mr. Surtees, than the description of the *Turkish Bath*,\* read aloud by the supercargo when the *Manuscript* was last referred to.

### Merchant Tomkinson's Manuscript.

*Seven Churches of Asia*.—We are sometimes accustomed to think of the Seven Churches of Asia Minor, as of so many distinct edifices, visible and architectural; many a traveller who would smile at being asked to describe the shape of the Church of England or of Scotland has gone eagerly in search of each seventh part of Asiatic christianity.—*Warburton's Crescent and the Cross*, vol. 2, p. 279.

*The old Castle of Smyrna* is said to embody in its walls the ancient christian church.—*Willis's Pencillings by the Way*, vol. 2, p. 330. In *Emerson's Letters* the Castle of Smyrna dates only from the year 1220, vol. 1, p. 79. For the Seven Churches, vide *Usborne*, p. 313, and *Arundel's Visit*.

*A View of Sardis* is given in Keith's "Evidence of Prophecy," 35th edition, p. 397.

*The Sabbath in Smyrna*. The three classes of people here, the Turks, Jews, and Christians have each their own Sabbath,—Friday, Saturday, and Sunday. There is in consequence little observance of any one of the days in the town as a whole. The Greek Priests in Smyrna wear beards.

*Bairam* is one of the Turkish festivals annually celebrated. It commences when the new moon of the month *Sheval* becomes visible. The announcement of this festival by guns and music puts an end to the rigorous fast observed during the preceding month of *Romadan* from every sunrise to sunset.

The *Bairam* rejoicing lasts three days, though originally restricted to one, and the festival runs once every thirty-three years through all the seasons, the Turkish year being a lunar year of 354 days. *Bairam* is the Feast and Ramadan, or Ramadan the Fast.

In *Kourban Bairam* the streets of Smyrna are crowded with sheep, car-

ried alive on the backs of the *hammals* or porters, the forefeet of the animals being held fast in the porter's arms, their heads over one of his shoulders, and the rest of the body (and its immense tail), resting on the porter's knot.

"*Kourban*" means "sacrifice," and "*Kourban Bairami*" the "Feast of Sacrifices," sometimes also called "*Guspend Kushan*." "*Bairam*" follows "*Ramazan*" immediately; and then seventy days after comes "*Kourban Bairam*" when all who can afford it, kill a sheep and distribute it to the poor.

*Mouhammad* is believed by the Turks to have been the last and greatest of God's Apostles and Prophets, of whom all Muslims believe there are six, viz., Adam, Noah, Abraham, Moses, Jesus, and Mouhammad. The Turks do not, as many imagine, suppose that women have no souls.

*Dancing Dervishes*.—For an account of this ceremony, vide *Pardoe's City of the Sultan*; *Auldjos Constantinople*, p. 73; *Knights's Oriental Outlines*, p. 195, which last work describes also at p. 278; the ceremonies of the *Howling Dervishes* of Smyrna. The robe of these orders is called a *tennreh*, their hat a *geulaff*, their dance the *veshten*, their rosary a *tesbih*, their flute *nai*, and their altar a *mihrab*. The word *Yahou* is used to hail a Dervish (D.T.F. vol. 2, p. 1257.) The word *dervish* itself is derived from *der* a door, and *vish* lying down at, i.e. a poor man.

The *Howling Dervishes* are of the order of *Rufai*, or more properly *Er-Rifa'ee*, one of the four principal orders. See *Lane's Arabian Nights*, vcl. 1, p. 617.

The *Dancing Dervishes* were first established about 600 years ago. They are of the order of *Mevlaee*.

In the *tekeh* of the Howlers at Smyrna

\* *Ante*, page 126.

by the side of the altar, or rather niche, (mihrab), is a standard, the staff of which is surmounted by a golden hand. New in *Burder's Oriental Customs*, edition A.D. 1839, p. 259, Niebuhr is quoted in reference to Ali's mosque at Mesched, he says, "at the top of the dome where one generally sees on the Turkish mosques a crescent, or only a pole, there is here a hand stretched out, to represent the hand of Ali." It is presumed the hand on the pole of the standard at Smyrna has the same reference. So in I Samuel, xv. xii. "Saul came to Carmel, and behold he set him up a place."

*Jewish Cemetery.*—Walking to the south of Smyrna, I passed the Jews' burial ground, and was much struck by its appearance. It is a hill of almost bare rock of about a mile in extent, and every level spot has a marble slab upon it. The first idea that the place gave me was its strong resemblance to the pictures of the resurrection; thousands of tombstones covered the ground and in as many forms; from the hardness of the rock, the grave is generally constructed above the surface, perhaps a foot high, and covered with a marble slab. Many of these have upon them Greek or Roman letters, parts of inscriptions; and cornices, flutings, capitals, or shafts of columns may be recognized in almost all of them. I walked up the hill and there found the quarry which the Jews' had used, on the site of most extensive temples, now only to be recognized by high hills of white chippings and long deep trenches. —*Sir C. Fellows' Excursion*, p. 14.

*Religious Prejudice.*—From sentiment and custom the Moslem hates a Christian, a Christian abhors a Jew; the Jew abominates a Greek; the Greek contemns a Copt; the Copt abjures an Armenian; the missionary pityes each; and Heaven bears with all. —*Madden's Turkey*.

*Smyrna to Ephesus.*—To Terrenda five hours, thence to Ephesus seven hours.

*Church Bells.*—There are several Greek Churches in Smyrna, and the congregations are called to prayers, not by bells which are allowed solely to the

two French and Austrian churches in the Frank Street, but by the means of a mallet struck upon a plank of wood. A small hand bell is occasionally added, but its sound reaches only a few yards. The Armenians are also bound by the above regulation—useful as they are to the Turks and favored by them. On Sunday and high Feast Days they however strike a piece of metal, instead of the wood, or *nakous*.

*The Armenians* are unequally divided into two sects, the Eutycheans, or followers of the ancient Armenian church, and the Roman Catholics; who hate each other with all the fervour of sectarian hate, without knowing the essential points of belief in which their creeds differ. The first of these called by their opponents the schismatics have a large church in Smyrna; the second (who numerically form but a very small portion of the Armenian stock) frequent the Frank Catholic Church.—*Mac Farlane's Constantinople*, vol. 1, p. 113. The Armenian secular clergy—the officiating priests—are advised to marry.—*Oriental Outlines*, p. 245.

*The Bazaars* are nearly free from Jews on Saturdays (a hint to those who are fond of shopping).—*Lady Grosvenor*.

*For the Pilgrimage to Mecca.*—(Mekkeh) Turks must leave Smyrna so as to reach Scutari opposite Stamboul by the 12th day of the month of Redjeb when the caravan starts.

*Washing the Feet.*—This annual ceremony of the Greek Church is described in *Morton's Odessa*, p. 331; and that of the *Armenian Church* in *Oriental Outlines*, p. 249. In the Roman Catholic Church, Holy Thursday, is the day allotted to the ceremony instituted in memory of Christ washing the feet of his Apostles.

*The Greek church* admits no purgatory, and does not acknowledge the pope: many of its priests marry. The fasts of the Greek church are much more numerous and strict than those of the Roman.

The *Adan* or *Ezan*, i.e. the call to prayer from the minaret-gallery of the mosques is, (being translated,) "I testify that there is no Deity but God!



I testify that Mouhammad is God's apostle! Come to prayer! Come to security! God is most great! there is no Deity but God!"—*Lane's Arabian Nights*, vol. 1, p. 309.

*Old and new style.*—The Greeks and Russians still use the old style. To

turn the old style to the new, from the 1st of March 1800, to the 29th of February 1900, add twelve days.

*At Ephesus* according to tradition, Timothy, St. John the Evangelist, and the Virgin Mary, were buried.

*Revelations*, ch. 5, v. 8. *And when he had taken the book, etc.* Some interpreters understand the delivering of this book into the hands of Christ, as an act of inauguration or investiture into his regal power and authority, and that many of the expressions here used are taken from the ceremonies of solemn investitures, in which there are several instances of its having been done by the delivery of a book.—*Burder's Oriental Customs*, p. 43.—Ed. 1839.

*Revelations* vi. St. John evidently supposes paintings or drawings in that volume which he saw in the visions of God; the first figure being that of a man on a white horse. The eastern MSS. are thus ornamented. Pococke speaks in his travels of two MSS. of the Pentateuch, one in the monastery of Patmos, the other belonging to the Bishop of Smyrna, adorned with several paintings well executed for the time, one of which is supposed to be above 900 years old. *Harmer* vol. 2, p. 181.

"Well!" said Mr. Surtees to himself pushing the book he had been perusing a little away from him, "I can't say that friend Tomkinson has displayed much method in the page or two I have just read, and I must therefore trouble him to explain a little to me when he comes on board. I don't yet understand these Armenian, and Greek, and Papist churches, nor the Turks either for that matter, and I want to learn something about the Protestants of these parts, and the Jews, or *Yahvudees*, as Tomkinson calls them. I think 'twas admitted yesterday the English had no church in Smyrna, except a sort of room at the consul's, but that there is or was a Dutch Protestant church. Why should Smyrna, one of the real seven churches, be worse off than Alexandria? The English *have* a church in the latter port. That's one comfort to us sailors."

Mr. Surtees here fell into a reverie; pondered over and over again upon his hobby, the second chapter of *Revelations*, and then resuming *Merchant Tomkinson's Manuscript* pored for some time over two or three *vocabularies* at the end of the book, one of which we shall here, for the benefit of our men-of-war chaplains subjoin. As to *Merchant Tomkinson's Manuscript*, (compiled indeed as he himself admitted, on first lending it, without much method,) we now hear from a trustworthy quarter that it has recently been considerably improved through copious extracts from the most recent works on the East, works yet hid in their authors' brains when the *Saucy Fanny* was at Smyrna, such as *Christmas's Islands and Shores of the Mediterranean*; *Picturesque Wanderings in Greece and Turkey*, by *Aubrey de Vere*; *Residence in a Levantine Family*, by *St. John*; *Eight Years in Asia Minor*, by *Neale*; and *A Pilgrimage*, by the *Rev. Dr. Margoliouth*.

English.	Turkish.
Ablution (with sand)	Teimmum
" (with water)	Abdest
Ablution	Ghousoul

English.	Turkish.
Alms	Sadaka
Alms	Zekiat
Altar	Kourban guiah

<i>English.</i>	<i>Turkish.</i>	<i>English.</i>	<i>Turkish.</i>
Altar .....	Mihrab	Creator .....	Khalik
Altar .....	Mezbah	To crucify .....	Maaloub etmek
Amulet .....	Hamail	Crucifixion .....	Khadjlama
Angel of Death.....	Eerafl	Cypress .....	Servi sghadji
Angel .....	Melek	Dervish dance .....	Veshten
Apostacy .....	Irtidad	Dead .....	Eulumish
Apostate .....	Deunuk	Death .....	Eulum
“ .....	Murted	Sudden Death .....	Ansyg eulum
“ .....	Deunmeh	Dervish .....	Derveesh
Apostle (muslim) .....	Resoul Allah	Devil .....	Shaitan
“ (christian).....	Havari	Divinity .....	Tanrilik
Arab .....	Areb	Divorce .....	Boshanma
Archbishop .....	Mitrèpolit	Druse .....	Durzi
Archbishop .....	Bash Piskopos	Egyptian .....	Misirlu
Armenian .....	Ermeni	English .....	Inguiliz
Astrologer .....	Muneddjim	Evangelist.....	Indjildji
Astrologer .....	Ehli Nudjoun	Easter .....	Paskalia
Banner .....	Sandjak	Evening prayer ; the 5th .....	Yatsi namazi
Banner, Sacred.....	Sandjak Sherif	Faithful .....	Musulman
Baptism .....	Vaftiz	Fast .....	Oroudj
Baptized .....	Mou'ammed	Feast .....	Yorty
To Baptize .....	Vaftiz-lamak	Fire-worshiper .....	Attesh perest
Bell .....	Tchan	Fire-worshiper.....	Medjous
Bell (clapper-call).....	Nakous	Friar .....	Rahib
Bell (horse) .....	Djeres	“ .....	Keshish
Bell .....	Tchinrak	Funeral .....	Meiit
Bell .....	Tchingirak	Gallery .....	Mizenet
Bible .....	Tevrat	Genuflexion .....	Ticheukish
Bible .....	Kitabi-Moukaddes	God.....	Tangri
Bishop .....	Biskopos	God.....	Allah
“ .....	Pishbèi	Gospel .....	Indjil
“ .....	Bushbeg	Grave.....	Mezar
Body-washer.....	Ghasçal	Greek.....	Roumlu
“ .....	Meit-youian	Heaven.....	Guenk
Body-table.....	Tenesshur	Hell.....	Djehennem
Book .....	Kitab	Hell.....	Dhamou
Cardinal.....	Kardinal	Hellenic .....	Younani
Cathedral .....	Bash Kelisa	Holy Ghost .....	Rouh-ul koudous
Catholic (sub) .....	Katholik	Hymn.....	Ilahi
“ (adj) .....	Papishta	Idol.....	Bout
“ .....	Lathin	Idolaters .....	Syhab sa'ir
Chapel (Dervish) .....	Tèkiè	Imposter .....	Aldaidji
Chapel .....	Kutchuk kelisa	Imposture .....	Telbislik
Christ.....	Hasreti Isa	Infidel.....	Guivour
Christ.....	Mesyha	Inscription .....	Yazou
Christening .....	T'amid	Jerusalem .....	Ourshelim
Christian .....	Khrystian	Jesus Christ.....	'Ysa
“ .....	'Ysevi	Jesus Christ.....	Hasreti 'Ysa
“ Faith .....	Khrystian Dini	Jew.....	Yehoudy
Christianity .....	Khrystianlik	Judges, Book of .....	Sifr el kouzat
To turn Christian .....	Tenessur itmek	Judgment day .....	Akhyret guni
Christianity .....	En-nasraniyet	Koran.....	Kouran
Church .....	Kelisa	Madman .....	Dèli
“ .....	Keniset	Maronite .....	Marouni
Greek Church .....	Aiini roum	Marriage .....	Nikiah
Latin Church .....	Aiini latin	Marriage Gift .....	Satchou
Protestant Church .....	Aiini protestan	Martyrdom .....	Shehidlik
Consulate .....	Konsolos konaghy	Minaret .....	Menaret
Convent .....	Kizlar monasteri	Minaret .....	Mizenet
Converted .....	Muhtedi		

<i>English.</i>	<i>Turkish.</i>	<i>English.</i>	<i>Turkish.</i>
Minaret .....	Guldestè	Purgatory .....	Araf
Miracle .....	Keramet	Rabbi .....	Khakham
Monastery.....	Savamy	Renegade .....	Murtedd
Monastery.....	Monastyr	Renegade .....	Deunnuk
Monk .....	Ruhban	Rosary .....	Tesbih
Monk (Turkish) ...	Zahid	Romaic .....	Roumlu
Morning prayer ...	Sabha namazi	Russian .....	Ourous
Mosque .....	Mesdjid	Russian .....	Muscovlu
Mourning .....	Matem	Sabbath .....	Sebt
Muezzin* .....	Muezzin	Sacred Banner .....	Sanjak sherif
Music .....	Mousiky	Sacred Books .....	Koutoubi sherifè
Music .....	Tchalgou	Saint .....	Evlia
Niche .....	Mihrab	Saint .....	Veli ullah
Nun .....	Kaloguiria	Saint Peter .....	Hasreti Bothro s
Old Testament .....	Tevrat	Sinner .....	Gunahkiar
Oratory .....	Namaz-guiah	Soul .....	Djan
Organ.....	Arghanoun	Sunday .....	Bazar-guny
Orphan .....	Euksuz	Sunday .....	Yevm-ul-ahad
Orthodox .....	Hanif	Synagogue.....	Fouhr
Paradise.....	Outcmagh	Synagogue.....	Pouhr
Paradise.....	Djennet	Talisman .....	Thylsem
Pardon .....	Ghoufran	Testament or Will	Vasyiet-namè
Pardon .....	Ghyfret	Tomb.....	Mezar
Patriarch .....	Pathrik	Trinity .....	Teslis
Pope .....	Rim Papasi	Turk .....	Osmanli
Pope .....	Papa	To turn Turk .....	Islamè guelmek
Pope .....	Kizzil elma papasi	Vaulted .....	Kemerlenmish
Prayer .....	Namaz†	Virgin Mary.....	Hasreti Meriem
Prayer .....	Dou'a	Volume .....	Djild
Preacher .....	Khatib	Water.....	Sou
Priest (Greek) .....	Papaz	Water.....	Ab
Priest (Turkish) ...	Imam	Widow .....	Dhoul
Prophet .....	Resoul	Widow .....	Doul Kari
Protestantism .....	Protestan mezhebi	World.....	Dunia
Protestantism .....	Itikadi protestani	Worship.....	Thap maklik
Providence .....	Tanri	Xmas .....	Mevloudi 'Ysa
Psalmody .....	Tezmir	Zone .....	Minthakat
Pulpit.....	Member		

\* *Mousalla* Lieu élevé d'où le Muezzin appelle les fidèles à la prière, *Dict. Turc. Franc.*, v. 2, p. 922.

† D. T. F., v. 2., p. 1135, 119.

"Lots of hard words there!" exclaimed Mr. Surtees, as he finished his perusal of the above Vocabulary. "Well, Mr. Abbs, who's that letter from?" added he, as the second mate entered the cabin, after nearly tripping himself up on the last three steps of the companion in his haste down.

"From the captain, Sir," replied Abbs, "he's now at supper on board the schooner yacht *Flat Fish*, and we're to send a boat for him at eleven o'clock."

(To be continued.)

HISTORICAL NOTICE OF THE PROGRESS OF THE ORDNANCE SURVEY  
IN SCOTLAND.—By *Alexander Keith Johnston, F.R.S.E., F.R.  
G.S., F.G.S., &c.*

THERE are few places on the earth's surface which, within such a limited area, combine so many of the requisite elements for cartographic delineation, as are met with in Scotland. With mountains rising almost to the limit of the snow-line, and an extensive sea-board, broken up by firths and lochs into every conceivable form of promontory, cape, and headland, this portion of Great Britain comprises within itself such a variety of physical features, as is only found elsewhere distributed over much more extensive regions. It cannot be doubted, therefore, that a properly constructed map of Scotland, on a scale sufficiently distinct, if executed with fidelity, and with all the improvements of modern art, would present at once a most pleasing and highly instructive example of this species of design. That we do not already possess such a map, is not owing to any want of interest in the subject on the part of our countrymen, for Scotland has produced more works of this class than perhaps any other country of similar extent and means. But these efforts, however creditable in themselves, could not be connected so as to produce a perfect map, for want of such a basis of union, as a complete system of triangulation alone could supply. Now, this was a work which, from its vast extent and labour, required the resources of Government to accomplish, and hence the necessity for the so called Ordnance or Government Survey, to trace the progress of which is the object of this paper.

The first map of Scotland on record is that attributed to Ptolemy, the geographer of Alexandria, A.D. 140. In this celebrated work, it is well known the bearings are altogether wrong, as the upper part of Britain is represented bending to the east instead of stretching to the north. Nothing further of this kind worthy of notice occurs till the 14th century, when Richard of Cirencester compiled a map, in which, though he generally follows Ptolemy, he gives the true bearings of the country, and greatly adds to our knowledge of British geography.

Timothy Pont was the first projector of an Atlas of Scotland. In 1608 he commenced a survey of all the counties and islands, sketching in the features on the spot. He died before his work was finished, and in 1646, his drafts and notes were put into the hands of Sir Robert Gordon of Straloch, who completed his design. All the sketches and notes thus collected were transmitted to Bleau of Amsterdam, who published his *Atlas Scotiae* in 1654. This atlas, begun at the charge of Sir John Scott, of Scotstarvet, director of the Chancery in Scotland, was probably carried on, and completed at the national expense. These maps, which are wonderful productions for the time, may, however, be regarded simply as literary curiosities, interesting chiefly to the antiquary.

About the year 1688, Adair made a survey, and gave descriptions of the coasts of Scotland, which he published in a small atlas; but his  
no. 9.—VOL. XX. 3 P

sketches, as well as those of Sanson, Elphinstone, and Grierson, who succeeded him, are very inaccurate. The Rev. Alexander Bryce surveyed the northern coasts of Scotland about the year 1740; his map, published in 1744, made considerable advances in accuracy. In 1750, John Dorret, land surveyor, published a map of Scotland, in five sheets, at the expense of the Duke of Argyll. This map had more pretension than any that preceded it, being on a much larger scale, but in construction it is still very inaccurate. Between 1751 and 1771, Mr. Murdoch Mackenzie, who was employed by the Admiralty, surveyed the western coasts of Britain, from the English Channel to Cape Wrath, including the Hebrides from Lewis to Islay, and extending to the Orkney Islands. His charts were published on a scale of one inch to a mile, and were accompanied by nautical descriptions. These were considered, at the time, entitled to credit, but the recent Admiralty Surveys have proved them to be exceedingly erroneous.

In 1789, John Ainslie, an eminent land surveyor in Edinburgh, constructed, engraved, and published a map of Scotland and its islands in nine sheets. This was the first good map of the country. The author had made an actual survey of several counties, when he was employed by the Board of Customs to survey the east coasts of North Britain; he also made many rapid surveys and sketches in remote districts. Still, though superior to any that preceded it, his map is very faulty in construction. In Ainslie's time the delineation of the physical features of a country was little understood; his mountains and hills are represented as rising insulated from their bases; no indications are given of the water-sheds dividing the river basins, and little attention is paid to the subject of light and shade. In 1792, Murdo Downie published a chart of the east coast of Scotland, in which the sea-board is very inaccurate.

The government felt so greatly the want of a tolerable map of Scotland, during the rebellion of 1745-6, that, on its suppression, it was resolved, at the suggestion of the Duke of Cumberland, to commence an actual survey of the whole country. This undertaking was confided to Colonel Watson, who employed in the service several young officers of engineers, among others, Mr. (afterwards Major-General) Roy. The survey, which was limited to the mainland, was commenced in 1747, and completed in 1755. It was conducted with considerable skill, and was the means of illustrating many of the Roman antiquities of North Britain. The field work was carried on in summer, and the drawings were prepared in Edinburgh Castle during the winter months. Of this work, General Roy himself says that, "having been carried on with inferior instruments, and the sum allowed having been very inadequate for its proper execution, it is rather to be considered as a magnificent military sketch than a very accurate map of a country." When the drafts of this map were finished, they were deposited in the Royal Library, where they lay totally forgotten till 1804, when being required for a new map of Scotland, undertaken by Arrowsmith, at the suggestion of the Commissioners of Highland roads and bridges, they were discovered after considerable search.

Arrowsmith's map was founded on Roy's survey of the mainland, and many other materials which he deemed authentic. It was commenced in 1805 and finished in 1807, on a scale of a quarter of an inch to a mile or one-seventh of the scale of the military survey. Since Arrowsmith's map appeared, many portions of the country have been surveyed and published, some of these, among which may be specially noted, Lanarkshire by Forrest, Mid-Lothian by Knox, Sutherlandshire by Burnett and Scott, and Edinburgh, Fife, and Haddington by Greenwood, have been deservedly reputed. But, as must ever be the case in private enterprises, these are confined to the wealthier and more populous districts, no recent survey having been made of any of the more remote regions. The latest effort of this kind, which is likely to prove the last, is the survey of Edinburgh and Leith within the Parliamentary boundaries, on the scale of five feet to a mile, by W. and A. K. Johnston, a reduction of which has recently appeared.

The principal triangulation for the Ordnance Survey of Britain commenced by General Roy, on Hounslow Heath, near London, in 1784, was extended to Scotland in 1809, but the operations were discontinued for the three following years, the persons employed having been removed to England. In 1813 the Ordnance zenith sector was used on Kellie Law, Fife, and Cowhythe, Banffshire. In 1814-15-16 the triangulation proceeded steadily. In 1817 the zenith sector was used on Balta Island, Zetland, a new base line was measured on Bethelvie Links, near Aberdeen, and the triangulation again proceeded in 1818-19. It was suspended in 1820, but re-commenced in 1821-22, in Zetland, Orkney, and the Western Islands. In 1823 the large theodolite was removed to England and afterwards to Ireland, in consequence of which the operations in Scotland were entirely suspended during a period of sixteen years. In 1838-39-40 and 41, the triangulation for connecting the islands with each other, and with the mainland, proceeded without interruption. The principal operations are now completed, with the exception of certain observations that may be required for a few stations with a view to its publication as a scientific work.

In 1815 the Ordnance department appointed Dr. M'Culloch to make a geological examination of Scotland; his researches were continued till 1821, but for want of an accurate topographical map, his labours have unfortunately done much less service than they otherwise would have done to the cause of science.

In 1819 a military detailed survey of part of Wigtonshire and Ayrshire was commenced on a scale of two inches to a mile, by Captain Hobbs and two subalterns; it was carried on, with diminishing numbers, till 1827, and extends over a space of about 937 square miles. But a survey conducted at so slow a rate, and on so small a scale, afforded no proper ground for commencing a map of Scotland, and the plans will furnish no aid whatever for the general survey.

In 1834 the Ordnance carried forward a partial secondary triangulation along the Scottish coast, from the Solway Firth to the Firth of Clyde for the use of the Admiralty surveyors.

In 1840 the Board of Ordnance and the Treasury directed that the

survey of Scotland should be laid down on a scale of six inches to a mile to correspond with that of Ireland.

The secondary operations of the survey in Scotland have been carried on since 1841. In the beginning of 1844 the detailed survey of the county of Wigton was begun; it was completed in 1850 and is now engraved on the six inch scale, with contour lines, or lines of equal elevation, and published in thirty-eight sheets. The survey of the county of Kirkcudbright was commenced in 1845, and it is expected that it will be finished and portions of it published during the present year.

In July 1846 the survey of the island of Lewis was commenced, out of due course, in consequence of an arrangement with the proprietor, by which he agreed to pay to the government the sum of £1,200, and to purchase 100 copies of the published maps. In January 1851 about three-fifths of this survey were completed, some of the sheets will be published during the present year, and it is expected that the whole will be finished during 1852.

In March 1850 the surveying party was removed from Wigton and Kirkcudbright shires to Mid-Lothian and the city of Edinburgh. The survey of the city is now considerably advanced, and it is expected that some of the sheets will be published in 1852. It is proposed to be engraved in outline, *i.e.*, without shading or distinction of houses from streets, on a scale of five feet to a mile.

The survey of the county of Edinburgh is going on, and has also made considerable progress. Plans of the towns of Wigton and Stranraer have been surveyed, on the scale of five feet to a mile. The town of Dumfries is surveyed, and the drawing plans are nearly finished.

This comprises all that has yet been done by the Ordnance Surveyors in North Britain.

From these statements we learn that the survey of Scotland was begun in 1809, but its progress appears to have been considered of so little importance in comparison with the surveys of other portions of the kingdom, that, whenever it was found convenient, the whole of the men and instruments employed were unceremoniously removed to England or Ireland; and that, in order to expedite the work in the latter country, the operations in Scotland were on one occasion altogether suspended during a period of sixteen years.

It will be seen from the annexed tables that the total sum expended on the survey in Scotland from its commencement to the present time, has been only £66,000; while the sum expended in England is £702,000; and in Ireland, £820,000; and that, in June 1849, the number of men employed in Ireland was 1210, while in Scotland the number employed was only 257.

The average annual expenditure on the survey of Scotland during the forty-one years of its progress has been only £1,609, or, omitting the sixteen years when the operations were suspended, £2,640; while on that of Ireland the average expenditure has been nearly £40,000 per annum. In the Parliamentary reports on this subject, it is stated that, in 1843, the sum voted for the survey of the whole kingdom was £60,000, of which only £9,000 was appropriated to Scotland; and since

TABLE SHOWING PROGRESS OF SURVEY.

Survey commenced	No. of Officers and Men employed in June 1840.	Total sum expended to 1850.	Average Annual Grant.	State of Survey in 1851.	Estimated sum required to complete Survey.	Estimated Time required to complete survey at present rate.	Remarks.
Triangulation 1784. Survey on northern 1 inch scale countries. 1791. Survey on 6 inch scale 1840.	736 chiefly in the northern countries.	£703,000	During 60 years since commencing the survey, on the average grant has been nearly £12,000	Nearly $\frac{4}{5}$ ths of England and Wales are surveyed and published on the 1 inch scale. The remainder, comprising the six northern countries, is in progress, on the 6 inch scale. It is proposed afterwards to reduce the maps of these six counties in order to complete the map on the 1 inch scale.  The surveys of Lancashire and Yorkshire have been completed on the 6 inch scale.  It is intended, ultimately, to extend the survey on the 6 inch scale, over the whole of England, and to survey all towns, the population of which exceeds 4000.	To complete the survey of the northern countries on the six inch scale £285,000. The estimated sum necessary to complete the survey of the southern portion of the country on the six inch scale, over the whole of England, £1,600,000. Expense of surveying the towns and completing the map on the 1 inch not yet estimated.	With the present force at the disposal of the Ordnance the time would be endless.*	The new survey of the southern portion, on the 6 inch scale, could be done in twenty years, if unlimited funds were supplied. About 250 towns remain to be surveyed, besides those in progress in the northern counties.
ENGLAND.—Area 37,094,400 acres.							

\* Parliam. Papers, 1849, vol. ix. p. 499.



Survey commenced	No. of Officers and Men employed in June 1840.	Total sum expended to 1850.	Average Annual Grant.	State of Survey in 1851.	Estimated sum required to complete Survey.	Time required to complete survey at present rate.	Remarks.
Primary Triangulation 1809.	257 officers, one in Edinburgh and one in the island of Lewis.	£66,000	The average grant during 41 years has been £1609 15s. From 1843 to 1849 the grants have varied from £9000 to £15000 but a part of this has been expended in England & Ireland.	The primary and secondary triangulations are completed, with the exception of a few observations and corrections. The County of Wigton is published in 38 sheets. Kircudbright is surveyed, and partly in the hands of the engravers. The island of Lewis is in progress, and about $\frac{3}{4}$ ths of the plans are being engraved. The county of Edinburgh are in progress, and the drawings of the plans are nearly completed.	£740,000 to complete the survey of the 6 inch scale.	50 years at least.	In order to complete the survey in ten years, the present force, and consequently the present grant, would require to be increased five times. That is to say, the force employed would require to be 1285 officers and men, and the annual grant £50,000.
Secondary Triangulation, 1841.							
Survey of South Portion, 1844.							
Survey 1825.	1210 employed in contouring and revising the map.	£820,000	Average nearly £40000 per annum. Occasionally nearly £70000 per annum.	The survey of the country was completed and published in 1846, on the 6 inch scale. It is comprised in 1907 sheets (exclusive of 32 index maps) and the plan of Dublin is engraved and published. The system of contour lines commenced in 1838 is now in progress; and the northern portion of the country is being revised and corrected.	£200,000 for the following purposes:— To complete the contouring £120,000. To complete the revision of the northern portion now in progress, £80,000. Expense of re-surveying & engraving plans of towns not estimated.	30 or 40 years to complete the contouring. Time for revision not estimated.	A very large force (number not specified) would be necessary to complete the revision and contouring within a few years.
SCOTLAND.—Area 18,944,000 acres.							
IRELAND.—Area 20,808,271 acres.							A map of Ireland, on the scale of 1 inch to a mile, was originally contemplated. Its execution is postponed. The estimated cost of reducing from the 6 inch plans and engraving is £83,604.

1843, the sum allotted to the survey of Scotland has averaged little more than £10,000 per annum, the same amount which is voted annually for *revising* the maps of the northern counties of Ireland already surveyed. Besides the sum of £820,000 already expended in Ireland, it is proposed to expend for the revisal of the northern counties above alluded to, £80,000; and, for completing the system of contour lines (now in progress), the further sum of £120,000, making in all £1,020,000, exclusive of the expense of engraving plans of ninety-five towns, which are surveyed and drawn.

From these reports we learn further, that the largest amount hitherto granted for the purposes of the survey in Scotland in any one year has been £15,000, and as admitted in evidence although larger sums have frequently been voted to Scotland, they have often been expended on England and Ireland. The consequence of this treatment has been, that, after a lingering progress extending over a period of forty-one years, the survey of Scotland is still little more than begun, the map of only one county, that of Wigton, forming about a sixty-fourth part of the area of the country, being published, while the survey of the whole of Ireland has been completed and published for several years, having been commenced in 1825 and finished in 1843, and that of England is now nearly finished.

A very general feeling exists in the public mind that, in this matter, Scotland has experienced most unmerited neglect, and since the expectation of immediate progress, occasioned by the fact that the Ordnance surveyors have occupied the ground, is doomed to certain disappointment if things are allowed to continue as they are, it is to be hoped that means may at once be devised for ensuring a more satisfactory result.

The desired object might probably be best attained by such an arrangement as would ensure the entry, in the annual Ordnance estimates, of a specific sum to be devoted to this special purpose.

The amount needed depends of course on the time within which it is required to finish the work. It is shown in the table that, at the present rate of progress, *fifty years* would be necessary for its accomplishment. Now, assuming that the efficiency of the force would be in direct proportion to the numbers employed; and since the numbers are dependent on the money grants, it is clear that five times the present force, or five times the amount granted would finish the survey in a fifth part of the time, or in ten years. The sum at present voted for the survey in all parts of the kingdom is £60,000, but it is shown in evidence, that if the whole force of surveyors and others capable of conducting the work are to be taken into pay, the sum of £100,000 will be required. Now, if the difference between the amount granted and that required—£40,000 a year—were voted to Scotland (in addition to the average sum of £10,000,) the survey of this portion of the country would be completed in *ten years* from this date, and that without prejudice to the surveys now carried on in England and Ireland. But if it should be objected that the sum of £100,000 a year is more than could now be granted for this purpose, the question remains whether, if it cannot be otherwise attained, the speedy completion of the survey in

Scotland should not be secured by suspending for a time the operations for *contouring* the map of Ireland, and for *revising* the survey of its northern portion.

Should the necessary funds be granted, it is satisfactory to know that a sufficient number of competent and well-trained surveyors and others formerly employed in Ireland, but whose services are not now required there, may at once be engaged on the survey in Scotland, and that the engraving of the maps can be carried on simultaneously with the surveying, so that no delay in the publication would be occasioned on this account.

Having recently had an opportunity of inspecting the Ordnance Survey Office at Southampton, so ably conducted under the direction of Colonel Hall and Captain Yolland, I have pleasure in bearing testimony to the excellence of the methods there employed for securing accuracy and expediting the work, the latter especially, by the extensive introduction of mechanical processes of engraving, and the masterly application of the electrotype for procuring duplicates of the copperplates.

Intimately connected with the survey of the interior, and of even greater importance to the commerce of the country, is that of the sea-coasts, carried on under the Lords Commissioners of the Admiralty. It is not many years since attention was drawn by the late Mr. Galbraith to the very erroneous character of all the published charts and sailing directions then available for the Firth of Clyde, in which it is shown "that the master of a vessel, trusting to the charts then in ordinary use, would almost certainly be wrecked if his reckonings were right."

It is gratifying to find that danger from this cause no longer exists in that quarter, admirable surveys being now completed of the River and Firth of Clyde, and of the lochs connected with them, many of the sheets of which are already published, and the others are in course of being engraved. The whole of the north, south, and east coasts of Scotland, with the Shetland and Orkney Islands, have been surveyed, and most of the sheets are published. The western coast of Sutherland is also surveyed, so that the portion of this great work still remaining to be accomplished comprises the coasts of Ross, Inverness, Argyll, and the Hebrides. All these surveys have been conducted by able and experienced officers under the enlightened and zealous superintendence of the Hydrographer Royal, Admiral Sir Francis Beaufort, who, in his anxiety to insure the utmost attainable accuracy, revises and corrects with his own hand every sheet of the survey before it is sent to press.

[In presenting the foregoing sketch by Mr. Johnston to our readers, we can add our own favourable opinion as to the excellent arrangements in the Ordnance Map Office at Southampton, under the superintendence of Colonel Hall, by the able management of Capt. Yolland, which might serve for imitation in other establishments. And with reference to the survey of Scotland by the Ordnance, it has been recommended by a recent report of a committee of the House of Commons that the two inch scale is better adapted to that country, than the six inch; and that the resulting maps should be published on the scale of one inch to the mile similar to those of England hitherto in use.—ED.]

## THE ECLIPSE OF THE 28TH OF JULY.

[We preserve the following account of the recent eclipse of the Sun as the best we have yet seen of this interesting phenomenon. It was addressed to one of our leading papers, and is well worthy of a place in the *Nautical*.]

I had originally fixed upon Carlskrona, on the east coast of Sweden, as an advantageous position from which to view the eclipse, that place being near the central line; but, on arriving at Ystad, the difficulty of reaching Carlskrona in time for the observations appeared so great that I resolved to retrace my steps by way of Copenhagen to Helsingborg on the Sound, from which place an excursion up the country could be made on the day of the eclipse, far enough from the southern edge of the shadow to give about two minutes of total obscuration. I accordingly observed at a small village called Ravelsburg, one mile north of the pretty town, of Engelholm in Sweden and about eighteen English miles from Helsingborg, in the direction of the central line. The view from this place was very extensive, Kullen Point lying W.S.W. with the intervening bay of Engelholm, while the landscape to the north included many miles of hill and dale over which to note the effects of the total eclipse. At half-past one o'clock the day was very fine. Light clouds of the modification termed *cumuli* spread over the horizon in nearly every direction, a light *cirrus* cloud covered the south-west sky to an altitude of about 15 degrees, the zenith and the heavens for 40 degrees around it being perfectly clear. At 10 minutes before 3 o'clock clouds of the same character had somewhat arisen in the south-west, but the sun was still quite free.

At 2h. 59m. P.M. local mean time, the first contact of the limbs of the sun and moon took place. The definition of the limbs was beautifully sharp and clear, beyond anything I ever witnessed, even under the most favourable circumstances, in this country. As the moon advanced I remarked that her edge was extremely rough, the mountains on her surface near the limb being numerous, and some of them of considerable altitude. A fine line of light along the moon's limb off the sun was suspected for an arc of about 20 degrees 8 minutes after the eclipse had commenced.

At 3h. 12m. the diminution of daylight was perceptible upon the surrounding landscape, and at 3h. 30m. the distant hills looked dull and misty. At this time there was no appearance of illumination of the moon's limb, though I looked very closely and attentively. The clouds in the south-west had risen considerably, but the sun was perfectly clear. At 3h. 35m. I noticed a tinge of colour upon the moon's surface, usually red or reddish purple, but it appeared variable and at times of a dark olive hue. Soon afterwards it was remarked that the diminution of daylight was very sensible, particularly on the sea and mountains of Kullen Point, the mistiness of distant objects increasing. At 3h. 40m. I remarked that the moon's disc was certainly of a dull coppery red, and suspected there was a slight illumination of her outline. At 3h. 43m. a great diminution of light, particularly towards the south, as much as a dense cloud would cause if it overspread the sky, gloomy out at sea, and towards Kullen Point. At 3h. 46m. the whole of that part of the moon near the sun was strongly illuminated with a coppery light, gradually shading off, and strongest at a short distance from the sun's border. Objects looked very dull. I thought the outline of the moon could be traced for some degrees by the difference of colour between the coppery red of her surface and the neutral tint of the field of view.

At 3h. 49m. objects towards the north presented a very peculiar appearance, as though they were illuminated by a vivid flash of lightning, or the

electrical light. At 3h. 51m. a chilly feeling in the air, the horizon looked closer in every direction, and the daylight now diminished very perceptibly. A thin *cirrus* cloud began to form about the sun, but it was of so slight a character as not to interfere in the slightest degree with the observations. The azure blue of the sky had very much deepened, particularly north of the zenith, where it was of a deep violet. The moon's limb appeared very uneven, quite a gap on her south edge. At 3h. 55m. everything very gloomy—the air felt chilly and damp, the sky of an intense blue colour. From this moment my eye was applied to the telescope until the sun had gone out entirely. Just before the commencement of the total eclipse a considerable mountain on the moon's edge appeared to shoot forward and join the sun's limb, thus cutting off a small portion of his disc near the southern cusp. About 20 seconds before the totality the same appearance presented itself with respect to many other irregularities upon the moon's edge, and instantaneously "Baily's beads" were formed. The only visible portion of the sun resembled a string of fine luminous beads, separated by irregular intervals, and clearly caused in the present instance by the sun shining between the mountain peaks and along the valleys on the apparent edge of our satellite. The same exquisite definition of the limbs of the sun and moon, to which I have before alluded, continued during the partial eclipse, and the phenomena of "the beads" were seen in all their beauty, until the beginning of total eclipse was marked by their instantaneous disappearance.

Up to this moment I had employed a dark glass, throwing a neutral tint over the field of the telescope, and my attention was so arrested by the unexpected distinctness of "Baily's beads" that I omitted to remove the shade for a few seconds after they had vanished, and thereby lost the view of the sudden formation of the corona, or "ring of glory," round the sun; and when I looked without the dark glass, certainly not more than five or six seconds after the extinction of the sun, the corona and red flames were already conspicuous. With respect to the former I should describe it as a luminous ring, very much brighter towards the sun, and gradually fading away to a distance of about half the diameter of the moon, where its light became lost in the ground colour of the heavens. Its colour resembled that of tarnished silver; but I am inclined to attribute this to the intervention of a very thin cloud, and think it very probable that in the absence of this cloud the corona would have appeared perfectly white. There was a flickering or unsteadiness in its light, but nothing resembling circular motion. Divergent rays of a somewhat paler colour than the corona itself appeared to stream off in every direction from the border of the sun, and I think their extremities were frequently visible beyond the limits of the corona; those portions nearer the sun appeared to be shining through this luminous ring.

The rose-coloured prominences described so minutely by observers of the total eclipse of 1842, formed by far the most striking feature during the eclipse of the 28th ult. The most remarkable one was situated about 5° north of the parallel of declination on the western limb of the moon. It was curved like a sabre near its extremity, but perfectly straight throughout two-thirds of its length. The edges were deeply tinged with rose-red, which faded off towards the centre, but I saw no violet colour about this prominence. On first viewing this remarkable object through the telescope, a few seconds after the commencement of totality, I estimated its length at about 45 seconds of an arc, and being most desirous to obtain a confirmation or otherwise of the observation at Honolulu, described in my letter of July the 10th, I watched attentively for any alteration of size that might be apparent, and in less than 30 seconds found that it had lengthened considerably; for though it had remained perfectly stationary, I now estimated its length at one minute and a half, or twice as great as at the first glimpse,

the dark body of the moon having appeared to move away gradually, and leave more and more of the projection visible.

About  $10^{\circ}$  south of the principal prominence, and at a distance of one minute of arc from the moon's dark limb, I saw a luminous triangular spot of the same colour as the great flame, yet perfectly detached from the limb, it was evidently of the same nature as the large prominence, and must have existed in the upper regions of the solar atmosphere. The edges were of a bright rose pink, the centre paler. With the exception of a gradual receding of this spot from the moon's limb as she moved across the sun, I could distinguish no change. Its form, appearance, and position, relative to the large projection, continued exactly the same as long as I could discern either.

On the dark limb of the moon, on the side near the horizon, there appeared an uninterrupted succession of rose-coloured inequalities, which seemed to be in a state of fluctuation, though not to such an extent as materially to change their number and positions. The tops were of a full rose red, but their bases presented a bright violet tint, which appeared to spread along the limb of the moon. Near the western extremity of this long range of "red flames," there was an isolated one of about forty seconds' altitude, and another of similar magnitude, at an angle of  $145^{\circ}$  degrees from the north towards the east. I was too closely occupied in watching the larger prominence, to pay much attention to the smaller ones during the short time allowed me, and I am consequently unable to state from observation whether they underwent the same gradual variations of apparent magnitude. The moon's surface was decidedly reddish-purple soon after the beginning of the total eclipse; but half a minute later, it seemed to have lost the reddish tinge, and assumed a dull purple colour. The position of the approaching reappearance of the sun was indicated by the visibility of a bright glow, like twilight, on that part of the limb of the moon where the continuous range of rose-coloured projections had presented itself, and a few seconds afterwards the beads were again noticed, not so numerous as before, but larger and more brilliant; five seconds more and this beautiful appearance vanished, the sun re-appearing as an extremely narrow but rapidly widening crescent. About ten minutes subsequently clouds began to form near the sun, and he was soon hidden from this cause, so that no opportunity was afforded of watching the declining phases of the eclipse.

Such are the principal telescopic phenomena which I was fortunate enough to witness, but I doubt if any language can convey an adequate impression of the grand, nay awful phenomena on the earth and in the heavens, during the continuance of the total eclipse. The entire landscape was overspread with an unnatural gloom; persons near me assumed an unearthly cadaverous aspect—the sea, in the distance, appeared of a lurid red—the whole of the southern heavens were of a sombre purple or purplish grey, the only indication of the sun's place being the ring of light, which we are accustomed to term the corona. North of the zenith the sky was of the most intense violet, and appeared very near, and, to crown the whole, the north-west and north-east heavens were occupied by broad bands of light of a yellowish crimson, or Claude-Lorraine red, which, gradually sinking into the unnatural purple of the sky at greater altitudes, produced an effect that will never be effaced from my recollection, though I feel that I can convey no just idea of its awful grandeur. I envy those observers who were not compelled, in their character of astronomers, to withdraw their eyes from the contemplation of these astounding phenomena on the earth, and in the atmosphere to view the less imposing, though doubtless, not less remarkable appearances which the telescope exhibited round the sun. A few seconds, however, were sufficient to fix the general aspect of nature in my mind, beyond the chance of forgetting it as long as my life lasts.

I saw no stars or planets myself, but on my journey home was frequently assured of their having been distinctly seen, even at Copenhagen, where the eclipse was not total. It was so gloomy in this city, that persons had difficulty in recognizing each other in the streets. One remarkable proof of the accuracy of astronomical calculations relative to the eclipse came to my knowledge. According to the best theories of the sun and moon, the eclipse should have been total at Helsingborg, on the Swedish side of the Sound, but partial only on the opposite coast, at Elsinore; and the captain of a steam-boat, passing at the time between these places, and about half a mile from Helsingborg, describes the curious effect produced by the country being dark in Sweden, the gloom increasing the further the eye was directed from the coast; while in Denmark the sun was evidently shining during the continuance of the total eclipse in Sweden. The southern limit of the shadow must therefore have passed over the Sound rather nearer to the Swedish than to the Danish coast—precisely as predicted.

I am, &c.,

J. R. HIND.

*Mr. Bishop's Observatory, Regent's Park, August 6th.*

#### SEIZURE OF THE LEVENSIDE MERCHANT VESSEL BY MILITARY PASSENGERS.

The following extraordinary narrative is from the *Advocate* (a St. Helena paper), of the 5th of June. It could have been wished that the proceedings of the magistrates had been reported exactly, instead of being thrown into the narrative form. The case, however, is obviously one that calls for further inquiry.

"In our columns of this week will be found an account of the recent occurrences on board the barque *Levenside*—perhaps the most extraordinary which it has ever fallen to the lot of a public journal to report. We forbear at present expressing any opinion on the subject, as it now remains to be settled by the proper legal authorities; yet there are circumstances connected with this case upon which we feel called to comment.

"Immediately on the *Levenside's* arrival in this port, an information was laid by Capt. Vesey, of the Royal Artillery—in command of the detachment of troops on board—against Capt. Campbell, the master—then confined by Capt. Vesey's orders in the hold of that vessel. A warrant for his apprehension was at once granted by the magistrates, and a policeman sent off to see it enforced. The evidence afterwards adduced in the investigation clearly proves, that had Capt. Campbell been disposed to commit murder, he had every opportunity of so doing, but that he confined himself, and, as he alleges, for the support of his authority, to presenting the pistol at Capt. Vesey's breast, and warning him that, if he attempted to interfere with him, or with his sailors in carrying out his orders, he would shoot him through the heart. Upon this threat, apparently the result of much previous bickering on the voyage—upon the fact acknowledged by the captain, that he did so present the pistol, and upon his alleged efforts to use it during the struggle which ensued—the magistrates have committed Capt. Campbell for an assault and attempt to murder.

"An information is then laid by the captain of the vessel against Capts. Vesey and Neill, passengers, and against the soldiers acting under Capt. Vesey's orders, to the effect that they had seized him, confined him chained

in the hold, and assumed the command of the vessel, thereby committing an act of piracy, for which he requested that a warrant might be issued against them. This Capt. Campbell does as soon as the isolated and peculiar position in which he was placed admitted; but the magistrates, receiving his information, strangely enough refuse to give his serious charge a hearing, although upon what grounds it has not pleased them to enlighten either him or the public. Capt. Campbell, we understand, intends appealing to a higher court, where the decision of the magistrates will be submitted to due test. Meantime we cannot refrain from remarking strongly on the unusual spectacle of the colonial secretary taking his seat as one of the magistrates, and an active and influential part throughout this trial against the accused. In this peculiar case, involving serious and important principles, and in which government officers are concerned, the presence of one civil servant as magistrate in a bench of two was quite sufficient. The addition of a second in the colonial secretary was quite uncalled for, is well calculated to destroy confidence in the court, a rightful cause of public jealousy, and a bad precedent for the future.

"The inhabitants of this small island, at a ruinous distance from the higher courts of appeal in the mother country, have long had reason to be proud of their Supreme Court, and thankful to the respected judge, who has earned for that court the entire confidence and a high estimation of all. With such an exemplar before them, they naturally expect that the inferior courts of the island should be also worthy of a high reputation—a reputation incompatible with the appearance even of any unfair exertion or preponderance of government influence in them.

*"Extraordinary Seizure of the Barque Levenside by Military Passengers.*

"On Thursday, the 29th of May, the barque *Levenside*, arrived in the bay under peculiar and altogether unprecedented circumstances; she had been, in fact, forcibly seized during the voyage by Capt. Vesey, a passenger in charge of a small detachment of the Royal Artillery destined for this place. The captain of the vessel was a prisoner in the hold—in chains; with a sentinel over him to prevent communication with the crew.

"From what we have been able to learn from the evidence in the police court, the history of this strange and startling affair appears to be as follows:

"That on the 15th of May, in the evening, while the *Levenside* was on the high seas, Capt. D. Campbell, the master, ordered the booby-hatch to be closed. This was done, and immediately afterwards Capt. Vesey summoned the troops under his charge to take off the hatch in defiance of the master's order, which was immediately carried into effect. This intemperate opposition to the master's legitimate authority no doubt, in some measure, gave rise to subsequent events.

"On the 17th, two days after this occurrence, a squabble appears to have taken place between one of the soldiers and the ship's carpenter. Capt. Vesey insisted that the carpenter should be punished; but upon investigating the case, Capt. Campbell, the master of the vessel, could not see very clearly that his man was more to blame than the soldier, and we believe did not in any way punish the man. This led to some sharp words between the officers, and it is asserted that Capt. Vesey said he had a superior force on board, and should not hesitate to use it when he thought requisite. This language appears not only to have excited Capt. Campbell, but also to have alarmed him as to the safety of his ship—seeing that his orders had already once been forcibly interfered with by the troops under Capt. Vesey's command; and as the authority of a captain is paramount on board his own vessel, it would appear that he was not willing to allow a passenger to usurp his authority, and interfere with him and his crew in working



the vessel. At ten minutes past eight o'clock of the same evening the 17th, Capt. Campbell came on deck to relieve Cooper, his second mate, then on duty; for as the captain, three weeks previously had disrated the first mate for some negligence or misconduct, he himself did the first mate's duty.

"It being dark, and past eight o'clock at night, the captain ordered the booby-hatch to be put on; but no sooner was the order given than Capt. Vesey, in charge of the troops, said it should not be done; Capt. Campbell then pulled out a pistol, and told Capt. Vesey that if he attempted to interfere with him, and prevent any of the crew obeying his orders, he would shoot him through the heart. Upon this qualified threat being uttered, Capt. Vesey immediately called his men to fall in round the hatchway, and ordered the bombardier to go below for arms. This order was instantly obeyed, and as soon as Capt. Campbell saw the arms being handed up the hatchway, he went forward, seized hold of one of the muskets, and commanded the soldier to give it up, saying, 'Put that down, it does not belong to you—it belongs to the ship.' The soldier refused, whereupon a struggle took place for the gun, when some one called out 'seize him,' on which several soldiers seized the captain, threw him against a boat, wrenched the pistol out of his hand, as well as the musket he attempted to take from the soldier.

"At this point there is considerable discrepancy in the evidence. Capt. Vesey and Capt. Neill, aide-de-camp to Sir James Emerson Tennant, the expected governor, swear that the pistol was taken from the master by Capt. Vesey himself, while others as positively swear that it was seized by a soldier and handed to Capt. Vesey.

"Then comes the most extraordinary part of the affair. No sooner was Capt. Campbell seized than Capt. Vesey ordered his hands to be lashed behind his back, and it appears, at the instigation of Capt. Neill, he was hurried into the hold, and secured to a stanchion—and kept for sixteen hours in that position without either water or anything else being given him, as far as we can gather from the evidence. The next morning he was unlashd from the stanchion, and had strong chains fastened to his wrists by padlocks; in this position he was kept in the hold for twelve days and nights, with an armed sentinel keeping watch over him. He was not allowed to communicate with the crew during this time, nor was he released from this extraordinary captivity, even on the arrival of the vessel in the Roads, till the police went on board and caused him to be unchained.

"Even when the police went on board, the soldier refused to give him up without the authority of Capt. Vesey, although they were furnished with a proper warrant from the magistrates.

"Immediately Capt. Campbell was seized and forced into the hold, Capt. Vesey commanded one of the soldiers to turn every one belonging to the crew out of the cabin, and take possession of it, which was done. Two soldiers seized the steward, hurried him along the deck, and bundled him as he says, by 'compulsion,' down the hatchway, from which he appears soon after to have escaped.

"They then commenced ransacking the captain's cabin—seized his fowling-piece, opened his chest, and took a pistol from it, which they ultimately sealed up in the case belonging to them. Capt. Vesey and Capt. Neill now ordered the disrated mate to work the ship for them, and ordered the second mate Cooper to turn to, who said he would do so for sake of the ship, provided Capt. Vesey and Neill distinctly understood that by so doing he was not disobeying Capt. Campbell's order, whom he considered as his master. The crew at first were not disposed to work the ship under these circumstances, till Cooper very properly called them aft and explained the

conditions on which he would resume duty—to which they also agreed, and turned to work. Capt. Vesey not only seized the ship's books and papers, but turned out the steward, and appointed one of his soldiers to fill that responsible office, and also reinstated the first mate, thus making liberal use of the patronage appropriated to himself by such extraordinary means. When Capt. Campbell required a change of linen, his chest was sent to him in the hold, and on opening it he found that his log book and private journal were both missing, to say nothing of his writing desk and the ship's papers, which Capt. Vesey seized when he took possession of the vessel.

"The captain's hands were always unchained at meal times, and carefully put on again afterwards, as Capt. Neill says, with great kindness and consideration.

"When the vessel arrived in the bay, Captain Vesey went on board her Majesty's steam ship *Hecla*, to ask the commander's advice. He saw the first Lieutenant, who immediately told him that the best thing he could do would be to reinstate the captain, restore all the papers, and put matters to rights as soon as he could; for, according to his opinion, he had committed what was tantamount to piracy on the high seas. However, instead of doing this, Captain Vesey kept the master chained below till he went on shore, and obtained a warrant against him on the charge of assault and attempted murder.

"Captain Vesey's alleged reason for not allowing the booby-hatch to be closed is, that the weather was hot, and that it would endanger the health of the men—about thirteen in number. This hatch is furnished with a slide, or scuttle, for the purpose of ventilation, which can be kept open when the hatch itself is down; consequently no great harm would happen to the men when below, even with the hatch closed, for it was always in their power to keep the slide open, which is one of considerable size.

"Two of the artillerymen, it appears, were sick; and as there was no surgeon on board, Captain Campbell, the master, supplied them with medicine from his own chest. Whether the master of the vessel or the artillery captain is the best judge of the necessity of putting on the hatch at night we cannot say; but it is pretty clear that Captain Vesey thought himself the best judge of this matter, and therefore deposed the captain, put him in chains in the hold, clapped an armed sentinel over him, reinstated the disgraced mate, seized the ship's papers as well as arms, appointed a military steward, and wound up the whole affair by charging the captain with an attempt to murder; thus preventing himself and friends from being charged with piracy, and sundry other matters dexterously performed on the high seas. While, as a fitting climax to the whole business, his trusty steward landed from the ship beastly drunk, and was forthwith marched to the guard-house, a place not by any means so well stocked with the good things of life as the lazaretto of the *Levenside*.

"After four days' investigation, Captain Campbell was committed for trial on the charge of assault with intent to murder. Information was then laid by Captain Campbell against Captain Vesey and the others of his passengers, for piracy, and illegal seizure of the ship; which information was taken and signed by the magistrates."

[This case has to be investigated at home. We would not prejudge it, but the above account looks very much like a partial view of the question.]

## AMERICAN LIFE BOATS.\*

THE following statement will show the operations of the Massachusetts Humane Society for saving life, and relieving those exposed by shipwreck. The "Stanton Life-boat" being the most approved now known has been adopted, it will be seen by the Society.

*To Mariners.*

At a meeting of the Trustees of the Massachusetts Humane Society on the 13th instant, it was voted, That a statement of locations of the Life Boats and Rockets of the Society be distributed, in the form of a circular, for the information of navigators.

Wherefore the undersigned give notice that the old boats of the Society are stationed as follows:—

Edgartown, Martha's Vineyard . . . . .	one boat.
Nantucket, near Tuckernuck . . . . .	one "
Chatham, near the Lights . . . . .	one "
Nanset Beach Eastham . . . . .	one "
Between Highland Light, Cape Cod, and Race Point . . . . .	three "
Plymouth, north of the town . . . . .	one "
Scituate, inside the harbour . . . . .	one "
Cohasset do do . . . . .	one "
Nantasket Beach and Hull . . . . .	two "
Lynn, near Swampscut . . . . .	one "
Marblehead Harbour . . . . .	one "
Gloucester Harbour . . . . .	one "
Rockport, formerly Sandy Bay . . . . .	one "
Annisquam . . . . .	one "
Plum Island, under the care of, and belonging to, the Merrimac Humane Society . . . . .	one "
Total, Eighteen boats.	

There have been located very recently, eighteen other boats, called No. 1, twenty-four feet long; No. 2, twenty and twenty-one feet long; No. 3, fifteen and sixteen feet long—which are fitted after the plan of Colonel Stanton, with India rubber canvass floats, furnished by G. H. Penfield, and made by the Union Rubber Company, the depot of which is No. 19, Nassau Street, New York.

They are located at—

Nahant, No. 1 . . . . .	one boat
Cut River, Marshfield, No. 1. . . . .	one "
Point Alderton, No. 2. . . . .	one "
Cohasset, No. 2. . . . .	one "
Scituate Neck, south of Minot's, No. 2 . . . . .	one "
Chatham, near the Light, No. 2. . . . .	one "
Monomoy Point, near the Light, No. 2. . . . .	one "
Cuttihunk, near the Light, No. 2. . . . .	one "
Gay Head, near the Light, No. 2. . . . .	one "
Plymouth, South of the town, No. 2. . . . .	one "
Deer Island, Boston Harbour, No. 3. . . . .	one "
Boston Light, No. 3. . . . .	one "
Swampscut, Lynn, No. 3. . . . .	one "
Ipswich, near the Light, No. 3. . . . .	one "
Marblehead, No. 3. . . . .	one "
Scituate Harbour, No. 3. . . . .	one "
Cattihunk, near the other Boat, No. 3, . . . . .	one "
Duxbury, at Powder Point, No. 3. . . . .	one "

\* Concluded from our last, page 440.

Rockets for throwing a line to wrecks, so as to establish a communication whereby a boat may be more safely hauled through the surf, are stationed at Boston Light, at Point Alderton, Scituate Neck, south of Minot's Ledge, Ipswich Light, Highland Light, Cape Cod, and Chatham.

Three other boats are being built, under an appropriation by the State, for Plum Island, one to be under the care of the Merrimac Humane Society; one at Race Point, Cape Cod, and one at Wellfleet, near to Newcomb's Hollow, for the Massachusetts Humane Society. Life preservers for all the crews are to be furnished from the same appropriation, so as to insure safety, when boarding wrecks from the exposed beaches.

The undersigned applied to the Secretary of the Treasury to give orders to the revenue cutters to protect the property of the Humane Societies, and to afford facilities for inspecting their boats and houses on the coast, and to make experiments, &c. In answer, the Secretary writes:

"In so far as the aid of the revenue vessels, when employed in the duties specially assigned to them by the ninety-ninth section of the act of March second, 1799, may be useful in promoting the objects of the Society, the Department cheerfully assents to your request. Of this the collectors at Boston and Newport have been informed."

The Committee earnestly recommend those who may be cast on the exposed beaches, not to attempt to leave the ship until low water, as many lives have been sacrificed by too hastily attempting to land on a rising tide.

R. B. FORBES,  
DAVID SEARS,  
SAMUEL AUSTIN,

*Comm. Mass. Humane Soc.*

*Boston, April 24th, 1849.*

---

## NAUTICAL NOTICES.

*Perth, Western Australia, May 3rd, 1851.*

**LIGHTHOUSE AT THE ENTRANCE TO SWAN RIVER.**—On and after 1st of June, 1851, a plain continuous light will be exhibited on the summit of Arthur's Head, the south point of entrance to Swan River, between sunset and sunrise, for the convenience of shipping making for the anchorage in the night.

The light will be ninety-two feet above high-water level, supported by a white stone tower erected on the summit of a cliff, and will be visible five leagues at sea in clear weather from a height of eighteen feet.

It is in lat.  $32^{\circ} 3' 13''$  S., long.  $115^{\circ} 45' 11''$  E., from Greenwich, and bears S.  $71^{\circ}$  E., twelve miles from the revolving light, on Rottnest Island.

J. S. ROE, *Surveyor General.*

---

**TURK'S ISLAND.**—A letter from Turk's Island, dated July 1st, says:—The British Government are about to erect a lighthouse at the north point of this island, on the reef where the brig *Edward Henry*, from Boston, struck, June 11th, with a total loss of vessel and a partial loss of cargo. The British brig *Jenny Lind* struck July 11th, on the same point. Also by a decree recently issued, the Norwegian Government has ordered that all the lights north of Stal, which were lighted from the 15th of August until the 1st of May, shall be in future lighted from the 1st of August until the 16th May, inclusively.

*Trinity House, London, August 7th,*

**LIGHTS AT THE SPURN POINT.**—The encroachments of the sea upon the Spurn Point, at the entrance of the river Humber, having made the preservation of the low light in its ordinary position both difficult and uncertain; and it having been ascertained that the exhibition of a light situate to the north-westward of the high lighthouse is equally effective for the purposes of navigation, as that heretofore exhibited to the south-eastward of the said high lighthouse, notice is hereby given, that the low light at the Spurn Point will henceforth be exhibited from a building which has been set up to the north-westward of the high lighthouse, and that to the south-eastward thereof discontinued.

By order,

J. HERBERT, *Secretary.*

*Ship Margaret, April 11th, 1851.*

**SIR.**—During the south-west Monsoon in the China Sea, according to circumstances many ships from China and Manila, proceed by the route through the Mindoro Sea and Basselan Strait, Sooloo Sea, and Macassar Straits to Europe, British India, &c., consequently a tedious passage in most cases occurs, especially between the Straits of Basselan and Cape Rivers; many frequently being set to the eastward of that cape by the current which continually sets to the eastward, along the North Coast of Celebes. Some I have known bear up, and passing to the eastward of Celebes, beat up the Molucca Passage with considerable loss of time. Much time would be saved acting according to circumstances as the winds prevailed in the Mindoro Sea, from the south-east, if a ship instead of losing time off the Coast of Magendanao, and the west entrance of Basselan Straits, stood directly to the southward, to the west of the whole Sooloo Archipelago, for Unsang Point on Borneo; then with the prevailing wind, "south-westerly," a course S.E.b.S., twenty miles will bring her nearly abreast the west Point of Tawee Island, which is a bold high remarkable head-land and free from danger, between which and two low islands lying to the south-eastward of it, and the Island Sibbotoo is a fine clear channel, leading directly into the Sooloo Sea and clear of danger, perfectly safe at night as well as by day. I have passed through in four hours, from the south-east to the north-west, when at other times I have been three days getting through Basselan Straits by the same route and time of year.

March 20th, 1851, noon, the Island Semanoale, bore north, distance one mile, the Peak of Sibotoo, W.  $\frac{1}{2}$  N., and the west point of Tawee Island, N. W.  $\frac{1}{4}$  N., steered N.W.b.W., and N.W. until sunset, when the west point of Tawee Island bore N.E.  $\frac{1}{4}$  N. Bluff hill or mountain, N.E.b.E.  $\frac{1}{4}$  E., the north-west point of Sibbotoo, W.b.S., the Peak S.W.  $\frac{1}{2}$  W., and south-east Point, S.S.W.  $\frac{3}{4}$  W., Unsang Point seen from the mast-head N.W.  $\frac{1}{2}$  W., steered under easy sail N.W.b.N., until midnight, and then hove to until daylight, when Unsang Point bore N.W.  $\frac{1}{2}$  W., the south extreme of the Peninsula S.W.b.W.  $\frac{1}{2}$  W. Sibbotoo Peak just in sight from deck S.b.E., the bold bluff hill or mountain, west end of Tawee Island, S.E.  $\frac{1}{2}$  E. No sign of danger was visible from the mast-head, "steered" N.N.W., until the coast of Borneo was lost sight of. Through the day the weather was unfavourable, and the sun obscured prevented my getting the latitude and longitude of Unsang Point, which is not correctly laid down. At daylight on the 23rd passed the small Island Mambahewan, the Moolaegee Island bearing N.N.W., six or seven leagues. With light winds from the northward, stood to the W.N.W., lat. at noon  $6^{\circ} 36' N.$ , long.  $118^{\circ} 29'$ , when at 3h.

30m. p.m., the bottom was seen under the ship, and 10½ fathoms obtained, gradually deepening to the north-west to 27 fathoms and no bottom. The following bearings were obtained, the Centre Peak of Cagayan Sooloo N.N. E. ¼ E., the south-west Moobeegre Island N.b.E. ¼ E., the small Island Mambahenewan S.E. ¼ S., excellent altitudes at the time, give the long. 118° 26' 30" E., by three excellent chronometers, agreeing with each other, lat. in 10 fathoms 6° 42' N. I find the Moobeegre Islands in one with the Centre of Cagayan Sooloo N.N.E. ¼ E., instead of S.E. from the S.E. Point of that Island, and are (the S.W. one,) in lat. 6° 56' N., long. 118° 33' E.

March 24th, passed through the Straits of Balabac and was three days with light winds, making the Royal Charlotte shoal, which at 8h. 30m. bore S.W. ¼ S. six miles, our chronometer giving the long. 118° 41' 45" E., agreeing with Capt. Ross's position of it to a quarter of a mile.

On the 29th, passed the parallel of Pulo Sapato without sighting it and stood to the northward. Making all allowances for the lightness of the wind, I feel assured that Pulo Sapato was passed in less time than we should have got through the Straits of Basselan, and if bound to Manila, perhaps that port reached in the same time. I had no need of dispatch and therefore only carried moderate sail. A great evil exists in no correct charts of this navigation, Horsburgh's chart, sheet No. 1, China Sea, being too far to the west, thirty miles from Leegetam to Belawn, when it comes nearer the truth, and Norie's is five or six miles too far west also. I never yet could find one chart of this intricate Archipelago to be in the least depended upon. Heather's old chart of Sooloo Sea is the nearest the truth, but in every other part it is altogether incorrect.

As the knowledge of a good, safe and more direct channel to ships bound both eastward or westward must be of service, I have been induced to trouble you with these few remarks, as well as a diagram of the passage called by me Sibbootoo Straits, and the positions of several islands, headlands, &c., lying in the route, as several times determined by good chronometer and lunar observations.

I have also found Horsburgh's charts of the Molucca Passage very incorrect, which is not the case in the Gillolo Passage. I am happy to see that our neighbours, the Dutch have begun to show a little enterprise at last, and we have the benefit of their new chart of the Molucca and Java Seas, but have to regret they are not carried out more minutely. The forthcoming one of Macassar Straits is greatly needed, which with a correct chart of the Sooloo and Tawee Archipelago, Mindoro Sea, and the dangers south-east of Calamianes would tend much to facilitate the navigation of these parts.

I am, Sir,

Your obedient servant,

R. SPATLY.

[There are few navigable tracts more frequented and less known than the Sooloo Sea and its Archipelago, as we have long ago had occasion to observe; Dalrymple's old chart published by the Hydrographic Office being the foundation of all others. Of Macassar Strait also we know just as little and yet it is one of those high roads most important in the navigation of the Eastern Seas. The Dutch charts of the coast of Java have just been published by the Admiralty, and we are glad to find that we are to have some more of these important results of their labours. Nor will the contributions of our own government be long wanting in the part of the world to which we are alluding, as the whole of the coast of Palawan forming the western shore of the Sooloo Sea is preparing for publication by the Admiralty, from the surveys of Commander Bate in the *Royalist*, an interesting account of which appeared in our last January number.—ED.]

*A Table of Points, Head-Lands and Islands, as differing from Horsburgh's Book and Charts.*

Places, &c.	Lat. N.	Horsburgh.		Long.	Horsburgh.	
		Book.	Charts.		Book.	Charts.
Samboangan anchorage	0 /	0 /	0 /	0 /	0 /	0 /
		6 43 N.	6 55 N.	122 5·5 E.	122 14	122 8
Belawn Peak	6 4 N.		6 3	121 56		121 58
Seemusa Island			5 54	121 49·7		121 34
Kapool			5 59	121 34		121 15
Sooloo East point			5 57	121 33		121 15
Beteenan			6 2	121 54·3		121 17
Pata			5 46	121 14		120 54
Kabingan			5 40	121 6		120 45
Seeavee Peak	5 31		5 28	120 56·5		120 24
Low N.E. island						
Tawee Archipel	5 13		5 14	120 44·5		119 58
Eastmost Peak,						
Tawee Island				120 30·7		
Semanoale	4 48·5		4 57	119 58		119 24
Sibbotoo Peak	4 49·5		4 59			119 12
Bluff Hill or						
Mount west						
point Tawee			5 8	119 48		119 14
Island						
Maratua island						
N.E. point	2 19	2 24	2 21	119 9		118 29
Cape Trees	0 0		1 19	121 38		121 2
Cape Rivers	1 20	1 15	1 16	121 2	120 34	120 36
North Island						
betwn Capes						
Rivers and						
Dondo	1 3		0 58	120 35		120 23
Middle Island	1 0		0 57	120 30		120 17
Reef Island	0 58		0 55	120 26		120 13
Point Dondo		0 48	0 49	120 20	119 57	119 57·5
" " Peak			0 45·5	120 22·5		120 1
South Watcher	0 8		0 9	119 48·5		
North Point						
Cape Ter-	0 2·5	0 1	0 3	119 47·5	119 26	119 27
mou						
South Point do.	0 8·3		0 8	119 57·5		119 30
Cyrus Reef	0 2 N.		0 1	119 43·5		119 22
West Pt., Palos			0 1			
Bay	1 44 S.			120 1		
Cape William		2 34		118 52·5	118 58	119 0
Point Onkona	3 4			118 48·5		118 56
Parapoang Bay						
anchorage.	3 31			118 58		119 6
Mindoro Sea						
Pangootoran		6 15	6 15		120 40	120 17
Sooloo Town		6 1	6 1		121 12	120 46
Mooluger I. S.W	6 56		6 56	118 33		118 39
Margaret's Bank	6 42			118 26·5		

**FLOATING LIGHT, BAHAMA BANK, Off Ramsey, Isle of Man.**—It having been found on a recent examination of the position of the Floating Light Vessel off the Bahama Bank, Ramsey, Isle of Man, that it is advisable that the said vessel should be moved in a W.b.S. direction, notice is hereby given, that on or about the 1st of September next, the said Light Vessel will be moved one mile W.b.S., from her present position, and into 11 fathoms at low water spring tides.

The following Notice has been communicated to this Corporation, by direction of the Right Hon. the Earl Grey, one of Her Majesty's principal Secretaries of State. The same is re-printed by order of this Board, for the general information of mariners.

J. HERBERT, *Secretary.*

**LIGHTHOUSE ON ROTTNEST ISLAND.**—A revolving catoptric light will be exhibited from the lighthouse near the centre of Rottnest Island on and after the night of 1st June, 1851, during the period between sunset and sunrise.

The Lighthouse is a white stone tower, fifty-three feet in height, erected on the summit of the island, and is surmounted by a lantern 11 feet high.

The light will consist of two groups of three powerful lamps each; the whole revolving once in two minutes, and showing a flash of light of five seconds' duration every minute, with intervals, of fifty-five seconds of darkness. The centre of the light is 197 feet above high water level, and at the height of eighteen feet may be seen in clear weather at a distance of seven leagues.

Rottnest Lighthouse is in lat.  $32^{\circ} 0' 19''$  S., long.  $115^{\circ} 31' 18''$  E. from Greenwich, and stands three miles north,  $75^{\circ}$  E. by compass from the west extremity of the island, and two miles three-quarters west by compass from its east extremity.

*Fort William, May 6th, 1851.*

**NEW PILOT STATION FOR THE S.W. MONSOON.**—Distinction of lights, notice is hereby given, that from and after the 15th of March, 1852, the Pilot station for the S.W. Monsoon will be changed to the position described in the following Sailing Directions of the master attendant of this port; and that from and after the date specified, the Eastern Channel Light Vessel will show a bright red light instead of a plain one, as at present, to distinguish it from the Gaspar Channel light, which bears from it about N.N.W., distant twenty-two miles.

By order of the Superintendent of Marine,

JAMES SUTHERLAND, *Secretary.*

*Sailing Directions for vessels requiring Pilots during the south-west Monsoon at the New Station, on the north-east part of the Pilot's ridge.*

False Point Lighthouse is in lat.  $20^{\circ} 19\frac{1}{2}'$  N., and long.  $86^{\circ} 47'$  E., and a buoy is placed in  $21\frac{1}{2}$  fathoms on the Pilot's Ridge, in lat.  $20^{\circ} 49\frac{1}{2}'$  N., and long.  $87^{\circ} 42'$  E.; the buoy, therefore bears from False Point lighthouse N.  $59^{\circ} 49'$  E. true, and distant fifty-nine miles and a half.

A vessel, therefore, after making the lighthouse at False Point (in passing which she ought not to go into less than 10 fathoms), should bring it to bear about W.S.W. ten or fifteen miles distant, when she will be in 11 or 12 fathoms, then steer E.N.E. when the soundings will gradually increase to 23 fathoms on the eastern edge of the Pilot's Ridge. She should then regulate her course so as to keep between the Ridge and 27 fathoms, when, by attention to the lead and nature of the soundings, course and distance run from the Lighthouse, it is almost impossible to avoid making the Pilot vessel, as their cruising ground is immediately to the north-east of the light vessel



stationed during the south-west Monsoon in close proximity to the buoy on the Ridge.

The soundings to seaward of the Pilot's Ridge are in general a greenish or olive-coloured mud, with occasionally a few bits of broken shells mixed with it; whilst those on the Ridge are of a shelly sand, or minute gravel, of a reddish or rusty brown colour.

Vessels approaching the station are earnestly warned to be careful in avoiding collision when communicating with either the light or supplying pilot vessel; and on making the former at night, they are strongly recommended to heave to, at a proper distance, till daylight; by which measure they will avoid the probability of passing the supplying pilot vessel in the darkness of the night.

The eastern channel light vessel is in lat.  $21^{\circ} 04' N.$ , and long.  $88^{\circ} 14' E.$ , and therefore bears from the buoy on the Pilot's Ridge, N.  $63^{\circ} 26' E.$  true, and distant thirty-two miles and a half.

The eastern channel light vessel burns a blue light every hour during the night, commencing at 7 P.M., and a maroon (or torch) at the intermediate half-hours, and her standing light will, from the date above specified, be a bright red colour.

The Pilot's Ridge light vessel shows one plain standing light; and burns a blue light every hour, and a maroon at the intermediate half-hours, and also fires a gun on sighting any vessel.

During the north-east Monsoon, the cruising ground where ships will have to seek for pilots will be, as heretofore, in the Eastern Channel.

(Signed) H. L. THOMAS, *Master Attendant.*

*Master Attendant's Office, March 25th, 1851.*

#### HOY SOUND LIGHTS.

With reference to the Notice issued by the Commissioners of Northern Light Houses, bearing date the 15th day of April last, of the exhibition, for the purpose of leading through the western entrance of Hoy Sound, of two Lights upon the Island of Gremsay, lying in Hoy Sound, opposite Stromness, in Orkney, on the 15th day of May last; and to the intimation therein given, that an additional light would be exhibited as a guide for vessels approaching Stromness, *from the eastward.*

The Commissioners now give notice that a fixed bright light will be exhibited from the high tower on Gremsay, on the night of Friday the 1st of August, and every night thereafter, from sunset to sunrise.

The Light will illuminate a small Arc from N.  $\frac{1}{2}$  W., to N.N.W.  $\frac{1}{2}$  W., in the direction of the Islands of Cava and Risa.

In addition to the Notice already given, full description of the Lights on Gremsay have now been issued by the Commissioners, accompanied by a Tracing of the Coast; and copies will be furnished to Mariners on application at any Custom House in the United Kingdom.

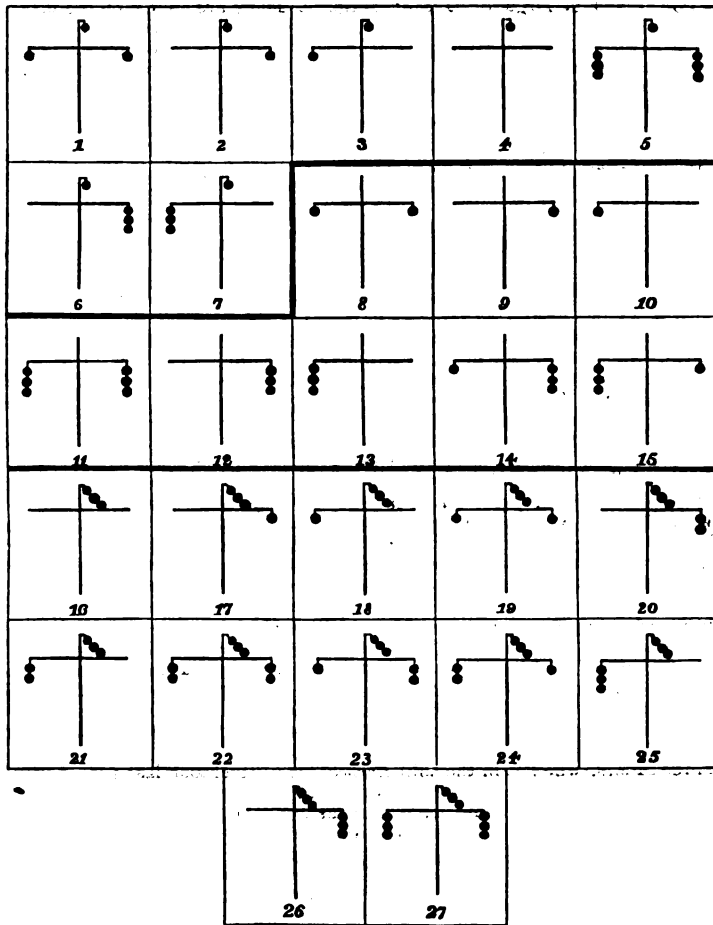
By order of the Board,

(Signed) ALEX. CUNNINGHAM, *Secretary.*

*Office of Lighthouse Board, Edinburgh, 16th July, 1851.*

#### SIGNALS FOR THE BAR OF BILBAO.

The following code of Signals for the guidance of vessels in crossing the Bar of Bilbao, has been recently established by the Spanish government; and is to come into use on the first of October next. It will be seen that as far as No. 7, a single ball being at the masthead implies that the bar is passable: that the signals from No. 7 to 15 when no ball is at the masthead, the bar is impassable; and that the remaining signals when three balls are at the masthead relate to the depth of water on the bar. An attention to this is of importance, and will prevent mistakes.



EXPLANATION OF THE SIGNALS.

- No. 1. Steer for the bar.
- 2. Steer for the bar more to N.E.
- 3. Steer for the bar more to S.W.
- 4. Vessels of light draft to steer for the bar.
- 5. Vessels to steer for the bar in the order\* of their draft of water.
- 6. Vessels to give each other a wide berth, so as in steering for the bar not to mistake signals.

- No. 7. Make all sail, attend smartly to signals, and be ready for working ship.
- 8. Vessels cannot enter.
- 9. Keep to the N.E. of the bar.
- 10. Keep to the S.W. of the bar.
- 11. Keep the sea: it is not yet time to enter.
- 12. Appearances are bad; no vessel should anchor.
- 13. Keep out—you cannot enter.

\* This we presume implies those of the least draft first.

- |  |   |
|--|---|
| <p>No. 14. Vessels of large draft cannot enter.</p> <p>15. The wind is unsteady, or the ebb tide forbids entering.</p> <p>16. The depth of water on the bar is not known.</p> <p>17. There are 19 feet on the bar.</p> <p>18. There are 18 feet on the bar.</p> <p>19. There are 17 feet on the bar.</p> | <p>No. 20. There are 16 feet on the bar.</p> <p>21. There are 15 feet on the bar.</p> <p>22. There are 14 feet on the bar.</p> <p>23. There are 13 feet on the bar.</p> <p>24. There are 12 feet on the bar.</p> <p>25. There are 11 feet on the bar.</p> <p>26. There are 10 feet on the bar.</p> <p>27. There are less than 10 feet on the bar.</p> |
|--|---|

#### WRECK OF H.M.S. REYNARD ON THE PRATA SHOAL.

On the 28th of last month her Majesty's screw steamer *Reynard*, left this for England but with orders first to accompany her Majesty's brig *Pilot* to the Prata Shoal, about 160 miles from this, to assist in the rescue of part of the crew of the brig *Velocipede*, intelligence having been received of the wreck of that vessel. These shoals have been surveyed, but no accurate knowledge has been obtained of the strength and irregularity of the currents prevailing there. During the night of the 30th, while the greatest vigilance was exercised, and when, according to all their different means of reckoning, it was supposed that they were at least thirty miles from the shoals, the point of danger, the *Reynard* struck. The sea was smooth, the water deep, and nothing gave the slightest indication of the proximity of danger. All endeavours to get the vessel off failed, and the wind getting up, with a heavy sea, the vessel soon became bilged and a perfect wreck. Captain, officers, and crew, saved nothing. They passed one night on a raft, and on the following day reached the island, and, with the crew of the *Velocipede*, all got safely on board the *Pilot*, which vessel also barely escaped being carried on the shoals. Great sympathy is felt for the able and zealous commander of the *Reynard*, Captain Cracroft, who after frequenting all places on the coast of difficult navigation, and moving about with his vessel, more than any other of her Majesty's vessels have been called upon to do, has met with this misfortune while engaged in this last service—one of humanity, but of unusual danger.

Three sailors, who left in the ship *Larpen* from Liverpool last year, arrived lately at Shanghai from the island of Formosa. They relate the account of the wreck of the vessel there in September last. On reaching the shore, officers and crew were attacked by the natives, and there is too much reason to believe that all on board, with the exception of the three, by name Berries, Blake, and Hill, were murdered by the natives. Those saved are indebted for their lives to an old Chinaman who took them in and protected them, and afterwards, with the assistance of a Chinese mandarin, got them on board a vessel passing near the coast. A subscription for the Chinaman has been collected at Shanghai, and H. M. st. *Salamander* has been sent with it to Formosa, and no doubt with the thanks of our government to the mandarin for his humane and laudable conduct.—*Canton Paper*.

#### THE WHALE FISHERIES.

(Concluded from page 445.)

But according to the chart which is constructed for the whole ocean in the manner already explained, these are the places in which most whales have been found, and which it may be supposed now afford the best whaling grounds,

## SPERM WHALING GROUND ABOUT THE EQUATOR.

MONTHS.	LATITUDE.		LONGITUDE.	
	°	'	°	'
May to November (inclusive).....	0	to 05 S.	80	to 75 W.
April to December .....	0	" 05 "	85	" 80 "
December to July.....	0	" 10 "	90	" 85 "
December to March.....	0	" 05 "	90	" 95 "
February .....	0	" 05 "	125	" 120 "
All the year .....	0	" 10 "	170	" 180 "
All the year .....	5	" 10 "	85	" 80 "
All the year .....	5	" 19 "	95	" 90 "
All the year .....	5	" 15 "	110	" 100 "
August to September (inclusive) .....	5	" 10 "	115	" 100 "
November to March .....	5	" 10 "	120	" 115 "
December to April .....	5	" 10 "	125	" 120 "
January to June .....	5	" 10 "	130	" 125 "
February to June .....	5	" 10 "	135	" 130 "
January.....	5	" 10 "	145	" 140 "
December to January (inclusive) .....	5	" 10 "	155	" 150 "
March and May .....	5	" 10 "	160	" 155 "
December, January, March, June, and November .....	5	" 10 "	175	" 170 "
December, January, and February .....	10	" 20 "	80	" 75 "
July to November (inclusive).....	10	" 15 "	85	" 80 "
July to February .....	10	" 15 "	90	" 85 "
November to June .....	15	" 20 "	85	" 80 "

## NORTH PACIFIC.

May, June, July .....	20	" 25 "	150	" 145 E.
May to August (inclusive) .....	20	" 25 "	170	" 105 "
April to October .....	20	" 30 "	145	" 170 "
July to August .....	25	" 30 "	140	" 145 "
June to October .....	25	" 30 "	150	" 175 "

## RIGHT WHALING GROUND SOUTH PACIFIC

MONTHS.	LATITUDE.		LONGITUDE.	
	°	'	°	'
January, February, March .....	20	to 50 S.	45	to 50 E.
May, June, July .....	25	" 30 "	35	" 40 "
September, October, November, December.....	30	" 40 "	55	" 60 "
October, November, December .....	30	" 40 "	60	" 65 "
October, November, December .....	30	" 40 "	65	" 80 "
December and January .....	35	" 45 "	90	" 95 "
July to November (inclusive) .....	35	" 40 "	115	" 120 "
November and December .....	45	" 50 "	120	" 130 "
January .....	45	" 50 "	160	" 170 "
December, January, February, March, April ...	40	" 50 "	170 E.	175 W.
September to May (inclusive) .....	30	" 45 "	85	" 75 "
August to December .....	20	" 40 "	175	" 165 "
November, December, January.....	30	" 50 "	165	" 150 "

## NORTH PACIFIC.

April and May.....	40	" 45 N	145	to 150 E.
July to October (inclusive) .....	45	" 50 "	145	" 150 "
April and May .....	40	" 0 "	10	" 155 "
May to September (inclusive) .....	45	" 55 "	155	" 165 "
" .....	45	" 55 "	165	" 170 "
" .....	50	" 58 "	160 W.	165 W.
" .....	55	" 60 "	115	to 130 "

## SOUTH ATLANTIC.\*

August to December (inclusive) .....	35	"	40 S.	25	"	20 W.
August to December " .....	35	"	40 "	20	"	05 "
September to December " .....	35	"	40 "	05	W.	10 E.

As to whether the right whales are to be found in the high northern latitudes in our winter, or in high southern latitudes in our summer, when the whalemén do not visit such latitudes, of course the chart does not show. Thus, between 50 and 60° N., 130 and 155° W., we only know that whales are abundant from May to September, inclusive. We know not as to the other months, because the night and cold then drive the whalemén from this part of the ocean, and we cannot say anything as to the numbers in which the fish resort there then. The charts are therefore silent on the subject.

It is the same at the south in its seasons—that is, when it is winter there the whalemén abandon the high latitudes, and seek their game in more genial climates.

But, seeing the abundance of our whales in the Greenland and Arctic Seas in our summer season, and seeing that they have not been sought for in similar latitudes south, I invite the attention of the whalemén to the subject of southern whaling in south summer time.

Below the parallel of 50° S.—indeed with here and there an exception—, might say that, below the parallel of 40° S. the whole chart is a blank; consequently few vessels go beyond that parallel. The indications to the chart are that somewhere to the south of these parallels, and between these meridians, as given below, whales are probably to be found in considerable numbers, if not in great quantities, viz:—

Below 40° S. from 25° W. to 10° E. <i>a.</i>
" 50 S. " 45 E. " 60 E. <i>b.</i>
" 45 S. " 120 E. " 140 E. <i>c.</i>
" 50 S. " 160 E. " 120 W. <i>d.</i>

In view of all the information before me, I would suggest the following as a very inviting route or cruise for a vessel that finds herself on the whaling ground of the South Atlantic in our fall months:—

She can cruise in the region *a*, of the last mentioned table; and from that, but still keeping well down to the south, pass rapidly on, unless she finds whales by the way to the region *b*.

A week or two here will satisfy her as to the prospect for whales.

Entering the region *c*, more time might be spent in it, crossing different parallels, taking care to keep well to the south. After having cruized and tried sufficiently in region *c*, the favorite region, the vessel may then "crack on" for region *d*, and when this region is explored the season at the south will probably be over. The north-west are the prevailing winds of these latitudes; and therefore the programme of this route would be easy.

Ending the search for right whales at the south, and leaving the region *d* for the equatorial cruising grounds, and entering them between 175° E. to 175° W. the route westward, and between 5° S. and 10° S., will be through the best sperm whale grounds. These grounds commence between the meridians of 180 and 170° W., after crossing the parallel of 35° S., for just here sperm whales resort in great numbers. Continue north between these meridians until you cross 10° S.

From 170° E. to 165° W., between the parallels of 5° and 10° S. is capital sperm ground.

The vessel, therefore, reaching these grounds between the meridians of 170° and 180° W., may tarry in them, tending westward, as long as she has luck, taking care not to look north of the line here for whales, for they are not to be found except as stragglers.

After crossing these grounds, which reach west as far as 170° E., and east to America, she should "carry on," without stopping to look for whales, until she crosses 20° N., between 165° W., and 174° E., which is again fine sperm ground.

After passing west of 175° E. she will find good sperm ground between the parallels of 20° and 30° N., as far as 140° E.

Passing from these grounds, excellent right whale fishing will be found above the parallels of

\*And in Behring's Straits.

50° N. between 135° W. and 165° W.  
 45 N. " 155 E. " 175 E.  
 35 N. " 145 E. " 155 E.

and up through into Behring Straits. Upon all these last mentioned right whale grounds, there is good fishing from May to September, inclusive.

I have not as yet found the log-book of any whaler that has cruized here at any other season of the year, and therefore, my information as to the rest of the year is negative.

But there is reason afforded by the chart for the opinion that the right whales of the North Pacific never come to the south of the parallels named, and that, therefore, as a general rule, these fish remain somewhere to the north of the parallel of 35° all the year.

If this indication of the chart be correct, and I see no reason to question it, it appears that this animal must have supplies of food all the year round above 35° N.

I have reason to believe that the temperature of the sea has much to do with the whale, or the growth of its food; that the sperm whale delights in warm water, and the right whale in cold; and those whalers who are co-operating with me in collecting materials for the "Wind and Current Charts," and the whale chart belongs to the series, will therefore, understand and appreciate the importance of keeping a daily record as to the *temperature of air and water*.

There is another point, also, to which I would call their attention, because, by regarding it, it may prove of value to these researches and to them, and that point is deep sea soundings.

It is said that the sperm whale goes to the bottom of the sea for its food. What is the greatest depth to which it can go for this purpose? and are its places of resort confined to parts of the ocean that come within these depths.

Now, if owners would provide their ships each with a few thousand fathoms of twine, and some scraps of old iron or lead to serve as sounding weights, I am sure that the whalers, from the great philosophical interest which many of them manifest with regard to my researches, would in calms get deep sea soundings for me.

If the ocean were very deep, and the time could not be spared to haul up the line, it might, the length out being known by what is left, be cut; and as the line and sinker would cost but little, the expense to each ship would be but a trifle.

I take this occasion to say, because some of the whalers have supposed it unnecessary to continue the abstract when in sight of land, that it is important to have a complete abstract for every day they are at sea, that we may know whether they find fish or not, how plentifully, the force and direction of winds and currents, temperature of the air and water, and glean information as to all other phenomena which they are requested in the abstract log to note.

M. F. MAURY, *Lieut. U.S. Navy.*

*National Observatory, Washington, D. C.*

*April 16th, 1850.*

#### ROYAL YACHT SQUADRON REGATTA.

The following is a detailed account of the race round the Isle of Wight on the 22nd August, for the £100 cup, given by the club, and open to yachts of all nations. The following yachts started at ten o'clock, with a five-knot breeze from the westward:—Beatrice (schooner), 161 tons, Sir W. P. Carew, Bart.; Volante (cutter), 48 tons, J. L. Craigie, Esq.; Arrow (cutter), 84 tons, T. Chamberlayne, Esq.; Wyvern (schooner), 205 tons, the Duke of Marlborough; Ione (schooner), 75 tons, Almon Hill, Esq.; Constance (schooner), 218 tons, the Marquis of Coyngham; Gipsy Queen (schooner), 160 tons, Sir H. B. Houghton, Bart.; Alarm (cutter), 193 tons, Joseph Weld, Esq.; Mona (cutter), 82 tons, Lord Alfred Paget; America (schooner), 170 tons, J. C. Stevens, Esq.; Brilliant (a three-masted schooner), 393 tons, G. H. Ackers, Esq.; Bacchanie (cutter), 80 tons, B. H. Jones, Esq.; Freak (cutter), 60 tons, W. Curling, Esq.; Eclipse (cutter), 50 tons, H. S. Fearon, Esq.; Aurora (cutter) 47 tons, Le Marchant Thomas, Esq.

The utmost alacrity was displayed by the respective crews, and in less than half a minute the whole fleet was under way. The Gipsy Queen took the lead,

being to the northward in the strength of the tide, followed by Beatrice; to the southward Volante, Ione, Constance, Arrow, Alarm, &c. The America was in the westward line, the whole being moored in two lines. She was the last to take "a notion," and as soon as her canvass was up she slipped away from among the fleet, and sailed up to her competitors, passing them in succession, until she was abreast of Norris Castle, having only the Constance, Beatrice, and Gipsy before her. At 10h. 16m. she had overhauled the two former, and nearly caught the Gipsy; the America attempted to pass to leeward of her, but the intention was frustrated. The wind dropped a little, and the Volante came up, took advantage of the light air, and in a few minutes more passed the Gipsy, the America being about thirty fathoms in her wake. In another quarter of an hour the Gipsy again took the lead, followed by Volante, America, Constance, Arrow, and Alarm abreast, then the rest at a respectful distance, and about eighty other yachts accompanying them, presenting a grand and imposing sight. At 10h. 45m. they passed Ryde, the Gipsy being well a-head, Volante and America abreast, the wind again unsteady, the sternmost vessels bringing up the breeze. At eleven the Volante, Gipsy, and America passed the Sandheads abreast, closely followed by the Freak, Aurora, and Arrow, the huge mainsail of the Alarm in the rear, crawling along among the smaller yachts, and appeared to feel the breeze, the America's sails motionless; again they filled, but she had lost her station. As soon, however, as the breeze overtook her, away she went. Off Noman Volante shifted her jib, and the buoy was rounded as follows:—the Volante, 11h. 7m.; Freak, 11h. 8m. 20s.; Aurora, 11h. 8m. 30s.; Gipsy, 11h. 8m. 45s.; America, 11h. 9m.; Beatrice, 11h. 9m. 15s.; Alarm, 11h. 9m. 20s. Arrow, 11h. 10m.; Bacchante, 11h. 10m. 15s.

The other yachts had positions of about half a minute between each. The wind now freshened, and the "thick stuff," or "table cloths," was observed to hang upon the hills. Off Brading Harbour the Yankee took the breeze again, and came up. "hand over hand," and went by to the leeward of the Freak and Gipsy. The beautiful Volante she had yet to conquer, she being nearly a quarter of a mile a-head of her. At twenty-eight minutes past eleven, however, she contrived, without any seeming difficulty, to slip by her, as she had done with the rest, and away she went, keeping close in to the island; her jib was then hauled down, and stowed away. There was now a nice breeze. All at once the Volante was observed to bear away out of the line, and stand for the Nab, and was soon after followed by the Arrow, Bacchante, and eventually Constance, the remaining yachts keeping their course. It was imagined by some on board the steamer that an idea just struck her to pursue such a course, while others were of opinion that outside the Nab was part of the course, but the card simply stated "round the island." The Yankee still went away from the lot, and at 11h. 49m. she tacked, and stood in towards the Culver. At noon she again tacked, and in ten minutes afterwards once more reached in towards the bay.

At 12h. 38m. she tacked between Sandown and Shanklin, and laid along the island to the southward, the others being dead to leeward. The America then set her gaff topsail and outer jib, the breeze dying away. At 12h. 55m. she again made a short reach towards Dunnose to shun the tide, and in a minute afterwards her jib-boom (which she had procured as an addition at Cowes,) broke "short as a carrot." As there was but little wind and no "lop," it was thought that there had been a "slippery hitch" about the guy tackles; however, the only impediment was the time occupied in getting the "wreck" in. Onward she went, and stood off to the southward to gain a good offing. She was timed several times as 50 seconds in stays. The cutters were working along shore without apparently the least chance. The Wildfire (not in the race) from her manner, without an ensign, was taken for the Aurora, she being in company with the yachts, and "mocking" the movements of the nearest vessel. At length the America got about two miles to the windward, abreast of Steephill, the Aurora, Freak, and Volante working short tacks under the land. At 3 p.m., the America was off St. Lawrence, the R. Y. S. committee steamer (with several noblemen and members of the squadron on board) keeping her company, in order to watch her actions in a seaway. She was "easy and graceful wthal." On looking after the other yachts it was observed that the Arrow had run aground on the ledge of rocks between Ventnor and Bonchurch, the east end of Mill Bay. The committee, therefore, immediately directed the

captain of the Queen steamer to put back to her assistance. The Majesty, another steamer, bore up likewise. The Alarm came up shortly afterwards, and launched her boat with a kedge to assist. The Majesty towed her afloat after some half hour's rocking, and the Arrow, with the Alarm and some other yachts, returned to Cowes; Aurora, Freak, and Volante, tacking together in shore. At 3h. 20m., off St. Lawrence, the America was well to windward; but with a strong W. S. W. breeze and a "chopping" sea, the Eclipse and Bacchante being off Ventnor. The other yachts were so much to the eastward that it was impossible to note precisely their positions. At 4 p. m., after several tacks, the America weathered Rock-end—the south point. About a quarter of an hour previous to this, the Wildfire (which many mistook for the Aurora) passed the point, and had a good start of at least three miles, with her ballast up to windward; but at 5h. 26m., off Freshwater Bay, the America passed her and took the conceit out of her. The Aurora was observed about seven miles astern. On nearing the Needles Rocks, the Fairy, her Majesty's tender, came out, and, as was subsequently ascertained, she was despatched with Lord Alfred Paget on board, to report the position of the yachts. The Victoria and Albert, with the royal standard at the main, having the Queen, Prince, and royal family on board, remained inside the Needles. The Fairy returned, communicated with the Victoria and Albert yacht, and was again despatched to ascertain the position of the others. Returning inside the Needles the committee reported the information for her Majesty. At 5h. 47m. the America passed the rocks, leaving the Aurora from seven to eight miles astern, and two other yachts to leeward; and as the flood tide had not done outside, and as the breeze came dropping, it was thought it would be a late job. When inside the Needles they were joined by several other steamers full of company, and a number of yachts to witness the return of the vessels, and great indeed was then the excitement. On the return from the westward the America came up with her foresail and mainsail in "goosewing" fashion, but for an hour afterwards, though thousands kept the channel in view, there was no appearance of the second yacht. Passing the island shore thousands were seen upon the heights as far down as Thorness, while a vast number of boats and yachts, eager for the information, hailed the steamer as she passed them. Eventually the America reached Cowes at 8h. 35m.; another gun was fired at 8h. 55m., which was inferred to be the second vessel, but this was a mistake. It was dark, and fireworks were being exhibited, and amid the confusion it was impossible to pick the yachts out, even had there been any in the vicinity. The Volante returned to Cowes with the loss of her bowsprit.

The whole expanse of the harbour and roads off Cowes literally swarms with craft, from the magnificent and aristocratically fitted 200 ton schooner down to the smallest punt; and the steamers can with difficulty thread their way to and from the pier through the ever-shifting white-winged vessels that add beauty and animation to the charming scenery of the island.

The America is of course the great object of attraction, and the interest is still further heightened since the termination of the race. The number of boats and punts rowing around her resemble nothing so much as a hovering swarm of bees; and it is but justice to her commander to say that he evinces the greatest courtesy and hospitality to all who go on board for the purpose of examining her. The peculiarity of her build is the subject of general remark. When on the decks, on a dead level, her masts are perpendicular, but when afloat they have a rake of four and a half feet; she is thus wedge-shaped both ways, the least resistance, both on her sides and under water, being at the bows. Much has been said of her extreme sharpness, but this is more apparent than real. Near the water line the bows assumes a perfectly round form, and her model, when closely examined, approaches as nearly as possible to that which nature, the great modeller, has given to the water fowl. Her sides are equally round and full, and she is about one-half wider amidships than our vessels of the same tonnage. The value of this peculiar construction is, that she floats over the water instead of having to plough her way through it, and an increase of speed does not, as in ordinary vessels, occasion an increase of resistance. This will also account for the enormous spars she carries—lying as it were flat on the surface of the water, her stern acting as a powerful rudder, where the resistance to her progress is the least; she stands upright in a gale, which



compels other yachts to heel over considerably. In the race of yesterday the America, as if conscious of her power, was one of the last vessels to get under weigh, and this, coupled with the fact that the Gipsy Queen and one or two others had for nearly two hours the lead, inspired the yachtsmen with hopes which the result failed to justify. We have already referred to the fact of four of the yachts having suddenly altered their course and proceeded round the Nab Light instead of passing between it and the island. The America, followed by all the others, took the inner channel, which is not the usual course, and which is one of considerable risk at peculiar times of the tide. At the termination of the race it was objected that the America had not gone over the usual course, and was not entitled to the cup. The sympathies of the boatmen and fishermen, which were evidently throughout with the stranger, the nautical instinct of their class telling them that if she had fair play she would win, took fire at this quibble, and in every quarter allusions as broad as they were uncomplimentary were made to the conspiracy got up to defeat the American boat. It was said that the pilot who took her inside the Nab, having been born in Southampton, and steered many yachts, must have known the proper course, and that the commander of the strange vessel could not be held answerable for the mistake, if mistake it was. The sailing committee met to-day at the club house at Cowes, to consider the objection that had been urged; and, after due consideration, came to the conclusion unanimously that the America was fairly entitled to the cup. The decision has been hailed with universal satisfaction. It is acknowledged on all hands that if the breeze had been fresher the superiority of the stranger would have been much more strikingly manifested, and in beating up against the wind, it was observed that not withstanding her low bulwarks she shipped little or no water. This evening the pending match between the America and Mr. Stephenson's schooner yacht Titania was the great subject of discussion. The Titania is a comparatively new iron boat, built upon Mr. Scott Russell's wave principle, which it is alleged offers the least resistance to the water in passing rapidly through it. The principle has been tried with the most satisfactory results in the case of the Antwerp steam ship Baron Osy, one of the fastest vessels out of the Thames, and the Titania, which has the reputation of being an extremely fast boat. The condition laid down by Mr. Stevens, that there must be at least a six knot breeze, will however, be a severe test of her sailing qualities, and bets are freely offered at the club-house that she will be distanced both ways.

---

#### PROGRESS OF SAILORS' HOMES CONTINUED.

DURING the late official visit of the Board of Admiralty at Portsmouth. Rear Admiral Berkeley, Mr. Cowper, and Capt. Eden, went to the Sailors' Home in Queen Street, where they were received by Commander Johnson, the Superintendent, and the Board of Directors, and conducted over the establishment, with which they expressed their unqualified pleasure. Admiral Berkeley contributed £5 in aid of the institution, which, we are happy to say, is in a very popular and encouraging position with the seamen of the port. Indeed, so great of late has been the patronage bestowed by seamen upon this home that on the representation of Commander Johnston, a Board of Directors met to day to adopt a resolution for the provision of more beds. On the previous evening the home was visited by the Admiral of the fleet, Sir F. B. Martin, G. C. B., accompanied by the second Secretary of the Admiralty (Capt. Hamilton) and Capt. Cospatrick B. Hamilton, R. N., who also inspected the institution, and like their official predecessors expressed the utmost satisfaction with all the arrangements.

Capt. Hall has also been here, and has now proceeded to Plymouth, for the purpose of arranging for the formation of a home there. From the great influx of inmates at Portsmouth Home, it has been found necessary to enlarge the number of lodging rooms. The whole of the beds have been frequently filled last week, and before long a large house will be required, for

the sailors' themselves soon learn to value the cleanliness, order, and comfort, as well as the advantages of being boarded at a "Sailors' Home."

At Plymouth a Committee of Naval Officers, Merchants, and Shipowners, have been formed for the purpose of establishing a Sailors' Home, for the man-of-war-men and merchant sailors when paid off from their ships—on shore on leave—or prevented by stress of weather from returning to their ships.

Admiral Sir John A. Ommanney, K.C.B., the Commander-in-Chief; the Heads of the Naval Departments, and other Naval Officers; as also many of the Merchants, Shipowners, the Clergy, and Inhabitants approve of it, and have promised to assist.

Capt. Hall has already received several donations for it:—

	£	s.	d.		£	s.	d.
Admiral Sir A. Ommanney	5	0	0	Captain Kingcombe, R.N.	1	0	0
The Earl of Hardwick	5	0	0	Captain Glanville, R.N.	2	0	0
Mrs. Cartwright, Nigel House, Kent	5	0	0	Charles Atherton, Esq.	2	10	0
John Bradshaw, Esq. Knowl, near Guildford	2	0	0	William Dyer, Esq. R.N.	1	0	0
Captain Thomas Dickenson, R.N.	2	0	0	Captain Edwards	1	0	0
Thomas Fox, Esq. York Gate, London	2	0	0	Captain Hillyar, R.N.	1	0	0
E. Pearn, Esq., Master Attendant, Deptford	1	0	0	Rev. J. Briggs	1	0	0
Admiral Thomas, Donation	5	0	0	Hon. Captain Keane	1	0	0
Ditto Annual Subscription	2	0	0	Captain Stewart	1	0	0
				Allen Bone, Esq.	3	3	0
				A Sailors' Friend	5	0	0

A correspondent of the *Daily News* says, dating "Government House, Monrovia, June, 20th, 1851.

"I am happy to say our public affairs are progressing smoothly. Now for some time we have had no misunderstanding with British merchants trading to Liberia. This is exceedingly gratifying to me, and I sincerely trust that the good understanding will continue, and that in future our intercourse will be of the most friendly character. The presence of a British Consul in Liberia has had a most happy effect. Misrepresentations are not so easily made, and all matters of dispute arising between the authorities and English traders are amicably adjusted on the spot.

"At no time in the history of our little commonwealth has the progress of general improvement been more encouraging than at the present time. Commerce is decidedly increasing, and never before has agriculture in Liberia received greater attention. Among the neighbouring native tribes there are fewer wars and commotions, and they are more rapidly, too, adopting civilized and industrious habits. This is in a great measure attributable to the abolition of the Slave trade upon this part of the African coast, and I think I may safely say that the traffic cannot again be revived within the jurisdiction of Liberia—certainly not between Sierra Leone and Cape Palmas.

"Now that the slave trade is at an end upon our coast, and we have secured nearly all the intermediate points of territory between the extremes of our jurisdiction, we are giving more attention to extending our influence into the interior. Measures are being taken to form a settlement in the mountain region in the interior of Grand Bassa. The country has been explored, and is represented as being healthy and fertile, while the aboriginal inhabitants are friendly, and decidedly more industrious and intelligent than the natives near the coast. I am more and more confirmed in the opinion that it is more healthy in the interior of this country beyond the influence of the miasma arising from the mangrove swamps, bordering the whole coast, than in any location we at present occupy, and I shall not fail to give my best influence and encouragement to the measures now on foot for forming interior settlements.

**THE NICARAGUA ROUTE from the Pacific to the Atlantic.**—A letter to the *Daily News* says, "It was my good fortune to be a passenger in the Nicaragua Company's steamer *Pacific*, which left San Francisco on the evening of the 14th ult., with a strong wind from the north-west, with 425 passengers. After a pleasant voyage of fourteen days, we made San Juan del Sud on the Pacific. This is a very beautiful harbour, where a ship can be well sheltered from all winds, and the climate is perfectly delicious. The passengers were all landed by the ship's boats on *terra firma*. The flag of our country floated from the mountain peak in honour of the first steam-ship that had ever walked the waters of San Juan of the South. We

immediately proceeded with mules over a picturesque country of forests, hills, and the murmuring of 'soft waters,' followed by a clear, beautiful champaign country. After a ride of fourteen miles, we reached the memorable and dilapidated city of Rivas, situated on Lake Nicaragua. This is really a beautiful sheet of water, with two large mountains rising from the centre. At Rivas we were detained three days and four hours, waiting for baggage, &c., but all this delay will of course be obviated by the next trip, as the Commodore will have everything in locomotive order.

From this city we embarked on board the steamer *Director*, and ran down the lake to Fort San Carlos, thence to the Rapids of Castille, a distance of 104 miles, where we embarked on board the new iron steamer, *Sir H. L. Bulwer*, and proceeded at a rapid rate down the San Juan river. The air was serene, the river placid, and the banks studded with trees clothed in 'perpetual green.' We arrived at San Juan, on the Atlantic, in 30 hours' running time from the Pacific to the Atlantic, all well. At this point we embarked on board the steam ship *Prometheus*. I must not omit to inform you that Commodore Vanderbilt was with his passengers on the overland route, and did all that could be wished to expedite matters. I am convinced that the route from New York to San Francisco by 'this travel' can and will be made by the next trip in, at the furthest, 23 days, through a beautiful country, perfectly healthy, the inhabitants kind, attentive and obliging.

METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. Rogerson, of the Royal Observatory. From the 21st of July, to the 20th of August, 1851.

Month Day.	Week Day.	Barometer.		Thermometer				Wind.				Weather.	
		In Inches and Decimals.		in the shade.				Quarter		Strength		A.M.	P.M.
		9 A.M.	3 P.M.	9 A.M.	3 P.M.	Min.	Max.	A.M.	P.M.	A.M.	P.M.		
21	M.	29.99	30.00	69	71	51	73	W	W	4	3	b	bc
22	T.	30.06	30.02	68	72	50	74	E	SE	1	2	bc	bc
23	W.	29.80	29.65	58	66	56	68	E	E	1	1	or 1) (2)	or 3) (4)
24	Th.	29.51	29.56	56	56	54	58	NW	N	1	2	or 1) (2)	op 3)
25	F.	29.51	29.51	57	64	54	66	NE	NE	1	1	o	bc
26	S.	29.69	29.71	54	66	52	66	NW	W	2	2	od 1)	o
27	Sa.	29.92	29.96	60	68	49	69	W	W	2	2	bc	bc
28	M.	29.94	29.90	64	63	58	66	SW	SW	4	2	bc	o
29	Tu.	29.82	29.82	67	71	57	73	SW	SW	3	3	bc	bc
30	W.	29.90	29.94	63	70	53	71	S	NE	1	2	bcfm	bc
31	Th.	30.03	29.96	58	68	55	69	N	W	1	3	o	bc
1	F.	29.88	29.90	70	76	61	77	W	W	1	1	o	bc
2	S.	30.03	30.08	66	73	61	75	W	W	1	1	o	bc
3	Su.	30.10	30.18	68	76	62	78	SW	SW	3	2	bc	bc
4	M.	30.14	30.17	67	78	59	79	N	NE	1	1	bc	bc
5	Tu.	30.30	30.30	62	68	56	70	NE	NE	4	3	b	o
6	W.	30.28	30.22	60	67	54	68	NE	NE	5	4	go	o
7	Th.	30.16	30.08	61	74	55	75	NE	NE	3	3	o	bc
8	F.	30.04	30.04	66	77	56	78	NE	NE	9	2	b	b
9	S.	30.06	30.04	62	68	57	70	NE	N	2	2	o	o
10	Sa.	30.12	30.10	61	66	55	67	N	N	1	2	o	bc
11	M.	30.16	30.13	67	74	55	74	E	E	1	1	bc	bc
12	Tu.	30.11	30.09	69	78	56	79	SE	S	1	2	bc	bc
13	W.	30.00	29.96	72	79	62	80	S	NW	1	1	o	bc
14	Th.	29.97	29.91	66	70	56	72	SW	SW	4	4	bc	bc
15	F.	29.94	29.95	66	74	58	76	NW	W	1	3	b	bc
16	S.	30.04	30.02	64	73	53	75	SW	SW	1	2	bc	bc
17	Su.	29.94	29.90	68	67	61	74	SW	SW	4	4	bc	bep 3)
18	M.	30.10	30.20	62	64	56	66	N	N	4	3	bc	bc
19	Tu.	30.40	30.38	55	66	45	67	N	N	2	2	b	b
20	W.	30.33	30.26	60	76	51	77	W	SW	2	2	b	bc

July, 1851.—Mean height of the barometer = 29.879 inches; mean temperature = 61.1 degrees; depth of rain fallen = 4.380 inches.

Capt. Burnett's and Capt. Franklyn's letters shall be attended to.—Ed.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.



**THE ARCTIC SEA**  
 between  
**BEHRING STRAIT AND BAFFIN BAY**  
 Shewing the discoveries of  
 1851.  
 By Cap<sup>t</sup>. Austin, R.N., C. B., and Cap<sup>t</sup>. Penny, —  
 in Search of Sir John Franklin.  
 + Furthest.



THE  
NAUTICAL MAGAZINE

AND

**Naval Chronicle.**

---

OCTOBER, 1851.

---

**THE FALKLAND ISLANDS.**

[The following useful information concerning the Falkland Islands forms the substance of a letter addressed by Mr. Bracey Robson Wilson (Mariner of Swansea,) to Benjamin Hawes, Esq., M.P., which with the view of making the resources of those islands better known than they appear to be among our merchant shipping, is offered to them through the medium of the *Nautical Magazine*. In the May number of this work, the great advantages of Port Stanley are pointed out, (page 276,) and directions for making and entering that port appear in our volume for 1845.—ED. *N.M.*]

PREVIOUS to the issue of charts from the Admiralty by their agent to the mercantile marine, the charts used were generally so faulty and incorrect that a notion prevailed among the merchant seamen and masters that the Falkland Islands were a most dangerous locality to navigate, and that together with the ignorance of any supplies being available there or with the majority, of there being a settlement at all, was, and is yet, the chief cause of so few ships calling there.

It was during a former voyage by the merest accident I heard from the manager of the copper smelting establishment of the Mexican and South American Mining Company in Coquimbo, that when he with the whole of the people in his employ were on their passage out in the *Sir Charles Forbes* from London, they were short of water and put into Stanley Harbour, where they received the best attention and supplies of water, fresh beef, geese, and milk.

On my arrival in London in 1849, I procured from the agent of the  
NO. 10.—VOL. XX.

Admiralty, the charts of the Islands and Harbours, (chiefly from the surveys of Capt. J. B. Sullivan, R.N., who is now resident there,) together with the book of directions, and on my passage out again, when south of the River Plate, I had three men disabled and the ship sprung a leak abaft which compelled me to put in there, even had I not intended doing so. The charts I found to be beautifully correct, and the islands instead of being dangerous of the most possible easy navigation, from the fact of the many harbours of such easy access, and peculiarity of immense masses of sea weed, growing on every shoal or rock below the water, and rendering completely unnecessary any buoyage. We remained a week, and during our stay in December 1849, the barque *Rezia* came in, and also H.M.S. *Dædalus*. I had several interviews with the governor respecting vessels calling, also with Capt. Sullivan, and took every opportunity of making myself thoroughly acquainted with the country, and resources, and when we left I took away as passenger the surgeon-superintendent of the Chelsea pensioners who went out in July 1849, in the barque *Victory*, and a relative of Capt. Sullivan's who had also resided for twelve months on the island; from these two gentlemen I obtained much information.

On coming out we coasted along the east side, and went into a harbour in the south to get water, remaining during a heavy gale which lasted three days. We called also on the passage home from Chili where I took every opportunity of making the place known, and I believe through that several ships called.

I need not say that the chief cause of scurvy is want of vegetable diet and fresh provisions, a stinted supply of water, and long confinement on shipboard; and in no voyages has the scurvy made more ravages than in those round Cape Horn, from the days of Lord Anson to this time.

The Falkland Islands possess all that is requisite to relieve ships on that dreary voyage, and I will maintain that the best equipped ship, after a passage from England thus far, by putting into port to return the cargo, clean the copper, and effect repairs, which cannot be done at sea, together with the invigorating effects of fresh provisions and a good supply of water on the crew, will gain more time on the remainder of the passage, than the loss caused by the stoppage.

I was informed by Capt. Sullivan, that there are about fifty thousand head of wild cattle roaming on the East Falkland, and I saw in the South about three hundred, on a Peninsula at Bull Roads not more than three miles long, by one in breadth. The beef is not fat, but of most delicious flavour, and the hides of superior quality, the cows are easily tanned; wild geese are so abundant inland, that I got thirty-one with a rifle in about three hours, averaging five pounds weight, ducks in like abundance—myriads of sea fowl, the feathers of which are valuable; large quantities of wild pigs on the increase in the South parts, which are comparatively unknown to the settlers: rabbits, in abundance, so much so that in the neighbourhood of Berkeley Sound a man has been known to cut from the holes in the turf sixty in one day: snipes and many other small birds equally numerous. All the rivers and bays abounding with fish of many sorts, much more plentiful than in any part of England,

seals and sea lions yet numerous, though had there not been such indiscriminate slaughter of old and young, there ought to have been immense numbers.

Whales are still found about here: the fuel is turf, which is found all over the islands, but about the shores very large quantities of drift wood, supposed to come from the straits of Magellan and Tierra del Fuego, not only available for firewood but even large enough to repair ships and build houses, and one of my passengers (the Surgeon) informed me he saw in the mountains evident symptoms of metals. The climate is nearly the same as the Shetland Islands, and it is worthy of remark that the inhabitants of the Shetland Islands are a people most peculiarly adapted for emigration to the Falklands;—a similar group of islands to their own; their pursuits, fishing, sealing, whaling, procuring feathers from sea fowl, raising of cattle, and agricultural produce on a sterile land, and although the most of the present settlers, old soldiers and men from the south of England and Ireland, most unfit for such a climate and pursuits, are dissatisfied with their lot, with all that the excellent governor has done for them, I am convinced from the knowledge of the hardy habits of industry, and manner of living of the Shetlanders, that to them it would be a perfect paradise, more particularly when there are such resources from the sea. The most of the present settlers are ignorant of boating. There is also a superabundance of population in the Shetlands; so far back as 1839 the young men were coming up in shiploads to Sunderland and Shields apprenticing themselves to sea. I may also mention that the governor had succeeded in raising potatoes and vegetables in his garden, also others at Stanley, but I found many more sheltered places in the south with rich loamy soil and abundance of wild celery, and other scurvy grasses.

The settlers have been dependant for supplies of flour from the Americans, (many of whom call in), and other matters from the Rio Negro, to the south of the Plate, a voyage of fourteen to twenty days, where there is abundance of everything, and also from Monte Video by a schooner belonging to a Mr. Lafond of that place, but the supplies were very irregular.

I have already explained in part why so few ships have hitherto called, and as a proof I may mention in 1847, the brig *Tom Cringle* from this port, lost three men by scurvy off the Horn outward bound, and from being ignorant of the settlement, actually proceeded on in a most disastrous plight. Again, the *Michael Williams*, a brig belonging to Aberdeen sailed from this port for Coquimbo with coals, which when near the Falklands took fire by spontaneous combustion, and ran for the main land, near Port Desire, which after making she stood off from the shore fearing the Patagonian Indians, and two days after was abandoned, in 1847, the crew taking to the long boat, suffering the greatest privations for eleven days, until they got to Rio Negro. These are two instances, first the ship might have been saved as they could have got into Stanley had they known of such a place, and then again with the boat, instead of the risk they run, and sufferings they had in getting to Rio Negro. Also the iron barque *Serena* from this port in 1848, laden with a general



cargo, found the ship too heavily laden, put into Monte Viedo, the master offered a part of the cargo for sale, being unable to obtain a purchaser he would have landed it, but the duties were more than the worth of the cargo. He came away and when near the Falklands, threw it overboard being ignorant of the settlement. A large American ship the *Robert Fulton* in 1849, bound to San Francisco, ran ashore in the night near Lively Island, about sixty miles south of the settlement, and the passengers and crew remained a month by the vessel, which was a wreck, until some one proposed to go in search of the settlement, or rather to see if any could be found, and after an expedition both by boating and travelling found Stanley and the governor, who went down and found the crew plundering the passengers and cargo, which was put a stop to, by the prompt assistance rendered by Capt. Sullivan, R.N., and Capt. Hammond formerly of the army, the wreck and cargo was sold by auction and realised about £1200.

I believe, including the Chelsea pensioners their wives and families, settlers independent of those connected with the government and gaucho's or hunters of wild cattle from the Plate, there are more than 200 inhabitants.

With regard to their military importance I do not understand, but commercial with settlers adapted to the place it might export hides, cured fish, oil, feathers, and beef; sheep of the hardier sorts would thrive, hence wool, but, what is of equal importance, immense quantities of preserved fresh provisions, not only as an article of exportation, but for outward and homeward bound ships which are rapidly on the increase. The present governor, George Rennie, Esq., has indeed used every exertion for the benefit of the settlers, who are at best a discontented lot, and probably much more would be done but from his ill health.

I am also aware that more vessels touched the last year than ever did before from England, and am convinced that, when fully known, the place will not be passed by any ship, if wind and weather permit, without calling.

The only importation of cattle into the Falklands has been a few horses of the River Plate breed, and two or three Capt. Sullivan took out.

During the time I was there, I attended divine service and found a tolerably large place of worship, well filled with an attentive congregation, and was told about as many more might be brought in only from difference in creed, and any one after being deprived of the comforts of society and fellowship in divine worship, for the two months spent on the ocean on a passage to the Falklands, would fully appreciate the sound of the bell, joining in with the little throng proceeding to worship God, in that remote part of the world far from civilization, after the manner of their ancestors; and more particularly, if they could contrast it with the licentiousness and profanation of the sabbath day in any of the colonies of the other European powers.

There is an American, who is much about these Islands, in an armed vessel, and about whom there are evil reports, one of which is regarding a small sealing schooner being plundered of her cargo of

skins, another that vessels have occasionally been missing coming from the Pacific with specie, another that the captain of the vessel has sometimes had much wealth, but no one could exactly say how he employed his vessel and crew.

These are matters which I made myself acquainted with during my stay there and from the information of my passengers, believing that when fully known, more ships than ever will call there. And with regard to the benefit of calling, the voyage I made to the Pacific in 1848, arriving at Coquimbo, with part of my crew unable to come on deck from scurvy, and the rest dissatisfied with the long passage contrasted with my last voyage, calling at the Falklands, the benefit received by the supplies, the break of the monotony of the voyage, the plentiful supply of water, thereby promoting cleanliness and health, and the healthy state of my crew, on my arrival of Valparaiso, speaks more in favor of the Falklands than I am able to express. Besides the discontent which is caused by all long passages is one great reason of sailors deserting, and this too is remedied, so much so, that, during my stay on the coast eight months, only one of my men deserted, and he a drunkard and probrate.

I am, &c.,  
BRACEY ROBSON WILSON.

1, Ruiland Terrace, Swansea.

---

A NAUTICAL TREASURE-HUNT.—*By Rear Admiral H. Robinson.*

SIR.—I feel much obliged for the manner in which you were so good as to bring out my Labrador Cruize in your valuable publication. I was certainly very anxious that it should be employed as an occasion for introducing my arguments in favour of an Irish Trans-atlantic Packet Station; and I advert again to the subject, both from its own inherent importance, and that there is involved in it, the principle which I desire should govern whatever observations I may now, or at any time submit to your notice, namely that of utility.

Some further matter amongst my papers might also appear in the *Nautical Magazine*

“To hand them down to fame eternal  
In deathless pages of diurnal;”

but when I ask myself what object was attained in the heavy trespass on your paper of my Labrador Journal, my answer is that it served as an introduction to the consideration of the past question of trans-atlantic communication. And now I must further ask myself whether this relates to the day we live in, and also why a soldier or a sailor should turn his sword into a grey goose quill and come before the public as an

author. It strikes me that when such an one publishes anything, story or statistic, or whatever it may be, he should ask himself *cui bono?* and if it be no more than an amusing tale he has to tell, without inculcating any striking moral or information, it is better to hold hard, leaving the mere amusement of the public to professional amusers. No doubt some of the stories of Capt. Marryatt and others go to encourage gallantry, honourable feeling, and *esprit de corps*, and surely Robinson Crusoe has made more sailors than the Marine Society. But who was ever better, or attracted to the quarter-deck by Roderick Random, or a great deal of slang and ribaldry which is to be found in modern naval stories and sketches. In turning over my old memoranda already referred to, I felt with the natural self love which may make a man a hero to himself, though he be none to his valet de chambre, that I had many matters apparently worth repeating, but on the *cui bono* test being applied they were one after another rejected. I find however reference to one transaction which though it occurred forty years ago, is worth disturbing from its lair, as it may afford an object of interesting pursuit to some of our tired possessors of yachts, who are often sadly in want of some stimulant; and there is at the same time a possibility of bringing to light a little portion of an article much needed at least in Ireland, "unemployed capital." I therefore think that observing the rules I had prescribed to myself, I may without any violation of the requirements that the subject should be of some use, and that it should have some relation to the day in which we live, invite your attention to the following story.

In the early part of 1813 I was refitting the *Prometheus* at Portsmouth, and had written to the late Sir George Hope, the kindest of friends, as well as a brilliant officer, and a cool headed wise man, to give me a run where I might pick up some credit or cash, having served through a fair share of convoying. I lived at the Crown Hotel where the captains of the ships at Portsmouth, had a noisy scrambling mess, and from the windows of which opposite the Admiral's Office, a respectable looking, elderly foreign seaman was observed to be for some time in waiting. After a conference with the secretary, he was admitted by the admiral to a long audience, but of the purport of which we of course knew nothing. About a fortnight after I was sent for by the commander-in-chief Sir Richard Bickerton, who put into my hands some papers and an open letter from the then Secretary of the Admiralty, Mr. Croker, dated Admiralty, January 23rd, 1813, in which he said:—

"The enclosed which are left open for perusal will explain to you the purpose of sending the men to Madeira. I believe there is not the least truth in the story, and that the treasure, island and all, are visionary. But Lord Liverpool and Mr. Vansittart think it worth while to make a trial of the thing, as it can be done without any great inconvenience. Will you therefore have the goodness to let the men be sent in the first king's ship likely to touch at Madeira. The packet may be left unsealed that the captain may know the history of the people, and the object of their voyage.

"J. W. CROKER,"

I was then introduced to the aforesaid foreign seaman to whom I have

alluded, named Christian Cruise, and I read the notes which were taken of his information.

I charged him to tell no person what he knew or what was his business, that he was to mess with my coxswain, and be borne for victuals but not for wages, and that no duty would be required from him. He replied, that was all he desired, that he was willing to give his time and would ask no remuneration if nothing resulted from his intelligence. A few days found us standing down channel, and another week at anchor in Funchal Roads at Madeira. I took occasion during our passage to examine and cross question Christian Cruise, and compare his verbal with his written testimony. The substance of both was, that some years before he was sent to the hospital in Santa Cruz, in yellow fever, with a Spanish sailor, who had served for three or four voyages in the Danish merchant ship in which Cruise was employed. He was in a raging fever, but notwithstanding recovered. The Spaniard, though less violently ill, sank under a gradual decay, in which medical aid was unavailing. Dr. Johnson said. "a doctor may catch at the bridle of the pale horse of death when he is running madly away and turn his head, but not when he is going deliberately down hill." The Spaniard, moreover, had a "mind diseased," and told Cruise he had something to disclose which troubled him, and which accordingly a few days before his death he related as follows:—

He said that in 1804, he was returning in a Spanish ship from South America to Cadiz, with a cargo of produce and about two millions of dollars in chests, that when within a few days sail of Cadiz they boarded a neutral, who told them that their four galleons had been taken by a Squadron of English frigates—war being declared, and that a cordon of cruisers from Trafalgar to Cape Finisterre would make it impossible for any vessel to reach Cadiz, or any other Spanish port. What was to be done? Returning to South America was out of the question, and they (or rather the captain) resolved to try back for the West Indies, run for the north part of the Spanish Main or some neutral island, and have a chance thus of saving at least the treasure with which he was entrusted. The crew who preferred running the risk of attempting Cadiz, were all but in a state of mutiny. But they acquiesced in the proceeding, and keeping out of the probable track of cruisers reached a few degrees to the southward of Madeira, where they hoped to meet the trade winds.

They had familiarized their minds to plans of resistance and outrage, but had not the heart to carry them into effect till one daybreak the evil one, who has always a temptation ready for those who are inclined to go his way, spread before minds ready to plunder, a most inviting receptacle for stolen goods. They found themselves close off a cluster of small uninhabited islands fifty leagues to the southward of Madeira, and nearly in its longitude, the name of which the narrator did not know. The centre island about three miles round, was high, flat, and green at top, but clearly uninhabited; the temptation was irresistible, here was a place where anything might be hidden; why run risks to avoid the English in order to benefit their captain and their owners? why not serve themselves?

The captain was accordingly knocked on the head or stabbed with their ready knives and carried below, and the ship hauled in to what appeared the anchorage, on the south side of the island. There they found a snug little bay in which they brought up, landed the chests of dollars, and cut a deep trench in the white sand above high water mark, and buried the treasure and covered it over, and some feet above the chests they deposited in a box the body of their murdered captain. They then put to sea, resolving to keep well to the southward, and try to make the Spanish main or a neutral island, run the ship on shore and set her on fire, agree on some plausible lie, and with the portion of money they resolved to retain and divide on their persons, they were to purchase a small vessel, and under English or other safe colours, to revisit their hoard, carry it off at once or in portions. The 'juggling fiend' however, whom they served, was not to be so cheated, having inveigled their souls with the temptation of one lone desert island, he employed another for the destruction of their bodies, and there was something like poetical justice in this coincidence; the temptation afforded by the first, resulted in robbery and murder, the intervention of the second, in the death of the offenders. The charm of Birnam Wood encouraged guilt, which the moving of the same wood avenged.

They passed Tobago, and in their clumsy ignorant navigation ran over, blowing hard, an uninhabited cay, on which the ship went to pieces, and only two lives were saved. These got (I know not how) to Santa Cruz or St. Thomas; one died, and the story of the other is being now related. The name of the ship, the owners, the port she sailed from, the exact date, or various other particulars by which the truth might be discovered were not told to Christian Cruise, or not remembered.

"This broken tale is all he knew  
Of those they robbed or him they slew."

On hearing this it certainly occurred to me that possibly he was not "a most Christian Christian," but a sort of maritime Munchausen, or a lesser Ferdinand Mendez Pinto, and I set myself to work in finding discrepancies in his narrative, or rather in the disjointed facts which I collected and wove into the narrative as I now give it, adding my own impressions, of such unimportant particulars as the story required.

May he not, I asked myself, have some interested object in fabricating this story? Why did he not tell it before? Is not the cold-blooded murder inconceivable barbarity, and the burying the body over the treasure too dramatic and buccaneer-like; or might not the Spaniard have lied from love of lying and mystifying his simple shipmate, or might he not have been raving?

As to the first difficulty, I had the strongest conviction of the honesty of Christian Cruise, and I think I could hardly be grossly deceived as to character; and his disclaiming any reward unless the discovery were made went to confirm my belief that he was an honest man. And then as to his withholding his information for four or five years, be it remembered that the war with Denmark might truly have shut him out from any possibility of intercourse with England. Next as to the wantonness and

indifference with which the murder was perpetrated, I am afraid there is no great improbability in this, with self interest in the scales, humanity is but as dust in the balance. Old Lambro was no absurdity—

“He was the mildest mannered man  
That ever scuttled ship or cut a throat.”

and I have myself witnessed a disregard of human life in matters of promotion, &c., even amongst men of gentle blood, which makes the conduct of these Spaniards under vehement temptation, and *when they could do as they pleased*—sufficiently intelligible.

“Oh captain I am not gone,” said the dying seaman in the Guinea-man, “don’t throw me over.” “Go to — with you,” replied his compassionate commander, “you need not be so jolly peticklar for a few hours.”—But certainly the coffin over the treasure looked somewhat theatrical, had given it the air of Sadlers’ Wells or a novel, rather than matter of fact. Every body knows the story of Teach or Blackbeard, the *ne plus ultra* of pirates, how he used in his *gaieté de cœur*, to cross his hands under the table and fire his pistols amongst the knees of his *convives*; or at another time in the way of *plaisanterie* or *pour encourager les autres*, put to death one of his fourteen wives; and how this worthy considered it expedient when he buried the treasure, to cut the throat of a Spaniard and place his body over the deposit, that the ghost might guard it. I enquired therefore, from Christian why the body was thus buried, and was relieved by being told that he understood the object was, that in case any persons should find the marks of their proceeding and dig to discover what they had been about, they might come to the body and go no further. A more satisfactory, or at least a more original explication than the adoption of the above peculiarity in the credenda of Capt. Teach.

Then as to the supposition of the Spaniard lying from mere *mechaneté*, a sated voluptuary, like Lord Lyttleton, might desire to leave a supernatural halo round his memory, or have pleasure in the idea of puzzling posterity, like the builders of the Irish round towers. But this conduct would be utterly out of keeping in an ignorant Spanish seaman. But lastly he might have been raving? and on this point I was particular in my enquiries. Cruise said “Certainly not, he was quite clear in his mind, his conscience might be troubled, but his head not disturbed.”

“The glance of melancholy is a fearful gift  
What is it but the telescope of truth,  
Which strips the distance of its fantasies,”

and it is conceivable enough that this dying criminal might have been able to bring into such correct review, as he was stated to have done, these portions of his dark history, and to recall

“The perilous stuff which preyed upon the heart.”

The result of my enquiries and cogitations on the subject was, that the probability was strongly in favour of the *substantial* truth of this romance of real life, that I considered would be still further substantiated if the *locus in quo*, the Salvages (for to them alone the latitude and longitude pointed) corresponded with the account given of the tomb of the dollars.

On our arrival at Madeira, I slung my hammock in the hospitable  
no. 10.—VOL. XX.

abode of the consul-general, Mr. Veitch, and enjoyed very abundantly the good cheer, pleasant society, and lovely weather of that delicious island. It was at this time in pledge to our government for some Portuguese loan, and on the principle of a receiver over a mortgaged estate, the forts were given into the keeping of our troops. A General Cuming Gordon had the charge of this Capua, and was the very personification of kindness and good fellowship. All this was very agreeable to a very young man, and as the festivities were diversified by an occasional chace after an American runner, our time had gossamer wings. In the midst of it, Lord Hastings, the governor-general of India, came to Madeira, when there arose

“From night till morn, from morn to dewy eve,”

one unbroken series of feasting, fiddling, bell-ringing, and saluting. The natives opened their houses, and I remember a very grand affair at the *Visconde do Rio Seco*, in the midst of which his handsome daughters performed some theatrical and musical representations, which, though I could not understand, their effect was striking enough. Dinners and entertainments abounded on shore and afloat. Sir Home Popham, kept up a handsome state on board the *Minden*, and every where our good allies as well as our own countrymen were vying in doing honour to the great visitor. I could not well run away, were I so disposed, and withdraw my mite from swelling the pageantry. I had nothing for it, but

“To let my little bark attendant sail,  
Pursue the triumph and partake the gale.”

However, we did go to the robbers' cave to try whether Christian Cruise meant “Open Sesame.” I had enquired at Madeira, whether any thing had been ever picked up at the Salvages, and was informed that some years before the taffrel of a foreign ship had been found there, and pleasant hearing two boxes of dollars! I enquired much about this last interesting fact, but could obtain no precise information. Such stories, as that José de Lisboa had gone a poor man to gather barilla, and returned a rich one. That his linen improved thenceforward in purity, that the buttons multiplied on his black velvet jacket, that the occasional cigar, became an uninterrupted fumigation, and that his labour was exchanged for the everlasting strumming of a mandoline. Such stories as these were of little value, probably the Portuguese Alguazils would deal with a “treasure-trove,” pretty much as their brethren in Spain had disposed of the acquisition of Gil Blas, and if José or any body else had found money, no information very definite respecting it was likely to be obtained: but the whisper, notwithstanding, gave us some encouragement. One fine morning accordingly found us off the great Salvage, and there it certainly was about a league in circumference, flat at top, and green with salsola or saltwort and other alkalescent plants; and on hauling round the east point, there was the sandy bay with the white beach and the little level spot above high water mark, just as we wanted to find it. I asked Christian “Will this do?” “No doubt Sir,” he replied “it must be the place.” I then sent for the officers and pledging them to secrecy, that others might not interfere with us, told them all the story, but desired them to announce only *half* the truth to the men,

namely, that we were in search of a murdered sailor, who was supposed to be buried somewhere above high water mark. We landed accordingly fifty or sixty of the ship's crew, provided with all the shovels we had, and the rest with each a boarding pike, and to encourage them, they were told that the discoverer of the coffin should have a large reward, I think 100 dollars. It was at all events a red letter day for the poor fellows. Jack is easily amused; his happy temperament requires but little outward pabulum of enjoyment, and that which another looks coldly upon, he finds delight in

"The meanest flow'ret of the vale,  
The simplest note that swells the gale,  
The common earth, the air, the skies,  
To him are opening paradise;"

and it may be well supposed with what glee he undertook this novel frolic. Our embarrassment, however, was now extreme, the white sand extended round the bay and an area of many acres intervened between the high water mark and the foot of the cliff, which a month would not turn up. We selected the centre of the beach and went beyond high water mark to where I thought the breaking of the sea and the drainage through the sand, might terminate, and where a man would be likely to drop his burden; and then we dug a deep hole, but with no greater success than finding some broken shells and rounded pebbles! Our men in the meanwhile were probing with their boarding pikes in all directions and digging farther in every promising spot. This went on for several hours, till I was dead beat, and I became not only discouraged but a little ashamed of my wild-goose chase.

The *Antiquary* had not been published at the time, but I have often since applied to myself the story of the treasure-hunting laird with Dousterswivel and "Search No. 2." When tired of our proceedings, I left my pack, like a desponding huntsman, to hit off the scent if they could better than I had been directing them, and I clambered up the cliff to the green table land, on which I strolled about for some time. The hot hazy sea was spread out on every side, and nothing living was in sight but the gulls and cormorants wheeling round my head, nor did sound meet my ear, save but the occasional distant shout of laughter from the men below, whose performances had by this time degenerated into "sky-larking." I returned after my stroll to the edge of the cliff, where I sat down looking over upon my ship in the little cove as if I could have jumped upon her deck, and watching the men still in pursuit, and occasionally at leap-frog and play. I sat a long time ruminating; forming plans, and, no doubt, in my somewhat excited state, I pondered as I have often done upon the wonders to be revealed when the sea should give up her dead.

"Thousands of men whom fishes gnawed upon,  
Wedges of gold, great anchors, heaps of pearls,  
Inestimable stones, unvalued jewels,  
Lying in dead mens' skulls, and in those holes  
Where eyes did once inhabit."

And longing intensely that a little share of these disclosures might then



fall to our lot. However all dreaming and castle-building must be brought to a close, and dropping down from crag to crag upon the beach I ordered the boats on board, and as night was approaching and our situation was unsafe, hoisted them in, weighed, and stood out of the bay and shaped our course for Madeira.

I may as well add here my remarks upon these islands, which I find in the Dispatch addressed to Lord Amelius Beauclerk on the occasion, after relating our unsuccessful search, which, having been described already at greater length, need not be now repeated. I went on to say,

“The Great Salvage Island appears to be frequented during certain periods of the year by the Spaniards and Portuguese, for the purpose of collecting the barilla, with which the top is covered. It produces no other vegetable substance, being an entire mass of volcanic matter and rocks, with strata of loose clay. On the north-east point of the island we found a small spring of fresh water, but not in sufficient quantity I should apprehend for the consumption of a ship; but water I have been assured, may be obtained in any quantity by digging any part of the flat surface at top. We were unable, however, to establish the truth of this fact.

“The island is almost covered with a description of large sea fowl, (cormorants), which our men ate, and with a quantity of rabbits, both of which are so abundant, and the birds so easily caught by the hand, that any amount of this description of food may be depended upon should circumstances induce the necessity of having recourse to it.

“The best indeed, the only anchorage we could discover at the Great Salvage was round the east point in a little bight, (where there is good landing), half a mile off shore, in 12 fathoms clear ground. East point E.b.N., West point N.W.b.N., a rock showing its surface on which the sea breaks heavily N.W.b.W. Care must be taken not to anchor further off shore than half a mile, as without that distance the water deepens rapidly with sharp coral rocks.

“All the dangers round the Great and Little Salvages show themselves by breakers from the heavy swell of the sea.

“The Little Salvages are apparently of the same description as the Great Salvage but lower, and without any anchorage that we could discover or learn; the difficulty of landing is very great indeed, (owing to the swell accumulating from reef to reef), except in summer when after a continuance of calm weather, the agitation of the water subsides.

“HERCULES ROBINSON.”

I do not see any thing else worthy of transcribing, except that where I notice in the copy of my report, the discovery of a box of silver some years ago. I say it occurred on the middle island of the *Little Salvages*. I conceive this to be a mistake, and that the large island was meant.

On arriving at Madeira I found other orders and occupations, and had no opportunity of revisiting my apocryphal silver mine, before our return to England. Nor, did the Admiralty of the day on receiving my report which I conclude they did, through Lord Amelius Beauclerk, think it worth while to prosecute the matter farther, and perhaps they were right,

they bestowed as much attention on so vague a report as it was fairly entitled to. Had they gone further under authority, and with a king's ship, it would have appeared like the credulity of Benedict Mol at the church of St. Iago de Compostello, so amazingly described by Borrow, in his Bible in Spain.

My orders in this matter were not secret or confidential, and I was not bound to keep it concealed, but it was my interest to do so as long as I was searching myself, that nobody else might take the wind out of his sails; and when I had no more personal motive, I still felt it right to keep my counsel till it was clear that the Admiralty had no intention either of continuing the search themselves by another ship of war, or communicating the matter to the Spanish government if *they* saw good to investigate it. I therefore, obtained as I have said, the promise of the officers that they would not speak of the matter, and I resisted the temptation of telling my friends at Madeira, so good a story as that of a possible golconda at their doors. After a lapse of many years I mentioned it as a fireside gossip, and I hear that some of the facts have been woven inaccurately into one of our thousand and one nautical narratives. Is it then, the question may be asked, a romance or a true bill; is the story true or false?

In favour of the affirmative view, there is the apparent honesty and fairness, and candour, and clear headedness of Christian Cruise, as well as the entire correspondence of the place with that he described; and opposed to this are the many motives to falsehood, deceit, and self interest in some obscure shape, or even mere love of lying, or it might be the ravings of lunacy or disease, and the wonderful plausibility of perverted reason. However, the evidence *pro* or *con* is before your readers, and they are as competent as I am to form a correct opinion. If I am asked for my own I would say, that my judgment leans as I have already declared, to the probability of some such transaction having occurred. So much so, that I had always intended if future service brought it within my reach, to attempt another investigation of this little bay, and I do certainly think it worth the while of any yachtsman in want of a pursuit to try what this might turn up. He might be more sagacious than I was in striking upon the right spot, or it might be the will of God to enrich him as it was not his purpose in my case. But however, this might be, there may be sufficient ground to justify the attempt without considering the adventurer who sought to set free those imprisoned dollars as mad as the Knight de La Mancha with respect to imprisoned damsels, and equally a subject for a writ de lunatico inquirendo.

I am, &c. HERCULES ROBINSON.

---

#### GLOBULAR SAILING.

*Albert Square, Stepney, Aug. 12th, 1851.*

SIR.—In your volume for 1850, page 272, I gave you a few remarks on the passage made by the *Constance*, Captain Godfrey, hence to Port Adelaide.

At the time of my writing, I was at a loss to find what meridian, in south latitude, that ship had started from, on the arc of a great circle, towards the maximum latitude; the latitude only, being given as  $25^{\circ}$  south.

A copy of the *Illustrated London News*, of March 9th, 1850, having been placed in my hands only a few days ago, contains a similar account of *that voyage*, to that which you have at page 227, of the same volume, giving a diagram of the track by the Cape of Good Hope, and that by the composite track; shewing a difference in favour of the latter of 935 miles, which is erroneous as compared with the usual track adopted by nearly all vessels bound towards our Australian colonies. To prove this I must here quote the writer's own words. After giving the various courses to be steered from latitude  $25^{\circ}$  south, to the maximum latitude of  $50^{\circ}$  south, he goes on to state;—

“This part of the voyage is about 3480 miles, and brings the ship  $68^{\circ}$  degrees of longitude nearer her destination. She then runs due east on the parallel of  $50^{\circ}$  south, about  $72^{\circ} 40'$  of longitude, being about 4360 miles, and then leaves that parallel by the route of a great circle to her destination: this last named part of the voyage is 1865 miles and about  $43^{\circ}$  of longitude, making altogether from the commencement of the composite track 8145 miles, whereas by the Cape and thence to Adelaide by Mercator's sailing is 9080 miles.

The diagram alluded to, places the starting point in latitude  $25^{\circ}$  south, and longitude  $40^{\circ}$  west, but by the above quoted account the ship had made altogether  $68^{\circ} + 72^{\circ} 40' + 43^{\circ}$  of longitude, equal to  $183^{\circ} 40'$  from which take the longitude of Port Adelaide  $138^{\circ} 30'$  east, would leave  $45^{\circ} 10'$  as the west longitude of the ship when in  $25^{\circ}$  south.

Having carefully calculated the distance from Cape Lagulhas to Adelaide  $5810\frac{1}{2}$  miles, leaves  $3269\frac{1}{2}$  miles, the ship is to the north-westward of that cape. This places the ship in longitude  $41^{\circ} 40'$  west, in the given latitude of  $25^{\circ}$  south to be 9080 miles from Adelaide by Mercator's and Middle latitude sailing as above referred to. A glance at the chart, will convince any one who is acquainted with sailing towards Australia from England, that the ship, even in longitude  $41^{\circ} 40'$  west, is not in the usual track, unless she had touched at Rio Janeiro, and on referring to many journals at my perusal, I find that  $35^{\circ}$  of west longitude is the greatest reached in latitude  $25^{\circ}$  south, and the average of eight voyages I made towards the Indian Ocean, makes the longitude  $25^{\circ}$  west, in latitude  $25^{\circ}$  south.

Taking the latitude  $25^{\circ}$  south, and longitude  $41^{\circ} 40'$  west, as the starting point of the *Constance*, the distance thence to the maximum latitude on the various courses will be 3391 miles, and will bring the ship  $66^{\circ} 58'$  of longitude nearer her port, or to longitude  $25^{\circ} 18'$  east. She then runs in the parallel of  $50^{\circ}$  south, to longitude  $84^{\circ} 29'$  east, brings the ship  $59^{\circ} 11'$  of longitude nearer her destination. This distance is 2283 miles, and from latitude  $50^{\circ}$  south, and longitude  $84^{\circ} 29'$  east, to Port Adelaide in latitude  $35^{\circ}$  south, and longitude  $138^{\circ} 30'$  east, on the arc of a great circle is 2491 miles, and embraces  $54^{\circ} 1'$  of longitude. These three sums of longitude making up the whole difference of longi-

tude between  $41^{\circ} 40'$  west, and  $138^{\circ} 30'$  east, viz.  $180^{\circ} 10'$ , and making the whole distance on the composite track 8165 miles, being 915 miles less than the track by the cape, and thence to Adelaide. -

It cannot be said, however, that there is 915 miles difference between the composite track, and that usually adopted by most ships bound to the Australian colonies, for I find on reference to the journals alluded to, as well as that standard of authority, Horsburgh, that a parallel of from  $38^{\circ}$  to  $42^{\circ}$  south, is the best to run down the easting in, between the meridian of the Cape of Good Hope and Cape Llewlin.

In the track usually followed, the distance from the starting point in latitude  $25^{\circ}$  south, and longitude  $41^{\circ} 40'$  west, to latitude  $38^{\circ}$  south, and longitude  $20^{\circ}$  east, by Mercator's sailing is 3238 miles on a south  $76^{\circ} 4'$  east course; thence to longitude  $115^{\circ}$  east on an average parallel of  $40^{\circ}$  south is  $4366\frac{1}{2}$  miles on an east course, and thence to Port Adelaide, north  $80^{\circ} 58'$  east,  $1147\frac{1}{2}$  miles, making the whole distance in the track usually followed by ships bound to Australia, wishing to avoid the risk of meeting with ice, or other dangers in the higher latitudes, amount to 8752 miles, being 587 miles greater than that by the composite track. This amounts to about three days' sail, a very small sacrifice when compared with the many risks a ship runs while approaching to and sailing in the icy regions, with the uncertainty of obtaining observations from day to day, owing to the prevailing fogs incidental to the neighbourhood of ice; and several groups of islands lay partly in the outer track, all of which is avoided by keeping within the 42nd or 43rd degree of south latitude. The loss of the *Richard Dart*, should be sufficient warning for shipmasters to avoid such high latitudes as  $45^{\circ}$  to  $50^{\circ}$  south, unless the nature of the voyage leads them to seek such a course.

The fatal consequences of a shipwreck either by ice, or on any of the islands in the southern ocean, of an emigrant ship, can easily be imagined from the accounts we have read of such accidents in the western ocean, happening to ships bound to the North American colonies; where in numerous instances, assistance has been at hand to rescue the passengers and crew from their perilous situation, owing to the number of vessels bound in the same direction and approaching the same destination in the spring of the year, when the coast is more or less ice bound. This desirable relief in case of a shipwreck in the southern ocean, could not be looked for in all the track from the meridian of the Cape of Good Hope to that of Cape Llewlin in a high latitude, independent of the many discomforts such a climate entail upon the emigrants, irrespective of the risks already alluded to. I fear I have drawn out these remarks to a greater length than you can afford space for in your columns, but I trust they will meet your approval.

I am, &c.,

JOHN BURNETT.

To the Editor N.M.

[The account of the wreck of the *Richard Dart* will be found in our April number of last year, with the remarks we made on it, shewing the dangers of adopting the Great Circle course from the Cape to Hobart Town.—ED.]

## SALAMANDER'S VISIT TO FORMOSA.

On the return of the *Reynard* from Amoy, preparatory to her departure for England, she brought news of the loss of an English ship on the island of Formosa, to which place the *Salamander* was ordered for the purpose of instituting inquiries. The arrival here of the *Antelope* opium clipper, brought the required information, together with three men, the sole survivors of the British ship *Larpen*, which was wrecked on the south-east end of Formosa, on the 12th September, 1850. The narrative given by these three survivors is a very melancholy one, and is thus detailed.

The American barque *Antelope*, on her passage to Shanghae, was lying, on the night of the 1st inst., nearly becalmed off the south point of Formosa, when a boat was observed coming from the shore, and, as several others were also near her, an attack from pirates being apprehended, Captain Roundy thought proper to have his carronades loaded, and small arms prepared, and then fired a shot over the heads of the people of the boat that was approaching. But this had the effect of stopping the rowers but for a few minutes only, and shortly afterwards those in the *Antelope*, heard the voices of Englishmen requesting that they might be taken on board. Captain Roundy accordingly hove to, and received three men—Alexander Beris, able seaman; William Blake, joiner; and James Hill, a lad of 19 years of age, ordinary seaman; the sole survivors of the crew of the barque *Larpen*, of Liverpool, a vessel for some time past concluded to have become a total wreck.

For the following particulars we are mainly indebted to the kindness of Mr. Foote, chief officer of the *Antelope*, who obtained them from the men shortly after they somewhat recovered from the severe sufferings undergone. It appears that the Moulmein built barque *Larpen*, of 614 tons register, only seven years old, belonging to Mr. T. Ripley, and commanded by Mr. Gilson, left Liverpool on the 18th of May last, on a voyage to Shanghae; the crew, all told, including Mr. Bland (brother of Mr. Bland, of the firm of Shaw, Bland, and Co., of Shanghae) a passenger, acting as third mate, numbering thirty-one. The *Larpen* passed Anjer on the 19th of August.

The *Albert Edward*, on the 28th of August, was in company with the bark *Larpen*, bound to Shanghae, in lat 7° north, long. 108° 50' east; and had light winds and fine weather all up the China Sea, and no serious gales during the voyage.

Fifteen days after being thus spoken by the *Albert Edward*, viz:—on the 12th September, in the forenoon, the *Larpen* passed Botel Tobago Xima, a lofty island, three or four miles in extent, bearing E.  $\frac{1}{2}$  N., from the south cape, Formosa, from which it is distant thirteen leagues. The weather is said to have been thick and rainy at this time, wind moderate at north-east, blowing off the shore. At 9h. 30m. p.m., all hands were alarmed at the ship suddenly striking on a rock. By backing the head sails, however, the ship came of almost immediately, but on sounding the pumps no less than seven feet of water were found in the

hold; all hands were forthwith busily kept at pumping until 2h. 15m. A.M., of the following day, when, as there was no prospect of gaining on the leak, Captain Gilson ordered the quarter-boats to be lowered, and the launch to be hoisted out. In the hurry the jolly boat stove and became useless. The captain, mate, and six men, then got into the starboard quarter-boat, the remaining members of the crew taking the launch, in which some provisions had been placed.

On the weather clearing up a little at daylight they found themselves close to the shore, somewhere in the vicinity of the place designated on the map of Formosa, Mat-faer. Here they all landed for the purpose of getting fresh water, and with intention also of caulking the long-boat, which was found to "leak like a sieve;" but in these purposes they were prevented, the natives coming down in great numbers and plundering them of every moveable. So situated, Capt. Gilson determined on putting to sea again, as he said to endeavour to reach Hongkong, a distance of 400 miles and upwards. Both boats started together, but the launch, still leaking considerably, was unable to keep up with the lighter boat, and, parting company, she was never more seen, although it was afterwards heard that Capt. Gilson had landed near South Cape, and procured water. There, indeed, he might have been murdered, or taken captive, and may still be in slavery for aught we are required to believe to the contrary.

At daylight on the 14th the launch having rounded the extreme point, the crew landed on a shelving beach, surrounded by bushes, intending before proceeding any further to do their best to repair the boat. About 8 A.M., almost without any previous warning, they found themselves in the midst of a deadly fire of matchlocks. Young Mr. Bland was observed to spring a great height into the air and fall flat on his face dead; those who could swim immediately took to the water, from whence the savages were seen, with long knives, stabbing those who were wounded, and immediately cutting off their heads, which, to the number of nineteen, were then thrown into a terrible heap. Blake, the joiner, says that although wounded by a shot when in the water, he swam for several miles across a broad bight, and had landed under a huge sugar loaf rock, thoroughly exhausted, thinking that he was the only one saved, when, turning his eyes seaward, he observed the boy Hill, pursued by an enormous shark. The lad appeared nearly exhausted and was about to sink, when, cheered by his voice, he gave a few more strokes and landed in shoal water, from whence he dragged himself over the coral to the place where Blake was sitting. Here they had not remained long when two natives with matchlocks were seen traversing a beach at some distance, apparently in pursuit of them. But they succeeded in hiding themselves for the time, and afterwards escaped to the mountains, where they remained until the 19th. Exhausted nature could hold out no longer, and at a time when Blake says the feelings of a cannibal had arisen in his breast, and he instantly thought of partaking of his comrade's blood, rather than remain longer without food, they wandered into a field where some villagers were at work. From them they obtained a meal of rice and shelter, and were afterwards made to

work with the village labourers from daylight till dark; sometimes in boats diving for shell fish, at others with hoes about the paddy ground.

The man Beris and another had landed at a different place, from whence they tried to reach a junk, in which one of them, Harrison, succeeded, but was almost immediately shot and decapitated in sight of his comrade. Beris appears to have subsequently joined Blake and Hill, the latter of whom, being unable to do so much work as the others, was subjected to very severe treatment, and has been left sick at Shanghai. At the expiration of five months, the kind hearted villagers sold them to some neighbours for six dollars a piece; the purchasers proving to be of a more friendly disposition than the original holders. On arrival at Shanghai, a voluminous narrative of the seven months and sixteen days captivity, was taken by Mr. Consul Alcock, an abstract of which, we are told, will appear in the next issue of the *North China Herald*.

The shipwrecked men tell of having seen on the beach near where they landed, an anchor of about 19 cwt., chain cable, cat and top blocks, iron knees, a bronze figure head, four feet long, and other ship gear, the possession of which might be a clue to the fate of several vessels of which we are still in ignorance, (American barque *Coquette*, for instance, the British barque *Kelpie*, and others.) They also heard of two white men being in captivity, but could not, for a certainty, ascertain where.

The fate of the commander, officers, passengers, and crew of the *Larpernt*, naturally occasioned great excitement amongst our European community, who call aloud for vengeance on the Formosans, whose hands have also murdered the crews of the *Ann*, the *Nerbudda*, and now the *Larpernt*.

In conformity with instructions, H.M. steamer *Salamander* left Amoy at daybreak, of the 11th of Aug., having on board Mr. Interpreter Parkes, with two shipwrecked seamen of the *Larpernt*, for the purpose of proceeding to Formosa with the presents and rewards to be given to those parties who had succoured our countrymen in their distress; she reached the Pescadores the same evening, where she anchored for the purpose of obtaining the services of a pilot acquainted with the south end of Formosa. Next morning Mr. Parkes, the interpreter, landed and had an interview with the Haefang or civil magistrate of the islands, and with the military officer commanding the station. At first, both these officers objected to furnish a pilot to the *Salamander*, though the objects of the expedition were fully explained to them, and it was only on Mr. Parkes, informing them that if they refused to send a pilot on board the *Salamander*, they would be under the necessity of proceeding to the capital of the island Tae-wan-foo. On this, they agreed to send a pilot, alleging with true Chinese diplomacy, that they had objected, because they had no confidence in the skill of the native pilots. Several pilots were then brought in, and after some examination by Lieut. Lambert, one was chosen, who went on board with Mr. Parkes and the lieutenant, and the *Salamander* was got under way. On the morning of the next day, the 13th, the *Salamander* sighted Lang-keau or Saw-sian which was immediately recognized by Beris and Blake as the place from whence they had escaped to the *Antelope*. A heavy gale coming

on from seaward, the *Salamander* stood out; the gale abating next day, she was enabled to anchor about midnight between Lamy Island and the Formosan coast. During the 15th, the weather continued very bad, and no communication could be had with the shore except by catamarans, one of which came off during the morning. Early next day the 16th, Lieut. Lambert and Mr. Parkes landed through a heavy surf on a catamaran. The curiosity of the natives having been excited by the appearance of the steamer, they crowded round the two officers, who made their way with some difficulty to the post of a small military officer stationed in the neighbourhood, where they explained who they were and the friendly nature of the visit. From the man that came on board on a catamaran, Capt. Ellman had learned that a person named Lin Wanchang, who, Mr. Parkes had been informed, had great influence with both the aborigines and Chinese, lived in the neighbourhood. The object of the landing of the two officers was to obtain an interview with this person, and Mr. Parkes stated this to the military officer, with a request that they might be shewn where Lin Wanchang lived. The officer would not send them to his residence, but despatched a messenger for him. While waiting for his appearance enquiries were made after the missing boat of the *Larpen*, but no further intelligence was obtained of her, except a greater certainty of her fate, as the inhabitants, in consequence of the enquiries of Beries and Blake, had made an ineffectual search after the boat for some distance along the coast.

After waiting about four hours, the messenger returned with an invitation from Lin Wanchang to visit him at his house, and as it was about five miles distant he sent sedan chairs. The two officers immediately started in company with the Chinese military officer. On their arrival at Lin Wanchang's house they were hospitably entertained. Their host seemed to be perfectly well acquainted with all particulars of the wreck of the *Larpen*, and had seen Blake and Hill early in March last: he said he would have endeavoured to recover the men, but their masters wished them to stay until they acquired sufficient knowledge of the language so as to understand that they did not belong to the tribe that had murdered their comrades, as the men had often threatened to come back with a force and revenge themselves for the massacre. On its being said that, in that case, he might have told the chief Mandarins of the island, he treated their authority and power in that part with contempt, which was not lessened by the presence of the military officer. He was then told that there was a British Consul at Amoy with whom he could have communicated: he said he was ignorant of the fact; but that in future he had no objection to communicate directly with the Consul. The object of the present visit was then explained; he seemed to regret its peaceful intentions, as the extermination of the tribe that murdered the crew of the *Larpen* was desired by all in the neighbourhood—both Chinese and aborigines. The name of the tribe is the Kwei-tsei-luh; it is a very small one, containing only about two hundred members, of whom not above sixty are fighting men. They are a cruel blood-thirsty race and would have long ago been exterminated by the surrounding tribes but for want of unanimity. Lin Wan-chang said that



if we determined to attack them, we would be supported by at least four hundred matchlock-men. As considerable doubts seemed to be entertained of the pacific nature of the *Salamander's* visit, Lin Wanchang, at Mr. Parke's request, sent a man named Lin Tseih, to accompany the officers to Lang-keaou, and explain matters; he also gave them a letter to the Towkay of a village near Lang-keaou, who had some influence with the aborigines, with whom it was the wish of Capt. Ellman to communicate. As it was getting late, Lieut. Lambert and Mr. Parkes bade Lin Wan-chang adieu, and left him with expressions of good will on both sides.

On their return they were encountered by the Capitan, or chief, of the settlement of Penan, who told them that he had rescued a man out of the water a few days after the murder of the launch's crew, and he supposed he was one of them. While rescuing the man he was fired upon by the aborigines, but succeeded in bringing the man to his house, where he lived only two months, when he died. It was difficult to understand from the Chinese pronunciation what his name was, but as far as it could be made out it was Harris or Harrison—he told the Capitan that he had two small children at home. Not having time to make full enquiries they attempted to take the Capitan on board, but as he would not go without a friend and there being no room in the boat for them both, Lieut. Lambert and Mr. Parkes were reluctantly compelled to leave him, and did not meet him again.

Next morning the 17th, at daybreak, the *Salamander* started for Lang-keaou, distant twenty to thirty miles. On her arrival there arrangements were made for distributing the rewards to those who had shewn kindness to our unfortunate countrymen—and, as in these rewards, some of the more distant tribes had to be called in to participate, the distribution was deferred till next day, the 18th, at noon, and arrangements were made for receiving Capt. Ellman at that hour.

Capt. Ellman landed at noon next day, and was received by the Towkay and several heads of villages; they were attended by a number of armed men who saluted the Captain with sundry volleys of musketry. The sums agreed upon were given to each party, by Berries or Blake; in some cases they were received with anything but gratitude. In one case it was thought proper to pay a relation of Kewah 50 dollars out of the 275 dollars that Messrs. Shaw, Bland and Co., wished to be paid to that person. This man's name was Chako, and it was said that he first incited Kewah to ransom Berries, having heard of his captivity through his wife, who was a native of the tribe in which Berries was a captive, and had seen him there before her marriage to Chako. The Towkay was much pleased with his gift, and generally speaking, the majority were thankful for the sums given them. The village where Hill and Blake lived was then visited, as the people were at enmity with those of Lang-keaou, though they are only two miles distant; the two parties, Akeih and Kwei-leu, who had taken care of our countrymen were not present, and the money not being deemed safe with the head-man, it was desired that the men should come on board the *Salamander* next morning. One only came, the other having been stated to be unwell,

his money was given to the man who came, to take to him. This person seemed very grateful. As a matter of policy, a reward was also given to the head-man of the village, Chang-kwang-tsae who accompanied him, as it seemed to be the general impression he had some influence with the wilder tribes. From enquiries made at Lang-keacu, it turns out that Harrison was not shot in attempting to escape, but was taken on board the fishing-boat, and that he was the person mentioned by the Penan Capitan. It also appeared that a fishing-boat had supplied the life-boat with rice and water—that the boat stood out to sea and was probably lost in a storm that raged on the coast two days afterwards. Capt. Ellman deemed it advisable to survey the hills where the murderous tribe Kwei-tsei-luh live—the Towkay and several of the more respectable inhabitants went on board to point out the place, and all were very anxious that an attack should be made on these barbarians.

The coast was afterwards searched as far as Tae-wan-foo, the capital, but nothing further was ascertained. It was also proposed to give an explanation to the authorities there, of the reason of the *Salamander's* visit. Attempts were made to enter into communication with them, but they were defeated as far as an official visit was concerned. Mr. Parkes however, was enabled to gain some intelligence of a rice ship said to have been wrecked on the coast. From the information given, it is believed this was the Dutch vessel *Oesterling*, and that she went on shore on the coast of Formosa, in the latter end of 1849.—The crew were saved by the British ship *Ranee*. A day was spent on the return, in search of coal on the Pescadores, but no trace of such a mineral was to be discovered.

---

#### A VISIT TO BRUNE.

OUR visits to the Sultan during our stay in Bruné were frequent, and frequently long. His highness usually summoned us early, and his palace was the only lounge we had in Bruné, but we thus saw much of the private life of Omar Ali, and his “tricks upon travellers.”

On the arrival of a merchant vessel, his highness, being the principal trader, allows none of his subjects to purchase a thing, until he has made his selection, and has obtained all the presents he can, which the masters and supercargoes are weak enough to give him. This precedence is most rigidly observed, for the Sultan being absolute, the infraction of it is visited with summary punishment by the kris, which is too often employed in the settlement of affairs in Borneo. Some Bruné people having stolen some things from a room adjoining the house of an Englishman, his highness on hearing of the offence sent word that he had given direction for the discovery and apprehension of the thief and that his right hand should be cut off. On another occasion the Sultan having sold a boat or prahus, to one of our countrymen, had given some orders about repairing her. On visiting the place afterwards where she was, and observing little or no progress made in the execution of his rules,

the dilatory culprit was sentenced to be immediately krisped, which was done, much to the horror of our countryman, who knew nothing of the affair until it was over.

On one occasion lately, his highness allowed his ideas of trade to carry him beyond discretion, by telling the master of a merchant vessel before us, not to go to Moumein with his goods, or have any dealings with him, a piece of advice that was forgotten, as the Pangeran is doubtless one of the most honest and excellent men in Borneo, and altogether superior to the generality of his countrymen. But this let us into the secret, with reference to the feeling existing between the Sultan and his next in rank in Bruné. We had several opportunities when his highness received presents and made selections from cargoes of witnessing the workings of the mind in the course of the operation, the dignity of state suppressing the cravings of selfish desire. An air of perfect indifference was assumed while the several offerings were placed at his feet; an ill suppressed smile occasionally betraying the inward satisfaction he felt at his good luck, as his eagle eye glanced quickly over the presents brought for his inspection, while his hands grasped everything they could hold. We saw enough on these occasions to convince us that his character of being a very indifferent paymaster is well merited.

One day his highness shewed us his chops, or state seals, and sent to the harem for his jewels. These displayed plenty of diamonds in rings, and other ornaments: some were good, others indifferent. Several ornaments from their being of European manufacture, had evidently adorned the hands and persons of some fair christians, probably Spanish or Portuguese victims of piracy, amongst thousands who never survived their capture. Among the jewels were several rosaries, and other religious symbols, some representing our Saviour on the cross, set in precious stones, and crucifixes, but, whence they had been obtained we could only surmise. We all know that there have been some dreadful acts of piracy from time immemorial committed on these distant shores; and great indeed, must be the gratification experienced by Mr. Brooke, in seeing daily the good effects of his philanthropic exertions, in the total abolition of piracy in this neighbourhood by the Borneans, although he still has some ugly neighbours near his own territory of Saráwak, who yet in a small way, carry on some piratical pursuit.

Notwithstanding they all consider themselves the most determined enemies of the "Illanuns" the association of piracy, has been so constant with the name of Borneo, and the Indian islands generally, that persons unacquainted with the real state of affairs, are apt, naturally enough to suppose that the whole race of people inhabiting them are, pirates, but it is not so.

The notorious pirates who now infest the sea coasts of Java, Sumatra, Banca, and Borneo, during certain seasons of the year, according to the monsoons, may be described as an entirely different race from these people; they, speak another language, and inhabit a group of islands off the north-east point of Borneo, called the Suloos Islands, and the Island of Mindanao, in which is the celebrated Illanun Bay.

The passage from Labuan in an exposed open boat to the powerful rays of the sun, and to rain and dew by night, it is anything but pleasant; even the magnificent scenery loses its charms as a reward in the eyes of the weary voyager, so that our visits to Bruné are not oftener than we can help or duty obliges.

We found everything at Labuan as we had left it, and returned to our old occupations; the cool evenings allowed us to ramble along the eastern beach, where a rill of water, descending over a rock, by the aid of imagination was converted into a waterfall. It was the only walk the island afforded, for all the rest was an impenetrable jungle. The island abounds with deer, and one which had accidently started was easily secured.

Wild boars also abound on the island. Alligators are numerous, and boa-constrictors have been seen, as well as several other snakes, but our old friends, mosquitoes, were as numerous as ever, and flying lizards as well as the common description, with flying squirrels. The rats are as numerous and destructive as they are at the Cape, with ants of all sorts and sizes, and monkies in tribes. When opened as a settlement the work of clearing must be very extensive for the site of the proposed township, narrowly escapes being a swamp.

Coal seems likely to be the most valuable and useful article that has yet been discovered on the island, and that is found more or less throughout, but is more plentiful at the north-east point, where under Captain Grey's direction a mine has been opened, and 200 tons are now being ready for the public service, under an agreement made with an Englishman, who has actually prevailed upon some of the Borneons to work. But they do so little and expect so much cloth for wages that at present the speculation wears an unprofitable appearance. The contractor is to receive £1 per ton for the first hundred, and 17s. for the rest. The coal is pronounced good, burns rather fast, leaving little or no cinder.

The part of the island in which the mine is situated is higher and more pleasing in feature than the rest, the jungle being open, the fine lofty trees are displayed, and it is more agreeable than about Victoria Bay, but the anchorage is exposed and during the north-east monsoon is often dangerous.

On the 20th of April the first of our victims to Borneo fever expired; the event cast a gloom throughout the ship, for sick list numbered about a fourth of our complement, we buried him in the ground at Victoria Bay near the landing place already occupied by the graves of Captain Gordon, and the Sergeant of Marines of the *Wolf*.

---

#### THE SULOO PIRATES.

The Sulo pirates have their chief stations on two of the principal islands of the Sulo Archipelago, named Báng-gingee and Tongkil, but most of the other islands also supply some men. They are subjects of the Rajah of Sulo.

There are about 200 boats in all, of different sizes, engaged in piracy. These boats are beautifully built, are very sharp fore and aft with great beam, and are double banked. The largest carry forty men, the smallest fifteen. If we take an average of thirty men for each boat, this will give 6,000 men engaged in piracy, which is the estimate the pirates themselves give of their numbers. The prahus both pull and sail well, and from their great beam, they can carry a heavy press of sail, and go at a great rate through the water. The size of the largest is sixty-eight feet, and the breadth of beam twenty feet, with a projecting stage outside of about one foot, along which the men walk. They have no deck, and are entirely fastened with rattans; they always go in fleets of 8, 10, 12, 20 or 30 prahus. Each prahu has several suits of sails of the form and material of those of the different races whose coasts they visit, and in each locality they hoist the sails used there by the native boats. The armament of a boat consists of one brass gun in front and one aft, and along the sides are placed swivels, rantakas, padjettys, &c. Each man is provided with a kleewang and lance, and there is a plentiful supply of muskets in each boat. Their guns are always concealed below when not immediately required.

The pirates take their departure at regular seasons for different places. In December or January, a fleet leaves the islands to go down to Macassar Strait, where it separates about Pulo Laut, one division going eastward to the Moluccas; some to the south of Java, Timor, Bali, &c., and the western squadron spreading along the shores of Java, Borneo, Banka, &c. They have particular haunts in all these places for which they have names of their own, on account of which it is difficult to ascertain their position. They often make descents upon villages when they know they are weak and unprepared. They have spies here and there, and always reconnoitre before they make their attacks, and their movements being very rapid they are seldom unsuccessful or encounter much resistance. Three or four boats almost always keep in company, there being very rarely so few as only two together. In these descents they take the women and children in preference to the men, because they are more easily caught, and at the same time are of much greater value, one woman being worth three men. This cruize of the long voyage lasts from December or January, until June, July or August.

At sea the pirates generally attack small vessels, such as native prahus, Chuliah schooners, and small Chinese junks. They keep a vigilant look out, and as they are provided with good glasses they keep out of the way of all dangerous looking vessels. They attack every boat which they think they are more than a match for, without any distinction of race, or having much regard to the value of the prize. None of the reckless boldness and hardihood which distinguish the European buccaneers is to be found in these pirates; but, on the contrary, they seem to be rather dastardly than otherwise, though no doubt they will fight desperately when they are surprised and they find that flight is impossible.

*To be continued.*

**A REVIEW OF THE PROCEEDINGS OF THE ARCTIC SEARCHING EXPEDITIONS, under the Command of Captain H. T. Austin C.B. and Captain Penny, with the recent despatches.**

ARCTIC intelligence which concerns so numerous a portion of our countrymen abroad, and therefore deeply interesting to us at home, has now become of so much importance, that we need offer no other reason for allowing it to occupy so large a share of our attention. We shall, therefore, not only gratify our own readers now, but our absent voyagers hereafter, by preserving a full record of their gallant doings.

Capt. Penny has returned with his ship the *Lady Franklin*\* and has brought "favourable" intelligence, for such is the concluding sen-

\* With the view of facilitating a reference to the names of all the vessels and their several officers on these expeditions, we insert here the following list of them.

**H.M.S. RESOLUTE.**—*Captain*, Horatio T. Austin; *Lieutenants*, R. D. Aldrich, William H. J. Browne; *Master*, Robert C. Allen; *Surgeon*, Abraham R. Bradford; *Paymaster and Purser*, John E. Brooman; *Mates*, Richard B. Pearse, Walter W. May, John P. Cheyne; *Assistant Surgeon*, Richard King; *Second Master*, George F. McDougal.

**H.M.S. ASSISTANCE.** *Captain*, Erasmus Ommaney; *Lieutenants*, Francis L. McClintock, James E. Elliott, George F. Meham; *Surgeon*, James J. L. Donnett; *Mates*, George R. Keene, Richard V. Hamilton; *Assistant Surgeon*, Charles Ede; *Second Master*, Frederick J. Krabbé; *Clerk in Charge*, Edward N. Harrison; *Clerk*, Charles Richards, (b).

**H.M.S. PRONNER**, steam tender to *Resolute*, *Lieutenant*, Sherard Osborn; *Assistant Surgeon*, Thomas R. Pickthorn; *Second Master*, John H. Allard.

**H.M.S. INTREPID**, steam tender to *Assistance*, *Lieutenant*, B. Cator; *Assistant Surgeon*, John Ward (a); *Second Master*, William Shellabeer.

**LADY FRANKLIN.**—*Captain*, W. Penny; *Executive, First Mate*, Mr. John Marshall; *Second Mate*, Mr. John Leiper; *Third Mate*, Mr. John Stuart; *Surgeon*, Mr. Thomas Goodsir; *Interpreter*, Mr. Peterson.

**SOPHIA**, tender to the *Lady Franklin*.—*Captain*, Alexander Stewart, *Commander*; *Executive, First Mate*, Mr. Donald Manson; *Second Mate*, Mr. James Reid; *Surgeon*, Mr. Peter Sutherland.

**FELIX**, *Captain*, Sir John Ross, R.N., accompanied by *Com. Phillips*.

**MARY**, yacht tender to *Felix*.

**U.S.S. ADVANCE.**—*Lieutenant Commander*, E. J. De Haven, (Philadelphia), *Commander of the Expedition*; *Master*, (acting), W. H. Meerdauha, (Norfolk); *Midshipman*, W. S. Lovell (New York); *Surgeon*, Dr. Kane; *crew*, 15.

**U.S.S. RESCUE.**—*Master Commander, passed Midshipman*, J. P. Griffin; (Savannah), *Master*, (acting) R. R. Carter, (Virginia); *Midshipman*,—Brooks; *Surgeon*, Dr. Vreeland, (New York); *Crew*, 13.

The **PRINCE ALBERT**, commanded by Mr. Kennedy, sailed for Prince Regent Inlet in May last. The vessels under the orders of Captain Austin sailed in May 1850.

We also add here the *Enterprize* and *Investigator*, having gone to the Polar Sea by Behring Straits in January 1850.

**ENTERPRISE.**—*Captain*, R. Collinson, C.B.; *Lieutenants*, George A. Phayre, John J. Barnard; *Additional*, Charles T. Jago; *Surgeon*, Robert Anderson; *Mates*, M. T. Parks, Rowland T. G. Legg; *Assistant Surgeon*, Edward Adams; *Second Master*, Francis Skead; *Clerk in charge*, Edward Whitehead.

**INVESTIGATOR.**—*Commander*, Robert J. L. McClure; *Lieutenants*, William H. Haswell, Samuel G. Cresswell; *Surgeon*, Alexander Armstrong, M.D.; *Mate*, Robert J. Wynniatt, Henry H. Sainsbury; *Assistant Surgeon*, Henry Piers; *Second Master*, Stephen Court.

tence of the despatch with which he was charged by Capt. Austin. We congratulate Capt. Penny on his safe arrival, as well as his own brave followers who have contributed so much to produce the favourable aspect which the whole subject has now assumed. Painful as it is to contemplate the condition of Franklin and his people, locked up so long from us, it seems to have fallen to the lot of Capt. Penny to clear up in a great degree, the preplexing doubts which have hitherto existed as to the route adopted by him in 1846. His letters as well as Captain Austin's despatches are before the world, and we hope in the course of these remarks to shew to our readers that by the knowledge we have gained of Wellington Strait, the prospect of further information respecting the missing Expedition, assumes a very fair degree of probability.

While Capt. Austin and his officers were examining every portion of coast which led towards Melville Island, removing all possible speculations that Franklin had adopted the route to Behring Strait by the southward and westward, Capt. Penny and his party were exploring new ground up the Wellington Strait, and with sledges and boats have opened out a navigation leading to the north-westward of the Parry Islands, which by many is believed to be that which was adopted by Franklin. We, however, do not join in this opinion, and these are our reasons for thus differing from so general an assumption. Wellington Strait is the contracted outlet of this navigation into Barrow Strait, and the ice brought by winds and tides from the north-west obstructs its passage and hence becomes mostly impassable. It was closed during the late visit of our ships, and although to all appearance it was open when passed and repassed in 1819 and 1820 by Sir Edward Parry, it must be remembered that *he would be able to see about twelve or fourteen miles only from the entrance*, and it is not likely that he could say whether this channel, of forty-five miles in length, was open or not.

Franklin having passed his first winter at Beechey Island, took care beyond a doubt fully to acquaint himself with the nature and extent of the icy barrier, which we have reason to conclude so effectually bound his entrance into Penny's open sea beyond it, and which his reconnoitring parties must have discovered; and therefore seeing the impossibility of cutting his way through, (for we learn from Captain Penny, that such an attempt would have been fruitless when he was there) he might then having abandoned all hope of passing through that channel, retrace his course through Barrow Strait, and hasten at once to the northward up Baffin Bay, with the natural conclusion that Jones or Smith Sound offered the only probable road for reaching it.

Much has been said about the hurry in which Franklin left his winter quarters at Beechey Island, and that it had the appearance of a retreating party. We do not exactly understand what is meant by hurry and retreating. True it is, and much to be lamented, that no written document has been found there, to throw any light on his intended proceedings; but in our opinion had Sir John Franklin passed by that strait he would have left some document to say so, and as he failed in his attempt, it is quite possible that he might have thought it unnecessary

to leave memoranda at each point of failure, and considered that the unequivocal mark of his visit, without comment might serve to demonstrate his abandonment of the route by Wellington Strait.

Captain Austin was fully aware that Captain Penny's orders were "in the first instance *specially* to examine Jones Sound," proceeding by it in the direction of Wellington Strait, and on to the Parry Islands, and this not having been done, was an additional inducement for Captain Austin to prosecute his search in that direction. And yet opinions appear to be entertained both for and against the probability of Captain Austin's return to England, in the course of the present autumn, although there is no part of his despatch that can in any way warrant the former conclusion.

We are disposed to believe that the return of Captain Austin's Expedition this year will entirely depend upon the success or failure of his attempt to reach Penny's open sea, by Jones Sound. Should this prove an available channel it is a manifest absurdity to expect Austin home this winter. Is it likely that any officer, much more one of Captain Austin's zeal and devotion to the cause in which he is embarked, would go to Jones Sound, merely to reconnoitre the entrance and then return? And is it not equally certain that if he once penetrated into the open sea by that Sound, that he could not return to England this year if he would?

On the other hand, if Captain Austin finds Jones Sound impassable, or a blind channel, we confess that we are at a loss to know what better step he could take than to return with his ships to England, and start afresh in the spring of next year.

But for the solution of these and many other questions, which it presents, we must patiently wait the issue of time, or perhaps in the midst of our speculations the arrival of that hardy old seaman Sir John Ross, with the next despatch from Captain Austin himself; satisfied we may be that everything at home has been done that could be, and that as much has been effected abroad as circumstances permitted, and as even the most sanguine amongst us could have expected.

Opinions of parties who appear to be ill informed on this subject have been freely delivered, condemning Capt. Austin's proceedings, and producing an impression on the public mind, highly unfavourable to that officer. To say the least, this is not only unfair but it is ungenerous. The whole subject is not only important at the present moment, but it is most especially necessary that, clear and comprehensive views should be taken of it, so that the real motives which are directing Capt. Austin's (we will say judicious) exertions should be clearly understood.

The expedition under Capt. Austin has been pronounced a failure—the fairest expedition which ever left this country, has been declared ineffective, because, its leader has chosen to adopt a course under circumstances that he considers to be the most proper one, but, which does not appear to be understood by these writers. One speaks of Franklin taking the middle passage across the bay as an index of his knowledge of the subject, when he ought to know that Franklin's ships adopted the usual track through Melville Bay, and were last seen in the parallel of



Lancaster Sound in the upper part of the bay standing for its entrance. Again Capt. Austin is blamed for turning his back on Wellington Channel, when he had satisfied himself that the passage by Cape Walker was closed against him, and for intimating his intention of pursuing his search by Jones Sound.

It is asked why did not Austin proceed up Wellington Channel? For this plain reason we may answer, because he saw that unhappily there lay a stout barrier of ice between him and the open sea beyond it of some twenty or thirty miles extent, which not only it was impossible for his ships to penetrate, but in all probability had been equally fatal to the progress of Sir John Franklin's. This we consider to be a sound reason why Austin turned his back on Wellington Channel and for pursuing his search by Jones Sound. We must not lose sight of the main object of Capt. Austin's expedition. It is simply, if possible, to trace step by step the missing ships in their progress, and, we therefore, quite agree with him in the conclusion at which he arrived, or at least such is our construction of its meaning;—that having made up his mind that Franklin after failing in Wellington Strait had gone to Jones Sound, he would at once follow him there rather than penetrate the icy barriers of that strait even if it had been practicable. For let us ask what possible service towards the great object of Austin's expedition would have resulted had his ships reached Queen Victoria Channel, and thence pushed on to the north-west with the unhappy chance of having left the missing ships behind them! This dilemma Austin has wisely avoided.

But we will now refer to the opinions of our most experienced and eminent officers on the necessity of not only exploring Jones Sound as intended by the Admiralty orders, but of the probability of that being the route which was adopted by Sir John Franklin, and these we find in a useful little volume from the pen of Mr. P. L. Simmonds, which appeared only a few months ago.

Sir F. Beaufort says, Sir John Franklin is not a man to treat his orders with levity, and therefore, his first attempt was undoubtedly made in the direction of Melville Island to the westward. If foiled in that attempt, he naturally hauled to the southward, and using Banks Land as a barrier against the northern ice, he would try to make westing under its lee. Thirdly, if both of these roads were found closed against his advance, he, perhaps, availed himself of one of the four passages between Parry Islands, including the Wellington Channel, or, lastly, he may have returned to Baffin Bay, and taken the inviting opening of Jones Sound.

Sir E. Parry says, and this idea receives no small importance from the fact (said to be beyond a doubt) of Sir John Franklin, having before his departure expressed such an intention in case of failing to the westward; "much stress has likewise been laid, and I think not altogether without reason, on the propriety of searching Jones and Smith Sound in the north-eastern part of Baffin Bay. Considerable interest has lately been attached to Jones Sound, from the fact of its having been recently navigated by at least one enterprising whaler, and found to be of great width, free from ice with a swell from the westward, and having no land visible from the mast head in that direction. It seems more than proba-

ble, therefore, that it may be found to communicate with Wellington Strait; so that if Sir John Franklin's ships have been detained anywhere to the northward of the Parry Islands, it would be by Jones Sound that he would probably endeavour to effect his escape, rather than by the less direct route of Barrow Strait. I do not myself, attach much importance to the idea of Sir John Franklin having so far retraced his steps as to come back through Lancaster Sound, and recommence his enterprise by entering Jones Sound; but the possibility of his attempting his escape through this fine opening, and the report (though somewhat vague) of a cairn of stones seen by one of the whalers on a headland within it, seems to me to render it highly expedient to set this question at rest by a search in this direction, including the examination of Smith Sound."

Sir J. Richardson observes also, "With respect to Jones Sound, it is admitted by all who are intimately acquainted with Sir John Franklin that, his first endeavour would be to act up to the letter of his instructions, and that therefore, he would not lightly abandon the attempt to pass Lancaster Sound. From the logs of the whalers year after year, we learn that when once they have succeeded in rounding the middle ice, they enter Lancaster Sound with facility. Had Sir John Franklin, then, gained that Sound, and from the premises we appear to be fully justified in concluding that he did so, and had he afterwards encountered a compact field of ice barring Barrow Strait and Wellington Sound, he would then, after being convinced that he would lose the season in attempting to bore through it, have borne up for Jones Sound, but not until he had erected a conspicuous landmark, and lodged a memorandum of his reason for deviating from his instructions."

Dr. Mc Cormick also says, "In renewing once more the offer of my services, which I do most cheerfully, I see no reason for changing the opinions I entertained last spring; subsequent events have only tended to confirm them. I then believed and I do still, after a long and mature consideration of the subject, that Sir John Franklin's ships have been arrested in a high latitude, and beset in the heavy Polar ice northward of Parry Islands, and that their probable course thither has been through Wellington Channel or one of the Sounds at the northern extremity of Baffin Bay."

To the foregoing we are enabled to add the opinion of the late Sir John Barrow, whose knowledge of Arctic navigation needs no comment here. Franklin was aware of Sir John Barrow's aversion to the Wellington Channel, because, it was always blocked up with ice, and having himself found it so, he will follow his own inclination and try another channel to the northward.

We repeat then that here is sufficient reason, for Capt. Austin having satisfied himself by his own explorations that Franklin did not make his attempt southward or westward of the Wellington Channel, to proceed immediately to Jones Sound, looking to their Lordships' intention, and the impression which may now become strengthened with reference to their orders.

Among other points for which Austin has been condemned is that of not supplying Captain Penny with assistance! and for what purpose? for effecting the very object which Captain Penny managed to attain

without it. But let us see under what circumstances was Austin, when he received this application.

His letter tells us it was made on the 23rd of May, and that he regretted his "remaining strength" did not admit of his placing at his disposal sufficient aid to convey a boat, across the icy barrier of Wellington Channel.

Now it happens that at this very time Austin's *limited* searching parties were recovering from the effect of their journeys on the ice. They returned between the 27th of April and the 7th of May, and the *extended* parties consisting of thirty-eight men besides officers (as appears by the methodical tables attached to his letter) were still away, as they returned between the 28th of May and the 4th of July, having been absent since the 10th of April. What means then had Austin of meeting this demand (with auxiliary parties away also,) and the remaining strength of those returned already exhausted by travelling, and which required to be recruited by rest rather than be again employed in doing for Captain Penny, that which he contrived, to do for himself. Was the service injured by this refusal? not at all, and we do Captain Penny only justice in saying that he not only performed well what he undertook with his own means, but that this has been no complaint of his against Captain Austin. Of Captain Penny, it has been predicted that in a few days he will be on his way to the Arctic waters. The lateness of the season at once threw doubt on the propriety of such a step, and it required the calm and deliberate consideration of men whose knowledge and experience of Arctic matters would enable them to decide whether a steam vessel, should be sent with Captain Penny to communicate with the searching ships this season or not! We read in the daily prints under the head "*Naval*" that "in accordance with an Admiralty summons, Captain Sir Edward Parry, Captain Beechey, and Captain Sir James Clark Ross attended at the Admiralty on Thursday (18th Sept.) in order to meet the Board and their Hydrographer Rear Admiral Sir Francis Beaufort, and to consult on the proceedings of Captain Austin and Captain Penny, in the late search for Sir John Franklin."

With the deliberations of that council we do not pretend to be acquainted, but any man who knows anything of ice navigation in Baffin Bay will pronounce the decision of those officers that no vessel should be sent this season, considering its advanced period, and under present circumstances, both as wise and discreet. Let us suppose a screw-steamer to leave this in a fortnight for Baffin Bay, for in less she could not do so; on a moderate speed of seven or eight knots (if she could do that) she would reach Cape Farewell, (assuming her departure on the 3rd of October,) about the middle of that month to run the gauntlet as she might be able between the middle and shore ice! If she did escape being beset and passing the approaching winter as the American vessels did the last in drifting about fixed in the ice, and even penetrated into Jones Sound there may be no ships there, they may have reached the same open sea which Penny saw, and may be snugly wintering in one of its harbours. But the hope of a vessel getting so far at this late period of the season and the uncertainty of finding any ships if she did, is

too futile to be entertained for a moment, and the council has wisely discarded any such intention, and no one who is acquainted with the nature of the subject could desire otherwise.

We must, therefore, for the present close our observations on Austin's proceedings, not however, without expressing our admiration of that well regulated and systematic management with which he has assigned to his officers their several duties, as well as of the energetic and noble spirit in which they have been performed. Indeed, each one has vied with the rest in executing his difficult and perilous task; a gallant emulation has pervaded every one, and general harmony, goodwill, and fellowship has welcomed the rule of discipline. Nor should we disregard the noble exertions of Captain Penny, in his very interesting and laborious exploration so well seconded as they were by his officers. Not only sledges, but boat work fell to their share, violent gales, heavy seas and rapid tides, with snow and rain, it was their lot to encounter, and though they were not rewarded by finding Franklin, they have the glorious reflection of having assisted materially in the great work in hand. They too performed well their several tasks, they have established their claim on the notice of their country, and we trust, will, at the fitting time, receive their reward; or in the words of Captain Penny that it will be "remembered to their advantage."

We perceive by the daily prints, that Captain Penny's ship has arrived. The account says "the *Lady Franklin*, commanded by Captain Penny, arrived at Woolwich yesterday afternoon, and was brought up at moorings alongside the *Salsette* receiving ship, opposite the dockyard, and the *Sophia*, her sister vessel, is daily expected at that port. The *Lady Franklin* is come home safe and sound, in excellent condition and remarkably clean, and with as healthy and robust a crew as ever sailed in any region, and without a single complaint amongst the men on board; if it is excepted that they say they cannot now eat so much meat as they used to do of fat pork and other rich edibles, their appetites having greatly abated since they left the Orkneys for Woolwich. The Danish Interpreter has returned with them, and appears to be a very decent and passably intelligent person, and expresses his belief that the discovery ships, *Erebus* and *Terror*, are still safe. We now turn to the despatches.

The first accounts of these expeditions which have reached us this season are the following communicated by the commander of the *True-love*, whaler.

"To the Lords Commissioners of the Admiralty.

"*Davis Straits, July 24th, 1851.*

"My Lords.—May it please your Lordships to receive at my hands the inclosed testimony, received on the 12th of July, of the American searching vessels, of the account of their voyage in search of Sir John Franklin. On the 13th of September, 1850, they left all the searching vessels at Cape Martyr, Cornwallis Island, they not being enabled to pursue any further westward direction from that date. A harbour called Assistant Harbour, discovered by Captain Ommaney, three miles east of Cape Martyr, was the place in selection by them to winter in. The bay ice was forming very strong at that

time, yet the *Advance* and *Rescue* were determined to proceed homewards; but, unfortunately, however, a gale sprung up and drove them up Wellington Channel fifty miles, and afterwards they were frozen in. I have not yet been enabled to get further northwards than the Devil's Thumb, and the time being limited for my sojourn in that quarter, I cannot give you any more particulars, excepting that the two American vessels and the *Prince Albert* were left by us near the Duck or Whalefish Islands, the wind being south-west and blowing strong at the time. The American schooners have left some despatches for the Admiralty at Lievely, which in due time I hope will be received. At this date I am off Holstinburg. The ice in my voyage northwards seemed to be very light, but I could not get through it in time. The American captain De Haven told me that the winter was very mild, and that he can give no further particulars respecting Sir John Franklin, than the inclosed account. He said he was determined to go to the seat of search again, after having wintered; and all the documents received from the Admiralty and others I gave to him.

"I remain, my lords, your lordships' most obedient servant,

"JOHN PARKER, *Master.*"

*Memorandum from Captain Parker, of the Truelove.*

"1. On the 26th of August, 1850, traces were found to the northward of Port Innis, Wellington Channel, confirming those previously found at Cape Riley by Captain Ommaney. These consisted of fragments of clothing, preserved meat-tins, and scraps of papers, one of these bearing the name of M'Donald, medical officer in the expedition."

"2. On the 27th Captain Penny's parties reported graves. These were at once visited by Captain De Haven, Mr. Penny and Dr. Kane. They bore respectively the names of W. Braine, *n.m.*, and John Hartnell, of the *Erebus*, and John Torrington, of the *Terror*, the date of the latest death being the 3rd of April, 1846. Added to these sad but unmistakable evidences were the remains of the observatory, carpenters' shop, and armourers' forge. Upon the hill side and beach were fragments of wood, metal, and clothing, with stacks of empty meat-tins. Everything indicated permanency and organization. There can be no doubt that the cove between Cape Riley and Beechey Island, facing Lancaster Sound, was the first winter station of the missing vessels. On the 31st of September the impervious ice of Wellington Channel underwent a complete disruption, and by the 6th several vessels penetrated to the Cornwallis side. Such, however, was the impenetrable character of the pack in Lancaster Sound, that by the 10th of September the entire searching squadron were again concentrated about eight miles south of Griffith Island. This was the furthest westing attained by the American expedition. The latest dates from Commodore Austin are of the 13th of September. They were then in momentary expectation of making winter quarters, and it is probable that a small harbour discovered by Captain Ommaney about three miles east of Cape Martyr will be the haven selected. Thence the American vessels, while proceeding homewards, were frozen in opposite Wellington Channel, drifting during the ensuing winter from a latitude of 75° 25' throughout the channel and sound into Baffin Bay. Their liberation, after much exposure and trial, took place on the 10th of June, 1851, at a point south of Cape Walsingham 65° 30'—a linear drift exceeding 1,050 miles. The commotion of the ice with its attendant uncertainty was their chief source of trial. Every officer and man had marked scorbutic disease, but no deaths have occurred. The crews are now refreshed, and the expedition is endeavouring to regain the seat of search.

"I have, &c.,

"E. K. KANE, *Surgeon to the Expedition.*"

## CAPTAIN PENNY'S LETTERS.

"Her Majesty's ship *Lady Franklin, Assistance Harbour, Cornwallis Island, April 12th, 1851.*

"SIR.—I have the honour to inform you, for the information of my Lords Commissioners of the Admiralty, that, after parting company with Her Majesty's ship *North Star*, on the 21st of August,\* I reached along the north shore of Barrow Strait until Sunday, the 24th, keeping a strict look-out. Being then off Beechey Island, I spoke the American schooner *Rescue*, and learned that Her Majesty's ship *Assistance* had found traces of the Franklin expedition on Cape Riley. The *Assistance* was then running to the westward, and, anxious to be possessed of every particular, I followed her with the intention of going on board, but I had not that opportunity until 2 P.M. when both vessels were made fast to the land-ice two-thirds of the distance across Wellington Channel, the *Assistance* being about one mile and a half to the westward of us.

Finding that the traces were apparently those of a retreating† party, I thought it my proper course to return to the east side of Wellington Channel, which I accordingly did. The succeeding morning I landed with a party and examined the coast from ten miles to the northward of Cape Spencer to that promontory, and an encampment was found near the latter place, seemingly that of a hunting party about three years previous.

Joining company with the *Advance*, the *Rescue*, and the *Felix* schooners, the following morning, we made fast in a bight under the north-west side of Beechey Island, and, having consulted with Capt. De Haven and Sir J. Ross, it was agreed that the former should despatch a party to continue the search northward along the east coast of Wellington Channel, while I explored the coast to the eastward. Meantime, a party of all my officers, which had been despatched in the direction of Caswall Tower, discovered the quarter which had been occupied by the vessels of Sir John Franklin's expedition in the winter of 1845-6. Three graves were also found, the headboards showing them to be those of three seamen who had died early in the spring of 1846; but, notwithstanding a most careful search in every direction, no document could be found. The same evening, a boat party was despatched, under Capt. Stewart, to explore Radstock Bay and its vicinity, but no further traces were found in that direction. The *Resolute* and *Pioneer* came up and made fast on Wednesday morning, and an unfavourable condition of the ice detained us all till evening, when water being opened to the westward, I stood a certain distance across Wellington Channel, and in the morning sent away a party under Mr. J. Stuart, to communicate with the *Assistance*. The same evening we were again in Beechey Bay, and the party returned the following forenoon, having accomplished upwards of forty miles. By them we were acquainted that the *Assistance* had found no traces in about thirty miles of coast, examined by her to the north and south of Barlow Inlet. The state of the ice prevented the least motion being made with the ships until Thursday, the 5th of September, when we left Beechey Bay; but so little was the ice slackened off, that we were unable to reach the west side of the Channel before Sunday, the 8th.

\* Captain Penny had visited the *North Star*, and recommended Mr. Saunders to land the provisions he had brought out in Navy Board Inlet, where he would find a safe harbour. It appears also in Mr. Saunders' letter, in the Arctic Papers, that Commander Phillips, visited the *North Star*, on the 22nd of August, from the *Felix*, Sir John Ross, so that we have no doubt the supply and its "whereabouts" left by the *North Star*, is known to Captain Austin.—Ed.

† Capt. Penny informs us that he used this expression with reference to a party suddenly returning to the ships, not the ships retreating homewards.

While lying under Beechey Island arrangements were made with Sir John Ross to lay up the *Mary* yacht, and a quantity of provisions was contributed, as our share of the depôt there formed.

On Sunday the 8th, I landed with a party about twelve miles to the northward of Barrow Inlet, and a cairn and pole were erected in a conspicuous situation.

Wellington Channel being blocked up with old land-ice no alternative was left but to proceed to the westward, with a view of reaching Cape Walker, or attempting some other passage between the islands of the Parry Group, or, failing either of these, Melville Island. Following out this course, we pushed on through the bay-ice, which was now so strong as to retard us greatly; but, notwithstanding that obstacle, we reached Griffiths Island on Tuesday, the 10th of September, and having made fast there, on account of the state of the ice, I had again a consultation with Capt. Austin with a view to acting in concert.

The following morning the more favourable appearance of the ice induced me to make an attempt to reach Cape Walker; but after proceeding twenty-five miles, the ice became packed, which, with a heavy fog, caused me to put about, and make for our former position. The hourly increasing thickness of the bay-ice, which had now become such an obstacle that with a strong breeze the ship stayed with considerable difficulty, rendered it absolutely necessary that a place of safety should be obtained for the vessels, and I accordingly made for this harbour, a rough sketch of which I had previously obtained from the *Assistance*. We brought up at 11h. A.M., on Thursday, the 12th of September, and shortly afterwards the *Felix* schooner, Capt. Sir J. Ross, came in and brought up. Two boats were sent ashore and hauled up, to fall back upon should further progress be made; but being unable to get out by the 20th so as to be usefully employed, preparations were commenced for wintering.

With reference to the winter that we have spent, one fact will speak for itself, viz., that there has not been one single case of sickness in either the *Lady Franklin* or *Sophia*; indeed, so completely, were both the minds and bodies kept properly occupied and carefully attended to, that with the crews I have it would have been surprising to have seen sickness. While on this subject, I cannot but make mention in terms of praise of Messrs. Sutherland, Goodsir, and Stuart, their exertions alike to instruct and amuse the men greatly contributing to the happy issue.

Frequent communication has been held with Capt. Austin's expedition, which has wintered in the strait between Griffith and Cornwallis Islands, and arrangements were made with reference to the different routes to be taken in the coming travelling. Pursuant to these, there are at present ready to start from the *Lady Franklin* and *Sophia*, two parties, of three sledges each, to explore Wellington Channel and the land which may be found at the head of the great inlet. Independent of the above there are two dog-sledges prepared for extended search in the same direction; one of these will be conducted by the interpreter, Mr. Peterson, of whom I would beg to make particular mention, trusting that his noble devotion in the cause of our countrymen may be remembered to his advantage.

The day at present fixed for the start is Monday, the 14th of April, should the weather continue favourable. Previous to starting I have thought proper to make out this despatch for their Lordship's information.

"I have the honour to be, Sir,

"Your most obedient servant,

"WILLIAM PENNY,

"Commanding an expedition in search of *H.M.S. Erebus and Terror*  
"To the Secretary of the Admiralty, London."

*"Her Majesty's ship Lady Franklin, at sea, Sept. 8th, 1851.*

SIR.—Resuming my report of proceeding from the date of my last despatch, I have to inform you that on the 17th of April six sledges, with forty-one officers and men, started from the ships, under the command of Capt. Stewart, of the *Sophia*, and I could not but be gratified at seeing what our small means had put in our power to do with these parties of men alike able and willing. The sledges were variously officered by Capt. Stewart, Messrs. Marshall, Reid, and J. Stuart, and Drs. Sutherland and Goodsir. The course intended to be pursued was to proceed so far together up the west side of Wellington Channel, and after returning to the depôt sledges, two parties to cross the east side of the channel, while the other two followed up the west coast to the head of the channel, the position of the land then seen determining their future procedure.

"Each sledge was equipped for forty days, and the average weights per man were upwards of 200lbs. I started from the ship on the 18th, with the dog-sledges, accompanied by Mr. Peterson, and at noon, on the 13th, I joined the sledges. They had found the ice very heavy, in consequence of the recent snow and the high temperature, and their journey of the previous day had not exceeded six miles and a half. The inefficient state of our cooking apparatus had already begun to cause much inconvenience.

"On the 19th the temperature fell, and a gale of wind faced us immediately on entering the channel, which continued, with only partial intermissions, till the 22nd. During all that time I was continually among them, and whatever doubts the want of experience of my young officers might have warranted my entertaining, they were all removed by witnessing the management of their men on this occasion. On the 21st Mr. J. Stuart had returned with the two depôt sledges, and only one tent. In consequence of the extreme severity of the weather, I felt great anxiety for this party; however, in two marches, they reached the ship, with only a short interval of rest.

Meanwhile, the gale continued down the channel, with a temperature varying from 25° to 30°. This, and the want of numerous articles, such as a sufficient supply of fuel, stronger conjurors, &c., caused me to entertain a fear of failure, if these defects were not remedied in time. I accordingly consulted my officers on the subject, and, in consequence of our unanimous opinion that a timely return was the most advisable step, I determined to deposit all the provisions, and the two best sledges at this spot, returning with the other two to receive alterations. The distance to this spot was forty-two miles. The dog-sledges, on their return, accomplished the distance in one stage.

The other four parties, after making their deposit returned, reaching the bay at noon on the 26th, every one in the best of health, and not a single case of frost-bite; and I cannot but state my admiration of the constant contentment, and steady and willing endurance of the officers and men of the parties under circumstances of no small hardship. From this date to the 5th of May, every one was busily engaged preparing more amply for what we had found to be necessary in our first journey. On the 6th, after a short prayer to the Almighty to enable us to fulfil our duty, the sledges again started, the crews of the two that had been left up channel being distributed among them. They were again in charge of Capt. Stewart till such time as I should myself join them at the upper depôt, when I was to see each party take its separate route. At 6 o'clock, a.m., on the 9th of May, I started with Mr. Peterson, and Thompson, one of the seamen with the two dog-sledges, and at 2 o'clock, p.m., we overtook the parties, then camped at the further depôt. From Point Separation, in lat. 75° 5' N., Capt.



Stewart, with his auxiliary, Dr. Sutherland, and Mr. J. Stuart, of the *Lady Franklin*, left, proceeding to Cape Erinelle; Mr. J. Stuart there separating and proceeding along the coast to Cape Hurd, examining the various beaches, &c., for further traces, as strong opinions were still entertained that more was to be found in that quarter.

Mr. Goodsir, with Mr. Marshall as his auxiliary, had assigned to the m to examine the west side, and to follow up after the dog-sledges, receiving final instructions on reaching the head of the channel. Rapid journeys were made with the dogs to Cape De Haven in N. lat.  $75^{\circ} 22'$ . Hence the land was seen to trend north-west ten miles, terminating in a point, afterwards named Point Decision, which was reached at half-past 10 P.M., on the 12th of May. A hill of 400 feet in height was ascended, and in consequence of the land being seen continuously in a north-westerly direction, instructions were left to Mr. Goodsir to take this coast along to the westward, while I myself proceeded in a N.W.b.N. direction towards land seen to the northward. At 5 P.M., on the 14th, we encamped on the ice, having travelled twenty-five miles N.W.b.N. from Point Decision. The following day, after travelling twenty miles from the encampment in a N.W.b.N. direction, we landed at 7 P.M., on an island, named Baillie Hamilton Island.

Ascending a hill about 500\* feet high above the head-land on which we landed, the ice to the westward, in the strait between Cornwallis and Hamilton Island, was seen to be much decayed, and an island was seen to the westward, distant thirty-five or forty miles. As the decayed state of the ice prevented further progress to the westward from this point, and no trace being found, we proceeded round the island, first to the N.N.E., and afterwards, on rounding Cape Scoresby, in a N.N.W. direction. On the 16th we came upon what to all appearance was water, and on halting on the 17th, at Point Surprise, we were astonished to open out another strait, in which was twenty-five miles of clear water. An island was seen bearing W.  $\frac{1}{4}$  S., distant forty miles; and a headland, distant fifteen miles W.b.N., the dark sky over this head indicating the presence of water, to the extent of perhaps twenty miles, on the other side. This point was found to be in  $76^{\circ} 2' N.$  lat., and  $95^{\circ} 55' W.$  long. Further progress being prevented by water and we being still without traces, and the dogs' provisions being exhausted, no other course remained but to return to the ships, which we reached, after rapid journeys, at midnight on the 20th of May.

"The carpenters and people on board were immediately set about preparing a boat to endeavour to reach the water seen.

"On the 29th of May the second mate arrived, having left Mr. Goodsir in  $75^{\circ} 36' N.$ , and  $96^{\circ} W.$  Water had been seen by them to the northward, from their furthest station. He made a very rapid return, having run in one day from twenty-five to thirty miles. Every one on board continued actively employed, preparing the boat, provisions, &c., and on the 4th of June it started with one auxiliary sledge and one dog-sledge; the whole party being in charge of Mr. Manson.

"On the 6th of June Mr. John Stuart returned with his party from Cape Hurd, after an absence of 31 days, but without having found any traces either indicative of the course pursued by Her Majesty's ships *Erebus* and *Terror*, or of any retreating party having subsequently passed along that coast.

"After thirty-six hours' rest, Mr. Stuart again started to join Mr. Manson, having equipped his sledge for a twenty days' journey. He overtook the

\* This elevation gives the distance of the *Horizon* 27 miles, and adding about a twelfth for the effects of refraction makes it about 30. Land at all elevated above it would of course be seen at a greater distance.—Ed.

boat on the morning of the 8th of June, then one mile to the westward of Cape Hotham. The same day a dog-sledge from Mr. Manson arrived at the ship, stating that the sledge on which the boat was placed, after trial had been found unfit for the purpose. The armourer, who had returned with the dog-sledge, was immediately set about preparing a longer sledge, but having no carpenter on board, the wood work was finished by Sir John Ross's carpenter. On the 11th, at 4 A.M., I joined the boat with the two dog-sledges, and all hands were immediately set about fitting and lashing the new sledge, and arranging the weights of the party between the two long sledges, and the two dog-sledges. On the 12th Mr. Manson returned, no one being left in the ships but the clerk in charge.

"The improvement in the boat-sledge was so remarkable, and the ice also so much better, that a distance of 105 miles was accomplished in seven marches. The boat being then launched into the water and laden, the fatigue party returned, and reached the ship on the 25th of June, all in good health, the dogs dragging their light sledges the whole way.

"On our journey out we met Dr. Sutherland at *Dépôt Point*, returning after an absence of thirty-eight days. He reported having left Captain Stewart in  $76^{\circ} 20' N.$ , in the opening of Wellington Channel, but without having yet fallen in with any traces. When off Point Griffiths, on the 14th, Messrs. Goodair and Marshall were fallen in with, having examined the northern shores of Cornwallis and Bathurst land, as far as  $99^{\circ} W.$ , but still without having fallen in with any traces. They were obliged to return in consequence of the water.

"Resuming the boat journey, after separating from the fatigue sledges on the 17th of June, we proceeded about ten miles to the westward, when we were obliged to take shelter in an adjacent bay, in consequence of a head sea, and strong westerly gale. From this date until the 20th of July 310 miles of coast were examined by the boat under very disadvantageous circumstances, arising from constant unfavourable winds and rapid tides. Our provisions being then within eight days of being consumed, and our distance from the ship such that prudence would not warrant further perseverance with this supply, we commenced our return, and, with a strong north-west wind, succeeded in reaching Abandon Bay after fifteen and a half hours. The ice being so decayed as to preclude the launching of even an empty boat, we were compelled to haul the boat ashore and abandon her, taking with us four days' provisions. The weather during our return was boisterous in the extreme, with continued rain, which made the streams it was necessary to ford very rapid. The constant wet caused the greatest discomfort; but from none of my men did I once hear a complaint. In  $75^{\circ} N.$  lat. we found a boat, which Captain Stewart had wisely sent out in case of such a contingency as had occurred, but the ice having set into the mouth of Wellington Channel, which had up to this time been open, we were unable to fetch her down further than Barlow Inlet. Thence we walked to the ships, which we reached at 10 P.M., on the 25th of July.

"Captain Stewart had returned on the 21st of June, having reached Cape Becher in  $76^{\circ} 20'$  north latitude, and  $97^{\circ}$  west longitude. We had again started on the 1st of July, and carried up a *dépôt* for my return to Cape De Haven, returning from this journey on the 17th of July. For particulars during the different searches I would refer you to the accompanying reports.

"On my return I was agreeably surprised to hear that Barrow Strait had been open as far as could be seen since the 2nd of July, an occurrence which was so far to be expected, as the strait was seen to be in motion since the 11th of March. The land-ice had also come out of Wellington Channel as far up as Point Separation, probably about the 5th of July; and on the

27th of July, when our travelling operations concluded, the fast edge in the channel continued in the same position.

"The ships continued icebound till the 10th of August, but had our parties returned in sufficient time to refit and be ready to cut out from the date of water making, we should have been at liberty on the 15th of July.

"On the 11th of August Captain Austin's ships entered our harbour in their progress to the eastward. His parties had penetrated as far as ships could hope to do, yet, like our own, unsuccessful in finding the least trace of the missing expedition. In fact, none had been found such as would warrant the risk of a second winter, and, my orders being such as left no alternative, I determined on immediately returning to England, if no instructions to the contrary should be met with. In proceeding down the country we landed at Cape Hay and Button Point, in Pond Bay, positions considered the most probable for despatches being left on by the whale ships. Finding none, we continued our course down along the land, crossing in 70° N. lat. through a body of a hundred and forty miles of ice. We made repeated endeavours to reach Lievly, on the island of Disco, to ascertain if any despatches had been left there for our guidance; but thick weather and a strong northerly wind obliged us to haul off, after having made a narrow escape from a reef lying close inshore. We parted from the *Sophia* about twenty miles off the land, expecting to rejoin her after having communicated with the Danish settlement; but the thick weather and strong gale continuing for twenty-four hours, we separated from her, and have not since seen her. Captain Stewart's instructions, in case of such an event, were to make the best of his way to Woolwich, having it in his power to take either the English Channel or the Pentland Frith as his route, according as the wind might lead.

"In speaking of the services of the various officers under me, I would mention my second in command as an able and energetic coadjutor, both on board ship and in conducting the search along the east coast of Wellington Channel and the south shores of Albert Land; and his foresight in laying out depot and a boat for the party greatly facilitated our safe return. Dr. Sutherland, of the *Sophia*, as his auxiliary in travelling, proved himself a most indefatigable officer, and his attention, while on board, to natural history and meteorology, will no doubt afford many useful facts. Of Mr. D. Manson, the chief mate of the *Sophia*, an old and experienced whaling-master, I cannot speak too highly. He had charge of the vessel during the absence of myself and Captain Stewart, and throughout the winter he paid the greatest attention to tidal and barometrical registers; and his services in conducting the boat to Cape Hotham, under peculiar disadvantageous circumstances, were beyond all praise. Mr. James Reid, the second mate of the *Sophia*, a son of the ice-master of the *Erebus*, accompanied Captain Stewart in his first journey, as an auxiliary, and afterwards proceeded with him to his furthest. Of Messrs. Marshall and Leiper, the chief and second mates of the *Lady Franklin*, I would make mention, as experienced and skillful ice officers,—and the exertions of the one in accompanying Mr. Goodsir, in the whole extent of his journey, and the other, my second in the boat, were such as could not but afford me the greatest satisfaction. The whole of the duties of refitting the ship during my absence fell upon Mr. Marshall, and were accomplished in a time remarkably short, considering the few hands on board. Of Mr. John Stuart, the youngest officer under my command, I cannot speak too highly. Finding that there were no duties as an assistant-surgeon, he acted as third mate; and his exertions in preparing the travelling equipment, his surveys of various bays during his travels, and his assisting in preparing charts, &c., have proved of the greatest use; and for his proceedings during the search of the beaches, &c. between Cape Erinelle and Cape Hurd I would refer you to his journal. He after-

wards started as an auxiliary to the boat party, with an interval of only thirty-six hours, and was subsequently employed in numerous short journies conducting boats, &c.

"Mr. Goodsir in his western search discharged alike his duty to this expedition and his missing brother.

"Mr. Peterson, the interpreter, in conducting the dog-sledges and in affording much useful information with reference to travelling, as well as his personal exertion in the same to the extent even of injuring his health, has afforded me the greatest satisfaction, and of his services as an interpreter on a former occasion I have made mention in a previous despatch.

"Of the seamen of both vessels placed under my command I cannot speak too highly, for neither in winter quarters nor while enduring the privations and fatigues of travelling did ever one complaint or grumble reach my ears. Of their unwearied exertions a schedule is laid before you, and, if success has not attended their labours, they have not the less performed their duties.

"I have, &c.,

"WILLIAM PENNY,

"Commanding the Expedition."

"The Secretary of the Admiralty."

CAPTAIN AUSTIN'S DESPATCH.

Report of Proceedings.\*

"Her Majesty's ship *Resolute*, off the winter quarters of Capt. Penny's Expedition, between Capes Martyr and Hotham.—Aug. 12th,† 1851.

"Sir.—In order that the Lords Commissioners of the Admiralty may learn by the first opportunity the proceedings of the expedition intrusted to my charge, I consider it advisable that a brief account (amended since the return of Captain Penny) should be placed on board the *Lady Franklin*; my brief report of the 14th inst. having been transferred to the *Felix* in consequence of the attempt to send a boat to Pond Bay to communicate with the whaler being relinquished.

"2. Captain Ommaney having examined Wolstenholme Sound, which proved to have been the winter quarters of the *North Star*, and completed the search of the north shore of Lancaster Sound and Barrow Strait from Cape Warrender to Cape Fellfoot, looked into Port Leopold, and then proceeded in further execution of his orders; the *Intrepid* having, in the meantime, examined Maxwell Bay and Cape Hurd, finding at the latter place a record from the *Investigator*.

"3. Captain Ommaney in the *Intrepid* reached Cape Riley and Beechey Island on the night of the 23rd of August, and at both found positive traces of the missing Expedition.

"4. On the 24th, Captain Ommaney was joined by the United States' schooner *Rescue*, and in the latter part of that day he despatched the *Intrepid* to search the shore to the northward, but she was stopped by the fixed ice about four miles beyond Point Innes.

"5. On the 25th a lead opened towards Cape Hotham; Captain Ommaney, hoping to find a record there, despatched the *Intrepid* to take advantage of it, following in the *Assistance*: Captain Penny, who had now arrived and communicated, remaining to search the bay, between Cape Riley and Beechey Island.

\* See former report, p. 523, vol. 1850, *Nautical Magazine*.

† Some mistake in date appears here.

"6. The *Resolute* having in her search been detained by weather did not reach Cape Riley and Beechey Island until early on the morning of the 23th. She found between the latter and Cape Spencer the *Felix*, Sir John Ross, the two brigs of Captain Penny, and the *Rescue* Lieutenant de Haven, and saw from the crow's nest the *Assistance* and *Intrepid* on the opposite shore, near Barlow Inlet: the other United States' schooner, *Advance*, was beset a few miles to the northward, with a searching party to Cape Bowden, where a bottle, scraps of newspaper, shot, and other miscellaneous fragments were found, conveying the impression that it had been the resting place of a shoot-  
ing or small party.

"7. In rounding Beechey Island we were hampered by the closing of the ice, which drove the *Pioneer* into shoal water, where she grounded, and was afterwards hove off without having sustained any damage.

"8. Previous to the arrival of the *Resolute*, Captain Penny had found on Beechey Island three graves, and various other conclusive evidence, which, the moment I saw them, assured me that the bay between Cape Riley and Beechey Island had been the winter quarters of the expedition under Sir John Franklin in the season 1845-6, and that there was circumstantial evidence sufficient to prove that its departure was somewhat sudden, but whether at an early or late period of the season very difficult to determine.

"9. The absolute necessity for the *Resolute* being held ready to push across the strait at the earliest moment to communicate with Captain Ommaney, determine further movements, and get to the westward, prevented travelling operations, but the immediate neighbourhood of Cape Riley, Beechey Island, and the coast of Wellington Strait, to near Cape Bowden, were satisfactorily searched, without any record whatever being found.

"10. On the morning of the 28th Aug., the ice eased off sufficiently to enable Lieutenant de Haven to rejoin his consort round Cape Spencer. On the afternoon of the 4th of September, upon a southerly movement of the ice, the *Assistance* rounded Cape Hotham, and the United States' expedition reached to near Barlow Inlet; and on the morning of the 5th another movement enabled the *Resolute* and *Pioneer* to reach the western shore, but not in time to obtain security in Barlow Inlet.

"11. We continued beset until the evening of the 7th, when the ice gave way to the northward, and carried us, in a critical position, out of the strait to the south-east of Cape Hotham. This movement enabled Captain Penny and Sir John Ross to cross the strait.

"12. Early on the morning of the 9th another change occurred, when we succeeded in relieving ourselves from the ice, and (with the brigs and schooners) gained the water between the pack to the southward and Cornwallis Island; then pushed onwards with raised hopes to the westward, steering for the southern extremity of Griffith Island, and sighting in the evening the *Assistance* and tender in that direction.

"13. On the morning of the 10th we reached an extensive floe, extending from the south-west end of Griffith Island to the southward, as far as the eye could reach, to which the *Assistance* and tender were secured. We joined company, as did the brigs, and in the evening the United States' expedition. Captain Ommaney, informed me that he had searched by parties on foot (unhappily without finding any trace) the shores of Cornwallis Island from six miles above Barlow Inlet to Cape Martyr, had found two bays on the south side, eligible for winter security, and had deposited on Cape Hotham a depôt of twenty days' provisions for ninety men, as also a small depôt on Griffith Island since taken up.

"14. Early on the morning of the 11th Captain Ommaney in the *Intrepid* was despatched to the southward and westward, to ascertain the state of the

ice. Captain Penny also proceeded. The former returned in the evening, having only been able to proceed in a southward and westward direction about twenty-five miles. Of the situation of the brigs I was somewhat apprehensive, confident that, from the severe weather, they were to the southward and eastward of their former position.

" 15. Having now seen the uncertainty of the navigation to the westward, and the necessity for measures of precaution and prudence, with a view to subsequent operations, I determined upon placing the *Assistance* and tender in winter quarters in the bay midway between Capes Hotham and Martyr; and addressed a letter to the leaders of the two expeditions, apprising them thereof, and proposing that the whole force might be concentrated and arrangements made for each taking such portion of the search as, under the circumstances, might best insure the accomplishment of the object of our mission.

" 16. On the morning of the 13th, the weather having somewhat cleared, with the temperature down to near zero (*plus 3°*), we cast off. After much labour and difficulty cleared the bay and stream ice, and reached open water east of Griffith Island, when the United States' expedition was seen to communicate with each other, hoist their colours, and stand to the eastward; and it was not until some short time after that I recollected Lieutenant De Haven had, in reply, apprised me of the probability of his return to America this year, but the circumstances in which we were placed wholly prevented our bearing up for communication. The same evening we made fast to the fixed ice between Cape Martyr and Griffith Island as the only hope of finding security and gaining westing.

" 17. On the morning of the 14th the *Pioneer* proceeded to examine the ice to the southward, and returned in the evening, reporting no change; and early in the morning of the 16th the *Assistance* and tender left for their winter quarters, the *Resolute* and tender remaining at the edge of the ice, in the hope of obtaining at least an amount of westing that would be of good service when carrying out spring operations.

" 18. The bay ice proving very strong, the *Assistance* and tender got closely beset, and drifted some time helplessly towards the shore, upon which (as soon as the vessels could be extricated) Captain Ommaney deemed it advisable to return, rejoining the same evening.

" 19. We thus remained in the hope that the *Resolute* and tender might be able to advance until the 24th, when, from the state of the ice and the low temperature (*plus 13½°*), we were, after mature consideration, reluctantly compelled to give up all idea of prosecuting further, and to consider it imperative to look forthwith to the security of the expedition. The bay ice having this day slightly eased off a short distance astern, we commenced to cut through the newly formed pressed-up ice, (between 300 and 400 yards in extent, and from two to five feet in thickness,) between us and the lane of water, with a view of reaching the small bay a little to the eastward of Cape Martyr; but the new ice again making very fast, we were obliged to relinquish the effort on the evening of the 25th.

" 20. Although it was now late to hope for much by travelling parties, yet, as the ships were fixed, I determined to despatch a limited number to do all that could be accomplished before the season finally closed, as pioneers to the routes of the ensuing spring parties, and to gain experience. There accordingly started on the 2nd of October, a party of six men under the command of Lieut. Aldrich, with one runner sledge and thirteen days' provisions (assisted by one officer, six men, and one flat sledge, with three days' provisions,) for Somerville and Lowther Islands on the Cape Walker route; a double party of twelve men, under the command of Lieut. M'Clintock and Mr. Bradford, surgeon, with four flat sledges, fourteen days' provisions, and

a depot, for the Melville Island route; a small party under the command of Lieut. Meham towards Cape Hotham, to ascertain if any of the expeditions late in company, were in sight from that position; and (afterwards) a small party, under the command of Lieut. Osborn, to search the bay between Cape Martyr and the Cape north-west of our position. But the weather becoming severe, with a considerable fall of temperature ( $49^{\circ}$  below the freezing point) they shortly returned, having only succeeded in placing the depots—Lieut. Aldrich on Somerville Island, and Lieut. M'Clintock on Cornwallis Island, to the westward about twenty-five miles, but without discovering any traces. Lieut. Meham found, in the bay intended for the winter quarters of the *Assistance* and tender, the expeditions of Sir John Ross and Capt. Penny.

"21. On the afternoon of the 17th Capt. Penny arrived in his dog sledge, when the spring operations were determined upon—Capt. Penny cheerfully undertaking the complete search of Wellington Strait. Thus ended the season of 1850.

"22. The expedition was now prepared for the winter, and every means taken to pass as cheerfully and healthfully as possible this dreary season. Exercise in the open air, instruction and amusement were resorted to, which, with the most perfect unanimity and a fair portion of conviviality (under the blessing of Providence), carried us through the monotony and privations of an Arctic winter in good health and spirits; for which much credit and my best thanks are due to Capt. Ommaney, the officers, and all composing the expedition.

"23. On the 18th of February, 1851, a communication was opened (by a small party from this expedition) with our neighbours to the eastward (temperature  $69\frac{1}{2}^{\circ}$  below the freezing point), and shortly after an interchange was made with Capt. Penny of the detail of equipment for travelling parties determined on by each.

"24. By the 10th of March, every arrangement had been made and generally promulgated for the departure of the spring searching parties as early as practicable after the first week in April. All appeared satisfied with the positions assigned to them, and became alike animated in the great and humane cause. With regard to myself, it appeared imperative that I should remain with the ships and leave to those around me the satisfaction and honour of search and discovery—from their ages well adapting them for such service; the confidence I felt in their talent and experience being fully equal to direct the energies and command the powers of the parties under them, and their determination to carry out the tasks they were appointed to perform. I must, however, say, that (if such a feeling could exist in a matter of duty) I did not without the sacrifice of some personal ambition refrain from participating in this great work of humanity.

"25. From this period all joined heart and hand in putting forward every effort in the general preparation. Walking excursions for four hours a day, when weather permitted (temperature ranging from  $10^{\circ}$  to  $43^{\circ}$  minus), and sledge dragging with the actual weights, were measures of training.

"26. By the 28th of March each individual was ready, and the equipment of the sledges generally complete; the best feeling and highest spirits prevailed throughout the expedition, and all now looked forward most anxiously for the arrival of the time when weather and temperature would permit their departure.

"27. The weather being more promising on the 4th of April, (temperature  $38^{\circ}$  below freezing point) Mr. M'Dougall, second-master, with one officer and six men, one runner sledge and twenty days' provisions, left to examine the depots laid out in October last, and to search and examine, with the view to a subsequent survey, the unexplored part between Cornwallis and Bathurst islands.

"28. The temperature having risen, on the 5th of April, the final departure of the parties was determined upon for the 9th. On the 7th (temperature  $44^{\circ}$  below freezing point) the sledges were packed and made ready for that purpose, but fresh winds frustrated the arrangement.

"29. The weather becoming more favourable on the morning of the 12th (temperature  $50^{\circ}$  below freezing point), the whole of the sledges, fourteen in number, manned by 104 officers and men, and provisioned, some for forty and others for forty-two days, with an average dragging weight of 205lbs. per man, were conducted under the command of Capt. Ommaney to an advanced position on the ice off the north-west end of Griffith Island, where tents were pitched, luncheon cooked, and all closely inspected by myself, the highly satisfactory result gave me great confidence and hope. All then retired to pass the next day (Sunday) in quiet reflection and prayer.

"30. A moderate gale from the south-east, with heavy drift, prevented their departure on the 14th, as intended.

"31. On the evening of the 15th of April (temperature  $14^{\circ}$  below freezing point), the wind having fallen, and the temperature risen to *plus*  $18^{\circ}$ , all proceeded to the sledges. On arrival a short period was devoted to refreshment, after which all joined in offering up a prayer for protection and guidance, then started, with, perhaps, as much determination and enthusiasm as ever existed, with the certainty of having to undergo great labour, fatigue and privation.

"32. On the 24th another party of one officer and six men left to search Lowther, Davy, and Garrett Islands, and examine the state of the ice to the westward. Between this and the beginning of May the temperature fell considerably (to *minus*  $37^{\circ}$ ), accompanied by strong winds.

"33. The whole of the limited parties returned at periods between the 27th of April, and the 19th of May, unhappily without any traces. They brought in casualties of men from frostbite to the number of eighteen, one of which, it is my painful duty to relate, ended fatally. George S. Malcolm, captain of the hold of the *Resolute*, a native of Dundee, whose death was attributed to exhaustion and frostbite, brought on while labouring as captain of the sledge *Excellent* (virtually, it may be said) died at his post. He was a most valuable and much respected petty officer; his remains are at rest on the north-east shore of Griffith Island.

"34. During this interval four sledges, manned with twenty-seven officers and men, were despatched with refreshments for the extended parties in their return, and to assist them if necessary, and also to make observations, fix positions, deposit records, &c.

"35. On the 23rd of May, Capt. Penny reached the *Resolute*, and made known to me that he had discovered a large space of water up Wellington Strait, commencing about seventy miles N.W.b.N. of Cape Hotham. I much regretted that our remaining strength did not admit of my placing at his disposal sufficient aid to convey a boat, that he might ascertain its nature and extent.

"36. The extended parties returned—unhappily, without any trace whatever—between the 28th of May and the 4th of July, in safety and good health, but requiring short periods of rest and comfort to remove the effects of privation and fatigue. They were out respectively 44, 58, 60, 62, and (the Melville Island parties) eighty days, some portions of which periods they were (from heavy drift) detained in their tents, with the temperature ranging as much as  $69^{\circ}$  below the freezing point.

"37. The details connected with these operations I must defer for a future occasion, the following being the general results, viz.:—



| Nature of Party.         | Officer in Command.         |                    | No. of Crew.    | Name of Sledge. | Days out. | Miles Travelled. |     | Miles of Coast Searched. |      | Lat. | Long. |
|--------------------------|-----------------------------|--------------------|-----------------|-----------------|-----------|------------------|-----|--------------------------|------|------|-------|
|                          | Name.                       | Rank.              |                 |                 |           | New              | Old | Disc                     | Verd |      |       |
| ALONG SOUTH SHORE.       | Extended                    | Mr. E. Ommarey     | Captain         | 6 Reliance      | 60        | 480              | 205 | —                        | —    | 0    | 0     |
|                          | Extended                    | Mr. Shepard Osborn | Lieutenant      | 7 True Blue     | 58        | 506              | 70  | 10                       | —    | 72   | 44    |
|                          | Extended                    | Mr. W. H. Brown    | Lieutenant      | 6 Enterprise    | 44        | 375              | 150 | —                        | —    | 72   | 18    |
|                          | Limited                     | Mr. G. F. Meacham  | Lieutenant      | 6 Succour       | 29        | 286              | 80  | —                        | —    | 72   | 49    |
|                          | Limited                     | Mr. Veegy Hamilton | Mate            | 7 Adventure     | 28        | 198              | —   | —                        | —    | —    | —     |
|                          | Limited                     | Mr. Charles Ede    | Assist-Sur.     | 6 Indefatigable | 20        | 175              | —   | —                        | —    | —    | —     |
|                          | Auxiliary                   | Mr. Fdk. S. Krabbe | 2nd Master      | 7 Success       | 13        | 116              | —   | —                        | —    | —    | —     |
|                          | Reserve & L. Hydrographical | Mr. G. F. Meacham  | Lieutenant      | 6 Russell       | 23        | 238              | —   | —                        | —    | —    | —     |
|                          |                             | Mr. Fdk. J. Krabbe | 2nd Master      | 6 Edward Biddle | 18        | 110              | —   | —                        | —    | —    | —     |
|                          | ALONG NORTH SHORE.          |                    |                 |                 |           |                  |     |                          |      |      |       |
| Extended                 | Mr. R. D. Aldrich           | Lieutenant         | 7 Lady Franklin | 62              | 550       | 70               | 75  | 76                       | 16   | 104  | 30    |
| Extended                 | Mr. F. L. M'Clintock        | Lieutenant         | 6 Perseverance  | 80              | 760       | 40               | 215 | 74                       | 38   | 114  | 20    |
| Extended                 | Mr. A. R. Bradford          | Surgeon            | 6 Resolute      | 80              | 669       | 135              | —   | —                        | —    | 76   | 23    |
| Limited                  | Mr. B. R. Pearse            | Mate               | 7 Hopedale      | 24              | 208       | —                | —   | —                        | —    | —    | —     |
| Limited                  | Mr. Walter W. May           | Mate               | 6 Excellent     | 34              | 371       | —                | —   | —                        | —    | —    | —     |
| Limited                  | Mr. W. B. Shillabeer        | 2nd Master         | 6 Dashier       | 24              | 245       | —                | —   | —                        | —    | —    | —     |
| Auxiliary                | Mr. John P. Cheyne          | Mate               | 7 Parry         | 12              | 137       | —                | —   | —                        | —    | —    | —     |
|                          | Mr. R. C. Allen             | Master             | 7 Grinnell      | 18              | 137       | —                | —   | —                        | —    | —    | —     |
| Reserve & Hydrographical | Mr. R. C. Allen             | Master             | 5 Raper         | 7               | 44        | —                | —   | —                        | —    | —    | —     |
|                          | Mr. Walter W. May           | Mate               | 5 Raper         | 5               | 45        | —                | —   | —                        | —    | —    | —     |
|                          | Mr. G. F. M'Dougall         | 2nd Master         | 7 Endeavour     | 18              | 140       | 95               | —   | —                        | —    | —    | —     |
|                          | Mr. G. F. M'Dougall         | 2nd Master         | 6 Beaufort      | 18              | 198       | —                | —   | —                        | —    | —    | —     |

“ 38. The extent of coast searched will be seen more readily in the accompanying outline of a chart.

“ 39. Although all have experienced, in the performance of this extensive undertaking, considerable privation, labour, and suffering, and been animated with corresponding ardour in the great cause of humanity (which I earnestly hope will meet the approbation of the Lords Commissioners of the Admiralty), yet I feel it to be due to bring specially before their Lordships' notice the great performance of Lieutenant M'Clintock and the crew of the sledge Perseverance.

“ 40. I cannot omit to notice that the runner sledges have withstood the severe wear and tear of those journeys most admirably; I believe their construction to have arisen from the experience of Arctic voyages; but I feel it

to be due to express that the manner in which they are put together reflects the highest credit on the persons who did it.

" 41. I feel it would be a source of much satisfaction to their Lordships to know that every officer reports the conduct of his men to have been most exemplary, which with their untiring labour and the good feeling exhibited towards each other was highly gratifying. And I must not omit to mention, that the crews are reported to have been animated by the example of the junior officers, who were most constantly at the drag ropes.

" 42. It is my pleasing duty to report that the health of all composing the expedition is highly satisfactory, the sick list, dated the 9th inst. being as follows, viz. :—

| Ship.       | Sledge.  | Name.        | Rank or Rating. | Nature and extent of Disease or Injury.                              | Estimated time for being entirely recovered. |
|-------------|--|--------------|-----------------|--|--|
| Resolute.   | Excellent  | T. Brown     | Blksth          | Severe frostbite, right leg, with gangrene.                          | 3 Months                                     |
|             | Supernumerary received from Felix, Sir John Ross, for medical treatment. | P Ecclestone | Cook            | Scurvy & general disease of body.                                    | Convalescent discharged to Felix.            |
|             | Reliance   | Ed. Privett  | A. B.           | Frostbite & amputation of great toe of left foot.                    |  |
| Assistance. | Perseverance   | J. Rogers    | A. B.           | Frostbite of first three toes of left foot.                          | 3 weeks.                                     |
|             | Adventure  | W. Colwill   | Blksth          | Frostbite and ulcer.   | 10 days.                                     |
|             | Inflexible   | T. Rumble    | A. B.           | Frostbite of great toe of left foot, and inflammation of right knee. | 1 month.                                     |
|             | Success  | J. Heydon    | A. B.           | Frostbite of toes and plantar part of left foot                      | 1 month                                      |
| Pioneer     | ...  | ...          | ...             | ...  | ...  |
| Intrrepid   | ...  | ...          | ...             | ...  | ...  |

" 43. The four vessels composing the expedition are in every way efficient the defects of the *Pioneer*, consisting of twenty-one top timbers, crushed by a heavy nip in Melville Bay, have been made good. The machinery of both steam vessels has undergone repairs and numerous adjustments, and is in a state highly satisfactory, reflecting much credit on the engineers.

" 44. The complements of the vessels composing the expedition are complete, the vacancy in the *Resolute* having been filled by James Fox, A.B. volunteer (native of Portpatrick, Wigtonshire), who was received on the 17th of August last from the *Prince Albert* (Commander Forsyth) for medical treatment.

" 45. Large caverns have been built and records deposited at Becchey Island, Cape Martyr, Southern end of Griffith Island, Cape Walker, in lat. 73° 55' north, long. 99° 25' west; and in lat. 75° 0', long. 99° 0'. Printed notices have also been deposited on the routes of the several searching parties.

" 46. Having yesterday been released from our winter quarters, and most unexpectedly reached to those of Captain Penny, I have now the honour to state, that having maturely considered the directions and extent of the search (without success) that has been made by this expedition, and weighed the

opinions of the officers when at their extremes, I have arrived at the conclusion that the expedition under Sir John Franklin did not prosecute the object of its mission to the southward and westward of Wellington Strait; and having communicated with Captain Penny and fully considered his official reply to my letter, relative to the search of Wellington Strait by the expedition under his charge (unhappily without success), I do not feel authorised to prosecute (even if practicable) a further search in those directions.

"47. It is now my intention to proceed with all despatch to attempt the search of Jones Sound; looking to their Lordships' intention, and to the impression that may now become strengthened with reference thereto.

I have at the last moment the satisfaction of stating that we are proceeding under favourable circumstances.

"I have the honour to be, &c.,

"HORATIO T. AUSTIN,

"Captain, and in charge of the Expedition.

Schedule showing the total number of days engaged and miles travelled in the journeys of the officers and men of the *Lady Franklin* and *Sophia*, under the orders of Capt. William Penny, during their search for H.M. ships *Erebus* and *Terror*—17th of April to the 27th of July, 1851:—

THE LADY FRANKLIN.

| NAME.                       | Rate.            | Total. |       |
|-----------------------------|------------------|--------|-------|
|                             |                  | Days.  | Miles |
| Captain William Penny ..... | Captain          | 66     | 932   |
| Mr. John Marshall .....     | 1st Mate         | 53     | 428   |
| John Leiper .....           | 2nd Mate         | 84     | 862   |
| John Stuart .....           | 3rd Mate         | 53     | 535   |
| Robert A. Goodsir .....     | Surgeon          | 53     | 428   |
| J. Carl C. Peterson .....   | Interpreter      | 26     | 542   |
| Moses Robinson .....        | Boatswain        | 59     | 515   |
| Daniel Hendry .....         | Carpenter        | 88     | 832   |
| Alexander Robertson .....   | Steward          |        | *     |
| Richard Kitson.....         | Captain of hold  | 56     | 498   |
| Alexander Leiper.....       | Carpenter's Mate | 53     | 428   |
| Alexander Bain .....        | Sailmaker        | 53     | 428   |
| William Mark .....          | Cook             | 21     | 222   |
| James Leslie .....          | Armourer         | 54     | 524   |
| John Noble .....            | Cooper           | 53     | 428   |
| Alexander Thompson .....    | Able Seaman      | 69     | 932   |
| John P. Lucas .....         | A. B.            | 57     | 702   |
| Thomas Sangster.....        | A. B.            | 57     | 594   |
| George Findley.....         | A. B.            | 57     | 540   |
| William Brands .....        | A. B.            | 56     | 498   |
| Boreas A. Smith .....       | A. B.            | 63     | 627   |
| William Bruce .....         | A. B.            | 84     | 862   |
| James Hodgston .....        | A. B.            | 84     | 862   |
| J. Davidson .....           | A. B.            | 88     | 832   |
| Walter Craig.....           | A. B.            | 31     | 347   |
| George Farce .....          | A. B.            | 60     | 557   |

\* Left in charge of Stores.

## THE SOPHIA.

| NAME.                           | Rate.            | Total. |       |
|---------------------------------|------------------|--------|-------|
|                                 |                  | Days.  | Miles |
| Captain Alexander Stewart ..... | Captain          | 76     | 625   |
| Mr. Donald Manson.....          | 1st Mate         | 8      | 33    |
| Mr. James Reid.....             | 2nd Mate         | 59     | 560   |
| Dr. Peter C. Sutherland .....   | Surgeon          | 55     | 380   |
| Alexander Samuel .....          | Boatswain        | 76     | 705   |
| Mathew Shiells.....             | Carpenter        | 31     | 302   |
| John Gordon.....                | Captain of hold  | 28     | 277   |
| James Knox .....                | Cook             | 31     | 837   |
| Alexander Hardy.....            | Steward          | 18     | 136   |
| John Eddie.....                 | Carpenter's Mate | 53     |       |
| Donald Sutherland .....         | Sailmaker        | 20     | 155   |
| Andrew Adams.....               | Able Seaman      | 59     | 560   |
| James M'Kenzie .....            | A. B.            | 77     | 747   |
| William Marshall.....           | A. B.            | 77     | 702   |
| Alexander Smith .....           | A. B.            | 77     | 737   |
| John Lawson.....                | A. B.            | 56     | 622   |
| George Knowles .....            | A. B.            | 76     | 705   |
| George Thomson ..               | A. B.            | 50     | 500   |
| John Dunbar.....                | A. B.            | 77     | 747   |
| Andrew Robison .....            | A. B.            | 51     | 542   |

## CAPTAIN PENNY'S ORDERS.

*By the Commissioners for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c.*

1. Her Majesty's Government having determined that further endeavours shall be made to trace the progress of Her Majesty's ships "Erebus" and "Terror," under the command of Sir John Franklin, and to resume the search after that Expedition,—and, having resolved to employ you in command of the two vessels, the "Lady Franklin," and "Sophia," which have been equipped for that service—you are hereby required and directed, so soon as the said vessels shall be in all respects ready for sea, to proceed with them with all due dispatch to Davis Strait.

2. In entrusting you with the above command, we do not deem it advisable to furnish you with minute instructions as to the course you are to pursue.—In accepting your offer of service, regard has been had to your long experience in Arctic Navigation, and to the attention you had evidently paid to the subject of the missing ships. We deem it expedient rather, that you should be instructed in all the circumstances of the case, and that you should be left to the exercise of your own judgment and discretion, in combining the most active and energetic search after Her Majesty's ships "Erebus" and "Terror," with a strict and careful regard to the safety of the ships and their crews under your charge: and with a fixed attention to that part of your orders which relates to your returning with those ships to this country.

3. For this purpose you will be furnished with copies of the original instructions given to Sir John Franklin, and which instructions will indicate the course he was directed to pursue, together with our orders and directions to Sir James Ross, when he was despatched on a search after Sir John Franklin, in the spring of 1848.

4. You will be aware that the case virtually stands now as it did then.—Sir James Ross, from adverse circumstances, failed in discovering traces of the missing Expedition.

5. Our orders of the 9th May, 1848, to Sir James Ross, will still serve as the

indication of our views of the general course you will have to pursue; but, it being our desire that a certain strait, known as Alderman Jones Sound, and which would not appear to have been as yet examined, should be searched; you are hereby required and directed to proceed in the first instance to that Sound, closely examining the shores for any traces of Sir John Franklin's course, and proceeding, should it offer the means of your doing so, in the direction of *Wellington Strait*, and on to the *Parry Islands* and *Melville Island*.

6. On your proceeding in the above direction, too much vigilance cannot be observed in your search along the various shores, for traces of the missing Expedition; at the same time, you will bear in mind that Sir John Franklin's orders were "to push on through Lancaster Sound, without stopping to examine any openings north or south of that Sound, till he had reached Cape Walker." And although it may be possible that the obstructions, incident to navigation in those seas, may have forced Sir John Franklin north or south of his prescribed course, yet that his principal object would be, the gaining the latitude and longitude of Cape Walker.

7. To that point therefore, failing your discovering traces of the Expedition in your course by Jones Sound and the Parry islands, your efforts will be directed, and beyond this, your own judgment must be your principal guide.

8. The circumstance of Sir James Ross having partially searched the shores of Lancaster Sound and Barrow Strait, as far west as Cape Rennell, without discovering traces of Sir John Franklin's ships, has led, in some quarters, to the supposition of an extreme case, viz:—that failing to get into Lancaster Sound, Sir John Franklin had proceeded in the direction of Smith Sound, at the head of Baffin Bay.

9. We do not deem it expedient to direct your attention specially to this Sound (or supposed Sound); but, should your passage by Jones Sound, to which you are specially directed, be early and absolutely impeded, and there should appear to you to be the time (without hazarding the only remaining chance of proceeding to Wellington Strait, the Parry Islands, and Cape Walker by Lancaster Sound,) for examining Smith Sound, you are at liberty to do so; but this is a contingency scarcely to be contemplated; as, in the event of your being frustrated in the attempt to get to the westward, and towards Wellington Strait by Jones Sound,—the late period of the year when Smith Sound is said to be open, would render it difficult, if not impossible, to combine a search in that quarter, with the securing a passage into Lancaster Sound before the season closed.

10. Much of the painful anxiety that now exists respecting the missing ships might possibly have been avoided, if greater care had been taken to leave traces of their progress. You will consider it rigidly your duty, and a matter of the utmost importance, that every means should be adopted for marking your own track.

For this purpose you will provide yourself with an ample supply of red and white lead for making paint; and in addition to the usual pole or staff, or cairn of stones, usually looked for on a cape or headland, you will, wherever the colouring of the cliff or shore admits of a mark being made in strong relief, paint a red or white cross, as the case may be, depositing as near to its base as possible, and at right angles with the perpendicular part of such cross, a bottle or other vessel containing a short summary of your proceedings up to the date of the deposit; an account of the state of your supplies and resources, the health of your party, and your further intended course.

11. There remains but to caution you as to your return with your ships to this country.

These ships have been provisioned and stored for three years; but you will bear in mind that this liberal supply is to meet contingencies separate on the one hand, from the victualling of your own people, and on the other, from a needless, reckless, and hazardous continuance in the Arctic Regions.

You have been victualled to supply the missing Expedition, or any part of it you may providentially discover—here is the one contingency; unforeseen impediments, or a certain prospect of coming up with any part of the missing Expedition compelling you to pass a second winter in the ice, is the other; but

Our directions to you are—1st, to use your utmost endeavours (consistent with the safety of the lives of those entrusted to your command,) to succour in *this summer* the party under Sir John Franklin, taking care to secure your winter quarters in good time; and, 2nd, that the same active endeavours will be used by you in the ensuing summer of 1851, to secure the return of your own ships to this country.

12. We refer you to the instructions contained in par. 21 of Sir John Franklin's orders, for your guidance in the event of one of your ships being disabled; or in case of any accident to yourself; and in par. 22 of the same orders, are full instructions as to transmitting reports of your progress to Our Secretary, for Our information, to both of which you will strictly attend.

13. In conclusion we have only to repeat the expressions of Our confidence in your skill, and in your known ardour in a generous cause; and we commend you, and those with you to a good Providence, with Our earnest wishes for your success.

Given under our hands this 11th April, 1850.

(Signed)

F. T. BARING.

J. H. D. DUNDAS.

By Command of their Lordships,

W. A. B. HAMILTON.

*Mr William Penny, Ship Lady Franklin,  
in charge of an Expedition to the Arctic Seas, at Aberdeen.*

*Admiralty, April 10th, 1850.*

Sir,—I am commanded by my Lords Commissioners of the Admiralty to send you herewith the original and duplicate of a letter addressed to Mr. Saunders, Master, commanding Her Majesty's Store Ship "North Star," in the Arctic Seas, containing instructions for his guidance, one of which my Lords request you will take charge of yourself, for delivery to that officer, should you fall in with him; and the other you are to put in the possession of Mr. Stewart, of the ship "Sophia," for the same purpose.

I am, &c.

(Signed)

W. A. B. HAMILTON.

*Captain Penny, Ship "Lady Franklin," Aberdeen.*

*Admiralty, April 10th, 1850.*

Sir,—I am commanded by my Lords Commissioners of the Admiralty to acquaint you,

1. That Sir James Ross having returned to England in the month of November last, without having discovered any traces of the missing Expedition under Sir John Franklin's orders, and the necessity for the stores and provisions with which he was charged being deposited as directed, being all the more urgent, my Lords can only trust that you have been able to land them accordingly.

2. That as Our last Reports from you were dated 19th July, 1849, lat. 74° 3', long. 59° 40' W., the anxiety on the part of their Lordships to receive further intelligence of your proceedings is great; and they can therefore only hope, in the event of this Despatch reaching you, and of your not having succeeded in affording succour to any of Sir John Franklin's party, that it may find you returning with Her Majesty's ship under your command to England.

3. And that in order that you may be in full possession of all that has occurred, or that has been done since your departure, relative to the relief of Sir John Franklin, you are herewith furnished with a Printed Return which will put you in complete possession of the state of the case; and to which my Lords have only to add, that four ships under the command of Captain Austin, two of them being auxiliary steam vessels, are now fitting at Woolwich; in addition to the two vessels under Captain Penny's orders, and by which this Despatch is sent, for the purpose of continuing the search after Sir John Franklin's Expedition, (irrespective of private expeditions from this country and the United States); and that as supplies of stores, especially coals, would be most needful for these

vessels, as an auxiliary, you are to land at the Whale Fish Islands, or at Disco, whatever proportion of coals or provisions you consider you can with propriety spare, returning without loss of time to England.

I am, &c.,  
(Signed) W. A. B. HAMILTON.

*Mr. James Saunders, Master Commanding H.M.S. North Star.*

#### CAPTAIN AUSTIN'S ORDERS.

*By the Commissioners for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c.*

1. Having appointed you to the command of the Expedition, which it is the intention of Her Majesty's Government to despatch on a further search for Her Majesty's ships "Erebus" and "Terror," under the command of Sir John Franklin, you are hereby required and directed to take the vessels named\* under your command, and so soon as they are in all respects ready, to put to sea, and to make the best of your way to Davis Straits, for the express purpose of prosecuting a most vigorous search for the missing ships.

2. We have directed you to be furnished with a copy of our orders, which were given to Sir John Franklin, and which will afford you full information how he was directed to proceed. We have likewise ordered you to have a copy of our instructions to Captain Sir James Ross, and to these we have to direct your especial attention.

3. The various papers which have been laid before the Houses of Parliament have also been sent for your information: by reference to them you will be made aware that we have taken the opinions of the most able and experienced persons, connected with Polar navigation, relative to the missing Expedition. You will observe that many valuable conjectures have been made, and it has been suggested that Sir John Franklin may have effected his passage to Melville Island, and been detained there with his ships. It has again been suggested as possible, that his ships may have been damaged in the ice, in the neighbouring sea, and that with his crews, he may have abandoned them, and made his escape to that Island. To these, as well as the other possibilities, you will not fail to give every proper weight.

4. It therefore appears to us to be a main object of the Expedition for you to use every exertion to reach Melville Island, detaching a portion of your ships to search the shores of Wellington Channel and the coast about Cape Walker, to which point Sir J. Franklin was ordered to proceed. We trust that a diligent examination of these several places will afford you some certain trace or record of the missing Expedition, which will enable you to form an opinion of the best course to adopt for their rescue. As your course of action must clearly depend on such information, we consider it unnecessary to give you any definite or specific instruction, and inexpedient to bind you down to any certain line of proceeding. We confide in your knowledge and experience of the navigation of the Polar Seas: and, placing just reliance on your energetic character and zeal, We leave you entirely unfettered to do what may seem to you best for attaining the great object of the Expedition entrusted to your charge, feeling assured that you, as well as all those under you, will use your utmost exertions to afford relief to Our unfortunate countrymen, and to justify the reliance We have placed in you.

5. The officers whom We have consulted have expressed an opinion that no vessel should be allowed to prosecute the search alone, and it is for this reason that to your own and to Captain Ommanney's ship an auxiliary screw vessel has been attached. We therefore direct your attention to this important consideration.

6. Your ships have been fully equipped and provisioned for a period of three years, to meet any emergency which may arise from falling in with Sir John Franklin's party. In addition to these supplies there are stores and provisions, &c. left by Sir James Ross at Port Leopold, and a further store was sent out in

\* *Resolute, Assistance, Intrepid, Pioneer.*

the "North Star," in the summer of last year. These will be available for you in case of necessity, but you are not to consider them as a part of your own stock, but as a reserve for the aid of any of Sir John Franklin's party who may reach that spot, or as a dépôt on which any party may fall back upon, should they unfortunately be separated from their ships.

7. In the prosecution of your search you will use your utmost efforts during *this* summer, taking care not to lose any opportunity which may be open to you of getting to the westward, and of securing your ships in some safe harbour before the winter sets in, from whence you will dispatch such overland parties as the means placed at your disposal will permit. On the return of the open season of 1851 you will again renew your search; but it is Our intention and directions that you shall return to England in the autumn of that year, unless some trace should be found of the missing Expedition, which may lead you to believe that a delay may contribute to their rescue, and which may justify a deviation from Our Orders.

8. You are aware that this is not the only Expedition fitting out or being dispatched with the same object; one such, under the command of Mr. Penny, of Aberdeen, has already sailed from Davis Straits, provisioned as your own for a period of three years. We furnish you with a copy of the Instructions under which he is acting, and we desire that you will render him any aid and assistance in your power, as well as to any other Expedition, either from this country, the United States of America, or from any other nation, so far as you may be able to do so, without risk of crippling the resources of the vessels under your command.

9. You will take the utmost care in leaving memorials of your track in the usual manner, and in every prominent place, and enjoin the same precaution upon all the ships and land parties detached from you or them.

10. You will keep your second in command well informed of the Instructions under which you are acting, consulting with him on all points, and stating your own views as to the best means of carrying them out, so that no information may be wanting on his part, if accident to yourself should cause him to succeed to the command.

11. As soon as you reach the Whale Fish Islands, to which rendezvous the "Emma Eugenia" transport has already been dispatched, and that you have distributed the supplies taken on board that vessel, for the use of the Expedition, you will send her to England, and you will also give orders to the Master of the "North Star," should you fall in with that vessel, to return home.

12. The several vessels thus placed under your command have been fitted out under your own immediate superintendence, and with every attention to the wants and requirements of the great enterprise you have volunteered to undertake. The officers in command of the vessels composing it, and who are animated with the same ardour as yourself, have been selected by you with Our full concurrence, as to their fitness for this particular service; all that could be effected by the generous sympathies of your Queen and your country has been done; and it only remains for Us to conclude Our instructions, with an earnest prayer that success may attend your exertions, and that a good Providence may guide your councils, and be your constant defence.

Given under Our hands this 2nd of May, 1850.

F. T. BARING.

M. F. F. BERKELEY.

*To Horatio T. Austin, Esq., C.B., Captain of  
Her Majesty's Ship "Resolute," in charge of  
an Expedition to the Arctic Seas.*

By Command of their Lordships,

J. PARKER.

The American Expedition consisted of two brigantines, now enrolled in the United States Navy, the *Advance* of 144 tons, and the *Rescue* 91 tons. These vessels have been provided and fitted out by the generous munificence of Mr. Henry Grinnell, a merchant of New York, at an expense to him of between



£5000 and £6000. The American government also did much towards fitting and equipping them. The *Advance* was two years old and the *Rescue* quite new; both vessels were strengthened in every part, and put in the most complete order for the service in which they were to be engaged. They are under the command of Lieut. E. S. De Haven, who was employed in Commander Wilks's expedition in 1843; Mr. S. P. Griffin, acting-master, has charge of the *Rescue*. The other officers of the expedition are Messrs. W. H. Murdaugh, acting-master; T. W. Broadhead and R. R. Carter, passed midshipmen; Dr. E. K. Kane, passed assistant-surgeon; Mr. Benjamin Finland, assistant-surgeon; W. S. Lovell, midshipman; H. Brooks, boatswain; and a complement of thirty-six seamen in the two vessels; the crew of the *Advance* consisting of fifteen men, and the *Rescue* thirteen men. The vessels left New York on the 25th of May, 1850; their proposed destination is through Barrow Strait, westward to Cape Walker, and round Melville Island; they were provisioned for three years.

Some further interesting particulars of the proceedings of the expedition appear in the following extract of a letter from an officer in one of the steam-tenders.

*Griffith Isle, Sept. 1850.*

We found out the *North Star's* winter quarters, and ran into Wolstenholme Sound, and examined it throughout,\* as we got hold of a story from the Esquimaux at Cape York that two vessels had been damaged in the winter of 1846, the crews sickly, had put into Wolstenholme Sound, that the natives had murdered them all. This was interpreted by one, and another said that one vessel wintered there in 1849; and that the other interpreter although a native, did not understand the language about this part of the coast. We have reason to believe that the first was right, as we discovered the *North Star's* winter quarters, and found the documents she left. We also dragged the place and found nothing to lead us to suppose two vessels had been there. We then searched Cape Warrender, and all along the north coast of Barrow Strait.

On arriving off Cape Riley we found the first traces of poor Sir John Franklin, in the shape of preserved soup and meat canisters. This branch of the expedition has had the honor of being the first in the Straits, and of always being ahead. There being open water on the east side of Wellington Channel, we were dispatched ahead to examine, but could not get within eight or ten miles of the cape, on account of the pack ice, extending from one shore to the other. We also discovered land beyond the cape; the part between Point Jones and Cape Bowden was found to be a bay. The land also, trends further to the northward on the opposite shore to that marked on the chart, and apparently running parallel with North Devon. Open water making towards Cape Hotham, we were ordered ahead again to search, and we soon reached within seven miles of the cape, landed, took a party, and walked it, found no traces, of any sort or description, of our missing friends.

The ice closed up the passage. Here the *Lady Franklin* overtook us, learnt what had been found, and informed of one small place, we had not searched. Finding nothing at Cape Hotham it was our intention to return

\* The same appears to have been done by the *North Star*, Mr. Saunders making it a bay about four miles deep, and Glaciers found at the head of it.

and search Cape Riley, but she returned and found in the very place we had left, three graves, two men belonging to *Erebus* and one to *Terror*, soup and meat tins, by dozens. The last date on the headstones of the graves was April 1846. Here then they wintered during their first season. The ships have been a *sad clog* to the steamers. If it had not been for steam they would not be out of Melville Bay, for with very little exception, they were towed from Uppernavick to where we now are.

We were sent ahead early in this month to search Griffith Isle, but no record was found. We went close to Somerville Isle, and could see nothing. But the ice being heavily packed across we made fast to the floe, and in the morning, 10th September, the *Resolute*, *Pioneer*, *Lady Franklin* and all came up.

September 12th, it blew a heavy gale from the north and north-west. Ice has been drifting in a south-easterly direction, we wintered between Griffith Island and Cape Martyr, or at Cape Riley, the Americans are thinking of going home. Their orders are to take up an advanced position, and if that cannot be done to return to New York. They are capital fellows and deserve great credit, for their perseverance. *Lady Franklin* and tender are very good, but too slight for their work, they would come badly off with a heavy nip. It is admitted now there is nothing like steam, and the advantages of it should have been known before. If it was not for your steam says one, I'd soon go a-head of you.

This voyage will condemn all full-bowed vessels for ice-work. When in England some used to say we should not last a week in the ice. We go a-head and break through a floe and make a passage for ships nearly half a mile long by steaming at it; they bury themselves into it every time up to their foremasts.

On board the *Assistance* they were quite sure we should have to come on board of them. Now they have come round too and say they hope we shall be able to take them on board. Directly we have a *pressure*, and we *have* had two or three, up we jump two or three feet, and the piece, if it is drifting by, has nothing but our sharp bows to hang against, while the other craft have their great bluff bows to stop it. For instance, off Cape Hotham the other day, one of the ships carried away her Rodger's kedge anchor as an ice anchor, three of the cables on it at the time trying to hold on—while we were fast with a five inch hawser and never broke a rope yarn, for all the ice collected in a mass round her bluff bows till the flow caught it. With us it had nothing to hold on by so slipped past.

We are all as much in the dark as ever, as to which road poor Sir John Franklin has taken, having picked up no traces since Cape Riley, and what is more extraordinary we have found no written documents, except the head stones of the poor fellows' graves, if they may be so termed. This, without any exception, is the most desolate looking country ever beheld, but hard work and anxiety keep one from thinking of it, nevertheless we are as happy as we can be, harmony exists throughout. At one of the places we landed in Wolstenholme Sound, we found

a village and nearly in every hut were two or three dead and putrid bodies—there are only three men, and three women, and two children left of this unfortunate tribe. This is a capital climate, only very cold, but its severity is not felt unless there is wind, and then it is as bad as can be imagined.

[Our chart, which includes the Polar Sea as far as Bhering Strait, has been lithographed, by that eminent geographer Mr. John Arrowsmith of Soho Square, who has also published a neat chart of these discoveries. The Admiralty has also published a sheet on a large scale, shewing the discoveries of Capt. Austin's expedition with the very important additions of Victoria Channel by Capt. Penny.—Ed.]

---

#### SETTLEMENT OF CRESSON AFRICA.

WE have received late, an interesting letter from our esteemed correspondents, Hon. L. A. Benson and Rev. Mr. Davis, of Cresson, Liberia. They give us the pleasing intelligence, that having peacefully overcome the difficulties long presented by Grando, a savage chief, formerly engaged in the slave trade, they had occupied that important position. On clearing away the forest they found it even more beautiful, and well adapted for the site of a commercial city, than they anticipated. The noble springs of water for which it had been celebrated by the slavers, whose favorite resort it had been for two centuries, chiefly on this account, gave improved health to many old colonists: and the soil pleasing proof of its fitness to produce fine fruits and vegetables: but above all, the noble harbour so rare along that coast, cannot fail to render it a favourite port to our naval and commercial marine.

Mr. Benson, who is an enterprising merchant and extensive planter, is most anxious that our steam ships may avail themselves of its advantages as a coaling station; the fine bold water close in shore, affording greater facilities than any other African port, when taken in connection with the anxious desire of its industrious and honest citizens to render it the interest of vessels to call there. As the staples of the St. John's river, near the mouth of which Cresson is situated are rich and varied, several commercial establishments had been resolved on; and Mr. Benson after building twenty houses for the protégés of the Pennsylvania Colonization Society, was preparing a large warehouse for his own use. The natural breakwater afforded by the point of the rocks, behind which our correspondents assure us vessels may find snug berths and smooth water, cannot fail to make it a favorite place of resort for our shipping; and Mr. Benson adds, that he will be glad to provide an ample supply of salt provisions, biscuit, ship bread, and other suitable stores from the United States, if vessels in the African trade and cruisers will give him a prospect of fair moderate remuneration.

We hope the owners of the new line of steam packets will direct their captains to call at Cresson and avail themselves of his services, to say nothing of the fair prospect of bringing home freights of palm oil, coffee, cam-wood, &c. Cotton will soon become a prominent export, as the industrious planters of Bassa county have commenced its culture with commendable zeal, and their agricultural society has given a great impulse to the cultivation of the soil.

---

THE LONGEST SHIP IN THE WORLD.—Messrs. C. Mare and Co., the ship-builders, of Orchard-yard, Blackwall, and Messrs. Penn, of Greenwich, engineers, have taken a contract to construct for the Peninsular and Oriental Steam Navigation Company, an iron steam ship, of the following dimensions

and power—viz: length between the perpendiculars, 325 feet; breadth of beam, 43 feet; depth, 32 feet. She will measure about 3,000 tons, and will be propelled by four engines of the collective working power of 1,200 horses; will have feathering paddle wheels, and a guaranteed average speed of fourteen knots, equal to sixteen statute miles per hour. Some idea may be formed of the size of this gigantic vessel, when it is compared with that of some of the existing steam-ships most celebrated for their large size. She will be fifty-one feet longer than the "Great Britain," sixty feet longer than the largest of the Cunard or North American mail steamers, the Asia and Africa, forty feet longer than the large steamers, such as the Parana, Oronoco, &c., now constructing for the Royal Mail Company, and 100 feet longer and 500 tons larger than the Caledonia, first-rate, of 120 guns. She is the first of an improved class of steam ships about to be constructed by the Peninsular and Oriental Company for the East India mail and passenger service, and it is confidently estimated that she will effect the passage between Southampton and Alexandria, a distance of 3,100 miles, in nine days. The passenger accommodation in these vessels is to be on the most spacious scale, and replete with every comfort and convenience.

#### THE CHALLENGE BETWEEN THE AMERICA AND THE TITANIA.

This exciting contest, in which all the yachting world has evinced such deep interest, came off on Thursday, Aug. 28th, off the Isle of Wight. The American was undocked at Portsmouth dockyard at half-past 9 on Wednesday night, and went out of that harbour at half-past five on Thursday morning. At 10 A.M., she started from Cowes, and ran down to the Nab.

When the vessels took their stations off the Nab light, at the extreme eastern point of the Isle of Wight, the wind was blowing a strong breeze from the N.N.W. At a quarter past eleven the signal gun from the Commodore's vessel, the America soon spread her canvas and proceeded on her destination, taking the lead, but had scarcely got more than three times her length of the Titania, when her opponent, through having her square top-sail quickly set, drew a little upon the America, but no sooner had the "Yankee" got her fore and aft square sails set, than she ran like lightning before the wind. She carried no fore-top-sail on the present occasion. She continued to run on one jib and then on the other, running before the wind, and still gained ahead of the Titania.

After a run, however, of about two hours, a serious accident occurred to the America, for the "jaws" of the gaff gave way, and they were compelled to lower her main-sail, which was lashed and set again, a delay being caused thereby of three or four minutes, and losing in distance at least half-a-mile. This untoward event had not been long repaired, and the main-sail set, when it slipped out of the grip again, in consequence of the heavy wind that was blowing at the time. This caused a further delay, and the main-sail was then kept down for some time until an opportunity was afforded for her to jibe on the opposite side. The Titania now kept making sail, having her square sail, gaff topsail, and mainsail all set, and appeared to be very well handled, but evidently had no power to overhaul her American rival. The America had not long got up her main-sail for the third time, when the signal was hoisted on board the steamer that the required distance had been run, and, at the same time, notice was given to return. The America then luffed, and rounded the steamer on the larboard hand, which was done as follows:—

|              |              |
|--------------|--------------|
| America..... | 2h. 3m. 50s. |
| Titania..... | 2h. 8m. 2s.  |

On rounding the steamer the America received the congratulation of the numerous company on board, and on the first tack she reached in towards the

the Owers light ship, about fifteen miles south-east of the Nab light, then stood towards the westward, and continued tacking towards the shore. She then fetched by a long reach to the Princessa Shoal, off Bembridge. From this point she then reached, went round the Nab light, bearing south-west, and thus concluded the course.

The Queen steamer, having preceded the America on her return, had made fast to the light ship, and on rounding it the clipper was for the second time declared the victor, beating the Titania in the entire run by 52 minutes. The following is the time of arrival:—

America..... 5h. 30m. 15s.  
Titania..... 6h. 22m. 15s.

During the greater part of the return the Titania was hull down, and on the America reaching the Nab she was at least eight miles astern.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. Rogerson, of the Royal Observatory,  
From the 21st of August, to the 20th of September, 1851.

| Month Day. | Week Day. | Barometer.              |        | Thermometer   |        |     |     | Wind.   |      |          |      | Weather. |        |
|------------|-----------|-------------------------|--------|---------------|--------|-----|-----|---------|------|----------|------|----------|--------|
|            |           | In Inches and Decimals. |        | In the shade. |        |     |     | Quarter |      | Strength |      |          |        |
|            |           | 9 A.M.                  | 3 P.M. | 9 A.M.        | 3 P.M. | Min | Max | A.M.    | P.M. | A.M.     | P.M. | A.M.     | P.M.   |
| 21         | Th.       | 30.16                   | 30.08  | 63            | 76     | 57  | 78  | W       | W    | 1        | 2    | bc       | bc     |
| 22         | F.        | 30.12                   | 30.01  | 67            | 77     | 59  | 79  | SW      | S    | 1        | 3    | bc       | bc     |
| 23         | S.        | 29.92                   | 29.88  | 68            | 71     | 58  | 72  | SW      | SW   | 3        | 4    | o        | b      |
| 24         | Su.       | 29.84                   | 29.80  | 59            | 69     | 53  | 70  | SW      | SW   | 5        | 5    | qbcp 2)  | qop 3  |
| 25         | M.        | 30.08                   | 30.10  | 58            | 68     | 49  | 69  | NW      | NW   | 3        | 3    | bc       | bc     |
| 26         | Tu.       | 30.12                   | 29.97  | 61            | 61     | 49  | 63  | SW      | SW   | 3        | 6    | o        | qor 3) |
| 27         | W.        | 30.06                   | 30.02  | 58            | 68     | 55  | 69  | W       | W    | 4        | 4    | bc       | or 4)  |
| 28         | Th.       | 29.71                   | 29.79  | 54            | 58     | 51  | 59  | NW      | NW   | 5        | 5    | qber (1  | qbc    |
| 29         | F.        | 29.72                   | 29.78  | 54            | 48     | 46  | 54  | NW      | N    | 5        | 5    | qop 2)   | qbc 3) |
| 30         | S.        | 30.07                   | 30.14  | 55            | 57     | 47  | 58  | N       | N    | 5        | 5    | qbc      | qo     |
| 31         | Su.       | 30.24                   | 30.24  | 53            | 62     | 44  | 64  | NW      | NW   | 2        | 2    | bc       | bc     |
| 1          | M.        | 30.25                   | 30.21  | 62            | 72     | 56  | 73  | W       | W    | 1        | 3    | bcm      | bc     |
| 2          | Tu.       | 30.11                   | 30.10  | 64            | 79     | 57  | 73  | NW      | NW   | 2        | 4    | op (1)   | bc     |
| 3          | W.        | 30.16                   | 30.16  | 63            | 72     | 61  | 73  | N       | NE   | 1        | 1    | bc       | bc     |
| 4          | Th.       | 30.10                   | 30.08  | 62            | 63     | 57  | 69  | N       | N    | 4        | 4    | bc       | bcp 3) |
| 5          | F.        | 30.16                   | 30.20  | 57            | 63     | 51  | 64  | N       | N    | 3        | 4    | bc       | bc     |
| 6          | S.        | 30.36                   | 30.34  | 58            | 62     | 51  | 63  | NE      | NE   | 3        | 3    | bc       | bc     |
| 7          | Su.       | 30.46                   | 30.46  | 57            | 62     | 47  | 63  | NE      | NK   | 4        | 4    | bc       | bc     |
| 8          | M.        | 30.50                   | 30.48  | 56            | 60     | 51  | 61  | NE      | NE   | 4        | 4    | bc       | bc     |
| 9          | Tu.       | 30.49                   | 30.48  | 55            | 62     | 47  | 63  | E       | E    | 4        | 4    | bc       | b      |
| 10         | W.        | 30.56                   | 30.50  | 51            | 64     | 29  | 65  | NE      | NE   | 1        | 2    | b        | b      |
| 11         | Th.       | 30.50                   | 30.48  | 52            | 65     | 43  | 66  | E       | E    | 1        | 1    | bef      | b      |
| 12         | F.        | 30.41                   | 30.34  | 51            | 63     | 43  | 64  | SE      | S    | 1        | 1    | bfn      | bm     |
| 13         | S.        | 30.34                   | 30.23  | 53            | 67     | 46  | 68  | NE      | NE   | 1        | 2    | bfn      | b      |
| 14         | Su.       | 30.41                   | 30.43  | 50            | 67     | 41  | 68  | NE      | NE   | 1        | 1    | bfn      | b      |
| 15         | M.        | 30.52                   | 30.56  | 56            | 66     | 47  | 67  | NE      | NE   | 1        | 2    | o        | bc     |
| 16         | Tu.       | 30.60                   | 30.54  | 57            | 64     | 45  | 66  | NE      | NE   | 3        | 3    | bc       | bc     |
| 17         | W.        | 30.44                   | 30.40  | 59            | 64     | 52  | 65  | NE      | NE   | 3        | 4    | o        | bc     |
| 18         | Th.       | 30.29                   | 30.20  | 58            | 63     | 50  | 64  | NE      | NE   | 6        | 6    | qbc      | qbc    |
| 19         | F.        | 30.08                   | 30.04  | 58            | 63     | 50  | 64  | NE      | NE   | 4        | 4    | bc       | bc     |
| 20         | S.        | 30.09                   | 30.08  | 56            | 60     | 50  | 62  | N       | NE   | 3        | 3    | bc       | bc     |

August, 1851.—Mean height of the barometer = 30.056 inches; mean temperature = 63.4 degrees; depth of rain fallen = 2.43 inches.

TO CORRESPONDENTS.—Our present number is occupied by a much larger share of Arctic matters than usual, but the more than usual interest belonging to them now, will account for it.

Various communications which we have received have been therefore unavoidably deferred for our next.

Hunt and Son, Printers, 6, New Church Street, Edgware Road.

THE  
NAUTICAL MAGAZINE

AND

**Naval Chronicle.**

---

NOVEMBER, 1851.

---

PROCEEDINGS OF H.M.S. SPHINX: *Extracts from the Remark Book of Com. C. F. A. Shadwell.*

Quæ Regio in terris nostri non plena laboris?\*

H.M. Steam Sloop *Sphinx*, sailed from Plymouth, March 2nd, 1850, *en route* to the East Indies and China Station, calling at Madeira, St. Vincent, (Cape de Verds) Sierra Leone, Whydah, Ascension, Rhio, and the Cape, and arriving at Singapore, *via* the Straits of Sunda and Rhio on July 24th.

A voyage over such well frequented fields of ocean as were traversed in the above passage, necessarily offers but few points of hydrographic interest; nevertheless, a few brief remarks may not be out of place, and we, therefore, proceed to discuss them.

The magnificent harbour of Porto Grande in the Island of St. Vincent in the Cape de Verd Group, lat. 16° 55' N., and long. 25° 1' W., seems to be too little known and too little appreciated.

The harbour is on the west side of the island, open to the north-west, but completely sheltered from wind and sea by the lofty Island of St. Antonio, which lies opposite to it eight or nine miles distant, forming a perfect natural breakwater. The bottom is coral and shells and

\* A most appropriate motto, even applied to Hydrographical subjects, and one well worthy of being more generally adopted than it has been. It may be thus freely rendered.

What portion of the sea or land  
Does not find labour for the willing hand?—Ed.

affords good anchorage in a depth of from 7 to 10 fathoms. The approach is perfectly clear of dangers, and the harbour has plenty of room for a numerous fleet.

As a *dépôt* of coals for the line of steam communication which may hereafter be established between Europe, the Brazils, and the Cape, this harbour may be found highly valuable. It is true that the island is very barren and affords at present but few supplies, but if ships were in the habit of regularly calling there, the "*auri sacra fames*," would no doubt soon remedy this inconvenience, and vegetables, poultry, and such other stock as is usually required by ships would soon find their way there from the neighbouring islands, which are said to be more fertile and better supplied.

After leaving Whydah we crossed the Equator in long.  $1^{\circ} 30' E.$ , and experiencing continually the prevalence of south-west winds, did not get a steady south-east trade till in lat.  $6^{\circ} S.$ , and long.  $8^{\circ} W.$ ; the transition from south-west winds to south-east being quite gradual, and without any intermediate interval of calm.

I had been desirous at the request of the Hydrographer to endeavour to obtain soundings on a supposed bank off the coast of Brazil, said to be in lat. and long.  $21^{\circ} S.$  and  $38^{\circ} W.$ , but on approaching the supposed position and shaping a course to pass over it, boisterous squally weather very unfavourable for shoal hunting came on, and it being night at the time, I judged it prudent to discontinue the search and resume my former course.

In the run from Ascension to Rhio we continually experienced the influence of the equatorial current from fifteen to thirty miles a day in our favour.

The passage from Rhio to the Cape offered nothing worthy of special notice.

In the passage from the Cape to Singapore we ran down our longitude under sail, with the wheels disconnected, in the parallel of  $37^{\circ} S.$  We had several strong but not violent gales from the westward, and had almost always a good breeze and a favourable easterly current.

The wind held from the westward till we approached St. Pauls; passing to the northward of this island we experienced a sharp gale from the north-east, after which we had northerly and north-easterly winds for some days. By the assistance of steam when the wind was not favourable, we passed to the northward by a gentle and elegant curve, exhibiting a natural application of the principle of Great-circle-sailing, far different from that recommended by the empirical sciolists of the present day, who enamoured by the simplicity of their theory, propose impracticable voyages in high latitudes with a sublime disregard of adverse local winds, cold and icebergs, and then make a great cackling as though they had made some wonderful discovery: the so-called principle of Great-circle-sailing being merely a revival of methods proposed years ago, and long since abandoned by the common sense of our forefathers;—facts which may be easily known to be true if people will only take the trouble to consult the earlier treatises on navigation.

The wonder is that intelligent persons now-adays should be so cap-

tivated by its apparent advantages as not to perceive that these advantages are very much limited in their application. For instance;—how is Great-circle-sailing to be applied in proceeding from Valparaiso to Sydney, or from the Swan River to the Cape, or on the other hand from the Cape to Tasmania. In the two former of these cases the course by Great-circle-sailing would take a ship through the regions where westerly winds accompanied by frequent gales, are always prevalent, and and cause her to abandon the fine weather, and fair trade winds which are to be met with in the intertropical latitudes. In the latter case, the course by Great-circle-sailing would take a ship into so high a southern latitude that to say nothing of the cold, there would be in the summer season especially, a great chance of encountering icebergs; and it will be a greater wonder still, if in the unskilful hands of some half-educated seamen, this much vaunted method of Great-circle-sailing does not produce a much greater amount of mistakes, and consequent loss of life and property, than will ever be compensated for by the few scores of miles more or less that may be saved to a ship in a long voyage, by adopting its principle.

Against the judicious application of this method in the hands of a well educated and scientific seaman we have not one word to advance, and we are well aware that it obtains favour among many able officers whose opinions will always deservedly carry great weight, and for whose talents we entertain the most profound respect. But we do think it necessary to enter a caveat against the attempt to make it available generally, without a due regard to local winds and other circumstances. Perhaps, the most advantageous application of the theory will be the enabling the navigator, in case of meeting with adverse winds, to shape his course on that tack which coincides most nearly with the arc of a great circle, whereby, very often a considerable saving of distance may be effected, this matter being now generally determined by a reference to the wind only, and if the wind is dead foul, perhaps held to be a matter of indifference.

To resume our former subject, we crossed the Tropic of Capricorn in long. 100° 30' E., and did not fall in with the south-east trade wind till in the parallel of 17° S.

Entering the Straits of Sunda on the 20th July, we proceeded by way of the Straits of Banca and Rhio to Singapore.

Why should navigators almost invariably prefer the Straits of Banca to the neighbouring Straits of Gaspar? Is there any other better reason than the bad name the latter have acquired, owing to the loss of the *Alceste*, for they certainly afford a shorter and less tedious passage to the northward than Banca Straits?

We passed through the Straits of Rhio at night: they are clear and open, and present no difficulties if a good look out be kept; they are to be preferred to the longer circuit round Bintang.

The *Sphinx* again left Singapore on August 3rd, to proceed to Siam. The Gulf of Siam has never been regularly surveyed, but this is of the less consequence as it is quite clear of sudden dangers, and the approach to the head of the gulf is distinctly pointed out by the gradual decrease of the soundings.



On the evening of the 9th August, the *Sphinx* anchored off the eastern end of the bar.

On the 11th after crossing the bar to proceed inside the river to Packnam, the ship got on shore on the mud, but after lightening her of a considerable portion of her heavy stores, she was ultimately got off again, and returned outside the bar at the next springs on the 25th of August.

All the stores were finally got on board again by September 6th, the ship reorganized and the engines repaired.

On approaching the bar of the Menam we were guided to the anchorage by the lights of a merchant ship which happened to be there: had she not been there our only guide would have been by the soundings; and in this case it would not be prudent to approach the coast nearer than 8 or 10 fathoms, but I may observe that the soundings at the head of the bay decrease very gradually, and that anchorage may be obtained anywhere,—bottom, mud.

The best course for passing over the bar is to bring the entrance of the river to bear north a little easterly. After passing over the bar a N.E.b.N. course until the mouth of the river is well open, and the sunken junks are approached, will bring you well clear of the shoal spit off the western point of the river's mouth.

A good mark for passing the bar is to bring (*if they can be seen*) the two points of the river's mouth on with one another, until the bar is crossed, when, as before observed, a N.E.b.N. course must be steered.

Boats should be extremely cautious of attempting to pass either in or out of the river after dark, as the strong tides and the possibility of fouling the fishing stakes render such a course very dangerous.

I may observe generally that, the appearance of the land from the anchorage varies very much, and is very deceptive both from the state of the tides and the variation in the refractive condition of the atmosphere. There are no natural marks, no hills, no remarkable trees, no bluff points, or any other conspicuous objects to guide the judgment of the navigator; and if ever it were necessary to make an accurate survey of the place, artificial marks would have to be resorted to. The fishing stakes and look-out houses, which were of some assistance to us when we were there, we have since learned, have been removed through the jealous fears of the Siamese government, since our departure.

When the *Sphinx* recrossed the bar on the 24th of August, 2½ fathoms was the least water we had, and the flood tide on that evening was unusually slack, and I may observe generally that the height and strength of the flood tide are very much affected by the accidental prevalence of land or sea breezes, freshes from the river and other causes.

Horsburgh states (Directory, vol. ii., p. 319,) that there is eight or nine feet on the bar at low tide, seventeen or eighteen on it at high water spring tide, and nineteen or twenty in September, October, and November. If this were true when his observations were written, it is surely not so now.

At present there is not more than two feet water at low tides, and the rise and fall does not exceed twelve or thirteen feet at the utmost, and certainly we never had as much as nineteen or twenty feet on the bar

when we were there in September. I do not think it prudent for a ship drawing more than thirteen or fourteen feet at the outside to attempt to cross the bar.

There is only one regular tide in the twenty-four hours, at the autumnal season of the year, this takes place in the evening; at the opposite season of the year, as I was informed by an experienced resident at Siam, the highest tides take place in the morning.

After passing over the bar, the navigation of the river offers no particular difficulties. At the entrance, the fears of the Siamese previous to Sir James Brooke's arrival, caused them to sink several junks laden with stones, and I doubt not but that in case of hostilities, they would effectually block up the entrance to the passage of large ships in a similar manner.

About two miles from the entrance of the river on the left bank lies the inconsiderable village of Packnam. The river here is about three-quarters of a mile broad. The Honorable Company's Steamer *Nemesis*, was anchored off the village in 7 fathoms.

The passage up the river is guarded at this point by forts on both sides, mounting about 200 guns. The jealous fears of the Siamese would never allow us to inspect these forts, but in so far as we could judge by such opportunities as we had, they seemed to be ill constructed of earth and brickwork, and the guns to be of small calibre.

About six miles further up the river at Packlât there are other forts, chiefly on the right bank of the river, and at this point, shortly before Sir James Brooke's arrival, a boom was placed across the river to obstruct the passage, and an artificial canal for the passage of boats was cut on the left banks of the river to connect the stream above with the stream below the boom. Doubtless in case of hostilities with a European power, this mode of obstructing the navigation of the river would be resorted to at other advantageous points.

We never had any opportunity of examining the strength of these fortifications, or of knowing the strength of the boom, as on the various occasions on which the officers and myself went up and down the river to or from Bangkok, we were always conveyed in Siamese boats, and never allowed to approach near either to the fort or the boom.

The number of embrasures in the fort may be estimated at about 200, and the appearance of the works is by no means formidable. Other forts are said to be in progress of construction further up the river.

The distance from Packnam to Bangkok is about thirty-two miles. I was informed by some merchant captains who trade to the port, and by other competent authorities, that the navigation of the river between Packnam and Bangkok presents no features of difficulty, the soundings varying from 6 to 9 fathoms. At Bangkok the depth of water in the middle of the stream is about 7 fathoms.

A merchant vessel of 600 tons, was moored in 5 fathoms close to the shore alongside the British factory where we resided during our stay. The river at Bangkok is about one-third of a mile wide.

The City of Bangkok is a very remarkable place. It is built almost in a swamp, on a number of natural and artificial islands, which are cou-

nected here and there by bridges and causeways. The greater part of the houses on shore are built upon piles, the lower floors being raised off the ground about four or five feet. Notwithstanding this condition, which is usually considered so unfavourable to health, the place is reputed to be remarkably healthy, which circumstance may probably be attributed to the fact that the alternate ebbing and flowing of the tide carries off the drainage water, and keeps the air in a perpetual state of gentle undulation.

The shores of the main river as well as those of the principle canals and tributary streamlets are lined with floating houses, either moved by their own cables, or attached by means of grummetts, to stout upright piles which permit them to rise and fall freely with the tide. These floating habitations are chiefly occupied by Chinese, who appear to have a very large share of the trade of the place. The fronts of the houses towards the open stream, are usually occupied as shops in which their various wares and merchandize are exposed for sale. The rear of the building being appropriated as a residence for the family.

This amphibious state of existence of course renders it necessary for almost all business to be transacted in boats, and seems to render the people proficient in the acts of steering and pulling, and adepts in the "purest exercise of health," the sublime "*ars natandi*."

The only public buildings worth noticing are the king's palace, the hall of audience, and the Budhist temples or Wâts; the latter are very gorgeous, and are filled with curious and grotesque images, carving and gilding, and gilded images of Budh. The latter is generally represented in a sitting posture with his legs crossed under him after the fashion of a tailor. An image of Budh with an altar table in front to receive the votive offerings is the chief object in the temple. The walls are usually covered with allegorical paintings representing the principal events in his life. I was much struck with the similarity of the pageantry of these temples and those of Roman Catholic churches. For the image of Budh substitute the Virgin, and there is not much difference between them. In one of the temples there is a colossal image in a recumbent posture, the head supported by the right arm and elbow. The length of this figure is 150 feet. They are made of brickwork and plaster covered with stucco and gilt.

The great sign of piety at Siam is to build a new Wât, or to adorn and beautify an old one. The king and the chief nobles have Wâts called after their names, and very large sums of money must be lavished upon them.

The courts of the temples are handsomely laid out and ornamented with statues and carved figures of beasts and grotesque monsters. They also frequently contain large ornamental obelisks, termed "*Prachadas*," which with their lofty spires and minarets form very conspicuous objects as the city is viewed from the river.

A considerable trade is carried on by the Siamese to China, Singapore, Batavia, and to various places in the Indian Archipelago. The exports are sugar, rice, gum benjamin, horn, hides, teak, &c. The chief imports cotton, and piece goods: a great deal of the trade is in the hands of the

king, who is a great monopolist, owns a great many vessels and large junks himself, and licences many more. The king's ships are usually commanded by Europeans or half-caste masters, and manned by mostly native crews.

Provisions of most kinds are very plentiful, except beef and mutton: the religious prejudices of the natives not allowing them to kill oxen, and I think they had no sheep: pork, poultry, vegetables of the usual tropical kind, rice, tea, sugar, &c., are very plentiful and cheap.

Sir James Brooke having failed in his mission to induce the Siamese to enter into a new commercial treaty, we left Siam on our return to Singapore on September 29th, and arrived at that port on October 3rd.

On our passage back in order to take advantage of the current which is said to prevail, we kept well over towards the western shore of the gulf.

The whole of the land to the northward of the Bedang Islands, on both sides of the gulf, is laid down in the Admiralty chart too far to the eastward in some places as much as 50'.

Manuscript charts, both of the Gulf of Siam and of the River Menam, were placed in my hands by parties at Bankok and are now in my possession. In the former, the gross errors in longitude abovementioned are corrected, and the latter appeared to me to be an amplification of the plans of the river given in the book of plans, with which we are furnished by the Admiralty, the date of which is 1797.

None of these drawings in other respects seemed to me to have any pretension to hydrographic accuracy, and I doubt if they were more than eye sketches, or roughly compiled from the ships logs.

On our arrival at Singapore in July, the chronometers were rated by equal altitudes observed on shore on the 26th and 31st of July, and were as follows:

|   | s.      |
|---|---------|
| Z | — 2·43  |
| R | — 50·83 |
| Y | — 3·27  |
| M | — 6·05  |
| A | — 8·63  |

No opportunity offered for determining the rates of the chronometers while the *Sphinx* was at Siam, the distance of the ship from the shore, at first six, and subsequent twelve miles, joined to the necessity for doing nothing to excite the jealousy of the Siamese, who combine ignorance with suspicion, precluding the possibility of so doing.

Even the sights taken on shore by the master, Mr. G. L. Carr, on the 28th August, were not obtained without much inconvenience, and the excitement of obvious suspicion in the minds of the Siamese.

On our return to Singapore in October, single altitudes (A.M.) were observed in the artificial horizon on shore on the 5th and 10th of the month, and the rates thus found to be

|   | s.      |   | s.     |
|---|---------|---|--------|
| Z | — 0·75  | Y | — 3·75 |
| R | — 49·15 | M | — 0 55 |
|   |         | A | — 7·85 |

\* There is no correct chart yet made of this part of the world.—Ed.

For the meridian distance between Singapore and Packnam, using the observations made at the respective places on July 26th and 31st, and on August 28th, with the July rates, we have—

Packnam west of Singapore

|        | h. | m. | s. |
|--------|----|----|----|
| By Z—0 | 13 | 22 | 69 |
| R—0    | 13 | 17 | 54 |
| Y—0    | 13 | 9  | 98 |
| M—0    | 12 | 46 | 73 |
| A—0    | 15 | 4  | 57 |

On the 19th September, chronometer A, was accidentally run down and set going again on the 23rd.

By comparing the observations at Packnam on August 28th, with those at Singapore on October 5th and 10th, and using the October rates, we have—

Packnam west of Singapore

|         | h. | m. | s. |
|---------|----|----|----|
| By Z--0 | 13 | 18 | 35 |
| R—0     | 13 | 26 | 65 |
| Y—0     | 12 | 48 | 95 |
| M—0     | 15 | 28 | 95 |

Rejecting the results by chronometer M, which are very wild, the rate having changed very considerably between July and October, and also those of A, which is subject to irregular variations of rate occasionally, we have mean

|        | h. | m. | s. |
|--------|----|----|----|
| By Z—0 | 13 | 20 | 52 |
| R—0    | 13 | 22 | 10 |
| G—0    | 12 | 59 | 46 |

General Mean      0    13    14·03

And assuming Singapore (Battery) to be in 6h. 55m. 20s. (according to Mr. Raper), we have for the approximate longitude of Packnam 6h. 42m. 5·8s., or  $100^{\circ} 31' 27''$ .

The disadvantageous circumstances under which the Packnam observations were made, and the long interval between the determinations of the two rates, would not permit any more refined deduction to be made from them.

Horsburgh states that the entrance of the river is in lat.  $13^{\circ} 30' N.$ , and long.  $101^{\circ} 15' E.$  (about)—Directory, vol. ii., p. 319; Mr. Raper gives Siam River entrance lat.  $13^{\circ} 23' N.$ , long.  $100^{\circ} 34' E.$

We made the position of our first anchorage which was well towards the east end of the bar, (the bar itself being four miles south of the river's mouth,) in lat.  $13^{\circ} 26' N.$ , long.  $100^{\circ} 37' E.$

By observations made by the sea horizon, and in the reduction of the Packnam observations I assumed the latitude to be  $13^{\circ} 32' N.$ , a corollary from the above.

I perceive that the Admiralty chart of the China Sea published in 1840, places Packnam in lat.  $13^{\circ} 37' N.$ , long.  $101^{\circ} 29' E.$ ; the longitude is evidently grossly wrong.

On the 10th of October the *Sphinx* left Singapore and proceeded to Hong-kong.

In the early part of the passage the winds were light and variable, and we had slight northerly currents.

After passing Palo Sapata we steered a due northerly course along the coast of Cochin China, keeping about fifty miles off shore.

Here we began to experience a strong adverse monsoon, and a southerly current of from twenty to thirty miles a day.

Off Hainan, which we passed at a distance of thirty to forty miles, we had a set to the westward of about twenty miles a day, no doubt an indraught into the Gulf of Tonquin.

At 11 P.M. on the 20th, we made the land about Mam-mi-chow, and anchored in Hong-kong harbour the following morning at 4h. 30m. A.M.

Observations for equal altitudes were made on shore at Dent's Wharf, on October 28th and November 10th, which gave for the interval, thirteen days, the following mean rates—

|    |       |
|----|-------|
|    | s.    |
| Z— | 0·13  |
| R— | 47·22 |
| Y— | 3·21  |
| M+ | 1·09  |
| A— | 6·82  |

Before we proceed to discuss the meridian distance between Hong-kong and Singapore, a brief exposition will not be out of place of the mode of proceeding which I adopt; and which I fancy, although unexceptionable in point of principle, is somewhat different from that usually employed.

I adopt "*in limine*" the principles laid down by Dr. Tiarks, that—  
 "Whenever a change of rate has taken place the only course that can be adopted is, to suppose that the chronometer has *uniformly* altered its rate during the intervening time," and that "for the whole interval this supposition at once leads to the adoption of the mean of the two rates, determined at the beginning and at the end of the interval."  
 (Foster's Voyage, appendix vol. ii, p. 226.)

(To be concluded in our next.)

#### RETURN OF THE ARCTIC SEARCHING EXPEDITIONS.

FOLLOWING up the intentions expressed in our last number, of preserving a record of the Arctic Searching Expeditions, we now annex the accompanying despatches. The remarks which we then made on the probable results of Captain Austin's exploration were scarcely committed to paper when his ships arrived from the scene of their adventures. The *Lady Franklin* with Captain Penny had returned, next came the *Felix*, Sir John Ross, with her tender the *Mary*, and then Her Majesty's ships, under the command of Captain Austin. Their return it appears was by no means unexpected. Where every step is attended with uncertainty, surmises could only be advanced. We were dealing, as Sir John Richardson has observed, with probabilities, and one which we did advance has been realized, viz: the return of the ships in the event of certain

contingent circumstances. They have returned home, their officers and crews to be invigorated for renewing their exertions more effectually in the spring of next year, should their services be required;—preferable this, to remaining frozen up in the North. Sincerely do we congratulate them on regaining our shores, and wish them the well earned reward of their labours. And much as we might have desired that in addition to their own safety, they had brought some favourable account of the long absent Franklin, we may proudly say of our countrymen, their exertions could not command, but, did deserve success.

Placing the despatches in the order of their date, the first of Captain Austin's gives *his* reasons for not proceeding up the Wellington Channel, on which step so much stress has been laid. For our part, we doubted that he could do so in his ships, and to have done so without them would have been doing again, what had been already done by Captain Penny, and his officers, and therefore, casting a doubt on the accuracy of their reports;—a course of proceeding we will venture to say never intended by Captain Austin. But we turn at once to the despatches. There is apparently the repetition of a request in the two first letters, the reason of which must yet be left for the reader to supply.

*H.M.S. Resolute, off the Winter Quarters of Capt. Penny's Expedition, — 11th August, 1861.*

SIR.—Having this day most unexpectedly reached your winter quarters, and also having had the satisfaction of a personal communication with you, I now beg leave to acquaint you that having maturely considered the directions and extent of the search (without success) that has been made by the expedition under my charge, and weighed the opinion of the officers when at their extremes, I have arrived at the conclusion that the expedition under Sir John Franklin did not prosecute the object of its mission to the southward and westward of Wellington Strait.

Under these circumstances I now await your reply to my letter transmitted herewith, in order that I may make known to you at the earliest moment the plans for the future movements of this expedition.

I have, &c.,

(Signed) HORATIO T. AUSTIN, Captain, &c.

*Captain William Penny, H.M. brig Lady Franklin, and in charge of an expedition searching for the expedition under Sir John Franklin.*

*H.M.S. Resolute, off the Winter Quarters of Capt. Penny's Expedition, 11th August, 1861.*

SIR.—Having this day most unexpectedly reached your winter quarters, and also having had the satisfaction of a personal communication with you, I feel it incumbent (previous to making known to you my determination as to the further movements of the expedition under my orders (to request that you will be pleased to acquaint me, whether you consider that the search of Wellington Strait, made by the expedition under your charge, is so satisfactory as to render a further prosecution in that direction, if practicable, unnecessary.

I have, &c.,

(Signed) HORATIO T. AUSTIN, Captain, &c.

*Captain William Penny, H.M. brig Lady Franklin, and in charge of an expedition searching for the expedition under Sir John Franklin.*

*Assistance Bay, 11th August, 1851.*

SIR.—Your question is easily answered. My opinion is, Wellington Channel requires no further search, all has been done in the power of man to accomplish, and no trace can be found. What else can be done?

I have the honor to be, &c.

(Signed) WILLIAM PENNY.

*Captain H. T. Austin, C.B., of her Majesty's expedition  
in search of Sir John Franklin.*

*H.M.S. Resolute, off the Winter Quarters of Capt. Penny's  
Expedition,—11th August, 1851.*

SIR.—I beg leave to acknowledge the receipt of your letter making known to me the result of the search of Wellington Strait by the expedition under your charge.

I have now to inform you that I do not consider it necessary to prosecute (even if practicable) a further search in that direction with the expeditions under my orders.

It is now my intention to proceed to attempt the search of Jones Sound.

I have, &c.

(Signed) HORATIO T. AUSTIN, Captain, &c.

*Captain William Penny, H.M. brig Lady Franklin, and  
in charge of an expedition searching for the expedi-  
tion under Sir John Franklin.*

The former despatches from Captain Austin are dated the 12th of August; the foregoing letters dated previously should evidently have accompanied them, but appear by some unfortunate accident to have been omitted. They explain why, if he were able to do so, Captain Austin would not examine Wellington Channel in the search of which Captain Penny said "no trace had been found." The next letter is from Sir John Ross.

*Felis Discovery Vessel, Stranraer, September 25th, 1851.*

SIR.—In reference to an extract of my despatch of the 29th July, 1851, sent by Capt. Austin, I have to acquaint you that, after leaving our winter quarters at Cornwallis Island on the 12th August, we parted company with the vessels under Capt. Austin, and those in charge of Capt. Penny off the Wellington Channel on the following day; and, after having made a further search at Beechey Island, we proceeded without much obstruction to the eastward, and having made the land in lat.  $76^{\circ}$  N., we used every effort between the 15th and 25th August to close with the coast, but were prevented by impenetrable ice, extending from the east land to seaward, twenty miles between the latitude of  $75^{\circ}$  and  $77^{\circ}$  N. It was evident, that by getting round this immense body of ice, either by the northward or southward, even if it were possible, we must be obliged to spend another winter in order to make the proposed examination, and for which we had not provisions, being originally victualled for only eighteen months. I was therefore under the necessity of bearing up for Godhaven (Liefoly) in Disco, still in hopes of obtaining a supply of provisions, from what the commander of the *North Star* was directed by the Admiralty to land there, and which would enable me probably to obtain a position north of Wolstenholme Sound, from whence I should, during the ensuing spring, have set the question at rest.



But here, I regret to say I was disappointed; I arrived at Godhaven on the 30th of August, in company with the Danish government brig *Hvalfisken*, which I fell in with on the 29th, and to my mortification I found that Mr. Saunders, the master commander of the *North Star*, had not, according to his orders, been to Godhaven to land any provisions; and although the manager and magistrate at Godhaven, in the absence of the governor, most readily supplied us with the refreshment so necessary for the health of my crew, he could not spare us provisions for another season; and being obliged to defer my intention of examining the coast between Whale Sound and Melville Bay, it only remained for me to obtain the deposition on oath, touching the fate of the missing ships, of my interpreter, Adam Beck, who on the 1st of September, was carried before the magistrate, and being warned that if it was found by a future expedition, which would probably be sent out, that he had sworn to what was not true, he would incur a severe punishment. Whereupon he voluntarily made the enclosed deposition, which he signed and swore to in my presence, and in that of the magistrate. I regret that there was no person at Godhaven who could translate this document either into Danish or English, although it was perfectly understood by the magistrate's lady, who is the daughter of a former governor, was born and brought up in Greenland, but could not translate into Danish. The substance of this document was, however, that the two missing ships were actually wrecked on the coast north of Cape York; that some of the crews reached the land in a state of destitution, and perished during the winter of 1846-7, either by cold, hunger, or by the treachery of a hostile tribe of natives; that articles belonging to the ships could be shown which would prove the truth of his assertions; and that he would accompany any future expedition that might be sent to ascertain the truth.

It is true, indeed, that Petersen, the Dane, who is interpreter, on board the *Lady Franklin*, flatly contradicted the report of Adam Beck; but circumstances have transpired, and facts have come to light, which have caused serious doubts on the veracity if not on the respectability of Petersen; while they have in a material degree corroborated the testimony of Adam Beck, and have also in a satisfactory manner accounted for the boy now on board the *Assistance* being on the side of Petersen. I am also authorized by the resident and magistrate of Disco to say that they firmly believe that what Adam Beck has deposed is true, as he was born in Greenland, was brought up a christian, can both read and write, is well informed in the nature of an oath and its consequences, and that under such circumstances the natives have never been known to swear falsely.

And having myself taken everything into consideration, I am clearly of opinion that the missing ships under the command of Sir John Franklin, having remained at their winter quarters, Beechey Island, until September, 1846, and seeing there could be no possibility of advancing further during that season (after which they would only have one year's provisions,) that they had, on their attempt to return home round the north end of the pack, been wrecked on the east coast of Baffin's Bay; and in short, that the report of Adam Beck is in every respect true.

Adam Beck was discharged on the 30th of August, on our arrival at Godhaven.

Inclosure No. 1, contains his deposition on oath, written in the Esquimaux language. Inclosure No. 2, is his account current; copies of bills in liquidation of his wages, and supplies to the ship.

Truly thankful for the blessings of health and strength, by which, through the blessings of Divine Providence, we have been enabled to perform the arduous duty we undertook, it is with feelings of unqualified satisfaction I have to inform you that the *Felix*, not having met with the slightest damage,

has safely arrived here this day, without the loss of a man, and with the whole crew, as well as myself, in perfect health.

I have, &c.

(Signed) JOHN ROSS, Rear-Admiral.

Archibald Barclay, Esq., Secretary to the  
Hudson's Bay Company.

*Return of Captain Austin with the Ships of the Arctic Searching Expedition.*

Her Majesty's ships *Resolute* and *Pioneer* having arrived in Yarmouth Roads, and the *Assistance* and *Intrepid* at Grimsby, on their way to Woolwich, the following is Captain Austin's report of his further proceedings:—

*H.M.S. Resolute, at anchor off Winterton,  
Norfolk, Sept. 30th*

SIR.—1. In continuation of the report of the 12th of August last, transmitted by Captain Penny, I have now the honour to acquaint you, for the information of the Lords Commissioners of the Admiralty, that having, off Cape Warrender, on the evening of the 14th, in clear water, and under favourable circumstances, attached to the *Intrepid*, Lieutenant Elliott, and Mr. Hamilton, mate; and to the *Pioneer*, Mr. M'Dougall, second master; for hydrographical purposes; as also Mr. May, mate, in addition to the latter vessel, so that, in the event of opportunity offering the acquirements of those officers might be brought to good account, I gave to each vessel six additional men. Directed Captain Ommaney to erect a cairn and beacon, and deposit a record on Cape Warrender, and conduct the ships to the east shore of Baffin's Bay, and rendezvous between Wolstenholme Sound and Cape York; then, placing myself on board the *Pioneer*, I proceeded at seven o'clock p.m., with both steam tenders along the west shore of Baffin Bay, rounded Cape Horsburgh on the 15th, advanced along the coast to the northward about thirty miles, and then proceeded up by the southern shore of an extensive sound in a north-west direction, about forty-five miles. Here our progress was arrested by a fixed barrier of ice, that was subsequently found to extend from shore to shore, a distance of twenty-five miles. The vessels then stood along the edge of the ice to the north shore, when, proving it impracticable to proceed further, a cairn and beacon were erected, and record deposited, upon a remarkable conical island; after which we returned to the north shore out of the Sound, having closely examined both sides without discovering traces of the missing expedition.

2. The mouth of this Sound is about sixty miles broad, with an island at its entrance twenty miles in length, of which Cape Leopold is a part. During the clearest period we had here, when distant objects were very distinct, there was every appearance of a well defined outline of land stretching across and terminating it to the westward; and although I am impressed that there is no outlet in that direction, yet by no means assert such to be the case.

3. There is every reason to consider this the Jones Sound of Baffin, although its northern shore is situated about ten miles to the southward of that upon the chart.

4. The attempt was then made to get to the northward along the western shore of Baffin Bay, to satisfactorily determine this question; but the ice rendered it impracticable; for by this time it had set home upon the coast and blocked up both entrances to the Sound. We therefore directed our course, with considerable difficulty, through a drifting pack towards the east

shore, in the hope of being able to get to the northward and westward on that side, but were arrested ten miles to the northward of Wolstenholme Sound on the 20th, and detained and beset in that locality until the 28th, during two days of which, with spring tides and a heavy gale from the southward, our position was both critical and perilous. Upon one occasion the *Intrepid* was driven up on the tongue of a berg, while her rudder was carried away, the frame of her screw broken, and two of her boats run over by a floe, the vessel herself remaining for about twenty hours in great peril, during a part of which her stern was raised to a very considerable extent, with the ice piling up forward to her gunwale, and all but falling on her deck, rendering it doubtful whether it would not become imperative to abandon her; but happily the wind fell, the ice eased, and she became relieved in a most remarkable manner, apparently without having sustained any vital injury.

5. Being unable to rejoin the *Intrepid*, and the ice easing to the northward, the *Pioneer* proceeded in that direction until reaching nearly opposite Cape Parry, the southern entrance of Whale Sound, where she was again arrested by the ice in close pack, and made fast, in the hope of being able to examine that Sound, which is of limited extent (from eight to ten miles broad at the entrance), takes a north-easterly direction, and was filled with ice. After remaining a few hours the ice began to close from the southward, rendering it necessary to forthwith retrace our steps to avoid being beset, and we proceeded in the direction of the *Intrepid*.

6. Having now, after full consideration, seen the impracticability of prosecuting further to the northward or westward of Baffin Bay without risking detention of another winter, and the uncertainty of even then being able to do so; and considering that Baffin Bay had been examined as far as the supposed Jones Sound on its west side, and as Whale Sound on its east, without any trace of the missing expedition; in addition to which, looking to the late period of the navigable season, I deemed it my duty to proceed at once to rejoin the ships and return to England, in accordance with the spirit of my instructions. We were, however, impeded a few miles to the northward of Wolstenholme Island by a close and heavy pack to the southward until the 1st instant, when a slight easing of the ice took place, enabling us, after considerable difficulty and doubt, to rejoin the ships—the *Pioneer* on the morning of the 2nd, and the *Intrepid*, not being able to take the same lead, on the 6th.

7. It is here necessary to notice that, had it not been for the capability of the screw propeller, most remarkable under such circumstances, I do not consider that either the passage across Baffin Bay or that to rejoin the ship, could have been accomplished in the manner or time they were.

8. During the detention off Wolstenholme Sound on the night of the 28th the vessels were visited by a party of five Esquimaux, with dog-sledges; but apprehending, as spring tides were in operation, that their return to the shore might be cut off, their departure was hastened, after liberally supplying them with useful articles from the presents furnished to the expedition for that purpose; as also with as much wood for constructing sledges as they could convey. The confidence with which these harmless people approach the vessels, and their general manners, indicated their having visited the *North Star*, or some other vessel; and their state of health and appearance altogether betokened contentment and comparative comfort.

9. On my return from the ships, I learnt from Captain Ommaney that, in crossing Baffin Bay, they had been hampered considerably by the ice, and were compelled to pass to the northward of the Cary Islands.

10. On the evening of the 6th September, the expedition proceeded to make the best of its way out of Baffin Bay and Davis Strait; being much

favoured by fair winds and open water, Cape Farewell was passed on the 16th, since which we have been followed by fresh gales and a high sea until abreast of Aberdeen, on the evening of the 26th, reaching this at 1h. 30m. p.m. this day.

11. The *Pioneer*, in advance of the other vessels, parted company during a strong breeze on the 18th; the *Intrepid*, during a fresh gale and thick weather, while pressing the ships through the Fair Island Passage, on the 25th; and the *Assistance*, during a strong gale and thick weather off Kinnaird's Head, on the 26th. The *Resolute* has been delayed in proceeding between the Pentland Skerries and this, in the hope of the other vessels re-joining; but although they have not done so, I have every reason to believe that they are either in advance or in our immediate vicinity.

12. The watchfulness called for in proceeding out of Baffin Bay and Davis Strait, the unexpected rapidity of our passage from Cape Farewell, combined with a following sea, have prevented the completion of a compiled chart, showing the land newly discovered, and that surveyed by this expedition; but which, with other records and documents in detail, shall be transmitted at an early period.

13. In concluding this report I feel it to be due to express my sense of the ready and zealous co-operation I have received from Captain Ommaney; and of the efficient state in which the ship under his command has been at all times held; to the officers in command of the steam tenders; to the executive officers in the expedition, and to the heads of the respective branches, my best thanks are due; and I must not omit to notice the talented assistance I have had in the navigation of the expedition from Mr. Allan, master of the *Resolute*. Of all, in their respective stations (not forgetting the admirable conduct and spirited exertions of the crews) I cannot speak too highly, and hope, should your lordships be pleased to think favourably of the labours of the expedition entrusted to my charge, that they may be further induced to reward the individual merit.

14. When looking to the return of the expedition under such favourable circumstances from the privations and dangers which we have had to contend with, with the loss of but one life and so few casualties, I cannot close this report without expressing to their lordships the deep sense that is generally felt of the great mercy and protection that has been vouchsafed unto us. At the same time I must ever deeply regret that, although aided by most liberal resources, our exertions unhappily have not been crowned with success.

Herewith I enclose a chart descriptive of the progress of the steam tenders while prosecuting the search in the northern part of Baffin Bay, as also a few sketches of some of the most prominent points.

I have, &c,  
HORATIO T. AUSTIN,  
*Captain, and in charge of the Expedition.*

*H.M.S. Resolute, Yarmouth Roads, October 1st, 1851.*

SIR.—Since forwarding my report, dated 30th of September, I have the honour to state, for the information of the Lords Commissioners of the Admiralty, the *Resolute*, with her tender, the *Pioneer*, have arrived in Yarmouth Roads, and that the *Assistance*, with her tender, the *Intrepid*, are in the Humber.

I have, &c.,  
HORATIO T. AUSTIN,  
*Captain in charge of an Arctic Expedition.*

*To the Secretary of the Admiralty,*

*Hudson's Bay House, October 2nd, 1851.*

SIR.—I beg to hand you for publication in your widely-circulated journal a copy of a despatch received at the Hudson's Bay House, from Rear-Admiral Sir John Ross, announcing the safe return, and I regret to add, the unsuccessful result, of the expedition under his command.

The public are aware that Sir John Ross, before his departure on his perilous voyage, not only offered his gratuitous services in the cause of humanity, but also bound himself—rather than that the proposed undertaking should fail through want of funds—to defray out of his private resources any expense that should be incurred beyond the amount of the subscription raised for the equipment of the expedition. The total amount of the subscription is £3,063 14s. 2d., and the expenses amount to £4,363 19s. 7d., leaving a balance of £1,300 5s. 5d. to be provided for. To meet this there is only the schooner *Felix*, and even should that vessel be sold to advantage there will still be considerable deficiency to be made good by Sir John Ross. But I feel confident that a British public, ever ready to appreciate acts of daring intrepidity and generous devotedness, will not allow a veteran officer who has acted so noble a part in a sacred cause to add a pecuniary sacrifice to his arduous personal services. In this confidence I beg to state that subscriptions will continue to be received at the different banking houses in London, by the collectors of customs throughout the kingdom, and by the secretary of the Hudson's Bay Company, until the end of the present month, by which time it is hoped a sufficient sum will have been received both to meet all claims and to present Sir John Ross with some token of the public approbation.

Allow me to add that a statement of account and a list of the subscribers' names will be published, a copy of which will be sent to each subscriber.

I am Sir, &c.

J. H. PELLY.

*To the Editor of the Globe.*

The foregoing are the reports of another unsuccessful expedition in search of the missing ships of Sir John Franklin, now six and a half long years absent from England!

It is no desirable task to dwell on this subject. At every turn we are met by the sad and painful reflection that, Franklin and his followers may be no more, or may still be enduring the extremes of suffering; and how many sorrowing hearts have long been sympathizing with them. Yet, while one ray of hope is left, of saving by well-directed efforts, even a remnant of his party, we are not a people who would relax those efforts, or would relinquish a measure of the most forlorn difficulty. Much has been done, and now let us calmly enquire what might yet be done; and if our reasoning contributes to the discovery of their position, it will not have been advanced in vain.

The subject presents a labyrinth of conjecture! which is to be approached but by one certain step, beyond which any conclusion that may be arrived at may be set aside by the failure of one link in the chain of reasoning, which keeps the whole together. This step is the certainty we have gained that Franklin passed his first winter at Point Riley. Beyond this, we know as yet nothing of him. Owing to the unhappy circumstance of no record having been found, and from which we must conclude that none was left by him, all beyond this is conjecture, founded

on the most probable circumstances which a consideration of his orders, the tendency of his views, and the nature of the locality, along with the knowledge we have gained of it, will suggest. What would not a single clue to his next step beyond Point Riley be worth? It would set us right as to his having gone westward or eastward!

When Sir James Ross came home from Port Leopold in 1849, having gone out in 1848, in search of Franklin, he recommended the search to be made from the westward. His exploring parties although adopting several directions missed the Wellington Channel, at the entrance of which it has been proved that Franklin passed at least one winter. This was unfortunate, but it shews how easily a great object may be defeated. On the return of Sir James Ross, in accordance with his views, Captain Collinson and Commander McClure left England, for the route by Behring Strait, to prosecute the search from the westward.\* But in the mean time, previous to his return, the *North Star* had been sent out by the Government, under the command of Mr. Saunders, freighted with provisions for the additional supply of Sir James Ross. The *North Star* sailed in 1849, but owing to the difficulties of ice navigation, Mr. Saunders could not cross the bay until July, 1850; having been obliged to winter in a bay in Wolstenholme Sound. And although he was released from his winter quarters about the time that the expeditions of last year were crossing the Bay it is remarkable that Captain Penny and Commander Phillips, as we shewed in our last number, were the only ships of these expeditions, which fell in with the *North Star*. In the mean time Sir James Ross, for whom the provisions were intended, had returned to England, and it is remarkable that the circumstance of those provisions being left by the *North Star* at Navy Board Inlet was unknown to Captain Austin. But had it not been so, we do not see how Captain Austin's proceedings would have been affected by the knowledge that they were there.

Previous to the departure of Captain Austin last year, Captain Penny had been sent out by Government with the *Sophia* to proceed westward by *Jones Sound*, and subsequent to his departure, Commander Forsyth had gone out by the request of Lady Franklin in the *Prince Albert*, to penetrate down Prince Regent Inlet, and thence to the westward. The return of Commander Forsyth † last year, gave us the first intelligence of Franklin and his ships, having ever visited Point Riley.

The *Prince Albert* again sailed this year for Barrow Strait with Mr. Kennedy, and we have only heard of him by his falling in with the American vessels under the charge of Commander De Haven, as they were released from the ice last July. We have yet to notice the departure of the *Plover*, under Commander Moore, which took place in January, 1848, for the western search by Behring Strait, and also

---

\* They left Woolwich on the 10th of January, 1850, and finally sailed from Devonport about the 21st.

† His report will be found in our last volume, page 606.

that of Commander Pullen\* from that vessel to traverse the Arctic shores of America, and to mention the successive visits to Behring Strait, of the *Herald* under the command of Captain Kellett in the summers of 1848, 1849, and 1850, and we shall have enumerated the gallant band of our countrymen who have been engaged in the dangerous service of seeking the lost ships of Franklin, and some of whom are yet following up this duty.

We do not desire to extol the services of our naval men; to enhance the dangers of those hair breadth escapes, which they have experienced; the severe trials which they have undergone, when their vessels have been unavoidably at the mercy of the ice; the privations of confinement in the Arctic winters; the fatigue of those prolonged journeys, both on ice and on land of which their letters inform us; and the almost prodigies of strength and endurance which they have throughout displayed! But we may truly say, well have they all performed their duty; have executed the dangerous task which they undertook; nobly have they upheld the honor of the British navy, and won victorious fame from the perils of the frozen North. They have not found Franklin, but they have done all that men could do in the execution of their duty.

Since Captain Austin's second report has crushed our hopes of any trace of Franklin's ships being found in Jones Sound, he having himself explored forty-five miles of its shores, and left them impressed with the opinion that there is no outlet to the Polar Sea in that direction, the account of the old pilot "Master William Baffyn," that there is no passage nor hope of passage in the north of Davis Strait, becomes in a great measure confirmed. There are besides certain other circumstances also, which would go far in corroboration of that conclusion. Whale Sound, Captain Austin says, is of limited extent. Baffin himself who lost an anchor and cable in Whale † Sound, we believe has been nearer than any one else to Smith Sound, having been close enough to it to report whales in it, and returned eight leagues along the coast from it, and anchored off Hackluit Island; and he asserts Smith Sound to

---

\* The party under the command of Captain Pullen were paid off about the middle of last month in the river. Without depreciating in the slightest degree the exposure and privations endured by the officers and crews of the Arctic ships, they become trifling in comparison with those of Captain Pullen and his party, who in addition to being exposed to the severity of the climate in all weathers without tent or hut to protect them, had the more serious hardships of hunger to contend with, the pemmican and dried meat, of which they were often reduced to a portion insufficient for a meal, being of that offensive nature that required an appetite bordering almost on starvation to overcome the disgust which it occasioned. Such a mode of living and exposure extended over a long interval, while severe travelling was to be performed, tells heavily on the bodily powers and requires a good constitution and athletic frame to resist its pernicious effects. This little expedition has been lost sight of in the sensation produced by the appearance of Captain Austin's ships at Woolwich, although subject to greater privations. A history of Capt. Pullen's adventures we understand may be looked for hereafter.

† So called from the number of whales seen sleeping and lying on the water, "not fearing the ships or ought else."

be the greatest and largest in all the Bay, and that it "runneth to the North of 78°"; but he was of opinion there was no opening through it into the Polar Sea.

Of this Sound Colonel Sabine has authorized us to quote his opinion, which is the more valuable from the circumstance of his having accompanied Sir Edward Parry in his voyage to Melville Island.

"You ask me what I think of Smith Sound? I think the same of it now as when I saw its entrance in 1818. It may be a channel leading into a sea to the north, as we afterwards found Lancaster Sound to be a strait leading into a sea to the west, and as I have always supposed, and as (thanks to Captain Penny) we now know Wellington Channel to be a strait leading into a far wider and open sea to the north-west. All these straits are liable to be at times obstructed by drift ice. Baffin found such an obstruction in 1616, in lat. 78° in Smith Sound; but he does not speak of land as an obstruction, which doubtless he would have done if he had seen the Sound to be closed by land."

"You ask me also 'could Franklin have gone there,' into Smith\* Sound. If Sir John Franklin had proved that no passage could be found south-west of Cape Walker or to the north-west through Wellington Strait, which were the directions he was instructed first to try, † he both

---

\* Of this Sound we find Sir John Ross observing, "on the 19th of August, 1848, in lat. 76° 54' N., and long. 74° 20' W. Smith Sound, discovered by Baffin, was distinctly seen, and the Capes forming each side of it were named after the two ships, *Isabella* and *Alexander*; I considered the bottom of this Sound to be about eighteen leagues distant, but its entrance was completely blocked up by ice." (Ross, p. 149.) The above latitude and longitude places Sir John Ross's ships about fifteen leagues from Cape Alexander, the eastern one of the two, from which we obtain some idea of the height of that land. The horizon of the *Alexander's* Crows Nest would be about five leagues distant, and the remaining ten leagues of distance would require an elevation of above 700 feet to enable the Cape to be distantly seen; all above that being in addition to that height. In Sir Edward Parry's manuscript chart the western Cape of the Sound, Cape *Isabella* is twenty leagues, so that Baffin must have been deceived by the appearance of the land about Lancaster Sound when he considered Smith Sound to be larger.

† Franklin's orders dated 5th May, 1845, consist of twenty-three clauses, the points of which are these.—

- 1.—Selection to command the expedition.
- 2.—To make for Davis Strait and take provisions from Transport.
- 3.—To get into Lancaster Sound.
- 4.—To steam propeller.
- 5.—To push to the westward in lat. 74½°, to about 98° west, thence to penetrate south-west.
- 6.—If prevented going south-west, and if Wellington Strait in passing was observed open, to consider, whether in the ensuing season he should not adopt Wellington Strait to the north-west or persevere to south-west.
- 7.—No land known in the Polar Sea beyond Parry Islands.
- 8.—If Behring Strait be passed to proceed to Sandwich Islands, and round Cape Horn home.
- 9.—Relates to wintering in Polar Regions.
- 10.—Discretionary powers given as to the wintering and refitting.
- 11.—Caution against separating the vessels and communicating with Captain of *Terror*.



could and would doubtless have tried Smith Sound, if the research in the two first named directions had left him a sufficiency of provisions. But, as we know that he wintered at Beechey Island, and the traces exist of the heavy sledges of his reconnoitering parties along the coast to the north and north-west since traversed by Captain Penny's officers, we know that he had learnt that Wellington Strait leads into a wide and extensive sea; and as we know that Sir John Franklin was not the man to turn from an examination which he was directed to make, till he had completed the examination, our first point must be to follow him in the direction which he is most likely to have taken: and I trust we shall see that tried, both with steam tender and steam launches, with as little delay as possible.'

"Several circumstances are mentioned to me by Captain Penny, indicative either of occasional very heavy seas on the coasts and islands of Queen's Channel, or of an occasional much higher rise in the level of the water than can be well attributed to the surface drift of a sea closed to the north or north-west." So far Col. Sabine.

Now, with respect to Smith Sound we do not entertain any opinion of it. If there were any opening of importance through this Sound, a northerly wind (true) would produce a southerly current in that part of the bay. But the effect of this wind seems to be only to clear that part of the bay of ice, for Baffin himself found much open water, and our recent Arctic voyagers have spoken of a considerable swell, and as rough a sea there as in the Bay of Biscay. The north-west current which prevails through Melville Bay, which enables all our voyagers to get round the head of the ice, and in which the *North Star* was drifted from Allison Bay to Wolstenholme Sound between the 29th July and the 26th September, may be produced by the eddy from the set of the water through Lancaster Sound; the strength of which set, was experienced both by Sir James Ross and Lieut.-Com. De Haven when they were drifted helplessly with it fixed in the ice down the bay. Such a southerly current we believe, is not known in the head of the bay, north of Lancaster Sound, and it would follow, that there is no channel into it from the Polar Sea to form the supply for that current, thus confirming the opinion of Baffin. Therefore, Smith Sound may be but an inlet, still what becomes of the north-west current above-mentioned. It might be reasonable to expect a southerly one on the western side. Mr. Saunders

- 12.—To exchange observations.
- 13.—Relates to observations on Magnetism.
- 14.—Entrusting Magnetic observations to Commander Fitzjames.
- 15.—Portable observatory.
- 16.—Relates to observations.
- 17.—Relates to observations and deep soundings, currents, &c.
- 18.—The north-west passage to the Pacific, the main object of the Expedition.
- 19.—To throw bottles with current papers overboard.
- 20.—To preserve specimens, and drawings of Natural History.
- 21.—Measures in the event of either ship being disabled.
- 22.—To correspond with the Secretary, &c., logs, journals.
- 23.—Neutrality.

thus describes it in his letter to the Secretary of the Admiralty containing the report of his proceedings.

He says "we continued drifting along the land in a most unsafe and precarious situation, as the ice was carried about and broken up in its passage between the numerous icebergs which lined the coast until noon of the 26th of September, when we appeared to be drifting directly towards Wolstenholme Island; and it was doubtful whether we should pass within or without." The same current would have carried the *North Star* towards Smith Sound, had not a favourable "heavy gale" of wind enabled Mr. Saunders to force her through the ice into open water to her winter quarters in a snug bay, at the entrance of Wolstenholme Sound, to the joy of every one at the miraculous escape they had experienced; for, adds Mr. Saunders "had we not got in here, I fear very few, if any, of the crew would have survived the winter, as it is more than probable the ship would have gone to pieces." This, indeed, appears to have happened to an unfortunate whaler, some remains of which were found on one of the Cary Islands by Captain Austin's ships, that by some records of her, appeared to have been wrecked in 1827.

Captain Austin has satisfactorily explored the shores of the Bay south of the northern point of Jones Sound on the west, and Whale Sound on the east, but the continuity of the remainder depends on Baffin's report alone, who impressed with the opinion that there was an outlet from it to the north-west, says in his letter to the Right Worshipful Sir John Wolstenholme, one of the chief adventurers, "that for mine owne part I would hardly have believed the contrary until my eyes became witnesses of that I desired not to have found."

Thus then the possibility of Franklin having entered the Polar Sea by Jones Sound, is set aside, and it does not appear more likely that he would have attained it by any other opening out of the Bay, but by Lancaster Sound. We have either then to subscribe to the opinion of Sir John Ross, that he has been overtaken by disaster in the Bay, or that he is still somewhere to the westward. On the former of these alternatives, we have the opinion of Sir Francis Beaufort, that such an event could not have occurred to two ships without some vestige of them having been found. The story of Adam Beck, is but little credited. Captain Austin and all the officers of his ships repudiate it utterly, and therefore if we admit of disaster in the Bay having happened to Franklin, for we must not shut our eyes to the possibility of the same accidents having occurred to Franklin's ships, as whalers have experienced, such accident may have taken place where all vestiges of them would be carried beyond the haunts of our whalers, by the current to the north-west to which we have alluded, into the Bay between the north point of Jones Sound and Whale Sound, portions yet unsearched. The ice so effectually denies the approach of ships to it that travelling parties could only make any effectual search there.

But let us now consider the alternative, that he is yet somewhere to the westward. On this we are met by Captain Austin, who distinctly says that Franklin's expedition did not prosecute the object of its mission to the southward and westward of Wellington Strait, a conclusion

founded on the explorations of his officers and the report of Capt Penny in his letter to him. With this conclusion Captain Austin proceeds to the examination of Jones Sound, which Captain Penny had been ordered to do, but chose to leave, satisfied as he says in his letter to the Secretary of the Admiralty, that no trace of the missing "ships had been found," such as would warrant the risk of a second winter in the Arctic Regions.\* But the search even thus far was evidently imperfect until Jones Sound had been examined by some one, and it has now been carefully done by Captain Austin himself.

In our last number, when alluding to Austin's examination of this Sound, we said that if he were unsuccessful we were at a loss to know what better course he could adopt than to return to England, from whence he would be much better prepared to start for any further examination if such should be determined on. We see no reason for altering that opinion. Grant that he had returned with his four ships to Point Riley, with the determination of proceeding through Victoria Channel: he would have arrived there too late from the bay, (some time in September,) to have done anything this year, and steam power would place him in the same position next summer in ample time for proceeding. Would his travelling parties in the spring have penetrated beyond the north-west entrance of Victoria Channel of Captain Penny? Possibly they might have done so, but no ships could move then, and an expedition next season from England would, by leaving early, have a fair chance of reaching Point Riley, as soon as they could have started had they remained. In addition also, such expedition would be better prepared at all points with fresh resources, than one nearly two years out. But we will venture to say that nothing of this kind was in Captain Austin's mind. He was satisfied as he states in his letter to the Secretary that "Sir John Franklin's Expedition did not pursue the object of its mission to the southward and westward of Wellington Strait," and Captain Penny in answer to his question whether he considered that the search made by him of Wellington Strait was so satisfactory as to render a further prosecution of it in that direction unnecessary, gave it as his opinion that "all has been done in the power of man to accomplish." We have yet

---

\* Captain Penny was directed by his orders to examine Jones Sound first, and if possible to penetrate by it to the north of the Parry Islands. But he leaves that for Captain Austin to do! What would have been the consequence if any officer of Captain Austin's expedition had treated his orders in this way. But Captain Penny's was an *independent* mission; he could do, and did as he pleased, both as to the course he took and when he should return! How different was the conduct of the *American Officers*, to their honour be it said. They waited on Captain Austin on his own quarter-deck and applied for orders from the Commodore! And yet we see a portion of the press fretting about what it does not understand, and throwing blame on Captain Austin because he did not do what he was not asked to do, and because he has done everything which his orders required him to do. Such lamentations may be safely disregarded. Captain Austin needs not our advocacy. He can and will at a fitting time speak for himself, and shew his countrymen, now that they know what he has done, the *extraordinary* difficulties which he had to overcome in doing it.

to learn much, as to the possibility of navigating Wellington Channel. It has been found impassable for the ships all the time Austin has been there, and therefore an expedition going there, would have to be prepared with the largest boats that could be transferred across the ice, fitted with steam power, while the same ships with their steam tenders would remain at Point Riley, the latter to take the first opportunity of following the boats and the former to remain for falling back on, should it be necessary. But the detail belonging to the equipment of such an expedition may be left until that expedition has been determined on.

But let us now look to the probability of Franklin having slipped through Wellington Channel to call for such an expedition. Referring to his orders the fifth and sixth clauses are all that relate to this subject and by these he was directed first to pursue his course to the south-west from longitude  $93\frac{1}{4}^{\circ}$ , in the latitude of  $74^{\circ}$  and if failing in effecting that, he had discretionary powers for considering the Wellington Channel route with a view to adopting it.

The real intentions of Franklin have long been a subject of deep interest to arrive at, and it is extraordinary that on one of so much moment there should not have been long ago a clear understanding.

The following extract from a letter appears here with the full permission of the writer, Lady Franklin herself, and will throw some light on them.

“I am much obliged by your sending me your pamphlet. I have as yet taken only a glance at it, but sufficient to see that it advocates the search of Jones Sound in preference to Wellington Channel. I am rejoiced that Jones Sound will be searched, and I trust that Smith Sound may be also. No means taken for the rescue or discovery of our lost ships can be completely satisfactory, without embracing them both, and I have said so in my letter to the Admiralty and the Arctic Officers, and I also strove as hard as I could, without hazarding the appearance of dictation, to induce the Americans to go that way, instead of all following the same track, westward. But notwithstanding this, I am persuaded, now that it is pretty well proved my husband could not have penetrated south-west, according to the first part of his instructions, that he has taken the only alternative those instructions presented him, by going up Wellington Channel. Indeed, whatever argument may be used in objection, there is one in favor of this view, which is stronger than anything that can be urged against it, and that is, that I *know* he *intended* to try it. Private connexions and domestic confidences cannot be brought forward in discussions of a public nature, nor are likely to be much attended to if they were, but to me they leave no room for doubt or hesitation whatever. Only tell me that they could not have taken a south-west course, and then I know they would besiege the gates of Wellington Channel, (supposing they found them closed, which is only an hypothesis founded on the passing observations of the last two years) till the happy moment arrived when they yielded to perseverance. For to say, there never is a passage in that direction cannot be affirmed of Wellington Channel any more than it can be of Barrow Strait, which we know was navigated far to the west by Sir E. Parry, though no one has yet been able to do so again. Wellington Channel was not only the uppermost object in my husband's mind when he left England, but it was so also in Captain Crozier's, and as to Captain Fitzjames, it was with the most fervent wishes and anticipation, that he looked to the northern route, and the younger officers had imbibed

the same spirit. There must have been perfect unanimity on the subject if such were required.

“The multiplied proofs of the prolonged sojourn of the *Erebus* and *Terror*, at Beechey Island, were not needed to make me feel assured that if the ships could not penetrate to the south-west, and if Wellington Channel offered to them no greater obstacle than it presented to Penny, viz: that of an extensive but varying barrier of ice, which as you know was diminished last year in the course of a few hours by one half of its extent, or fifteen miles! they would watch and wait for its opening. By that passage, doubt not the ships have gone, and by that believe me they must be followed. *My* strivings assuredly will never end, if my life is preserved till this object be accomplished. Nor will I believe that my country will bring on herself the disgrace of abandoning the search at the very moment when it is narrowed comparatively to a point, or that brave men will not be found eagerly to follow in the path which their countrymen have opened before them, even though it lead into the unknown waters of the Polar Sea.”

We need make no remark on the latter part of this extract, but we may add that our advocacy to which Lady Franklin alludes of the search by Jones Sound, was founded on an opinion of the difficulty of getting through Wellington Channel, not the probability of Franklin going through it *if he could*. But we all know that nothing is more uncertain than ice navigation. The Wellington Channel was impassable to Austin's ships, and as we observed, it might have been also to those of Sir John Franklin, on which account we considered, with some high authorities, that he might have gone to Jones Sound to penetrate westward rather than suffer delay at Point Riley. Among them we cited the late Sir John Barrow's aversion to this channel, but the reason of this aversion was mis-stated. It appears to have been formed, not from the channel being blocked up with ice, but from another cause thus explained by his son, Mr. Barrow, who has addressed us as follows:—

“SIR.—Having read an able paper in the *Nautical Magazine*, just published, containing much fair argument and good reasoning upon the subject of Sir John Franklin's Expedition, although I am very far from arriving at the same conclusions that the author apparently has, that ‘Franklin did not go up the Wellington Channel,’ I feel it due to correct a mis-statement which he has unintentionally made, in respect to my father's opinion upon that point. I am the more anxious to do so, because much importance might be attached to the mis-statement. The author of the article says that, ‘Franklin was aware of Sir John Barrow's aversion to the Wellington Channel, because it was always blocked up with ice.’

“The very reverse is the fact, my father's aversion to it being solely because (as far as experience went), *the Wellington Channel was always entirely free from ice*, and in corroboration of this, I would refer those who are interested in the subject, and desirous of arriving at a right judgment upon all points to the Parliamentary Blue Books, where it will be seen at page 73, Sessional No. 264, for 1848;—that Sir John Barrow says that, ‘the only chance of bringing them upon the Asiatic Coast is the possibility of some obstruction having tempted them to explore an immense inlet on the northern shore of Barrow Strait, (short of Melville Island,) called Wellington Channel, which Parry felt an inclination to explore; and more than one of the present party betrayed to me a similar inclination which I discouraged, no one venturing to conjecture even to what extent it might go, or into what difficulties it might lead.’

"It could not have led them far, if it were always blocked with ice. My own opinion remains unshaken, that the Franklin Expedition has gone through that Channel to the north-west.

"I am, &c.

"J. BARROW."

We are among those who respect highly the opinion of the late Sir John Barrow. His was that discreet conclusion which might have been expected, and we *have* obtained some knowledge of the Wellington Channel by the last expeditions. In fact until these had returned, we knew nothing of it; for Sir Edward Parry's ships had merely seen four or five leagues above its entrance. Beyond that we knew literally nothing of it, and what we have learnt shews us that it is oftener blocked up with ice than open. Therefore it was that we considered Franklin had gone to Jones Sound to enter the Polar Sea, which it is now shewn he could not do. Then, since he could not penetrate to the south-west, and was authorized by his orders to attempt the passage by the Wellington Channel, and opinions of the first authority, state that he would do so, for by that passage says Lady Franklin, "doubt not the ships" have gone, let us consider for a moment the circumstances which would be preliminary to this event. From the last accounts of the *Erebus* and *Terror*, it would be likely that they would reach Point Riley, in August, and the remaining portion of that summer (1845) might have been employed in penetrating to the south-west as far as they could; and unable to get far as has been shewn by Captain Austin, according to the state of the ice as he found it they would seek winter quarters. Certainly the close and careful examinations, which have been made by Captain Austin's officers prove that that winter must have been passed at Point Riley. His further progress would therefore depend on the state of the ice in Wellington Channel, in the summer of 1846, and as he passed onwards, on that also of the channels between the islands which were found by Captain Penny beyond it in his Queen Victoria Channel. Neither Captain Austin nor Sir John Ross appear to be of this opinion.

Being desirous of considering thoroughly the whole of the circumstances by which Franklin's proceedings subsequent to his arrival at Point Riley would be guided, in addition to the opinion of Lady Franklin, the following reasons of an intimate friend of Captain Fitzjames, why he also concludes that Franklin has adopted that course, are well worthy of attention. They are:

"*First*.—Because Sir John Franklin was ordered to proceed up Wellington Channel, that is, if he failed in getting to the south-west of Cape Walker. That he did fail in getting to the south-west is the conclusion arrived at by Captain Austin.

"*Secondly*.—Because I know that there was the greatest disposition on the part of Sir John Franklin's officers to go through the Wellington Channel, and to the northward of the Parry Group, and particularly so on the part of Captain Fitzjames.

"*Thirdly*.—Because nothing has been heard of Sir John Franklin, and it is not easy to assign any other position from which he would not have been heard of before now.

"I know it has been asserted that after wintering at Cape Riley he was drifted out, or went back through Barrow Strait, intending to return to England, and was wrecked at the head of Baffin Bay. I place no more faith in this than I did in the previous prophecy of his having foundered in Baffin Bay, before he had even entered the threshold of his discovery.

"In all the letters I received from Captain Fitzjames, there was but one idea uppermost—to go *ahead*. The very words he repeatedly used—"Don't care is the order of the day—I mean don't care for difficulties or stoppages—go *ahead* is the wish."

"Again he says, (writing from the Whale Fish Islands,) 'We hear this is a remarkable clear season (1845)—but clear or not clear we must go *ahead*, as the Yankees have it, and if we don't get through, it won't be our fault.'

"The north-west passage is certainly to be gone through by Barrow Strait, but whether south or north of Parry's Group remains to be proved. I am for *north*, edging north-west till in longitude 140°.'

"We intend to drink Sir John Barrow's health, in going through Behring Strait.' These and a host of similar expressions lead me to the conclusion that they pushed boldly on through the Wellington Channel, without casting a look behind, or without an idea of even retracing their steps. The enterprising spirit of Sir John Franklin is known throughout the world; so is that of Captains Crozier and Fitzjames, and from a personal acquaintance with nearly every officer in the expedition, I can assert that but one spirit pre-*raded* the whole.

"Captain Penny having been allotted the Wellington Channel search, has pointed out to us the route that Franklin has doubtless taken, and I trust it will be vigorously followed up with all the means and appliances which a great nation has at its command; and with all the skill and talent so conspicuously displayed by Captain Austin, and the officers under his command in his searching expeditions to the southward and westward."

Certainly it appears somewhat remarkable, if Captain Penny has pointed out to us the route that Franklin "has doubtless taken," that it was not pointed out in his laconic reply to Captain Austin, dated the 11th of August, when they were both at its entrance.

To the same person Colonel Sabine thus expresses himself on the same subject, to which letter we have previously alluded.

"I had the advantage of meeting Captain Penny a day or two ago. He speaks of several pieces of drift-wood found on beaches facing the North, on the southern shores of the great sea into which the channels on either side of Hamilton Island lead; and on islands in that sea. These beaches, therefore face the communication, if there be one, with the Great Polar Sea. We found one piece and one piece only as far as I recollect, in all our exploration of the *southern* shores of Parry Islands: it was towards the south-east extremity of Melville Island between points Ross and Griffiths, and was found just as Captain Penny describes those on the north side of the Islands, considerably above the usual high water mark, both in height and distance. It is remarkable (in connection with this subject) that Sir Edward Parry considered it probable for several reasons that in the vicinity of the spot where we found the drift wood, *i.e.* at the east end of Melville Island, and on both sides of Byam Martins' Island the *flood tide* came from the northward between the islands. We have therefore, as facts, much drift wood found in a limited research North of the Islands, and a single piece only in a much more extensive research south of the islands. Granting a common origin, or channel of arrival (not necessary, but probable) it might come either from

the North or from the South, but it is most reasonable to suppose it to have come from the quarter where it is found in considerable abundance, rather than from the quarter where only a single piece was found: the supposition of a *northern* channel for its arrival brings with it a train of very important consequences, amongst the most prominent of which are, the indication of a water communication with the Continents of America or Asia more open than that between the southern shores of the Parry Islands and those of the continent of America lying opposite to them.

“Respecting *tides* of which Captain Penny speaks as being so strong, I presume he means the *set of water*, whether tide or current. I understand him indeed to say so distinctly. In either case a strong *set of water* such as he describes is an indication of a considerable reach of open sea. Such an extent of open water as was actually seen by Captain Penny and his officers, at a period of the year when Captain Austin was fast bound with a temperature scarcely I believe above zero, is indeed a remarkable fact. It may consist with the condition (if they prove such), of a sea of no extraordinary depth, enclosed all around by land with no other communication but by Wellington Strait, but it would be a far more intelligible fact, if that sea should be found to communicate with a deep and extensive ocean to the North. Let that ocean be as extensive as it may, if it is a deep sea, and not much encumbered with land, it will be an open sea, whatever may be its latitude.

“I consider it therefore, a *geographical problem of first-rate importance* to ascertain whether or not Queen Victoria's Channel leads into a sea of that description. If it does, a large portion of the earth's surface, still unknown to us may be accessible, and for its physical relations and phenomena, as well as for the completion of the descriptive geography of the globe, will form a field of very interesting and important research. The existence of Wrangell's Sea, in parallel circumstance, north of the Continent of Asia forms a strong feature in support. *We have also much reason to suppose that we have been preceded in this line of research by Franklin; and that in following it, we have great probability of ascertaining his fate, not unmixed with a reasonable possibility of still affording aid.*”

Reverting then to the position of Franklin, at Point Riley, the foregoing are the arguments advanced in favor of the conclusion that he has gone through the Wellington Channel to the northward.

The next question which suggests itself is when would he have done so, in other words how long did he remain at Point Riley. Sir John Ross says, he was there in September 1846. It may be admitted that the remainder of the summer of 1845, would have been sufficient to enable him to satisfy himself that he could not get to the south-west if the state of the ice was then as Captain Austin found it. But he would still be obliged to await the disruption of the ice in Wellington Channel, which event might prolong his stay to September of 1846, yet we will assume that he succeeded in the summer, perhaps two months earlier, in passing through Penny's Queen Victoria Channel. He would then have two years provisions to encounter the difficulties which would yet lie in his way in crossing the Polar Sea to Behring Strait. What lands he might fall in with, in a distance of twelve hundred miles in an unknown sea, must be a mere matter of speculation, but the shortest way to the middle of Behring Strait from the north-west opening of Captain Penny's Victoria Channel amounts to that distance.

Ordinary precaution would surely have induced Sir John Franklin to leave some mark by which he might be followed in case of failure. Should



he have been as incautious, after having really passed the enticing channel between Beaufort and Albert Lands, let us imagine a couple of steamers having passed through that opening in search of him, to be edging away westerly of north-west, towards Behring Strait, along the northern shore of the Parry Group, on which no beacon can be discovered by them. After running perhaps a hundred leagues further in a sea clear of ice having left the pack to the southward of them they make land ahead, which soon proves to be a series of islands, the channels between them being partially blocked with ice. No beacon or cairn can be distinguished, how shall it be decided which channel should be taken if it be practicable to take any on account of the ice. It may be answered, take the principal one, and then will commence the search indeed, and as Sir John Barrow has said there is no knowing "to what extent it might go, or into what difficulties it might lead," particularly we may add if no cairn or flagstaff can be discovered. In fact it amounts almost to self-immolation in Franklin's case, to leave no beacon to indicate the course by which he might be followed in case of disaster. Vessels sent on such an errand might eventually make a successful voyage to Behring Strait, but that is not the object now, although it was that for which Franklin left England. Steam annihilates distance and if circumstances prove to be in favour of the conclusion that Franklin passed through Victoria Channel, it would be comparatively easy to reconnoitre the northern shore of the Parry Islands or others which may lie towards Behring Strait in a manner to secure return if necessary to the point of departure. We know nothing of the Polar Sea in the above direction, and nothing is easier than to theorize over the chart, and because a blank appears there, to jump at once to the conclusion, that the same open sea found by Captain Penny is there also. When a hundred miles of distance is squeezed into something more than an inch of space on paper, what a multitude of large islands may not suddenly be discovered asserting their right to be represented.

Once more let us return to Point Riley, and consider Sir John Ross's opinion that Franklin's ships were there in September. If that were the case a second winter there would have been inevitable for them. And in this event could Franklin leave that place after wintering in the season of 1847, with only a year's provisions on board for the westward? If we consider it more likely that he left it to return home, the absence of any written document anywhere is at once accounted for. It might be fairly asked then, why should he leave one when he was on his way home? Again should Franklin have left Point Riley for England, and have been wrecked in the bay it is as unlikely that his crews would be attacked by Esquimaux, as it is that they would not be able to defend themselves and overcome them if they were. The disasters which our whalers met with in 1835-6 and 7 are still too fresh in our memory!

Then in the uncertainty of Franklin having penetrated at all through the Wellington Channel, and the report of Sir John Ross, that he was at Point Riley in September 1846, as well as the opinion of Captain Austin, that he did not go to the northward through the Wellington Channel, how can it safely be assumed that he passed through it in July or

August of that year. There was no vestige found by Captain Penny, according to his report and can it be supposed possible that Franklin would pass through the Hamilton Islands, or beyond the north-west Capes of Victoria Channel without leaving some beacon or cairn as a mark of his having done so. Had he left Point Riley to return home, we can suppose him to have considered such a step unnecessary, but on entering an unknown sea in which his progress might have been arrested before he had gone over the first hundred miles out of the twelve, which he had to navigate, does appear to be strange and unaccountable.

In the course of this summer, Captain Collinson in the *Enterprize* will have renewed his search north of Behring Strait, and Commander Maclure, in the *Investigator*, who took the ice last summer off Point Barrow will be making the best of his way to the north-east but the eventual success of these officers must remain problematical, for we do not see by what means we are to learn anything of them, unless it be from the American shores.

We have now endeavoured to bring into one view the principal reasons for the conclusions formed to account for the absence of the missing ships, without leaning either to the one, that they are blocked up in the Polar Sea, or to the other that they have been overtaken by wreck on their way home, leaving our readers to form their own. But we much fear that in either case the lapse of time will not unravel the mystery, but compel us to adopt that which appears to be the most probable of the two!

---

We preserve the following accounts of the various articles brought home by the ships of the expeditions.

Captain Ommaney has brought home the first relic that was found by him of the traces of Sir John Franklin's party at Cape Riley. It appears in the form of a rake, such as are used by persons employed in collecting seaweed. The handle is about twelve feet long, and the gathering part about two feet six inches long, on which six teeth have been fixed about five inches each in length, formed of narrow hoop iron curved inwards. Captain Ommaney has also brought home a young man, about 19 years of age, of the Esquimaux tribe, who inhabit the country beyond Cape York, and near to the place where the *North Star* wintered in 1849. The Esquimaux youth is clothed in the same kind of costume as the other sailors, and is said to be remarkably good tempered, and stout for his height, with a face of an Asiatic cast, nearly like the face of persons of Chinese origin, but very flat, and round.

The Esquimaux is very much attached to Captain Ommaney, and has been named Erasmus York, after the gallant officer who brought him to this country, and the name of the Cape where he came from. The charts brought home by the respective vessels are now nearly completed, and afford evidence of the indefatigable exertions of the officers in the execution of their arduous duties, and will add many hundreds of miles of hitherto unexplored lands to future maps of the Arctic Regions, and many parts only put down in haste by former navigators have been corrected by Captain Ommaney. Bathurst and Cornwallis, both described as islands by former

navigators, have been found connected together, and to the main land, by Captain Austin's expedition.

There are four large coal sacks full of rope, cordage, and canvas, many pieces of the rope in excellent condition with the government mark in them, the outer parts of the rope only being bleached. On one of the pieces of canvas was found the word "*Terror*" and the broad arrow, giving unmistakable evidence of the vessel the piece had originally belonged to. The block used by the smith, evidently for resting his avail upon, has also been brought home; as is a piece of wood, about sixteen inches square by two feet high, with an eye-bolt screwed into one of the sides, and a hole in the top where the anvil had been inserted. Amongst the articles found was a quantity of charcoal in a half-barrel cask, and a number of meat cans. The direction post put up by the missing navigators was also brought home, and was an object of great interest to-day. It is seven feet in length, having a board nailed to the top, on which was painted the representation of a hand with black paint on a white ground, the wrist being towards the right-hand side, and the pointing finger on the left-hand side. It was found lying on the ground.

The *Lady Franklin* and *Sophia*, vessels recently employed under Captain Penny in the Arctic Expedition, were found in excellent condition when they arrived from that hazardous service, without having sustained the least injury from the ice in the Polar Regions. These vessels are now entirely dismantled, and ready to be towed to Chatham to be laid up for the winter.

*Woolwich, Oct. 8th, 1851.*

The *Resolute*, Captain Horatio T. Austin, C.B., and the *Assistance*, Captain Erasmus Ommaney, were both taken into one dock to-day, with their masts and rigging all standing; and the *Pioneer* screw steam vessel, Lieutenant-Commander Osborn, and *Intrepid* screw steam vessel, Lieutenant-Commander Cator, into the basin, with their rigging and masts all standing; and on the whole of the vessels being paid off to-morrow, it is intended to retain some of the officers and petty officers of each vessel, and they will be borne on the books of the *Figard*, flag-ship at this port, for the protection of the stores.

A party from the *Assistance* found the broken blade of an oar at Cape Hotham having the word "Friendship" cut on it, and having, apparently, belonged to a whale fishing-vessel of that name. They also found large staves of casks that had evidently contained oil. On the Carey Islands they found two cairns, but although they dug five feet under one of them they could not find any written or printed documents. They found on one of the cairns a small piece of board, the initials of what may have been intended for three persons, and the date 1827. It may be in some degree satisfactory to know that there is not an officer connected with Captain Austin's expedition who gives the least credence to Adam Beck's story of the murder of Sir John Franklin's companions, and Captain Ommaney ascertained beyond doubt, that only three families have existed for a long period near the place where the murders were said to have been committed.

The *Resolute* and *Assistance*, with their screw tenders *Pioneer* and *Intrepid*, were paid off on the 9th October, at Woolwich. Previous to the ships being paid off, the officers and men were assembled on board their various vessels, and the following letter from the Admiralty was read by Captains Austin and Ommaney:—

"*Figard, at Woolwich, Oct. 9th, 1851.*

"SIR.—I am commanded by the Lords Commissioners of the Admiralty,

to make known to you the gratification their lordships have experienced at having received satisfactory reports of the exemplary conduct of the officers and men of her Majesty's ships under your command, during the period of their service in the Polar Sea; and it is their lordships' desire that before the ships are paid off you convey to the officers and men their lordships' approbation of their conduct; and more especially to those officers and men who with so much zeal, energy, and perseverance, conducted the land expeditions, under circumstances of great trial and difficulty.

"I have the honour to be,

"Sir, your most obedient servant,

"HENRY EDEN, *Commodore.*

"*Captain Austin, H.M.S. Resolute, commanding  
the late Expedition to the Arctic Sea.*"

We understand that a committee of officers consisting of Admirals Bowles and Fanshawe, Captains Sir Edward Parry, Beechey, and Sir George Back are appointed to enquire and report on the subject of these expeditions to the Lords Commissioners of the Admiralty.

---

#### STEAMERS' LIGHTS, AND THE LAWS OF PASSING VESSELS, *Or the Rules of the Road.*

THE great increase in the number of steamers during the last few years rendered evident the necessity of adopting an adequate and uniform system of lights, the want of which had occasioned an infinity of accidents by vessels running foul of each other in the night; involving, not only a serious destruction of valuable property, but also a melancholy loss of human life; and only by the most diligent and close attention to the plan which has been adopted to obviate such disasters, their recurrence is likely to be prevented.

To nautical men it will readily appear that the generality of the accidents alluded to, were attributable to the *want of means* to ascertain promptly *the direction in which a vessel might be steering*, at the moment she was first discovered at night;—for, when a ship's light is first perceived in a dark night, the observer is merely informed that there is a vessel in the direction of that light, but he is still ignorant of *the course she may be steering*. He had no means of ascertaining immediately, (what is all important at this critical moment) whether the stranger may be steering *directly towards him*, or whether she may be standing in some direction *across his bows* either to *starboard* or to *port*. In this doubt, the helm was frequently put the wrong way, and a collision the consequence. But, another and the first and most important point to determine is, whether the light when seen, is that of *steamer*, on account of her rapid movement, and if so, *how she is steering*.

To remedy this deficiency nothing more would appear to be required, than that the *same lights* which announce the approach of a vessel in the

dark, should not only indicate that it is a *steamer*, and *under way*, but should also point out *the direction of her head*.

With a view to supply this great desideratum the following system was devised and continues to be used.

#### LIGHTS FOR STEAMERS.

##### *When under way.*

A bright white light on the foremast head.

A green light on the starboard bow.

A red light on the port bow, to be fitted with inboard *screens*.

##### *When at anchor*

(*For steamers and all other vessels.*)

A common bright light.

The attention of the Board of Admiralty, having been repeatedly called to the necessity of establishing a uniform system of lights for steamers, directions were given (after a long, and careful series of trials of various lights,) to fit the several mail steamers on the west coast of England, viz. those of Liverpool, Holyhead, and Pembroke, with lights as a commencement of the system which was found to answer. Experiments\* have shewn that a green light may be distinctly seen at the distance of three and a red one at two miles, in the ordinary state of the atmosphere at night; a distance amply sufficient to afford time for arriving at a conclusion as to how a vessel is steering, and then acting accordingly.

The experiments thus made, proving satisfactory, the Board of Admiralty gave directions that all steamers in Her Majesty's Navy, were to be fitted with the above coloured lights and *screens*; the lanterns being divided into two sizes or classes. And an Act having been passed in the 10th year of the Reign of Her present Majesty, entitled an Act, &c., requiring, "that the Lords Commissioners of the Admiralty shall institute and establish certain lights, to be exhibited by all steam-vessels belonging to Great Britain," the following notice was published accordingly:—

#### STEAMERS' LIGHTS TO PREVENT COLLISION.

*By the Commissioners for Executing the Office of  
Lord High Admiral of the United Kingdom of  
Great Britain and Ireland, &c., &c.*

WHEREAS in consequence of the increase which has taken place in the number of steam vessels, and the want of an adequate and uniform system of night lights, a great number of accidents have arisen, from

\* It appears by a series of experiments made by the naval authorities at Portsmouth, on coloured lights for night signals at sea or in harbour, (the colour being imparted to the light by a lens) that at three miles distance, the red light was as visible as the uncoloured light, and that the green light might be used at that distance; but that beyond three miles the colours are no longer trustworthy. It is thus evident that the red and green lights are applicable to steam-vessels passing each other.

vessels running foul of each other at night, involving not only the destruction of valuable property to a considerable amount, but also a great loss of human life; and whereas, We have been empowered by Act of Parliament passed in the tenth year of Her present Majesty, entitled an "Act for the Regulation of Steam Navigation," and to make such regulations as We may deem proper for the exhibition of Lights by Steam-Vessels, with the view of obviating a recurrence of the disasters above referred to; We do, therefore, in virtue of the power and authority vested in Us by the said Act, hereby require and direct that all British Steam-Vessels, (whether propelled by paddles or screws) including those belonging to Her Majesty, shall, between sunset and sunrise, exhibit Lights, of such description, and in such manner, as is hereinafter mentioned, viz:—

*When under Steam  
or Sail.* { A Bright White Light at the Foremast Head.  
A Green Light on the Starboard Side.  
A Red Light on the Port Side.

*When at Anchor.*—A Common Bright Light.

Having reference to the foregoing, the following rules are to be observed, viz:—

1. The Mast-Head Light is to be visible at a distance of at least five miles in a dark night with a clear atmosphere, and the Lantern is to be so constructed as to shew a uniform and unbroken light over an arc of the horizon of twenty points of the compass, being ten points on each side of the ship, viz. from right ahead to two points abaft the beam on either side.

2. The Green Light on the Starboard side is to be visible at the distance of at least two miles in a dark night, with a clear atmosphere; and the Lantern is to be so constructed as to shew a uniform and unbroken light over an arc of the horizon of ten points of the compass, viz. from right ahead to two points abaft the beam on the Starboard side; the Lantern on the Port side is likewise to be fitted so as to throw its red light the same distance and over a similar arc on that side.

3. The side Lights are moreover to be fitted with inboard screens, of at least three feet long, to prevent the lights from being seen across the bow. The screens are to be placed in a fore and aft line with the inner edge of the side lights.

4. The Lantern used when at anchor, is to be so constructed, as to shew a good light all round the horizon.

Masters, or other persons having the charge of Steam-Vessels, are hereby further required to take notice that in the event of their neglecting to comply with the above Regulations, they shall, under the provisions of the Act before quoted, "forfeit and pay a sum not exceeding Twenty Pounds for every Night in which such default shall be made; and the Owner of any Steam-Vessel in which such Light shall not be exhibited as aforesaid, shall not be entitled to recover any recompence or damage whatsoever which may be sustained by such Vessel in consequence of any other Vessel running foul thereof during the night."

“And that if any damage to any person or property shall be sustained in consequence of the non-observance, as respects any Steam-Vessel, of the rules contained in the two enactments relative to the passing of Steam-Vessels, and to the exhibiting of Lights herein-before contained, the same will in all Courts of Justice be deemed, in the absence of proof to the contrary, to have been occasioned by the wilful default of the Master or other Person having the charge of such Steam-Vessel, and such Master or other Person will be subject in all proceedings, whether civil or criminal, to the legal consequences of such wilful default.”

The River Thames above Yantlet Creek is not included in the above Regulations.

Given under our hands the 29th day of June, 1848.

J. W. D. DUNDAS.

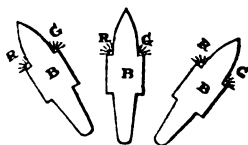
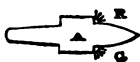
M. F. F. BERKELEY.

By Command of their Lordships,  
W. A. B. HAMILTON.

The following Diagrams are added with a view to illustrate the working of the above system.

#### 1st. Situation.

In this situation the Steamer A will only see the *red light* of the Vessel B, in whichever of the three positions the latter may happen to be, because the *green light* will be hidden from view. A will be assured that the *port* side of

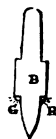


B is towards him, and that the latter is therefore crossing the bows of A in *some direction to Port*. A will therefore (if so close as to fear collision) *port* his helm with confidence, and pass clear. On the other hand, the Vessel B, in either of the three positions, will observe the *red, green, and mast-head lights* of A in a triangular form, by which the vessel B will know that a Steamer is approaching *directly* towards him.—B will act accordingly.

It is scarcely necessary to remark that the *mast-head light* will always be visible in all directions *except abast the beam* of the vessel carrying it.

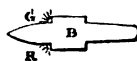
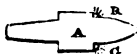
#### 2nd Situation.

Here A will see B's *green light* only, which will clearly indicate to A that B is crossing to starboard. Again A's *three lights* being visible to B, will apprise B that a Steamer is steering *directly* towards him.



#### 3rd Situation.

A and B will see each other's *red light* only, the screens preventing the *green lights* being seen. Both Vessels are evidently passing to *Port*.



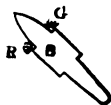


*4th Situation.*  
Here a *green* light only will be visible to each vessel, the screens preventing the *red* lights from being seen. The vessels are therefore passing to *Starboard*.



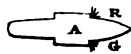
*5th Situation.*

This is a situation requiring caution:—the *red* light in view to A, and the *green* light visible to B, will inform both, that they are approaching each other in an oblique direction. A should put his helm to port, according to the standing rule mentioned in the next situation.



*6th Situation.*

Here the two coloured lights, visible to each vessel will indicate their *direct* approach towards each other. In this situation **BOTH SHOULD PUT THEIR HELMS TO PORT.** This



rule is already pretty generally adopted: but it is made *imperative*: and is in all cases to be strictly observed.

The Lords Commissioners of the Admiralty are further pleased to direct, that the recognized Trinity-House Rules, that, all vessels should keep their course, are to be acted on, except where there is danger of collision, and in that case each vessel should invariably put her helm a-port.

The Governments of the principal Foreign Maritime Nations have likewise adopted the above system of Night Lights.

By Command of their Lordships,

W. A. B. HAMILTON.

The following is an extract from the Act of Parliament passed in the course of last session, coming into effect on the 1st of January next.

*Admiralty invested with power to make Rules for Vessels.*

The Lord High Admiral, or the Commissioners for executing the office of Lord High Admiral, shall from time to time make regulations requiring the exhibition of such lights, by such classes of vessels, whether steam or sailing vessels, within such places and under such circumstances as they think fit, and may from time to time revoke, alter, or vary the same, and they shall cause such regulations to be published in the "*London Gazette*," and to be otherwise publicly made known, and such regulations shall come into operation on a day to be named in such Gazette, and they shall cause such regulations to be printed, and shall furnish a copy thereof to any owner or master of a vessel who applies for the same, and production of the Gazette containing such regulations shall be sufficient evidence of the purport and due making thereof; and all owners and masters or persons having charge of vessels shall be bound to take notice of the same, and shall, so long as the same con-



tinue in force, exhibit such lights, and no others, at such times, within such places, in such manner, and under such circumstances as are enjoined by such regulations; and in case of default the master or other person having charge of any vessel, or the owner of such vessel, if it appear that he was in fault, shall for each and every occasion upon which such regulations are infringed forfeit, and pay a sum not exceeding twenty pounds: provided always, that all regulations made by the said Lord High Admiral, or Commissioners for executing the office of Lord High Admiral, under the authority of the said recited acts or either of them, and in force at the passing of this act, together with the penalties applicable thereto, shall continue and be in force as if the same had been made under this act, until the same be revoked.

*Rule as to Vessels passing each other.*

Whenever any vessel proceeding in one direction meets a vessel proceeding in another direction, and the master or other person having charge of either such vessel perceives that if both vessels continue their respective courses they will pass so near as to involve any risk of a collision, he shall put the helm of his vessel to port, so as to pass on the port side of the other vessel, due regard being had to the tide and to the position of each vessel, with respect to the dangers of the channel, and, as regards sailing vessels, to the keeping of each vessel under command; and the master of any Steam-Vessel navigating any river or narrow channel, shall keep as far as practicable to that side of the fairway or mid-channel thereof which lies on the starboard side of such Vessel; and if the master or other person having charge of any Steam-Vessel neglect to observe these regulations or either of them, he shall for every such offence be liable to a penalty not exceeding fifty pounds.

The foregoing rules and the examples in illustration leave one case which has been met by the Trinity-House rule of two Steam-Vessels going in the same direction, as to how the faster vessel is to pass the other. All the examples apply to vessels crossing each others tracks in different directions; but something appears wanting to prevent the dangerous effects of jockeying, by vessels going in the same direction, especially in narrow channels, and to prevent either vessel from interfering in any manner with the other. The following rule is proposed by Mr. Chapman.

“When Steam-Vessels propelled by steam power in the same direction, but with unequal velocities, near each other, the slower vessel shall keep her course, and shall not obstruct the passage of the faster vessel; the faster vessel on nearing the slower vessel, shall not force her off her course, to prevent collision; or having passed her, shall not obstruct the course of the slower vessel or endanger a collision with her by not giving her a sufficiently wide berth in doing so, under the penalty of —.”

This case is provided against in the foregoing clause of the Act of Parliament, but not in the regulations drawn up therefrom.

We now annex the Trinity-House rules having reference to sailing

as well as Steam-Vessels, the last of which does not provide against the above contingency.

*Trinity-House, London, 30th October, 1840.*

The attention of this Corporation having been directed to the numerous, severe, and, in some instances, fatal accidents, which have resulted from the collision of vessels navigated by steam; and it appearing to be indispensably necessary, in order to guard against the recurrence of similar calamities, that a regulation should be established for the guidance and government of persons intrusted with the charge of such vessels; and,

Whereas the recognized rule for sailing vessels is, that those having the wind fair, shall give way to those on a wind:—

That when both are going by the wind, the vessel on the starboard tack shall keep her wind, and the one on the port tack bear up,—thereby passing each other on the port hand:—

That when both vessels have the wind large or a-beam, and meet, they shall pass each other in the same way on the port hand, to effect which two last mentioned objects the helm must be put to port:—

And as Steam-Vessels may be considered in the light of vessels navigating with a fair wind, and should give way to sailing vessels on a wind on either tack, it becomes only necessary to provide a rule for their observance, when meeting other steamers, or sailing vessels going large.

Under these considerations, and with the object before stated, this Board has deemed it right to frame and promulgate the following rule, which on communication with the Lords Commissioners of the Admiralty, the Elder Brethren find has been already adopted in respect of Steam-Vessels in Her Majesty's service; and they desire earnestly to impress upon the minds of all persons having charge of Steam-Vessels, the propriety and urgent necessity of a strict adherence thereto, viz.

#### *Rule.*

When Steam-Vessels on different courses must unavoidably or necessarily cross so near, that by continuing their respective courses, there would be a risk of coming in collision, each vessel shall put her Helm to Port, so as always to pass *on the Port side of each other.*

A Steam-Vessel passing another in a narrow channel, must always leave the vessel she is passing *on the Port hand.*

By order,

J. HERBERT, *Secretary.*

An additional rule here has also been proposed by Mr. Chapman, to which we add examples of Trinity-House decisions collected by that gentleman, which will be of service to seamen.

“That vessels running with the wind free, (should in the channel) show a light on each bow, so as to distinguish them from ships by the wind.”

In reference to the meaning of the phrase “*give way*” made use of in the rule, it was settled in the Admiralty Court, by the Trinity-Master, in the case of the ship *Rose*, that the ship sailing free is to keep out of the

way, by avoiding the bows and going a-stern of the close-hauled vessel. If the free vessel takes any other course, she does it at her own risk—as the free vessel can of course have the choice of two sides while the close-hauled is limited to one side. And the Admiralty decisions are quite conclusive. The *Harriet* was free on the port tack, and it was said to be her duty to port her helm and go before the wind.

Her Majesty's ship *Athol* was free on the starboard tack, and was adjudged in the wrong because she did not port helm and luff.

In the case of the *Ann and Mary*, it was held to be the duty of a vessel with a free wind on the starboard tack, to port her helm and pass to windward of the vessel close-hauled. This doctrine is in harmony with the belief among seamen, that in all cases of doubt the helm is to be ported.

A vessel close-hauled on the port tack, ought never to put her helm a-lee, (said the Trinity-Master), and therefore the *Janus* was condemned, because she threw herself in stays when in danger of a collision with another sailing free.

Whenever vessels on the *starboard* tack are justified in putting down the helm, it has been with the hope of escaping contact, and not tacking in pursuance of a prior intention.

The Admiralty judge has repeatedly declared it to be, not merely the right, but also, in a certain sense, the *duty*\* of a vessel close-hauled, meeting another *free*, or of a vessel close-hauled on the starboard tack meeting another on a wind also, “to hold her course without deviation;” but the privilege is not to be insisted upon when the existence of the right to use it admits of the slightest doubt.

It was decided in the case of the “Traveller,”† that, “as at night a vessel close-hauled on the port tack, can never be quite sure whether a sail seen approaching her lee bow is close up to the wind or a little from it, it is the duty of the former to port her helm and bear away, even though the other may have the wind quite free.”

At night, after the decision already cited in the case of the *Traveller*, it appears to be unsafe for the ship on the starboard tack to starboard the helm at all; particularly when the approaching ships are already near, as the ship close-hauled on the port tack cannot tell in the night, whether the other ship on her lee-bow is free or close-hauled. This is one of the most difficult cases that can occur in navigating crowded channels in the night; and it is strongly recommended that ships sailing free on the starboard tack, and meeting vessels close-hauled on the port tack should never approach the lee-bow of the close-hauled ship, as it often happens, the latter in the dark, mistakes the free ship for close-hauled, ports her helm according to custom, and collision ensues.—See *Sergeant Shee's chapter on Collisions, in his edition of Abbot on Shipping; also 7 Jurist, 381; the Friends, 1 Robinson, Jr. Adm. Rep. 484; 1 Rob. Jr, 182; 7 Jurist, 999; the Hope, 1 Rob.*

\* See the *Harriet*, 1 Rob. Jr. 182; *Hope*, 1 Rob. Jr. 154, &c. &c.

† Case of *Harriet*, 7 Jurist, 1044.

*Jr. 154; 3 Haggard's Adm. Rep. 420; Friends, 1 Rob. Jr. 478; the Athol, Friends, Rose, 7 Jurist, 1092.*

The manner of fixing the coloured lights should be particularly attended to. They would require to be fitted, each with a *screen* of wood or canvas on the *inboard* side, in order to prevent *both* being seen at the same moment from any direction but that of *right-a-head*.

This is important, for without the *screens* (a principle first introduced with this system) any plan of bow-lights would be ineffective as a means of indicating the *direction in which a steamer may be steering*.

This will be readily understood by a reference to the foregoing illustrations, where it will appear evident, that in any situation in which two vessels may approach each other in the dark, the coloured lights will instantly indicate to both *the relative course of each*:—that is, each will know whether the other is approaching *directly* or *crossing her bows*, either to *starboard* or to *port*. This information is all that is required to enable vessels to pass each other freely in the darkest night, with almost equal safety as in broad day, and for the want of which so many lamentable accidents have occurred.

And it would prove of infinite service, combined with the above plan of lighting steamers if all *sailing* vessels were provided with a green, and a red glazed lantern to be shewn by hand on the starboard or port bow, according to the side on which a vessel might be approaching.

*If at anchor*, all vessels, without distinction, are bound to display a common light.

While the foregoing was preparing for the press accounts arrived of the fearful collision between the Peninsular and Oriental Company's vessels the *Erin* and *Pacha*, by which the latter was lost. We preserve the account as it appeared in a Southampton paper, for it shews a total disregard of all laws of passing vessels, and which, had they been followed by both vessels, the catastrophe which ensued would have been avoided. In many cases, and especially in this of the *Pacha* and *Erin*, had either vessel slackened her speed for a few minutes *while doubting*, the collision would have been prevented. But the rule of the road, at any rate of steaming, *port the helm*, would have been sufficient.

The calamity occurred off Mount Formosa, in the Strait of Malacca on the night of the 21st of July, when the *Erin*, also belonging to the Peninsular and Oriental Company, ran into the *Pacha*, and within three or four minutes after the collision the *Pacha* went down, with a loss of sixteen lives, chiefly firemen, stewards and two passengers. The following are the details:—Both vessels were iron, and of a superior and recent construction. They were built in this country, and had not been long out in India, engaged in carrying the mails and passengers from Calcutta up to China, in combination with those of the company's steamers which brought the more heavy portion of the mail and freight from Suez to Bombay, &c. The *Pacha* was commanded by Captain Miller, an experienced navigator, and her crew, with officers, engineers, stokers, seamen, and others, amounted to about fifty-one.

Captain Macqueen, who took out the *Pacha* from Southampton, was in command of her until she left Hong-Kong on her ill-fated voyage. Captain Miller succeeded Captain Macqueen, and he consequently lost his ship on his first voyage. Captain Macqueen is now the opium shipping agent at Hong-Kong. Captain Miller, before he took the command of the *Pacha*, was in charge of the

Peninsular and Oriental Company's hulk at Hong-Kong. Captain Tronson who commanded the *Erin*, is the son of the late Mr. Tronson, who was the purser of the *Great Liverpool*, which was wrecked on the Peninsula some years since.

The *Pacha* left Hong-Kong on the 10th of July for Calcutta, and touched at Singapore on the 21st of the same month, which she quitted at 1 o'clock in the afternoon of that day. Her cargo was a very valuable one, both in specie and merchandise. There were several passengers on board, among whom were Dr. Briscoe, of her Majesty's 59th Regiment; M. Hardouin, a French gentleman connected with the Mauritius; and two Chinese who had taken a passage for Penang.

On leaving Singapore the *Pacha* proceeded in her ordinary course up the Straits of Malacca. The weather was fair with a slight breeze on. Her course was kept at north-west by west, but in consequence of the compass varying some five or six degrees to the eastward, and so giving her an inclination to the Malacca shore, she was steered a little more to the northward of her course. Mr. Grysdale, the third officer, had charge of the watch, and it would seem that the vessel had the usual different coloured lights on the larboard and starboard paddle-boxes, with others at the bow and foremast, in conformity with the regulations of the Trinity Board. About half-past 11 o'clock the officer reported to Captain Miller, that a light was observed on the starboard bow, and on Mr. Miller seeing it he considered it to be a ship's light. Thinking, from its proximity to the Formosa Shoal, that he could not pass to port, he directed the helm to be put a starboard. The vessel seen bearing the light was the *Erin* steamer on her voyage from Calcutta to Singapore and Hong-Kong, and last from Penang, and it would seem that on her watch perceiving the lights of the *Pacha*, which was about the same time as theirs was first noticed, Captain Tronson her commander, on learning the circumstance ordered her helm to be put a-port, a regulation as laid down by the Trinity authorities, when two steamers are approaching in the contrary direction and such is practicable. At this period the vessels were eight or nine miles distant from each other. It is represented that Mr. Miller in steering the *Pacha* off W.b.N. and W., thought he would run clear away from the shoal, and altogether out of the way of the *Erin*, as her course must have been seen. It is also stated that had the *Erin*, instead of porting her helm held her course, she would have gone three or four miles astern of the *Pacha*. The *Erin's* light for some short period was lost sight of, it is said that it was being trimmed, and it would seem that it was unknown on board either vessel that the other was a steamer until a blue light was burnt on board the *Pacha*, this was answered by the *Erin*, and then the fact was ascertained that they were both steamers. The *Pacha's* helm was still kept to the starboard, and nearly all the time the *Erin's* was kept to port. It is alleged that at one time the *Erin's* mast-head light was observed abaft the *Pacha's* starboard paddle-box, the *Erin* steering as if to communicate with the *Pacha*, which it would appear the latter was striving to avoid. Perhaps in the end this desired "speaking," may prove to have led in a great measure to the unfortunate event. Both vessels steamed on, and shortly after midnight they came in close company. The engines were stopped and reversed, but a collision was inevitable. They came together with a force that may be imagined, from the circumstance that the *Pacha* went down within three or four minutes after she struck. The ill-fated vessel received the shock just before the starboard paddle-box, the stem of the *Erin* going almost over her. The masts of the *Pacha* fell at the moment of the collision.

The precise particulars of the collision will be seen in the letters we give from our own correspondences below. The scene that ensued at this awful juncture may possibly be conceived. With the exception of the watch on deck, including Mr. Miller, the master, the third officer, Drs. Briscoe and Fox, and the engineers, most of those on board were asleep below. The rush on deck is described to have been of the most frightful description. It was quickly observed that the *Pacha* was fast filling, and every one was doing his best to preserve his life; some climbed up the *Erin's* bow, others threw themselves into the sea and were picked up by the boats from the *Erin*, while several got into the quarter boats of the *Pacha*. Unfortunately, however, these could not be got clear of the

davits, and before the unhappy creatures who had taken to them as a means of rescue could get away from them, the *Pacha* went down in 25 fathoms, dragging the boats with her. Some of the poor creatures were seen struggling on the surface of the water, but before aid could reach them they disappeared. The *Erin* sustained considerable damage, and her preservation may be greatly attributed to her water-tight compartments. Notwithstanding the water rushed in at her bows with much force, the other compartments kept her afloat, the water being to a great extent dislodged by the pumps, which were worked by the engines. She lingered about the spot where the *Pacha* went down until nearly 4 o'clock, in order to pick up anything that might turn up of the wreck. She then made for Singapore, which she reached in the course of the afternoon of that day, and where the fate of the *Pacha* and the marvellous escape of the *Erin* created the deepest sensation. The loss of life was then ascertained, and it was found that the number who had perished amounted to sixteen. They comprised:—Dr. Briscoe, of the 59th; M. Hardouin, the French gentleman; the two Chinese, (deck passengers); Mr. Grysdale, third officer; R. Orton, clerk in charge; T. Cooper, steward; and H. Wilkins, engineer's servant; M. Johnson and T. Williamson, able seamen; C. Rose, J. Lawler, Dunne, and Robinson, stokers; E. Silverthorn, butcher; and Leech, officer's servant. Dr. Briscoe was noticed on the after part of the wreck just before the *Pacha* foundered, and it is conjectured that he perished in one of the boats which were dragged down with her.

The loss of so fine a vessel as the *Pacha*, especially with such a valuable cargo as she had, must amount to a very considerable sum. She had on board forty-two boxes of gold bars, forty-seven boxes of dollars, nine boxes of gold dust, six boxes of sycee and other valuable property, amounting in the whole to 600,000 dollars. The *Erin* also had a valuable freight, among which were upwards of 1000 chests of opium for Singapore and China, much of which was damaged by sea water.

The fact of two steamers sighting each other at the distance of seven or eight miles in the open sea, and then coming in such fearful collision as to occasion the loss of life and property stated, has produced no small surprise.

The following graphic account of the catastrophe is from the pen of a party who was on board the *Pacha*:—"We left Singapore at noon of the 21st of July, on our passage to Penang and Calcutta, and had got on very well until twelve o'clock at night, when we met the *Erin*, and by some means or another, at about seven minutes past twelve she ran foul of us, and in four minutes after the poor *Pacha* sunk from under us. We have lost from on board of us sixteen souls, and how the forty-one that were saved, were so, God only knows; the thing was so sudden that there was not a chance to do anything to save the people. The *Erin* cut right into the middle of the *Pacha*; Burn and myself were asleep at the time. I heard the captain, Miller, sing out "Starboard, hard a starboard," and I knew there was something wrong directly; I jumped up, put on my trousers, and ran on deck; but before I could get up the companion the *Erin* was right into the starboard side, and the *Pacha's* foremast went directly. Well I ran forward and was coming aft again, when the first engineer told me the forehold was full of water and the ship gradually settling down, which she was. We ran aft to the quarter boats, and the people were lowering them down. I went to the companion for a tomahawk to cut them away. The people were crowding into them, so I got one of the life buoys and put it on, and just then the *Pacha* gave a plunge and went down head foremost. I had only time to jump and clear the rail and boats' davits. The *Pacha* in going down sucked me under a considerable distance. It was certainly an awful moment to hear and see the waters gurgling and darkening over head; but, thank God, in a short time I rose and found myself among a heap of spars and I cannot tell what of the wreck. The scene around me was a fearful one. The *Erin* was a short distance off, with the forepart of her nearly gone; and to hear the poor fellows round me crying out for somebody to come and save them was heartrending. The *Erin* immediately lowered down her boats and picked up fifteen of us that were floating—the remainder were got up the bows of the *Erin*. It is certainly miraculous how so many were saved, as it was only four minutes from the time

of the collision taking place to the time of the *Pacha's* sinking, and the *Erin* nearly as bad. When we got on board she was going fast down by the head; however, they got a sail round the bows of the vessel, and after being there for three hours, went on to Singapore, where we arrived on the 22nd, at 2h. 30m. p.m., and next morning there was 7 feet water in the engine room, all the opium in the forehold ruined, and a great deal in the after one. There is not one of us that has saved a rag of clothes. I had nothing on but a shirt and trousers."

The following is a portion of a letter also from a party on board the *Pacha*:—  
 "It was a beautiful night and calm, or we all should have been drowned. It was a most melancholy sight; we all had a hard struggle for life, and to see them as they got on board the *Erin* on the fore-castle and round the capetan—all hands went down on their knees to prayers, and a clergyman on board returned thanks for those whose lives were spared. We were all in bed when it happened except those on watch. There was not a single thing saved belonging to any one. I am happy to say there were no females on board at the time."

*The Engineer's Report of the "Erin,"*

After giving a detailed account of the accident, similar in effect to the preceding, the engineer proceeds as follows:—"We steamed on to Singapore, being then at a distance of 96 miles. We ran the ship ashore as far as we could get her on the beach; we found at low water two large holes, one in the port bow (the third plate from the keel) four feet long, and one on the starboard bow twelve inches square. Commenced at tide times to put patches upon them, so as to get the ship off the beach before the neap tides. I am happy to say that the two bottom plates are completed, and the ship is hauled off the beach; we are now progressing favourably with the upper patches, and expect to sail for Hong-Kong in eight days."

We recapitulate the names of those

*Lost in the "Pacha."*

Grysdale, third officer; officer on watch at the time of the collision. M. Johnson, A.B.; J. Williamson, A.B.; J. Lamlor, stoker; J. Dunne, ditto;—Robinson, ditto; Cornelius Rose, ditto, aged 22—Hants; Robert Orton, head steward, aged 39—London; Thomas Cooper, steward, aged 22—Chelsea; Rd. Silverthorne, butcher, aged 24—Southampton; J. Leach, officer's servant, aged 16—Wilkins, engineer's servant; and four passengers—Dr. Briscoe, M. Hardouin, and two Chinese.

*Hampshire Advertiser, September 20th, 1851.*

SAILORS' HOMES.

*United Service Club, Pall Mall,  
 London, October 14th, 1851.*

SIR.—The happy results which have attended the establishment of "Sailors' Homes," in many of our sea ports, only make the great importance of their extension more apparent, and even that of London with all the support extended to it, has unfortunately not the means of carrying its usefulness to one fourth of the extent demanded. What has been done for our Sailors' Home, has been by individual exertion and benevolence, and looking to the immense sums that have been placed at the disposal of the Royal Commissioners of the Crystal Palace, so far beyond anything they could have calculated upon, and which must leave an immense Surplus Fund, I would urge the claims of our hardy tars, upon their notice, not however, with a view of confining my appeal

to our own seaman, but I would suggest that a handsome sum be appropriated for the foundation of a Home for the Seamen of all Nations; an Institution that would redound, not only to the honour of the great event it would help to commemorate, but be responded to most heartily by every maritime country and as the career of the Crystal Palace; that splendid monument of British art and perseverance (justly called the World's wonder) has come to a close after unparalleled success, allow me to remark that this success would have been unavailing without the instrumentality of seamen.

It is a great stigma and disgrace on this much favoured country, not to try and ameliorate and raise the character of those men who have been so eminently serviceable to her, and brought the commerce of all the nations of the earth to her feet.

Had England duly regarded the moral welfare and happiness of her Sailors, when she first began to colonize distant lands, by encouraging "Sailors' Homes," and discouraging those haunts of vice, which now exist in every sea port, how different an aspect might this world at this moment have presented.

But the Philanthropist must remember that unfortunately, the great evil of neglecting our Seamen does not end at home or with themselves. The Navy and Mercantile interest suffer generally from the demoralized and diseased state in which they again embark, carrying the moral contagion abroad and propagating it amongst thousands. To these deplorable results I have been myself but too often a witness.

I remain, Sir,

Your obedient servant,

W. H. HALL, *Capt. R.N.*

*To the Editor N.M.*

---

SHAKINGS FROM SMYRNA.—By *Mahmouz Effendi.*

(Continued from page 472.)

"In the name of the *Prophet—figs!*" — "Indjeer, Indjee, Indjeer!!! — such was the exclamation that burst from us as we threw down the *Times* of Monday, the 8th day of September in the current year, after having read therein the arrival at Southampton of the steamer *Euxine*, bringing from the ancient and ever prosperous port of Smyrna a miscellaneous cargo, among which figured in her bill of lading no less than *forty-seven tons of figs!* This sounds pretty well as the very first import of the season, and when the *Euxine* left her Ionian *istalia* other and larger cargoes of the same delicious fruit were ready for immediate embarkation. We happen to have noticed that, year after year the first figs generally leave Smyrna on or about the 22nd\* of August, (almost without the variation of a day) and certainly after that date not a ship

\* In 1849 the first export of figs from Smyrna occurred on the 22nd of August. See *Times*, "City article," 7th September, 1849, and the *Euxine* sailed from Smyrna on the same date, or on the preceding evening in 1851.



sails for England without them. Well may we then in any autumn exclaim "In the name of the Prophet, *figs!*"

The *exports of Smyrna* consist also of raisins and of other fruits, of cotton, goats' wool, and raw silk, opium, rhubarb, gums mastic and tragacanth, drugs, madder, olive-oil, valonea, caprets, galls, sponges, hareskins, copper, honey and wax, scammony, safflower, &c., &c. Nor must we omit gold fish, and last not least *leeches!*

The *Saucy Fanny* (so often mentioned in our "Shakings,") notwithstanding the fear her chief mate had expressed of having to visit the Dardanelles merely for a "dirty" cargo of Valonea, (for thus that officer termed this species of oriental acorn so coveted by British dyers,) luckily escaped the dreaded infliction and was now more profitably and unexpectedly chartered with a general cargo for Harwich, that rising port of Essex, which bids fair again to become not only a place of large trade, but almost to monopolize the passenger traffic between London and Ostend, Antwerp, and Rotterdam. And we understand that even the Levantine merchants anxiously look forward to the day when by a steamer running from Harwich to Ostend they may accelerate their correspondence, and passing along the railroads through Belgium and onwards *via* Vienna, save two or three days of the time now occupied by the mails taking other and less direct routes. But into this question we must not here enter.

The charter obtained by the *Saucy Fanny* had been finally arranged to the full satisfaction of Captain Nicholas Collier, before he went on board the schooner-yacht *Flat Fish* to sup with Mr. Chatterton as mentioned in our last chapter. And here, at this stage, with the permission of the reader we shall "call a halt," in the real progress of our story, promising to resume our march in the *Nautical* for 1852, *Deo Volente*. So that what here follows must be taken as a mere episode.

*The Turkish Tour* seems to be becoming quite the fashion, but we hear on all sides, expressions of regret at the language of Anatolia and Roumelia, being so little understood by English travellers. Now, those of our readers who visit Smyrna in men-of-war will probably be provided with the *Nautical Magazine*; and in this, in 1851, we ventured to pen a few papers entitled "*Turkish for Tars,*" which till some more elaborate contributions appear from abler hands, may possibly be found acceptable by tourists and blue-jackets. They are, however, regarded by their author as a mere step in the right direction, and as in short but the herald of better things from many quarters. Turkish is no longer unstudied in the navy. Captains Slade and Sir Godfrey Webster are said to know more of it as yet, than any other officers, the former especially. Others it is to be hoped are also following their example, and books from their pens may yet see the light. Turkish frigates are yet again destined to visit Spithead and Plymouth Sound, although in London the Crystal Palace is defunct. We have already and recently heard an Ottoman Admiral harangue in English, and we yet hope to hear an English Admiral speak Turkish. Let it not long be said that English officers are *not* good linguists; that, in the words of Shakspeare,

"They have been at a great feast of the languages and stolen the scraps."

On looking over our "*Turkish for Tars*," we cannot but plead guilty to many omissions, and we hasten therefore, to insert part of a further vocabulary in short sections, to supply some few of the discovered defects. We may do more next year. The sailor certainly looks to the *Nautical Magazine* for information on this head, as well as on others; though the tourist may prefer seeking such knowledge in a *Murray's Handbook*.\*

Though there is certainly a lack of good English works on the Turkish language, there is no want of modern books for the edification of those who contemplate the "*Turkish Tour*." Numerous as the volumes are "the cry is still they come." Pardoe, White, Slade, Urquhart, and Layard and Warburton; and Kinglake have been followed up by Macfarlane, Christmas, Neale, Fletcher, Margoliouth, St. John, De Vere, Ditson, Lear, Formby, Beldam, and many others; and this list would certainly not be complete without adding "The Devil in Turkey," by Stephanos Xenos! Then we have the *Horæ Apocalypticæ* by the Rev. E. B. Elliott, a really astounding work, and the author's explanation (at the end of his first volume), of the *second* or *Turkish woe*, foretold in the Revelations, should be carefully pondered on by all about to visit the East.†

Not only in books of travel, but also in the English newspapers has attention been more than usually directed to the Levant in 1851, and although a perusal of the books may have tempted crowds of our tourists to hie forthwith to the east, the contents of our leading journals (no longer confined to the Suez railroad on the one hand, and to the question of Kossuth on the other) have certainly damped the courage of very many, and led them more prudently to turn their footsteps elsewhere. For gazette upon gazette has clearly shown that brigandage and piracy are again in the ascendant throughout the shores and waters of Greece and Asia Minor! Izmeer has not escaped a visitation or two; verily, verily, they have had divers "*Shakings*" at "*Smyrna*." Not that the great earthquake at Rhodes and Macri‡ extended its terrific movements to the Meles; no, no; but that scores of bold bandits and blood-thirsty buccanniers have played off some of their mad pranks under the very nose of

\* A short vocabulary in English and Arabic is given in "*Usborne's Levant Guide*," pp. 140, 144; and one in English and Turkish in "*Knight's Oriental Outlines*," p. 343. Stampa, the shipchandler of Constantinople, sells also, for twelve piastres, a work called "*Words for the Windbound*," containing a long list of provisions, etc., in English and Turkish. Major Boyd has also published "*The Turkish Interpreter*," Reid, an "*Outline of Turkish Grammar*," and Schroeder, a "*Turkish Grammar for Travellers*." Then we have David's "*Turkish Grammar*" both in English and French.

† See Elliott, vol. 2, p. 442, Seeley, Fleet Street, "Cessation of the Turkish Woe and Sounding of the Seventh Trumpet." If, as he seems to prove, the "Cessation" actually did occur in A.D. 1774 (end of the Austro-Russian War) how fearfully near are we to the end!

‡ Earthquakes at Rhodes, and Macri, lasted in 1851, from February to April, and the Sultan sent down Osman Pasha to make an official report of the immense damage done.—*Morning Herald*, May 16th, 1851.

*Halil the Pasha of Ionia*,\* in addition to performing other exploits among the *Fifty Islands of the Archipelago*. Our tourists have indeed had good excuse for their timidity.

We may record a few of these incidents, hereafter giving the authorities whence they are derived. We ourselves know the ground, and, from experience we earnestly warn our merchantmen and yachtsmen to keep a sharp look-out for the next six months at least.

| <i>English.</i> | <i>Turkish.</i> | <i>English.</i> | <i>Arabic.</i>  |
|-----------------|-----------------|-----------------|-----------------|
| Sunday.....     | Bazar guni      | Sunday.....     | Yevm-ul-ahad    |
| Monday.....     | Bazar ertèsi    | Monday.....     | Yevm-ul-esmèn   |
| Tuesday.....    | Saly guni       | Tuesday.....    | Yevm-us-seleça  |
| Wednesday.....  | Tcharshembè     | Wednesday.....  | Yevm-ul-erbe'a  |
| Thursday.....   | Pendjshembè     | Thursday.....   | Yevm-ul-khamis  |
| Friday.....     | Djuma guni      | Friday.....     | Yevm-ul-djumi'a |
| Saturday.....   | Djuma ertèsi    | Saturday.....   | Yevm-us-sebt    |

| <i>Turkish.</i> | <i>Turkish.</i> | <i>Turkish.</i>  | <i>Turkish.</i> |
|-----------------|-----------------|------------------|-----------------|
| 0 Syfr          | 10 On           | 20 Iyirmi        | 200 Iki-yuz     |
| 1 Bir           | 11 On-bir       | 30 Otouz         | 300 Eutch-yuz   |
| 2 Iki           | 12 On-iki       | 40 Kirk          | 400 Dort-yuz    |
| 3 Eutch         | 13 On-eutch     | 50 Klli          | 500 Besh-yuz    |
| 4 Dort          | 14 On-dort      | 60 Alt-mish      | 600 Alti-yuz    |
| 5 Besh          | 15 On-besh      | 70 Yet-mish      | 700 Yedi-yuz    |
| 6 Alti          | 16 On-alti      | 80 Sek-sen       | 800 Sekiz-yuz   |
| 7 Yedi          | 17 On-yedi      | 90 Dok-san       | 900 Dokouz-yuz  |
| 8 Sekiz         | 18 On-sekiz     | 99 Doksan dokouz | 1000 Bin        |
| 9 Dokouz        | 19 On-dokouz    | 100 Yuz          | 1001 Bin-bir    |

"How many men, are you?" "Nekadar Adem-syz?"—"Ten." "On."

|  |                 |                      |                             |
|--|-----------------|----------------------|-----------------------------|
| First Prayer.....                      | Sabha namazi    | Fifth Prayer.....    | } Yatsi namasi evening..... |
| Second Prayer...<br>about noon.....    | } Euilè namazi  | To pray.....         |                             |
| Third Prayer.....                      | Ikindi namazi   | Prayer for the dead. | Meit namazi                 |
| Fourth Prayer ...<br>after sunset..... | } Aksham namazi | Oratory.....         | Namaz-gulah                 |
|  |                 | Mosque.....          | Djami or Meedjid            |

|                    |                |                     |                 |
|--------------------|----------------|---------------------|-----------------|
| Sultan.....        | Padisha        | Governor.....       | Zabtchi         |
| Chief Priest.....  | Mufti          | Ambassador.....     | Elshi           |
| Chief Physician .. | Hekim Bashi    | Consul-General..... | Bash Konsolos   |
| Judge.....         | Kadi           | Consul.....         | Konsolos        |
| Com.-in-Chief..... | Seraskier      | Vice-Consul.....    | Konsolos Vekili |
| Lord High Admiral. | Kapoudan Pasha | Secretary.....      | Yazidji         |
| Governor.....      | Bouliouroudji  | Interpreter.....    | Terdjuman       |
| Governor.....      | Musellim       |                     |                 |

| <i>Turkish.</i> | <i>English.</i> | <i>Modern Greek.</i> |
|-----------------|-----------------|----------------------|
| Ei.....         | Good.....       | Kalò                 |
| Fenâ.....       | Bad.....        | Kakò                 |
| Semiz.....      | Fat.....        | Pa'hi                |
| Arik.....       | Lean.....       | A'hamnò              |
| Oudjouz.....    | Cheap.....      | Fthinò               |

\**Halil Pacha*, ancien gouverneur de Smyrne, qu'il a quitté par suite de mesintelligence avec le consul d'Angleterre, va très prochainement se rendre à Rhodes, chef-lieu du gouvernement des îles de l'Archipel qu'il a regu en remplacement de son ancienne position. *Extract from "Le Pays," Paris Newspaper, 13th September, 1851.*

|                    | <i>Turkish.</i> | <i>English.</i> | <i>Modern Greek</i> |
|--------------------|-----------------|-----------------|---------------------|
| Behalu.....        | Dear .....      | Dear .....      | Akrivò              |
| Et .....           | Meat .....      | Meat .....      | Kréas               |
| Sherab .....       | Wine .....      | Wine .....      | Krasi               |
| Sirkè.....         | Vinegar .....   | Vinegar .....   | Kaithi              |
| Su .....           | Water.....      | Water.....      | Nerò                |
| Zeitoun yaghy..... | Oil.....        | Oil.....        | Láthi               |
| Soud .....         | Milk .....      | Milk .....      | Gála                |
| Tchai .....        | Tea .....       | Tea .....       | Arbati              |
| Kavè.....          | Coffee.....     | Coffee.....     | Kafè                |
| Ekmek .....        | Bread .....     | Bread .....     | Psomi               |
| Yer almasi .....   | Potato .....    | Potato .....    | Yeómila             |
| Balyk .....        | Fish.....       | Fish.....       | Psari               |
| Oun .....          | Flour .....     | Flour .....     | Alévri              |
| Sheker.....        | Sugar .....     | Sugar .....     | Za'hari             |
| Pirindj .....      | Rice.....       | Rice.....       | Rizi                |
| Taouk .....        | Fowl.....       | Fowl.....       | Ornitha             |
| Sighyr-eti.....    | Beef .....      | Beef .....      | Voinò               |
| Koïoun eti.....    | Mutton.....     | Mutton.....     | Próvio              |
| Koïoun .....       | Sheep .....     | Sheep .....     | Próvator            |
| Ketchi .....       | Goat.....       | Goat.....       | Yitha               |
| Yemish.....        | Fruit.....      | Fruit.....      | Porikà              |
| Zeitoun.....       | Olives .....    | Olives .....    | Eliès               |
| Bal .....          | Honey.....      | Honey.....      | Mèli                |
| Peinir.....        | Cheese.....     | Cheese.....     | Tiri                |
| Touz .....         | Salt.....       | Salt.....       | Alàti               |
| Biber.....         | Pepper.....     | Pepper.....     | Pipéri              |
| Khardal.....       | Mustard.....    | Mustard.....    | Sinapòporo.         |

In looking over the above section the scholar will doubtless here and there discover in the modern Greek, some similarity to the ancient tongue he has been taught at school and college; but if he visit the Levant, he will find his Oxford and Cambridge pronunciation most woefully at fault. The modern Greeks pronounce all their vowels as do the Italians and French. And the *d* becomes *th* in pronunciation, thus Lathi (as I have written it above) is properly written ladi, and yitha, yida. The island of Scio or Chios is pronounced by a Greek as if written in English *He-o*. Such differences are a great puzzle to the ear at first. But, we hope, although we must now bring our paper to a close, to refer again to Greek pronunciation, in a future chapter of our *Shakings from Smyrna*.

---

ON JULIUS CÆSAR'S EXPEDITION AGAINST ENGLAND, *in relation to his places of departure and landing.*

*Greenwich, 17th October, 1851.*

MR. EDITOR.—My attention was called some time since to a communication by Captain Martin in the *Nautical Magazine*, for July last, in which he has, with great courtesy, remarked upon a paper published by me in the *Athenæum* of March 29th, relating to the invasions of Julius Cæsar. I had not intended to enter at present into any further controversy on this subject; but I have derived so much instruction from other papers of Captain Martin's that I should be sorry to appear in any degree to alight his remarks. The little rejoinder which I have now to make would probably long ago have been in your hands, but I have been

absent from England, and unable to employ the first moments of my return on literary matters. My notice of Captain Martin's paper, however, will not be very distinctly an answer. I shall first point out that, as regards the main arguments, the question stands where I left it; and I shall then submit to you a few notices on the incidental points which have been raised by Captain Martin.

The positive argument on which I laid greatest stress as proving that Cæsar sailed from the mouth of the Somme, is that marked (7) in my paper in the *Athenæum*. I have stated there that, so far as we can discover, the port to which Cæsar returned was the same as that from which he sailed, and that Cæsar's words prove that his place of return was most certainly exterior to the country of the Merini, and that it had some close connexion with the city of Amiens. This argument appears to me irrefragable, and it has not been noticed by Captain Martin.

The positive argument on which I laid greatest stress as proving that Cæsar did not go from Dover in the direction of Deal, and therefore, that the beach of Walmer or Deal was not his landing place, is that marked (3), in which it is shewn that the tide was running in the wrong direction at Dover. Captain Martin has supposed that the changes in the Wantsum have produced a very great difference in the tides at Dover, a supposition which appears quite gratuitous; for the litoral tides, fairly out of harbour, depend solely on the great tides coming in from the Channel and the North Sea, which I suppose have not altered in any appreciable degree.

For these reasons then, I do not think that my general positions have yet been affected by Captain Martin's comments.

In passing, I may add that, assuming (as I do) that the departure certainly was from the mouth of the Somme, no invader would be likely to attempt any place in preference to Pevensey Beach. The Romney Marsh Beach is excluded, because, if Cæsar had first attempted the beach under the Folkstone cliffs, he would have passed the good landing place to attempt the bad one, which is totally inconsistent with Cæsar's character. Dover is too distant, and the navigation to it too troublesome, and the circumstances of the interior of the country do not suit Cæsar's account. With Pevensey, the navigation is favourable, and all the circumstances of the interior harmonize with Cæsar's account.

I shall now remark on the incidental points raised by Captain Martin.

Page 337, 1st paragraph. Captain Martin speaks of the traditions in the Saxon era. For these there is not the smallest evidence. The extirpation of the Britons by the Saxons (partly by slaughter, partly by expulsion) was the most complete known in history. Not a word of the British language was left, except in the names of a few places; and there is no reason to think that a single tradition was left. I may add that, so far as I am aware, the British writers of the Roman period (Gildas, Nennius, the Welsh Triads), have not preserved any tradition of Cæsar's landing. And it is evident that if any tradition had been preserved, it would not have been of Cæsar's transient invasion, but of the invasion by Claudius, almost a hundred years later, which terminated in the conquest of the island.

In the next paragraph mention is made by Cæsar's descendants following the same line as the first invader. Captain Martin, I think, has overlooked the difference between entering a hostile country for the first time, and entering it when possession of some part of the coast is assured. The first invaders must enter where they can, but those who have military possession of, or undisputed access to a long line of coast will choose the most convenient place. After the convention of Cintra, every English soldier entered Portugal by way of Lisbon; but will Captain Martin conclude from this circumstance that the first British landings was not effected in Mondego Bay?

In page 339, last paragraph but one, Captain Martin assumes that, "the Portus Iccius of the Roman navigators has always been conceded to Boulogne." To show how little universal this concession has been, I will quote from a single page of D'Anville's Memoir, the following opinions:—

|   |                        |
|---|------------------------|
| Cluvier, Sanson, and P. le Quian have fixed on..... | Boulogne.              |
| De Valais, on.....                                  | Etaples.               |
| Chifflet, on .....                                  | Mardyk (near Dunkirk.) |
| Others on .....                                     | Calais.                |
| Malbranq on .....                                   | St. Omer.              |
| Ducange and Camden, on ..                           | Wissant.               |

D'Anville himself has fixed on Wissant, for reasons perhaps the flimsiest that ever guided an antiquary.

In page 342, I do not understand why Captain Martin is so anxious to reduce Cæsar's fleet to 600 ships, when I have quoted Cæsar's very words that "more than 800 were in sight at once." But let us advert to the capabilities of Boulogne. Cæsar's ships were as small as Captain Martin supposes, but there is an element of calculation which will guide us better than either the number or the size of the ships, and that is the number of men. The fact then is this, that, after a continuance of north-west winds, which would render it impossible to make any preparations outside of the harbour, at one tide Cæsar floated off twenty-one thousand fighting men, besides camp-followers and sailors, probably amounting in all to forty thousand souls. Could this multitude, or one fourth of this multitude, have been floated out of Boulogne? I do not believe it. The citation of Napoleon is not to the purpose, because he never made the attempt; but I doubt whether at one tide he could have boated off five thousand soldiers from Boulogne.

In page 343 there is a citation from the Rev. John Lyon "where the sea was confined between two hills." These words are utterly unsupported by Cæsar's account. There is not a word of being "confined between two hills." And I apprehend that no Admiral in his senses would think for a moment of sending his boats into a creek, where they could be attacked on both sides at once.

Page 344, line 11, "S.S.W. wind." The wind had been blowing from S.S.W., on the preceding night, but there is no evidence that it continued during the day. The word used by Cæsar (*nactus*), which is not "having," but "having found," or "having obtained," seems

to imply that there had been a calm, and the breeze which then rose might very well be from the east.

Page 345, Captain Martin conjectures that Ramsgate is Romansgatt. This is not the opinion of the best antiquaries. The British name of Thanet was Ruim "the promontory," (a sense in which the word Ru or Rhu is still used in the Hebrides), and Ramsgate was probably Ruims-gate, the entry into Ruim or Thanet.

Page 346, Captain Martin says "a well trained and highly disciplined army requires those clear downs which A. B. G., seems to think they would avoid." How this misrepresentation of A. B. G.'s opinion (the only one which I have remarked) has crept in, I cannot imagine. I have only stated what appears throughout Cæsar's account, that every battle was fought (much against Cæsar's wishes, I have no doubt) in a woodland country, and that after every defeat the British fled into the forests, not into small groves, but into forests. And the strong fortress which Cæsar stormed was in a forest.

In page 349, there is a quotation from the Rev. John Lyon, which is very well calculated to mislead, "that he sailed from the most commodious port in the province of the Morini, which was the nearest passage to Britain." This is singularly inaccurate. Cæsar says that he sailed from the most commodious port, and he says that the passage from the Morini to Britain was the shortest, but no where does he say that his port was in the country of the Morini, or that the line of passage which he took was the shortest.

I trust that I have now in some measure cleared the ground for further speculations, and requesting your indulgence for the occupation of so much of your space, I beg to subscribe myself, Mr. Editor, your very faithful servant,

A. B. G.

To the Editor, N.M.

## PACIFIC HURRICANES.

*Sydney, June 2nd, 1851.*

SIR.—When in June last I forwarded you a copy of Captain Courtney's letter to me giving an account of the hurricane he encountered in the vicinity of the Navigators Group, there appeared to me to be an error in his stating the shift of wind at the Island of Upolu to have been from N.W. to S.W., instead of S.W. to N.W., and as I was desirous to have an authentic means of correcting it, Captain Cuthbert, who commanded the bark *Favorite*, arrived here shortly after, and from him I obtained a copy of his log for the purpose of forwarding it to you, but observing the barometer to have been so extraordinary low, (27.05), it occurred to me that it might have been effected by the occasional shocks the vessel sustained, therefore determined to await some other arrival by which I might learn if any notes had been taken on the island to confirm it. By the arrival a short time since of Mr. Williams, the American Consul, I learn that there was no barometer on the island, but he favored me with a loan of the *Samoan Reporter*, for July, 1850, which states,

"That on the 5th of April, we had a hurricane not only unusually late in

the season, but also very sudden and severe. It was scarcely felt on the island of Savau, one side of Manona escaped; but all along Upolu, it raged with fearful violence, it extended to Tutuila, but was not felt there to the same extent as on Upolu. It commenced to blow in the morning from the south, shifted to the west about mid-day, and by 2 P.M., bread fruit and other trees innumerable were laid low, upwards of 2,000 native houses, chapels, and other buildings were in ruins, and three vessels in Apsa Harbour were driven on shore among the rocks." Seeing that no further information is to be obtained, I now accompany this with the before mentioned copy.

I am, Sir,

Your Obedient Servant,

SAMUEL ASHMON.

To the Editor N.M.

*Extract from Capt. Cathbert's Log of the bark Favorite, wrecked in Apsa Harbour, Island of Upolu.*

"Friday, 5th April, 1850, at 12h. 30m. A.M., heavy rain with lightning and thunder; at 6h. A.M., strong breeze at south, barometer 29.25; at 8h. 30m let go the starboard anchor then 50 fathoms out on the port bower, barometer 28.50, down royal and top-gallant yards. At 9h. 30m. gale increased. gave 10 fathoms more starboard bower cable, barometer 28.10 fast falling, American went on shore, keel coming up alongside. At 11h. A.M. strong hurricane at south west, striking the ship, when she struck on the starboard side, but not heavy enough to do any harm. At 12h. 45m. shifted suddenly to north-west catching the ship on the starboard side, when she instantly swung round head inshore, then tried to set fore-top-mast stay-sail, but it instantly blew to ribbons, she then fell foul of the American ship *Hercules*, and unshackled the starboard cable to clear the American ship. She forged ahead and carried away her bowsprit, then struck heavy, and fell over on her larboard beam ends, then cutting away, hurricane then increasing with terrific fury, barometer 3h. P.M., 27.50 at dark, barometer still falling, and the hurricane on the increase every hour, then made fast from the sea flying over, barometer 27.30.

"Saturday, April 6th, at 1h. A.M., dreadful gusts, hurricane still on the decrease, barometer 27.30. At 2h. A.M. struck by a sea when she bilged, and filled. At 2h. 15m. the height of the hurricane, barometer 27.06. At 2h. 20m. barometer began to rise."

## NAUTICAL NOTICES.

**NEW LIGHT IN BOSTON BAY.**—Important to Mariners:—We learn from the Journal, that it has been determined to light up the old Light-house at Scituate, which was abandoned after the construction of the Light-house on Minot's Ledge. The new light will be a single red light of the first class, and cannot, therefore be mistaken for either of the other lights in Boston Bay. The old light at Scituate was a double white light. We believe the re-lighting of this light-house will be found to be a great convenience to the mariner, the more especially as it is extremely doubtful, indeed altogether improbable, that the little light ship at Minot's ledge will be able to hold on to her moorings during the coming winter.

*Boston, September, 1.*—The new light-house at Scituate is to be illuminated



on the 1st day of October. It will show a brilliant red light. Measures are to be taken to erect an iron shaft on Minot's Rock.—*Boston Post.*

**BEACONS IN THE BAY OF FUNDY.**—The "*St. John Courier*" states that Mr. John Murray, branch pilot, has placed beacons upon several headlands on the New Brunswick side.—On Halfway Point, about eight miles from Partridge Island, between Negro Head and Musquash Head, a white horizontal stripe, about five feet broad, and which shows about forty feet long.—Split Rock, off Musquash Head, is distinguished by seven white balls, six of which are distinctly visible at a distance of ten or twelve miles in clear weather.—On Musquash Inner Rock, to the westward of Split Rock, a white vertical stripe, which is visible from the westward, with two of the balls on Split Rock; but on coming up the bay, when the stripe is lost sight of, the whole of the balls on Split Rock are seen.—Gooseberry Island has the letters "G. I." marked on it, and the top of the pinnacle painted white. The white mark can be seen at some distance from the south-west, but the letters are only visible when the island bears north.

**POT ROCK, HURL GATE CHANNEL.**—New York, August 5th, 1851.—The float or operating vessel, now moored in Pot Cove, will be anchored over Pot Rock to-morrow. She will display a white flag at masthead, and a red light during the night.—It is very desirable that the large steamers, while passing through the Gate, should slacken their speed, as the great swell caused by their unusually rapid progress through the channel, will greatly interfere with the operating vessel.—This vessel or float is seventy-two feet long, twenty-two feet wide, with the bow and stern terminating in a point. The sides are wrought iron cylinders, painted red. The float will drop four anchors, one at each quarter. It is also furnished with one of Francis's metallic life-boats as a tender.

Beacons have been placed on Five Pound Island Point, the Harbour Rock, and Black Rocks, in Gloucester Harbour. That on Five Pound Island Point consists of a pyramidal rock, weighing eight tons—a shaft of iron projects from the top, having a ball on the end. That on the Harbour Rock is simply a shaft of iron with a ball on the top. On the Black Rocks is a similar shaft of iron and ball, but it is much higher, and is supported by four iron braces.

Captain Turnbull, of the British barque *Elora*, at San Francisco, Aug. 4, reports that the island of Clipperton, in lat. of 16° 16' N., long. 109° 20' W., marked as a mere rock on all the charts of the Pacific, he saw lagoon coral reef attached to it stretching six miles to the westward.

The barque *Lady Suffolk*, at San Francisco, June 21, lat. 33° N., long. 134° 50' W., hooked a gannet (sea bird), with a piece of canvas round its neck, written on—"Barque *Euphrosyne*; June 11, lat. 35° N., long. 145° W."

**THE DARTMOUTH CASTLE LIGHT.**—This acquisition to the harbour of Dartmouth, and a great accommodation to the shipping taking shelter here by night when suddenly overtaken in the channel by the storms has again been erected, and on the night of the 1st of October, its deep red rays shone once more seaward, showing the seaman his way clear into safe anchorage. The Start light being a revolver, and of a bright

colour, the Dartmouth harbour light is fixed, of a deep red colour, so that one cannot be mistaken for the other, and both will serve as good guides for the weather beaten mariner on the coast of Devon. Two smart cutters, the *Ranger* and *Fanny*, with able and experienced pilots on board, are now fitted out and sent to sea by the enterprising inhabitants of our town, so that by their exertions, and the facilities, both natural and artificial, which the port otherwise affords for shipping, we anticipate the time is not far distant when the harbour of Dartmouth will again be prominent among the seaports of England, as a rendezvous for the yacht, as well as the steamer and sailing merchant ship.

Trinity-house, London, 3rd September, 1851.

Notice is hereby given, that, by direction of this corporation a *black* buoy, marked "Mid Channel Rock," has been placed near to a rocky patch at the entrance of Milford Haven.

The buoy lies in six fathoms at low water spring tides, about a cable's length W.b.N., from a shoal spot, having only three fathoms on it, and with the following marks and compass bearings, viz. :—

|  |                        |
|--|------------------------|
| The Flag Staff at St. Ann's, just open west of the Low Light house       | N.b.W. $\frac{1}{2}$ W |
| The Fort on the Stack Rock, just touching the south part of Thorn Island | E. $\frac{3}{4}$ N.    |
| Mr. Davis's House, its apparent length on Dale Point                     | N.E. $\frac{3}{4}$ N.  |

By order,

J. HERBERT, *Secretary*.

Trinity-house, London, 30th, September, 1851.

The permanent light-houses which have been in course of erection in Sea Reach, being now completed. Notice is hereby given, that the lights, both at the Chapman Head, and at the Mucking Stations, are now exhibited in those structures, and the temporary lights discontinued.

*Chapman Head*:—the light at this station burns at an elevation of forty feet above the level of high water spring tides, and is of the usual or natural color, except that upon the line of bearing of the East River Middle Buoy, viz., S. E.b.E.  $\frac{1}{2}$  E. from the light-house, it is coloured *red*, which colour extends to the northward to the light-house on Southend Pier, in the direction E.b.S.  $\frac{1}{2}$  S.

*Mucking*:—the light at this Station burns at an elevation of forty feet above the level of high water spring tides, and is of the usual or natural color, except in the following directions, in which the light is colored *red*, viz. :—

1st.—In the direction E.b.S.  $\frac{3}{4}$  S. which clears the Scars and Chapman Head.

2nd.—On the line of bearing S.W.b.W. from the light-house, in which direction it strikes the Spit of the Oven's Shoal, a short distance outside the nine feet mark of low water spring tides.

3rd.—On the line of bearing S.  $\frac{1}{2}$  E. from the light-house, a narrow strip of red light is shewn for the purpose of marking the direct line of bearing of the West Blyth Beacon.

Note.—The above-mentioned bearings are Magnetic.

By Order,

J. HERBERT, *Secretary*.

## ATLANTIC VIGIAS.

*Ship Marmion, at sea, August 8th, 1851.*

Sir.—In your March number for this year I perceive (page 158) a notice of a supposed bank, south-west from the outer edge of the Bank of Newfoundland. Having a distinct remembrance of finding very cool water about this vicinity, that puzzled me a little at the time, I have been overhauling my private log for several voyages past, and have sent you true copies of my route &c., for three or four different voyages and at different months of the years, viz: May, October, 1846; April and August, 1846; February, 1849. But I never found the air vary so much except on and near the bank.

My own log being kept merely for my own reference &c., you may perceive I write about a subject just what my thoughts are at the time, and in May, 1846, I felt strongly persuaded that there were soundings where we had the water so cool, and I do not dispute now but there are. Still I think it is most probable it may be caused, by a current, a body of cold water borne on the bosom of the gulf current. I think the\* Commander of the *Corsair*, will often find veins of colder and warmer water if he travels that route frequently. And it is looking for a thermometer to prove too much to suppose there must be a rock or shoal, because of a change of this extent in temperature in this vicinity, because such strong currents exist at times, running perhaps in comparatively narrow strips. Again I have found that at certain seasons of the year the ocean is colder to the eastward of, than on the Grand Bank. This I presume is easily accounted for owing to such vast bodies of ice coming down along the eastern edge of the bank.

It would appear that some are so credulous as to believe in numerous vigia, &c., while others again are so sceptical they will believe nothing of the kind; no not realities unless they see it. I remember very well an old Mediterranean skipper, who said in my hearing he did not believe the island of Alboran existed. We had been beating about off there for five or six days on our passage up, and were expecting to see it two or three times. He laughed at us for our pains and anxiety on that head.

The following voyage we went to Odessa again, and one fine morning, nearly calm, just about seven bells, the second officer observed "that looks like the land," and sure enough there was Alboran, a low sandy island, and we lay becalmed in sight of it for nearly two hours, the current setting to the westward and the next day we made it again. I sailed with another master who believed in the existence of the "Three Chimneys," but would not credit the existence of Rockall until the last voyage I was with him we made it. If any of those rocks exist in the Atlantic it is very strange indeed that so much as this sea is traversed, we should have nothing definite regarding them. Our Nautical Instruments are far superior to what they were, and perhaps I may be bold enough to say there are as skilful and attentive navigators in the present age as ever existed. I do not hesitate to say there is a great improvement to my own knowledge. No doubt many navigators keep a look-out without saying a word to any person when they are in the vicinity of those bugbears of the deep;—Devils Rock, Three Chimneys, &c. But I have never yet fallen in with any person who has seen any of those terrors, though I have known several who well knew their position and have kept a good look-out for them. Vessels in the Merchant Service have various reasons for excusing themselves for not stopping when they see these dangers, but if a boat would not live to test the reality of it, your correspondent feels that he would haul

\* See Vol. for 1849, p. 217,

pretty close towards it to satisfy his optics, and would be willing to waste a few hours to determine the position of it. I am afraid I have tried your patience about these undetermined dangers, you are at liberty to insert or otherwise, the days runs I enclose you on the matter.

Presuming you may not perhaps have seen so full an account of the clipper ship *Challenge*, I cut the enclosed out of a Newspaper the other day purposely for you, if you think an abstract of it worth insertion in your pages. I see one of my bottle papers, arrived at Truro, it is a gratification to hear of it. Last year another was picked up on Sable Island, but as I could not procure the date it was picked up I have not sent you any notice of it. Speaking of Sable Island, I have in my possession and seen several other English charts that have Sable Island laid down very incorrectly in longitude. I think Blunt's, which is preferable to any I have ever seen, has the island a little too far to the westward. I should observe here, I mean the east end. I have never sighted the west end of it.

Here are the conflicting positions of Norie, Blunt and Blachford :—

From the Epitome J. W. Norie.      Blunt's Chart.      Blachford's Chart.

East end Sable 43° 59' N. 59° 44' W.    43° 59' N. 59° 48' W.    44° 5' N. 60° 3' W.  
West end    43 56½ N. 60 9½ W.    43 57 N. 60 14 W.    44 2 N. 60 31 W.

I am well aware the most strict attention must be paid to the lead here, and that is the only thing to depend on when near there. Yet such errors, for errors there must be on one side, should not exist to mislead the unwary.

T. F. F.

We shall turn to these subjects and the letter from the brig *Corsair*, in our next.—E D.

**EXTRAORDINARY FLIGHT OF CARRIER PIGEONS.**—A carrier pigeon which was let fly at Sarragossa at half-past 4 o'clock in the morning of the 28th July last, arrived at Liege, in Belgium, the following day at 6 in the evening. Twenty-three other pigeons which were let fly at the same time arrived in a short time after, and ninety-three others stopped on the road.

**SIR JOHN ROSS'S CARRIER PIGEONS.**—Our readers will remember our announcing in October last year, the supposed arrival at Annan Hill, near Kilmarnock, of a pair of the carrier pigeons which Sir John Ross took with him in the *Felix*. The lady by whom the birds were presented to the navigator, and others who had seen them in this county, were confident that one of the two which was caught at Annan Hill was one of the four pigeons given to Sir John. Incredible as it seemed that the birds could have returned a distance of 2,000 miles, we saw no reason to doubt it, and the fact seems now almost confirmed by what we learn on the arrival of the *Felix* in Stranraer. The pigeons were to be despatched when the party got into winter quarters; they were so despatched. As yet we have not obtained an exact date, but they were sent off about the beginning of October, upon an evening about five o'clock. Two of the small balloons with which Sir John was furnished were made use of for the purpose; the old pair were attached to one, the young to another, secured in such a way that when a slow match, ignited at starting, had burned to a certain point, the birds were liberated. The match was calculated to burn for twenty-four hours. A slight breeze was blowing from the north when the balloons were sent up; one went away steadily to the south, an accident happened to the other. The young birds were in that which got away, and it was one of the young birds which was recognized at Annan Hill, on the 13th of October, as having been taken away by Sir John. We shall return to the incident when we procure the exact particulars.—*Ayr Observer*.

The *Mercantile Navy List* (published quarterly), by Messrs, Bradbury and Evans, from the office of the Registrar General of Seamen is a good index of the improvement of our Mercantile Marine. We find the following among the several heads of information which it contains.—Officers of the Board of Trade, Members of Local Boards, Examiners, Shipping Masters and their Instructions, Fees to Shipping Masters, Regulations of the Examination of Masters and Mates, Names of the passed, Cancelled Certificates, Names of the e who have received honorary rewards, Obituary and a considerable amount of other useful information important to our mercantile marine. We are also glad to see the Trinity House Notices relating to navigation duly preserved in this little volume, which we look on as an important and necessary appendage to the cabin table.

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. Rogerson, of the Royal Observatory, From the 21st of September, to the 20th of October, 1851.

| Month Day. | Week Day. | Barometer.              |        | Thermometer   |      |     |     | Wind.   |      |           |      | Weather. |             |
|------------|-----------|-------------------------|--------|---------------|------|-----|-----|---------|------|-----------|------|----------|-------------|
|            |           | In Inches and Decimals. |        | in the shade. |      |     |     | Quarter |      | Strength  |      |          |             |
|            |           | 9 A.M.                  | 3 P.M. | 9 A.          | 3 P. | Min | Max | A.M.    | P.M. | A.M. P.M. | A.M. | P.M.     |             |
|            |           | In Dec                  | In Dec | °             | °    | °   | °   |         |      |           |      |          |             |
| 21         | Su.       | 30.06                   | 30.03  | 54            | 62   | 49  | 63  | N       | N    | 3         | 3    | bef      | o           |
| 22         | M.        | 30.06                   | 30.06  | 57            | 63   | 52  | 64  | N       | N    | 2         | 2    | bc       | b           |
| 23         | Tu.       | 30.13                   | 30.13  | 54            | 67   | 44  | 68  | NW      | N    | 2         | 1    | bm       | bcmr (4)    |
| 24         | W.        | 30.16                   | 30.12  | 59            | 63   | 54  | 66  | NE      | N    | 2         | 2    | o        | bc          |
| 25         | Th.       | 29.83                   | 29.71  | 62            | 62   | 53  | 63  | S       | SW   | 3         | 4    | bcm      | bc          |
| 26         | F.        | 29.71                   | 29.67  | 47            | 52   | 45  | 53  | NW      | NW   | 5         | 5    | qbc      | op (3)      |
| 27         | S.        | 29.66                   | 29.76  | 48            | 54   | 45  | 55  | NW      | NW   | 4         | 4    | qbc      | bc          |
| 28         | Su.       | 29.96                   | 30.93  | 52            | 56   | 46  | 57  | NW      | NW   | 2         | 2    | bep (2)  | o           |
| 29         | M.        | 29.78                   | 29.72  | 53            | 57   | 39  | 58  | SW      | SW   | 4         | 4    | b        | b           |
| 30         | Tu.       | 29.48                   | 29.44  | 54            | 60   | 47  | 61  | S       | S    | 5         | 4    | bc       | bc          |
|            |           |                         |        |               |      |     |     | S       | S    | 5         | 4    | god; (2) | bep (4)     |
| 1          | W.        | 29.32                   | 29.10  | 56            | 56   | 49  | 59  | S       | S    | 5         | 5    | qbc      | qor (3) (4) |
| 2          | Th.       | 29.34                   | 29.40  | 52            | 60   | 46  | 62  | SW      | SW   | 4         | 3    | bep (2)  | bep (3)     |
| 3          | F.        | 29.40                   | 29.57  | 54            | 60   | 47  | 61  | S       | S    | 2         | 2    | bc       | bc          |
| 4          | S.        | 29.51                   | 29.52  | 58            | 62   | 51  | 63  | SW      | SW   | 4         | 3    | bep (2)  | bc          |
| 5          | Su.       | 29.62                   | 29.68  | 54            | 54   | 47  | 55  | W       | W    | 5         | 4    | qbc      | o           |
| 6          | M.        | 29.72                   | 29.78  | 50            | 58   | 47  | 57  | W       | W    | 5         | 3    | qbc (2)  | bc          |
| 7          | Tu.       | 29.80                   | 29.70  | 54            | 59   | 45  | 60  | SW      | SW   | 4         | 4    | bc       | bep (3)     |
| 8          | W.        | 29.88                   | 29.91  | 48            | 56   | 44  | 58  | W       | NW   | 4         | 3    | b        | b           |
| 9          | Th.       | 29.91                   | 29.81  | 47            | 56   | 39  | 59  | S       | SW   | 1         | 3    | ofr (3)  | or (4)      |
| 10         | F.        | 30.00                   | 30.08  | 60            | 65   | 54  | 66  | NW      | W    | 1         | 2    | bc       | b           |
| 11         | S.        | 30.26                   | 30.24  | 55            | 64   | 51  | 65  | SW      | SW   | 1         | 2    | bc       | b           |
| 12         | Su.       | 30.31                   | 30.31  | 61            | 65   | 53  | 67  | W       | W    | 2         | 2    | bc       | o           |
| 13         | M.        | 30.20                   | 30.08  | 57            | 60   | 55  | 61  | SW      | SW   | 2         | 4    | bc       | od (4)      |
| 14         | Tu.       | 29.98                   | 29.92  | 58            | 57   | 53  | 58  | W       | W    | 2         | 2    | bc       | o           |
| 15         | W.        | 29.47                   | 29.40  | 58            | 51   | 51  | 58  | SW      | NW   | 3         | 4    | or (2)   | or (3) (4)  |
| 16         | Th.       | 29.53                   | 29.53  | 42            | 52   | 38  | 53  | SW      | SW   | 3         | 3    | b        | bc          |
| 17         | F.        | 29.81                   | 29.88  | 40            | 49   | 35  | 49  | W       | NW   | 2         | 2    | bcm      | bcm         |
| 18         | S.        | 29.96                   | 29.94  | 50            | 47   | 39  | 58  | SW      | SW   | 5         | 4    | go       | o           |
| 19         | Su.       | 30.00                   | 30.03  | 58            | 61   | 52  | 62  | SW      | W    | 2         | 2    | bc       | o           |
| 20         | M.        | 30.13                   | 30.10  | 58            | 62   | 55  | 63  | SW      | SW   | 2         | 1    | o        | o           |

September, 1851.—Mean height of the barometer = 30.242 inches; mean temperature = 56.4 degrees; depth of rain fallen = 0.37 inches.

We have received a letter from Mr. L. Urban, Chronometer Maker to the Danish Navy, containing a description of a Chronometer of his making, and tables of daily rate for twelve months from which a very superior trial number is deduced. These are far too lengthy for our pages, and we do not think our Chronometer Makers will lose much by their non-appearance, when they find that gold has been adopted for the Balance Spring, and among other things that the rates are taken to half seconds, besides which the following appears as the ground of its recommendation

Our Chronometer Makers will not fail to appreciate this. "As no essential improvements have, during the last half century, been made in England, where the greatest number of chronometers is manufactured, in the construction of these instruments, it may be presumed, &c." Why, it is in the very last half century that all the improvements have been made in chronometers. Verily Mr. Urban this statement may serve your purpose among your countrymen, but it will not do for John Bull. Disciples of Earnshaw and Arnold think of this!

Hunt and Son, Printers, 6, New Church Street, Edgware Road.

(307)

Bradbury and  
good index of  
our arm of the  
our of the  
Instruments  
ers and Black  
are reacted  
ental of the  
the Trinity  
tle volume,  
tain table.

Observatory,  
51.

ber.

| P.M.        |
|-------------|
| o           |
| b           |
| bcmr (4)    |
| bc          |
| or (3)      |
| qbc         |
| o           |
| b           |
| bc          |
| bep (4)     |
|             |
| qor (3) (4) |
| bep (3)     |
| bc          |
| bc          |
| o           |
| bc          |
| bep (3)     |
| b           |
| or (4)      |
| b           |
| b           |
| o           |
| od (4)      |
| o           |
| or (3) (4)  |
| bc          |
| bcm         |
| o           |
| o           |
| o           |

= 564

Navy, con-  
ve months  
our pages,  
ance, when  
gs that the  
f its recom-  
ments have  
rometers  
" Why, it  
rometers.  
but it will

RUSSIAN  
MARINER'S COMPASS

by  
G. Boutakoff, Com<sup>r</sup> R.I.N.

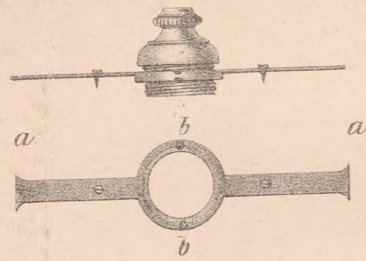
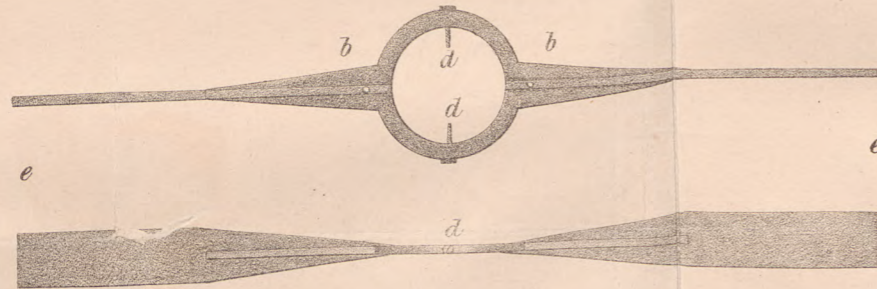
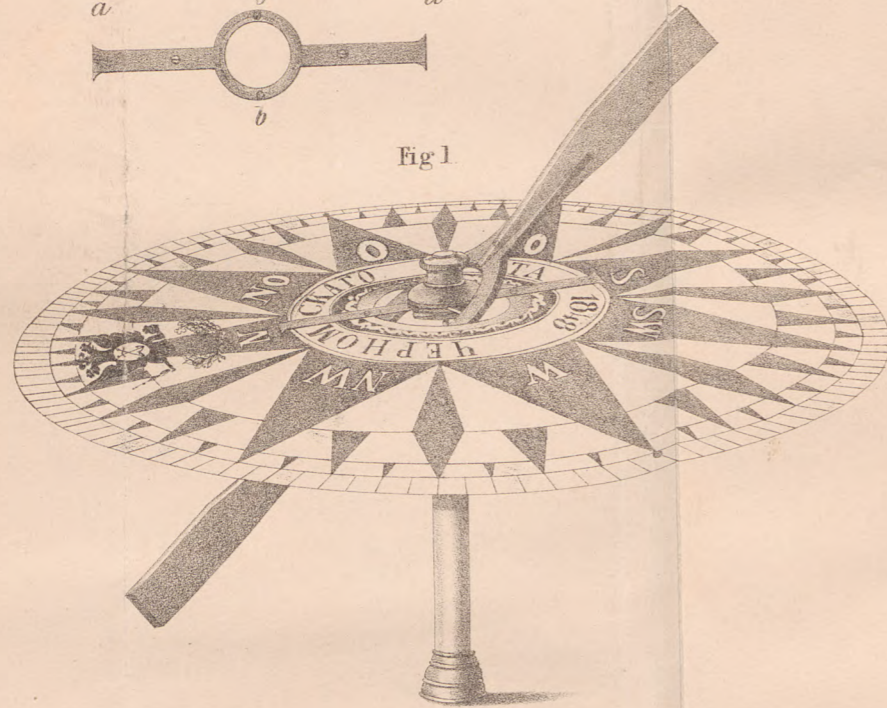


Fig 1.



J. Neheroll & Son 100, St. Martin's Lane.

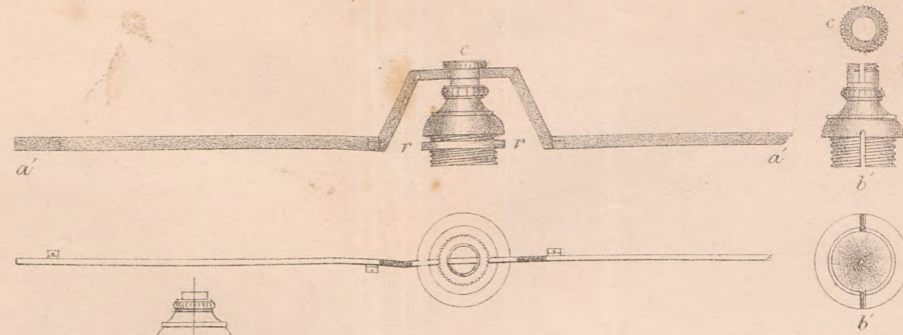


Fig. 2.

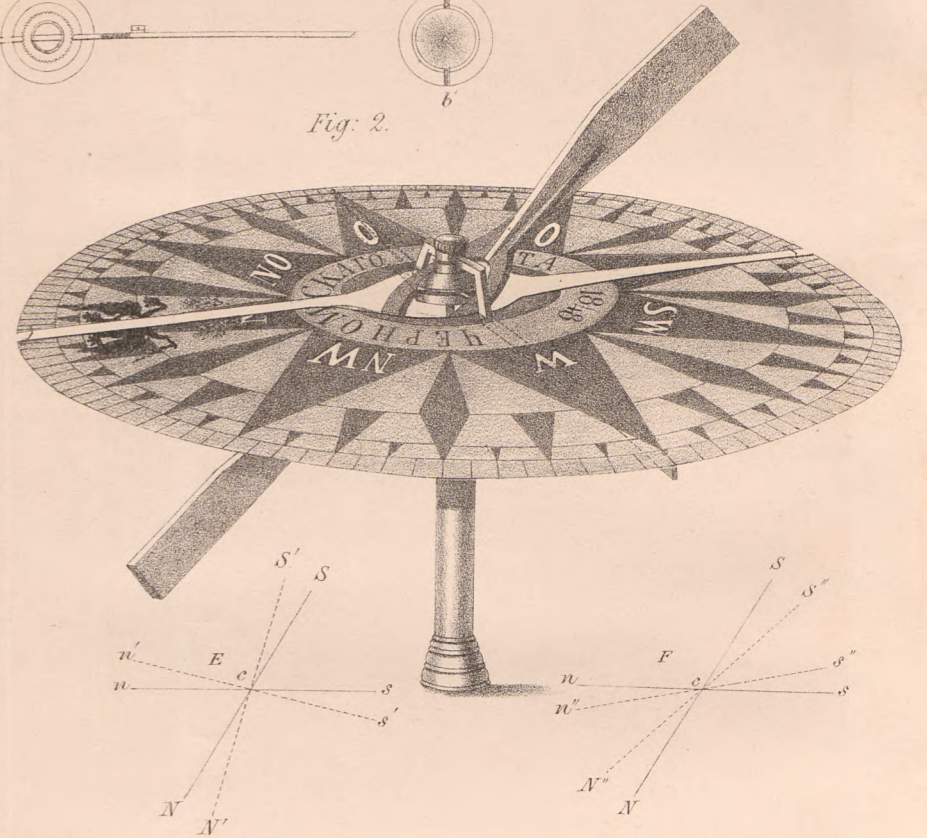
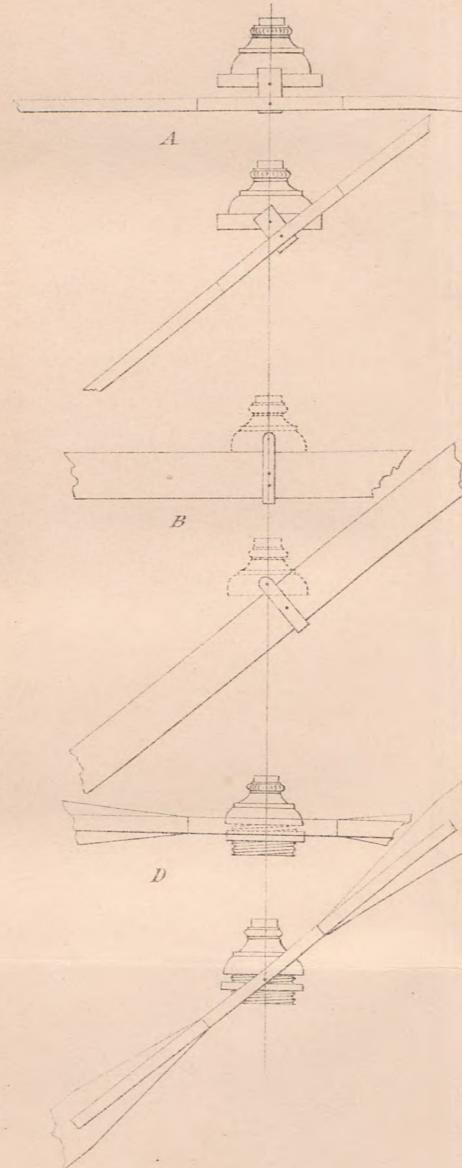
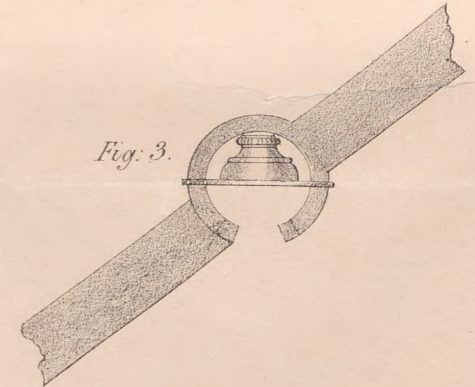


Fig. 3.



## NAUTICAL MAGAZINE

AND

Nabal Chronicle.

---

 DECEMBER, 1851.
 

---

## A RUSSIAN MARINEE'S COMPASS.

SEVERAL years ago I was perusing an excellent article in the *Nautical Magazine*, on the Mariner's Compass, by Mr. Walker. He describes and illustrates in a very clear and satisfactory manner all the inconveniences of making the southern half of the compass card heavier than the northern, and proposes his ingenious contrivance for retaining the card and needle horizontal, without adding any weight to the southern pole. The question occurred to me, why should we require the *needle* to be horizontal, when we all know that it has a great tendency to dip? Have we any reason, I may say any right, to force the needle to assume an unnatural position? Why should we persevere in forcing it through an arc from its natural inclination of  $62^{\circ} 12'$  in the Black Sea, and no less than  $69^{\circ}$  in England, thereby voluntarily introducing all the consequent evils, as if purposely to display our ingenuity in overcoming them.

I could scarcely find any argument in support of this obviously inconvenient custom, and considering it the first cause of that inefficiency against which we desire to find a remedy, I began to look for a mechanical contrivance by which a single (and edgebar) needle could be kept as near as possible in its natural position in every latitude, without interfering with the necessarily horizontal position of the compass-card; keep-



ing in mind that the compass is not required to be such a delicate instrument as that known as the dipping needle.

After various more or less successful, and more or less complicated, devices for arriving at the solution of this problem, I found out one which I will now describe, and which has been tested and compared with the ordinary compass, during protracted cruizes in the Black Sea in small craft, in boisterous weather, and under the influence of the comparatively short seas, peculiar to all Mediterranean waters. Experience has proved, that it is incomparably easier for the helmsman to steer by this inclined needle compass, than by that with a horizontal needle; and that whilst, during heavy rolling motions of the vessel, especially when steering courses near the magnetic meridian, the oscillations of the latter would be, for instance, *one point* on each side of the lubber-line, those of the compass with the inclined needle, would be *half a point* only, or as much as the vessel herself may be supposed to have in reality yawed on either side of her proper course. The explanation of the reason why the inclined position of the needle at first sight apparently inconvenient, (because centuries have accustomed us to see it horizontal,) should make the compass steadier, consists in the simple fact of the equal distribution of weights on both sides of the E. and W. line of the card; there being no other, except those by which the *card* is balanced horizontal *previous* to the needle being attached to it. In addition to this fact, it may safely be concluded, that the magnetic force, being allowed to act in the direction most agreeable to its full development, and at the same time being arranged in such a manner as to have no motion independent from the card, has more power for steadying the whole apparatus, and for retaining its intensity during any length of time. In fact, the card and the needle, each of them separately, and both jointly, tend in this instance to produce the effect of stability, and to counteract the disturbing influences; the one having been balanced to remain horizontal, and the other clinging with all its might to its natural inclined position.

It is but fair to add, that after having tried my compass several years, I found that the idea of the utility which would arise from allowing the magnetic dip to be introduced in the construction of compasses, has occurred to several persons in England, at the same time or before me. But together with this discovery, I have found, and state it without the least intention to undervalue their merits, that none of the various schemes for restoring to the magnetic force of the compass needle its natural position, have been found to answer practically; and that, besides, in those compasses where the needle or needles have been adjusted in such a manner as to remain free to dip in high latitudes if they can, (or as much as they possibly can,) on account of their mode of suspension they were invariably balanced in such a manner, as to remain horizontal or nearly so in England. Besides a striking proof of their not being intended to dip, is in the fact that all the bowls for those compasses have been made scarcely deeper than those for the horizontal needles. The reason for such inconsistency, lies in the various compass-makers' opinions, that, "it is more ship-shape and snug," as if

there was not room enough on board any size of ships for a deeper bowl, provided it was useful and that after being magnetized, the horizontal compass needle "would incline the card only some  $15^\circ$  or  $20^\circ$ ," which inclination of course it does not exceed, being unable, simply from the mode of suspension, to assume the angle of  $66^\circ$ , shown by the dipping needle.

The best among those contrivances as far as I know, is Pope's single needle and another double needle compass. In both, the needles are left free to oscillate in the vertical plane, and in both, the axles of rotation, on the centres on which they are suspended, are *above* the centre of gravity of the needle, as may be easily seen by the sketches A and B. The same sketches will show, that if the centre of gravity be on the same vertical line with the point of suspension of the card when the needle is horizontal, it will recede from this line with the least inclination of the needle, and thereby powerfully oppose itself to the tendency of the needle to dip. Fig. D, represents the principle advocated in this paper, and is annexed for comparison with Pope's mode of suspension.

After this brief digression and without further discussion of other people's schemes, I will at once proceed to the description of my own, the obvious contradictions in which account for it not being used.

A *central portion of the card*, (Fig. 1,) equal in diameter to the outer diameter of the central portion of the needle, is cut out of it.\*

A light *brass plate*, *a a*, consisting of a circle in which the cap is screwed and of two rectilinear arms, is screwed to the card, through these arms, over the central aperture, in the direction of the meridional line. The circle of this plate has on its upper, as well as on its lower side, in the direction of the east and west, small semi-cylindrical grooves *b b*, for the reception of the axles *d d*, of rotation of the needle.

The ends of the *needle e e*, are edgebar, and the central portion is flat; the inner diameter of the latter being nearly equal to the outer diameter of the circle of the brass plate. Brass axles *d d*, are screwed in the sides of the central portion of the needle, transversely to its length; and so as to project about one-eighth of an inch inside of the central portion.

When these axles are placed in the upper grooves of the brass plate, and the cap is screwed in its place, the latter presses the axles in the grooves, and by this precludes all independent movement of the needle.

When the needle is thus affixed to the brass plate, its lower end (the northern in north latitude,) is inserted through the aperture of the card, and the brass plate screwed to the latter.

When the plate, with the needle and the cap, is screwed to the card, the needle must be moved to an inclined position, making the lower end approach the north point of the card. After this, the card is put on the pivot, and if its north part proves to be *lower* than the *horizontal line*, drawn round the inside of the bowl, it will be a proof that the

\* It has been found useful in practice to make the east and west portions of the card heavier by screwing under it, in this direction a long brass plate O W, with a circular opening in the middle to correspond with the aperture of the card, and with two slides to balance the *card* horizontal.

needle is *too horizontal*; if *higher, too vertical*, so that the proper inclination to which the needle must be adjusted, is made apparent by the horizontality of the card \*, and the lower the cap is made, the more sensitive will the card be to the difference of dip, as the vessel changes her latitude.

The diagrams *E* and *F* will easily explain these self correcting principles of this inclined needle compass. Suppose the line *N S* (fig *E*) to represent the true magnetic dip of the latitude in which the vessel is, and *n s* the horizon, which in the bowl is represented by a line drawn round the inside of it in the plane of the card. When the needle is adjusted so as to form with the card an angle equal to *S c s* it will coincide with the dip and the card will be horizontal. Suppose, on the other hand, that the needle be adjusted so as to form with the card an angle *S' c s*, greater than the dip, the natural tendency of the needle being to coincide with the dip, the point *S'* would in the present instance strive to approach the point *S*, and the needle not being free to move without the card, would elevate the northern part of the card to the point *n'*.

If, on the contrary the needle forms a too small angle with the card, say *S'' c s* (fig. *F*), the same law tending to approach the point *S''* to *S* would depress the northern part of the card to the point *n''*. Thus, the apparatus will show itself whether the angle the needle forms with the card be correct to the dip, and if not so, how much it must be increased or diminished.

On the vessel's approach to the polar regions, the needle will require to be nearly vertical. *Then*, on account of the pivot interfering with such a position, it will be necessary to add to the opposite pole of the card, a portion of that differential weight, by which the horizontal needles are encumbered in ordinary latitudes.

On the contrary, by approaching to the magnetic equator, the needle will require a more and more horizontal position, and, at last, a parallelism to the card. Although the needle may be brought very near to the latter position, it cannot attain it entirely, (without making the mode of suspension more complicated, as will be seen hereafter) unless taken out and screwed on the lower side of the card, to the same brass plate *a a* through the holes *f f*, provided in the needle for that purpose. There is, however, a simpler mode of using this compass when crossing the torrid zone. In a steam boat, for instance, when passing those regions in a short space of time, instead of unscrewing the brass plate for taking out the needle, the card may be for the period *balanced horizontal*, and when the line is crossed, the card, (which for that pur-

\* I have had formerly a vertical semi-circle affixed over the cap to the upper side of the brass plate, inside of the central ring of the needle, which semi-circle could show in degrees the angle to which the needle was adjusted; but dispensed with it entirely for the sake of simplifying the whole apparatus, and because a compass needle cannot, and is not required, to show the exact dip of the latitude of the vessel. Indeed it is quite enough for all practical purposes, that the needle should be within ten or fifteen, and perhaps even twenty degrees from the line of dip.

pose must be painted on both sides,\*) may be reversed, and the cap screwed on the opposite side, the axles of rotation being shifted from the upper grooves of the brass plate to the opposite ones, without unscrewing the plate and taking the needle out. By these means, the *southern* pole of the needle, having been *above* the card in the northern magnetic hemisphere, will be placed *under* it, agreeably to the new condition of dip to which the ship has passed.

It has been kindly observed to me (and that by a person whose thorough experience in the matters makes me consider his opinions highly valuable), that the described construction of this compass makes it better fit for *local* (in the widest sense of the word) than for *general* navigation, that is, for vessels never intended to cross from one hemisphere to the other; and although in my contrivance I have provided the means (as above described) for *generalizing* its use, I set out immediately after hearing those remarks, to remove every objection of this kind, and have finished by considering the following construction, illustrated by Fig. 2, to answer all purposes.

A *meridional portion of the card*, (equal in dimensions to the outer shape of the needle when viewed from above) is cut out; thus dividing the card in two equal portions. These halves of the card are kept together by a light *brass bar a'a'*, screwed under them in the direction of east and west, and raised in the middle to the shape of a trapezium to admit the cap. The latter has a vertical *cut* in its top in which this bar fits. A small *brass ring or cup, c*, screws over the cap and the bar, and clamps the latter firmly to the cap. The cap has in its lower flange two grooves, *b b*, in the direction of the east and west to receive the axles of rotation of the needle *d d*, which are clamped to the cap by a threadmilled ring *r r*. The polar ends of each half of the card are prevented from receding one from the other by small very light brass *bent wires*, each of which after the vessel has passed the line of no dip, are to be shifted from the upper side of the card to the lower, and *vice versa*, without unscrewing anything. If it is not considered necessary that the needle should be a little longer than the diameter of its card, these wires are entirely to be dispensed with, because, there will remain on the circumference of the card portions which shall prevent the holes from receding one from the other.

If the necessity of having compasses correct in principle, for whatever latitude the ship may happen to be in is admitted, still there will be no reason to compel those, who never sail from one hemisphere to the other, to have equatorial compasses; and therefore, they may have those in which the needles cannot attain a horizontal position, but can easily be inclined to any angle between the horizontal and polar requirements. Looking back from the moveable needle, just described to the horizontal one, fixed to its card, and taking in consideration that there cannot be a great practical objection to the inclined needle being not *exactly* in the dip, I should propose, for ships trading in the limited space between

\* Of course, on the lower side, the points corresponding to E. and W., must be painted W. and E.

some given latitudes, such, for instance, as coasting vessels, and which will always prefer a *cheaper* compass, I should propose, I repeat, the mode of construction illustrated by fig. 3, and scarcely more expensive than the ordinary horizontal compass, but by far more correct in principle and efficiency.

In this compass the needle must be expressly made for the dip of the average latitude, and remain fixed in two cuts made in the wide flange of the cap, by which flange the needle and cap are to be screwed to the card. The opening for the pivot of the bowl may be increased from that represented in the diagram, by cutting out greater portions in the lower part of the *circle* of the needle, as shown by the dotted lines. The height of the ordinary *compass bowl* for the inclined needle must be about the diameter of the card or the length of the needle, and in the bottom there must be a counterpoising weight.

It is an undeniable fact, that, however much ingenuity, knowledge and skill shall be made use of in the endeavours to render the magnetic needle entirely quiet at sea (where so many disturbing causes act against such a state), it can hardly be hoped that we shall ever attain entirely this desirable end, because the best method of curing an evil consists in removing the causes of it, which in these instances will exist as long as the world; therefore, we shall never be justified if we do not introduce in our compasses *all* the remedies likely to advance us in attaining this object.

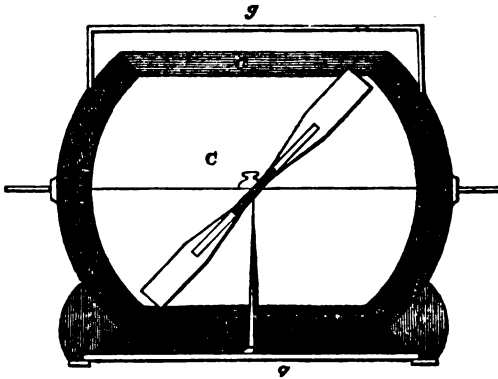
To Sir W. Snow Harris belongs the honour of adapting to the mariners' compass the calming influence which copper exercises on the needle, when it is vibrating from any extraneous cause, and it would be unjustifiable if on the mere plea of possessing *any* good mode of suspension, we should wantonly neglect this additional cure against the evils with which the compass has to struggle at sea. My experiments on the comparative merits of the horizontal and inclined needle having been made on those with *brass* bowls, it remains a question (which I hope will soon be resolved by experience) whether by inclining the needle to the dip, and thus increasing the distance of its poles from the copper bowl, we gain more steadiness by this natural cure, than we lose in the artificial assistance of copper.

But whatever further experiments may prove, it is no longer a question that copper *has* a beneficial influence, and that the greater its mass, and density, the more we gain; therefore, it cannot but be useful to find the means to adapt it to the inclined needle.

These considerations have urged me to try some experiments in a rough, but fortunately conclusive way. I have found, that *two* copper rings (placed one above the other with the inclined needle inside of them, and so that each of the poles was near each of the rings) produced (notwithstanding the imperfect way in which the experiment was made) as great a calming influence on the needle, as *one* of those rings well arranged to have the utmost effect, could produce on the horizontal needle, which had both its poles encircled in the same ring.

This experiment gave me the idea of encircling the inclined needle in a solid copper spherical bowl, represented by the annexed diagram, in which

the letters *cc* show the compass bowl, *ll* a leaden ring, and *gg* glasses.



For putting the card in this bowl, the latter must be cut in two nearly equal portions, in a horizontal direction, a little above its middle, so that the upper part will form the cover, and the lower hang in gimbals as usual.

My only object in this communication, being a desire to add my mite to the general mass of useful knowledge for the benefit of navigation in general, I may be allowed to observe, that, possibly, Mr. Dent's compasses, which are found so very useful for boats, might be improved by a similar application of the inclined needle. On the other hand, I may be permitted to suggest, that looking at the mass of magnetism put in action in the highly finished standard compasses now adopted in the British navy, it may easily be imagined what quantity of superfluous weight there must be to counterbalance the card's tendency to incline under the action of the dip, and therefrom be concluded whether the self-correcting inclined needle card would not be an advantageous substitute to it.

There is another suggestion, which I am desirous to submit; whether it would not be more conducive towards attaining a correct result in accordance with the laws of magnetism, if the refined and delicate observations of the magnetic force, in various parts of the globe, were made with the inclined needle, instead of one on the compulsorily horizontal principle.

In conclusion, I will state, that the generous impartially and encouraging approbation with which, I am proud to say, some of the highest authorities in those matters (whose attention has happened to be directed to it, and amongst whom suffice it to name Admiral Sir Francis Beaufort,) have kindly declared this compass worthy of being tried on a wider scale, together with the experiments made in my own country, give me some reason to entertain the flattering hope, that at some future, and not distant period, many ships will be navigated to their advantage by compasses correct to the nature of the magnetic laws, there appearing to be no justification for chaining the needle to a horizontal position when it requires to dip.

G. B.

PROCEEDINGS OF H.M.S. SPHINX: *Extracts from the Remark Book of Com. C. F. A. Shadwell.*

(Concluded from page 569.)

ASSUMING by way of illustration an imaginary example, let us suppose that observations were made at a place A, on May 1st, and May 11th, and that it was found that

|  | h. | m. | s.    |
|--|----|----|-------|
| On May 1st, Chronometer slow on local mean time }<br>at noon | 6  | 45 | 14.30 |
| On May 11th, do. do. do. }                                   | 6  | 45 | 10.10 |
| Hence the difference   |    |    | 4.20  |

Whence we obtain the rate in the interim (interval 10 days) + 0.42s.

Let the ship be then supposed to have sailed to a place B, and that

|   | h. | m. | s.   |
|---|----|----|------|
| On May 18th, Chronometer slow on local mean time }<br>at noon | 7  | 2  | 9.70 |
| On May 23rd, do. do. do. }                                    | 7  | 2  | 0.50 |
| Hence the difference  |    |    | 9.20 |

and the corresponding rate in the interval (5 days) + 1.84s.

In determining the meridian distance between the places A and B, I apprehend the usual plan is to compare the last observation at A with the first at B, correcting the former with the mean rate in the interval.

Thus in the present fictitious example, the rate at A was + 0.42s., and at B + 1.84s. hence the mean rate is + 1.13s. Then we have

|  | h. | m.   | s.    |
|--|----|------|-------|
| May 11th, Chronometer on mean time at A, at noon | 6  | 45   | 10.10 |
| Accumulated rate 1.13 × 7                        |    |      | 7.91  |
| Chronometer slow at A on the 1st                 | 6  | 45   | 2.19  |
| Do. B, do  | 7  | 2    | 9.70  |
| Meridian distance between A and B                | 17 | 7.51 |       |

This I apprehend is a very usual method of treating the problem, the niceties of the corrections for the supplemental error, being disregarded.

Since however, the first rate determined at A, strictly speaking belongs to the middle of the interval between the 1st and 11th, that is to the epoch May 6th, and the second at B to the middle of the interval between the 18th and 23rd, that is to the epoch May 20.5d., I think the value of the measurement would be improved by taking this into account, which may be done as follows.

The mean rate corresponding to the epoch May 6th, has been assumed to be + 0.42s., and that on May 20.5d. + 1.84s., hence in 14.5 days

it has changed 1.42s., and on the supposition of an equal and uniform alteration  $\frac{1.42s.}{14.5} = 0.098s.$  will be the daily variation, which has taken place in the rate, whence its value on any intermediate day can be determined.

Thus  $0.42s. + (0.098s. \times 5) = 0.91s.$  is the value of the rate on May 11th.

And again  $0.42s. + (0.098s. \times 12) = 1.596s.$  is the value of the rate on May 18th.

Hence we have, proceeding again "de novo" and remembering that  $\frac{0.91 \times 1.596}{3} = 1.25s.$  is the new mean rate to be employed between May 11th and 18th.

|  | h. | m. | s.    |
|--|----|----|-------|
| May 11th, Chronomter slow on mean time at A }<br>at noon | 6  | 45 | 10.10 |
| Accumulated rate 1.25s. + 7                              |    |    | 8.75  |
| Chronometer slow at A on the 18th                        | 6  | 45 | 1.35  |
| Do. B. do.   | 7  | 2  | 9.70  |
| Meridian distance between A and B                        | 17 | 8  | 35    |

This result is preferable in my opinion to the one previously obtained, but still I imagine not so satisfactory as the one that might be deduced by the treatment I adopt.

In the determination of the rates by the observations made at each end of the chain, equal confidence is of necessity placed on the two determinations of the error on local mean time. Why therefore in determining the meridian distance, should the 1st and 4th observations, except in so far as the deduction of the rate is alone concerned, be thrown overboard and the absolute errors of the chronometer on the respective local mean times be made to depend wholly on the 2nd and 3rd observations?

I always use the mean errors corresponding to the middle of the intervals for which their rates have been determined. Thus in the imaginary case under discussion taking the mean of the errors of the Chronometer on local mean time at A, we find that on May 6th, the Chronometer was slow 6h. 45m. 12.20s., and in a similar manner at B, on May 20.5d., 7h. 2m. 5.10s.

Hence we have,—

|   | h. | m. | s.    |
|---|----|----|-------|
| May 6th, Chronometer slow on mean time at A, }<br>at noon | 6  | 45 | 12.20 |
| Accumulated rate 1.13s. + 14.5s.                          |    |    | 16.38 |
| Chronometer slow at A, May 20.5d.                         | 6  | 44 | 55.82 |
| Do. B. do.  | 7  | 2  | 5.10  |
| Meridian distance A to B                                  | 0  | 17 | 9.28  |

which I consider a preferable result to either of the two preceding.

It remains to be shown how these principles are to be carried out in the measurement of a meridian distance, in cases when the place



visited is touched at intermediately in point of time to the period when the rates are determined.

Suppose for instance that in the instance under discussion above, the ship in proceeding from A to B, had on the 13th May, touched at a place C, and that the error of the chronometer on local mean time (reduced to noon) had been found to be 6h. 52m. 12.70s.

Proceeding on the hypothesis of equable and uniform variation of rate we have  $0.12s. + (0.098s. \times 7) = 1.106s.$  for the value of the rate on May 13th.

Whence we have  $\frac{0.42s. \times 1.106s.}{2} = 0.763s.$  for the value of the mean rate between the 6th and 13th.

Hence as before,—

|  | h. | m. | s.    |
|--|----|----|-------|
| May 6th, Chronometer slow on mean time at A }<br>at noon | 6  | 45 | 12.40 |
| Accumulated rate $0.763 \times 7 =$ . . . . .            |    |    | 5.34  |
| Chronometer slow at A, May 13th . . . . .                | 6  | 45 | 6.86  |
| Do. C, do. . . . .                                       | 6  | 52 | 12.70 |
| Meridian distance from A to C . . . . .                  | 7  | 5  | 8.4   |

I am aware that in the mode of proceeding, we disregard the refinement of the correction for the supplemental error adopted by Flinders, the improvements on that method proposed by Tiarks, and the still more elaborate elegancies of M. Daussy, but I confess that after reading and writing a good deal on this subject, and considering the matter in all its bearings, I have arrived for the present at the conclusion, that these highly laboured attempts to correct the inequalities of rate are scarcely supported by the present state of mechanical perfection of the chronometers themselves, or warranted by the probable mathematical precision of the observations themselves, which in strictness can only be considered an approximation to absolute truth.

To return from this digression, for the determination of the meridian distance between Sincapore (Battery) and Hong-kong (Dent's Wharf), by the observation at the former place on October 5th and 10th, and at the latter on October 28th, and November 13th. We have the rate and absolute error on the respective local mean times at the Epochs October 7, 5d. and November 3, 5d., and from the former we obtain the mean rates for the whole interval as follows:—

|    |       |
|----|-------|
| Z— | 0.44  |
| R— | 48.18 |
| Y— | 3.48  |
| M+ | 0.27  |
| A— | 7.33  |

And proceeding in the manner just described. We find,—

|                          | h. | m. | s.    |
|--------------------------|----|----|-------|
| Meridian Distance by Z—0 | 41 | 10 | 87    |
| R—0                      | 41 | 17 | 26    |
| Y—0                      | 41 | 18 | 40    |
| M—0                      | 41 | 26 | 56    |
| A—0                      | 41 | 20 | 72    |
|                          | 0  | 41 | 18.76 |

Five chronometers, greatest interval between the observations, 18 days, greatest difference between any two of them 15.69s.

The reduction to Victoria Cathedral (Mr. Raper's position) is + 0.26s.

Whence the Meridian distance between the two places becomes 0h. 41m. 19.02s.

Excepting a brief visit to Whampoa and Macao in the early part of November, the *Sphinx*, remained at Hong-kong until November 26th. The weather being occasionally very cloudy, I had no opportunity of rating the chronometers towards the end of the month by equal altitudes, but on the 24th, obtained the errors of the chronometers on local mean time by single altitudes (A.M.).

On the 26th, at 8 A.M., we proceeded to the northward. We were no sooner clear of Hong-kong, than we had a strong adverse Monsoon and a heavy head sea. I observed the wind evinced a tendency to follow the trend of the land. We kept at a reasonable distance off shore going outside all the islands.

On the 28th, at 1 P.M., we arrived off Amoy, and after anchoring for an hour in the small and snug harbour formed by the Tac-tan Islands, which should be entered cautiously by a large or a long vessel, as there is no great overplus of room, we proceeded up the harbour and anchored off the Cornwallis Rocks.

Amoy, rich in filth and stinks has claims to be considered as the "Brentford" of the Celestial Empire, a high position on the pedestal of impurity, when we consider that Brentford is the nastiest town in England, a fact which a six years residence at school there has forcibly impressed on my memory.

We obtained a sight on shore (A.M.) for the chronometers on November 30th.

We left Amoy on the morning of December 1st, and proceeded onwards to the northward, we had a stiff Monsoon and heavy head sea, on our passage up. The set of the current was much against us, especially in the Formosa Channel.

At 4h. 40m. P.M., on the 4th, we were off the Hie-shan Islands. The fire of the Monsoon was fast slackening. At noon, Video bore north  $108^{\circ}$  and we steered to make it accordingly, expecting to see at about 2h. A.M. on the 5th.

Land was reported at 11h. 30m. P.M., which rather surprised us, and not being able to make it out and passing at 2h. A.M., some rocks which we could not reconcile with our supposed position on the chart, we eased and stopped the engines and waited for daylight.

At daylight we found that by an indraught into the Chusan Archipelago we had been set considerably to the westward, which shows that great caution is necessary in passing these shores at night.

We made Gutzlaff Island soon after noon, and at 6h. P.M., came to for the night inside the Yang-tse-kiang in  $4\frac{3}{4}$  fathoms.

At daylight on the 6th, we wayed and proceeded onwards. At 1h. P.M., anchored at Woo-sung.

At daylight on the following morning we proceeded up the river to

Shang-hai without the assistance of a pilot. We wayed at daylight soon after the ship swung to the ebb, the tide then beginning to run strong. At 8h. getting into a very shoal part of the river, the engines were eased and stopped, and the vessel allowed to remain stationary to await the rise of the tide. At 11h. 40m. A.M., we proceeded, the water mean while having fallen to 13 feet, while the ship was drawing 13 feet 11 inches.

I may observe here that a somewhat loose opinion prevailed at Shang-hai, that the river was gradually filling up. Possibly it may be so, but more probably it is only the form of the channel that alters.

At Shang-hai we obtained equal altitudes for the chronometers, on December 10th and 18th, by which a new rate was determined.

We left Shang-hai on December 21st at 9h. A.M., got clear of the mouth of the Yang-tse-kiang soon after midnight, and disconnecting the wheels sailed down towards Hong-kong, keeping well clear of the land.

At 1h. 15m. A.M. on the 26th, we made the land to the eastward of the Lymoon passage, and standing off and on till daylight, connecting the wheels and getting the steam up we finally anchored in Hong-kong Harbour, at 8h. 30m. A.M. During our passage down the coast we experienced a southerly set of from fifteen to twenty miles per diem.

Sights by equal altitudes having been obtained on shore, on December 27th and 4, 6d, (January 15th,) an interval of 19 days, we obtained data for the determination of the absolute errors at the mean epoch and also for the rate at that period; and from these data we proceed to discuss the Meridian distances first between Hong-kong and Amoy, and secondly between Hong-kong and Shang-hai, both on the direct and return voyages.

We have already stated, the rate of the chronometers by equal altitudes, soon after our arrival at Hong-kong, at the main epoch November 3, 5d. also that the absolute errors of the chronometers on local mean time, were determined on November 30th, at Amoy.

At Shang-hai at the main epoch December 14th, (by observations on the 10th and 18th) the rates were found to be.

|    |           |
|----|-----------|
| By | Z + 0.34  |
|    | R — 42.81 |
|    | Y — 2.38  |
|    | M + 1.99  |
|    | A — 2.02  |

We have before stated that the errors of the chronometers on local mean time were determined on November 24th, previous to our departure to the northward.

Correcting the rates on the theory of the equability of variation we have on November 24th.

|           |         |
|-----------|---------|
| Rate of Z | + 0.11  |
| R         | — 44.49 |
| Y         | — 2.79  |
| M         | + 1.55  |
| A         | — 4.39  |

Similarly we have for the rates on November 30th at Amoy.

|   |         |
|---|---------|
|   | s.      |
| Z | + 0.179 |
| R | -44.29  |
| Y | - 2.67  |
| M | + 1.68  |
| A | - 3.68  |

From whence again we ultimately obtain the rates at the mean epoch November 27th, between Hong-kong and Amoy.

|   |         |
|---|---------|
|   | s.      |
| Z | + 0.144 |
| R | -44.69  |
| Y | - 2.73  |
| M | + 1.615 |
| A | - 4.035 |

With these last rates and the absolute errors of the chronometers on local mean time at Hong-kong on November 24th, and at Amoy at November 30th, we then obtain the meridian distance between Dent's Wharf at the one place, and the Cornwallis Rocks at the other.

|      | h. | m. | s.    |
|------|----|----|-------|
| By Z | 0  | 15 | 47.78 |
| R    | 0  | 15 | 54.97 |
| Y    | 0  | 15 | 50.38 |
| M    | 0  | 15 | 50.18 |
| A    | 0  | 15 | 55.66 |

|              |   |    |       |
|--------------|---|----|-------|
| General Mean | 0 | 15 | 51.79 |
|--------------|---|----|-------|

The reduction from Dent's Wharf to Victoria Cathedral is—0.26s., and that from the Cornwallis Rocks to the Citadel—0.77s.

Whence we finally have for the Meridian distance between Victoria Cathedral, Hong-kong and the Citadel at Amoy Oh. 15m. 50.76s.

Five chronometers, greatest interval between the observations 6 days, greatest difference between any two of them 7.88s.

Next for the meridian distance between Hong-kong and Shang-hai using the observations for the absolute errors on local mean time of the chronometers on November 24th at the former place, and on December 10th and 18th at the latter; and from, which last the two errors at the mean epoch December 14th are immediately obtained and interpolating between the rates on November 24th and December 14th, already reduced, we have for the mean rates in the interval.

|      |   |       |
|------|---|-------|
|      |   | s.    |
| By Z | + | 0.225 |
| R    | - | 43.90 |
| Y    | - | 2.585 |
| M    | + | 1.77  |
| A    | - | 3.205 |

and finally the meridian distance on the direct voyage.

|      | h. | m. | s.    |
|------|----|----|-------|
| By Z | 0  | 29 | 16.35 |
| R    | 0  | 29 | 10.22 |
| Y    | 0  | 29 | 26.71 |
| M    | 0  | 29 | 14.33 |
| A    | 0  | 29 | 16.89 |

|              |   |    |       |
|--------------|---|----|-------|
| General Mean | 0 | 29 | 16.90 |
|--------------|---|----|-------|

The reduction from Dent's Wharf to Victoria Cathedral is—0·26s., and that from Mr. Beale's House to the Consular Flagstaff—0·56s., whence we finally obtain for the meridian distance between Victoria Cathedral at Hong-kong and the Consular Flagstaff at Shang-hai Oh. 29m. 16·08s.

Five chronometers, greatest interval between the observations 16 days, greatest difference between any two of them 16·49s.

By the observations made at Hong-kong on our return on December 27th and 4, 6d (January 15th) the errors of the chronometers at the mean epoch December 36, 5d. (January 5, 5d.) were determined and also the rates at the same time, the latter were as follows.

|    |   |         |
|----|---|---------|
| By | Z | + 1·12  |
|    | R | — 42·63 |
|    | Y | — 1·61  |
|    | M | + 1·33  |
|    | A | — 2·80  |

Comparing these with those at the mean epoch December 14d., we have for the rate at the middle of the interval

|    |   |         |
|----|---|---------|
| By | Z | + 0·73  |
|    | R | — 42·72 |
|    | Y | — 1·995 |
|    | M | + 1·61  |
|    | A | — 2·41  |

And we ultimately obtain as the meridian distance between Hong-kong and Shang-hai

|    | h. | m. | s.       |
|----|----|----|----------|
| By | Z  | 0  | 29 15·43 |
|    | R  | 0  | 20 12·0  |
|    | Y  | 0  | 29 15·60 |
|    | M  | 0  | 29 24·50 |
|    | A  | 0  | 29 18·95 |

General Mean 0 29 17·29

Applying the reductions as before, we have Oh. 29m. 16·47s. as the meridian distance between the Consular Flagstaff at Shang-hai and Victoria Cathedral Hong-kong.

Five chronometers, greatest interval between the observations 9 days, and greatest difference between any two of them 12·50s.

Both the general results and the individual parts of these and the preceding measurement exhibit an accordance which is highly satisfactory.

An abstract of all the observations for the variation of the compass which have been made on board during the year 1850, compiled by Mr. G. L. Carr, master, accompanies this book.

Also a Tabular abstract of the meridian distances which have been measured.

I shall close these remarks with a few speculations which have suggested themselves to me during the reduction of the observations for the meridian distances.

I have observed that many persons are at fault when called upon to recollect the signs of the corrections of the two parts of the "Equation of equal altitudes," and it has occurred to me that a convenient technical rule, might be given independent of any mathematical condition whatever.

The rule as it is very clearly expressed in Riddle's Navigation, is as follows:—

The first part that under log A, is + when the polar distance is increasing, and — when it is decreasing; and the second part that under log B, is — when the polar distance is acute and increasing or obtuse and decreasing; and + when the polar distance is obtuse and increasing or acute and decreasing.

Now the polar distance being always measured from the elevated pole it is clear that the sign of the first part is positive from the summer to the winter solstice, and negative from the winter to the summer solstice,

Again, the second part is positive from the autumnal equinox to the winter solstice, and from the vernal equinox to the summer solstice, and negative from the summer solstice to the autumnal equinox, and from the winter solstice, to the vernal equinox.

Hence generally the sign of the first part is positive from the summer to the winter solstice, and negative from the winter to the summer solstice, and that of the second positive between the equinoxes and the solstices, and negative between the solstices and the equinoxes.

These rules will hold equally good for the southern hemisphere provided we agree to understand the terms summer and winter solstices, and vernal and autumnal equinoxes in their natural sense, according to the actual seasons, and not in that technical sense to which the monopoly of astronomical observations in the northern hemisphere has caused astronomers to attach to them.

It will thus be observed that the signs of the corrections can thus be expressed independently of any mathematical condition, and may be viewed merely as simple functions of the seasons of the year.

CHARLES D. A. SHADWELL, *Commander.*



*Table of the variation of the Compass, ascertained on board H.M.S. Sphinx, during the year 1850.*

| Date. | Latitude.    | Longitude. | Variation. | Date. | Latitude | Longitude. | Variation. |
|-------|--------------|------------|------------|-------|----------|------------|------------|
| March |              |            |            | May   |          |            |            |
| 7     | 38 15 N.     | 14 32 W    | 19 35 W    | 6     | 26 27 S. | 39 49 W    | 2 06 W     |
| 8     | 35 29 "      | 15 43 "    | 19 30 "    | 8     | 28 27 "  | 34 59 "    | 14 28 "    |
| 9     | Madaira      | 19 30 "    | 19 30 "    | 13    | 34 08 "  | 29 01 "    | 15 36 "    |
| 13    | 30 41 "      | 17 39 "    | 19 02 "    | 14    | 34 10 "  | 25 32 "    | 17 53 "    |
| 14    | 27 56 "      | 18 46 "    | 16 00 "    | 15    | 34 24 "  | 22 32 "    | 22 30 "    |
| 15    | 25 08 "      | 19 46 "    | 15 30 "    | 16    | 34 15 "  | 19 08 "    | 21 16 "    |
| 16    | 22 47 "      | 21 13 "    | 16 32 "    | 17    | 34 32 "  | 15 56 "    | 23 54 "    |
| 17    | 20 16 "      | 22 39 "    | 17 37 "    | 18    | 33 49 "  | 13 13 "    | 28 17 "    |
| 19    | PGrande      | IStVinct   | 17 30 "    | 20    | 33 21 "  | 9 33 "     | 28 50 "    |
| 20    | 14 47 "      | 24 07 "    | 18 20 "    | 22    | 33 53 "  | 1 27 "     | 32 17 "    |
| 22    | 12 07 "      | 20 53 "    | 23 30 "    | 23    | 33 56 "  | 1 07 E     | 31 23 "    |
| 23    | 10 45 "      | 19 09 "    | 23 14 "    | 25    | 34 44 "  | 6 25 "     | 29 03 "    |
| 25    | 9 33 "       | 15 37 "    | 23 27 "    | 26    | 34 35 "  | 9 13 "     | 36 48 "    |
| 26    | Sierra Leone | 14 01 "    | 27 34 23 " | 27    | 34 23 "  | 12 09 "    | 37 19 "    |
| 31    | 7 07 "       | 12 51 "    | 26 10 "    | 28    | 34 46 "  | 15 18 "    | 37 20 "    |
| April |              |            |            | June  |          |            |            |
| 3     | 4 24 "       | 6 47 "     | 27 47 "    | 13    | 35 53 "  | 20 27 "    | 34 02 "    |
| 4     | 4 50 "       | 4 31 "     | 27 34 "    | 18    | 36 38 "  | 38 26 "    | 36 00 "    |
| 5     | 4 32 "       | 1 57 "     | 28 00 "    | 21    | 37 18 "  | 45 30 "    | 39 00 "    |
| 6     | 5 41 "       | 0 17 E     | 27 49 "    | 24    | 37 00 "  | 55 37 "    | 33 28 "    |
| 8     | 4 25 "       | 3 17 "     | 20 52 "    | 26    | 37 30 "  | 62 59 "    | 33 59 "    |
| 9     | 2 04 "       | 3 44 "     | 19 57 "    | 27    | 37 18 "  | 67 30 "    | 33 50 "    |
| 10    | 0 43 "       | 2 39 "     | 19 50 "    | 28    | 36 37 "  | 71 06 "    | 33 30 "    |
| 12    | 0 53 S.      | 1 45 W     | 19 13 "    | 29    | 36 01 "  | 74 23 "    | 33 00 "    |
| 13    | 3 01 "       | 3 04 "     | 17 13 "    | 30    | 35 45 "  | 77 7 "     | 30 14 "    |
| 14    | 4 40 "       | 5 39 "     | 16 00 "    | July  |          |            |            |
| 15    | 5 52 "       | 8 24 "     | 13 11 "    | 5     | 35 51 "  | 84 01 "    | 31 45 "    |
| 17    | 8 01 "       | 12 44 "    | 13 00 "    | 7     | 34 22 "  | 89 41 "    | 24 33 "    |
| 19    | 8 13 "       | 14 53 "    | 13 00 "    | 8     | 32 29 "  | 92 19 "    | 20 05 "    |
| 20    | 9 35 "       | 17 30 "    | 12 20 "    | 11    | 27 25 "  | 96 58 "    | 14 48 "    |
| 21    | 10 50 "      | 19 56 "    | 10 51 "    | 12    | 25 49 "  | 98 32 "    | 14 17 "    |
| 22    | 11 57 "      | 22 03 "    | 9 23 "     | 13    | 23 46 "  | 100 21 "   | 9 57 "     |
| 23    | 13 07 "      | 24 06 "    | 8 23 "     | 14    | 22 19 "  | 100 59 "   | 11 00 "    |
| 24    | 14 17 "      | 25 55 "    | 7 27 "     | 15    | 20 28 "  | 101 22 "   | 8 11 "     |
| 25    | 15 21 "      | 27 44 "    | 7 15 "     | 16    | 17 26 "  | 102 39 "   | 4 21 "     |
| 26    | 16 12 "      | 29 40 "    | 6 02 "     | 17    | 14 43 "  | 103 08 "   | 1 08 "     |
| 27    | 17 10 "      | 31 54 "    | 4 15 "     | 18    | 12 18 "  | 103 23 "   | 1 54 "     |
| 28    | 18 54 "      | 34 39 "    | 4 37 "     | 20    | 6 56 "   | 104 42 "   | 7 00 "     |
| 29    | 20 39 "      | 36 21 "    | 4 30 "     | Sept  |          |            |            |
| 30    | 21 40 "      | 38 41 "    | 3 32 "     | 30    | 11 11 N. | 100 98 "   | 1 10 E     |

These observations have in all cases been corrected for the local deviation of the compass.

C. D. A. S.

*Abstract of Meridian distances, measured on board H. M. S. Sphinx during the year 1850.*

| Date.            | Between what places. | Position. | Meridian Distances. | N. o. of Chronom. | Greatest interval between the Observtn | Greatest diff. btwn. any two of the Chronom. | Points where observations were taken, or to which the measurements have been reduced. |
|------------------|----------------------|-----------|---------------------|-------------------|--|--|---|
|                  |                      |           | m. s.               |                   | Days.                                  | o  |   |
| July and August  | Packnam Singapore    | W.        | 13 16.73            | 3                 | 28                                     | 12.71  | Fort battery.*  |
| August & October | Packnam Singapore    | W.        | 13 11.32            | 3                 | 38                                     | 21.06  | Fort Battery *  |
| October          | Hongkong Singapore   | E.        | 41 19.02            | 5                 | 18                                     | 15.69  | Victoria Cathedral Battery.   |
| November         | Amoy Hongkong        | E.        | 15 50.76            | 5                 | 6                                      | 7.88   | Citadel Victoria Cathedral.   |
| November & Dec.  | Shanghai Hongkong    | E.        | 29 16.08            | 5                 | 16                                     | 16.49  | Consular Flagstaff Victoria Cathedral.  |
| December & Jan.  | Shanghai Hongkong    | E.        | 29 16.47            | 5                 | 9                                      | 12.50  | Consular Flagstaff Victoria Cathedral.  |

\* These measurements can merely be considered as approximate owing to the long interval between the observations and the difficulty of taking them at Packnam.

**EXPLANATORY OBSERVATIONS.**—The letters W. and E. in the column headed position, indicate the position of the first named place with reference to the second. By the greatest interval between the observations is meant the number of days that have elapsed either between the last observation employed in the determination of the rate, at the first place, and the first at the second, or between the two observations for the determination of the absolute errors on local mean time, at the two places which have been used in the measurement.

### STEAM NAVIGATION.

*An act to consolidate and amend the Laws relating to the regulation of Steam Navigation, and to the boats and lights to be carried by sea-going vessels.*—[Received the Royal Assent, August 7th, 1851.

WHEREAS it is expedient to consolidate and amend the laws relating to the regulation of Steam Navigation, and to the boats and lights to be carried by sea-going vessels: be it therefore enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lord's spiritual and temporal, and commons, in this present Parliament assembled, and by the authority of the same,

#### *Acts related.*

1. That an act passed in the tenth year of the reign of her present NO. 12.—VOL. XX. 4 M



Majesty, intituled "An Act for the regulation of Steam Navigation, and for requiring sea-going vessels to carry boats," and another act passed in the twelfth year of the reign of her present Majesty, intituled "An Act for the further regulation of Steam Navigation, and for limiting in certain cases, the number of passengers to be conveyed in steam-vessels," shall be repealed from the time that this act comes into operation as hereinafter provided, except as to any penalties incurred thereunder, and also except as to any certificates of the sufficiency of steam-vessels issued thereunder by the Lords of the Committee of the Privy Council of Trade, which certificates, unless the same be cancelled or revoked under the provisions of this act, shall remain and be in force as if this act had been passed and had come into operation before the issuing thereof, and they had been issued thereunder.

*The Naval Department of the Board of Trade to assist in the execution of this act.*

II. And be it enacted that the persons from time to time appointed to assist the Lords of the said Committee in the execution of the Mercantile Marine Act, 1850, and who are hereinafter referred to as the Naval Department of the Board of Trade, shall assist the Lords of the said Committee in the execution of this act.

*Survey of Steam-Vessels and number of passengers.*

And with respect to the provision to be made for insuring the periodical survey of steam vessels, be it enacted as follows:—

*Steam-Vessels to be surveyed, and Owners to transmit declarations to Board of Trade twice a year.*

III. The owner of every steam-vessel constructed or intended to carry passengers (except vessels which fall within the definition of foreign-going ships contained in the Mercantile Marine Act, 1850, and are employed in the conveyance of the royal public mails or dispatches under contract with and under the superintendence of the Lord High Admiral or the Commissioners for executing the office of Lord High Admiral,) shall cause such steam-vessel to be surveyed twice at least in every year, at the time hereinafter directed, by a shipwright-surveyor and by an engineer-surveyor appointed for the purposes of this act by the lords of the said committee, such shipwright-surveyor, in the case of an iron steam-vessel, being a person properly qualified to survey iron steam-vessels, and shall obtain a declaration of the sufficiency and good condition of the hull of such steamer, and of the boats and other equipments thereof, required by this act; and also, if the lords of the said committee so require, a statement of the number of passengers (whether deck passengers or other passengers) which such vessel is constructed to carry, under the hand of such shipwright-surveyor, and a declaration of the sufficiency and good condition of the machinery of such steamer under the hand of such engineer-surveyor, and in such declarations it shall be distinguished whether such vessel is in construction and equipments adapted for sea service as well as for river or lake service, or for river or

lake service only; and when any such vessel is adapted for lake and river service only, such declaration shall state the local limits within which such vessel is in the judgment of the surveyor adapted for plying; and in the case of sea-going vessels the declaration of one of the surveyors shall contain a statement that he is satisfied that the compasses have been properly examined and adjusted; and such owner shall transmit such declarations to the lords of the said committee within fourteen days after the dates thereof respectively.

*Times appointed for the Surveys.*

IV. In all cases where the same may be possible such surveys shall be made in the months of April and October, and such declarations shall be transmitted on or before the thirtieth day of April and the thirty-first day of October respectively, or if the last preceding survey of any such steam-vessel were not made in either of those months, then such survey shall be made, and such declaration transmitted in the course of the thirty days next, before the expiration of six months next, after the date of the certificate granted, as hereinafter mentioned, upon the last preceding survey; but if the owner of any such steam-vessel as aforesaid be unable to have the same surveyed in the month of April or October, as the case may be, or in the course of such thirty days as aforesaid, either by reason of such vessel being absent from the United Kingdom during the whole of those periods respectively, or by reason of such vessel, or the machinery thereof, being under construction or repair, or of such vessel being laid up in dock, or for any other reason satisfactory to the lords of the said committee, then the owner of such steam vessel shall have the same surveyed as aforesaid as soon thereafter as possible, and shall transmit such declarations to the lords of the said committee, within fourteen days after the date thereof, together with a statement of the reasons which have prevented the survey of such vessel at the time hereinbefore prescribed; and the owner of every such steam-vessel in respect of which such declarations shall not have been transmitted at the times and in the manner hereinbefore directed shall, except in any case in which the survey of such vessel shall have been prevented as hereinbefore is provided, forfeit and pay the sum of ten shillings for every day that the sending of such declarations is delayed, and such sum shall be paid upon the issue of the certificate hereinafter mentioned, together with the fee hereinafter mentioned, unless the lords of the said committee think fit in any case to remit such forfeiture or any part thereof.

*Board of Trade to grant Certificates, &c.*

V. Upon the receipt of such declaration the lords of the said committee shall register the same, and, if they are satisfied that the provisions of this act have been complied with, shall cause to be transmitted to the master or owner of the steam-vessel to which declarations refer a certificate, signed by one of the secretaries of the said committee, or by some one or more of the members of the Naval Department of the Board of Trade, or the secretary to such department, that the provisions of the law with respect to the transmission of declarations in respect of such

vessel have been complied with; and such certificate shall be called a "sea-going certificate" where, according to the declaration of the surveyor, such vessel is adapted for sea service as well as river or lake service and such certificate shall be called a "river certificate" where, according to such declaration, such vessel is adapted for river or lake service only, and shall set out the local limits within which such vessel is to ply; and where any such vessel is constructed to carry passengers, and the lords of the said committee think fit so to do, in order to prevent the overcrowding of such vessel with passengers, they shall insert in such certificate the number of passengers, whether deck passengers or other passengers, which such vessel is constructed to carry; and the lords of the said committee shall from time to time transmit lists of the vessels in respect of which such certificates have been issued to the officers of customs in all ports in the United Kingdom, and such officers shall cause such lists to be put up in a conspicuous place in the custom-house at each port.

*Board of Trade may Cancel Certificates and require fresh declarations.*

VI. The lords of the said committee may revoke and cancel such certificates in any case where they have reason to believe that the declarations of the sufficiency and good condition of the hull and machinery of any vessel, or either of them, have been fraudulently or erroneously made, or that such certificate has otherwise been issued upon false or erroneous information, or where they have reason to believe that since the making of such declaration the hull or machinery of such vessel has sustained any injury, or it is otherwise insufficient; and in every such case the lords of the said committee may, if they think fit, require the owner to have the hull or machinery of such vessel again surveyed, and to transmit a further declaration or declarations of the sufficiency and good condition thereof before re-issuing any certificate, or granting a fresh one in lieu thereof; and the lords of the said committee may at any time revoke any certificate for the purpose of inserting in any certificate to be issued in lieu thereof the number of passengers which the vessels to which such certificate relates is constructed to carry.

*How long Certificates to continue in force.*

VII. No certificate bearing date on any day between the first of April and the fifteenth of May in any year shall be held to be in force, for the purposes of this act, after the fifteenth day of November following, and no certificate bearing date on any day between the first of October and the fifteenth of November following shall be held to be in force for the purposes of this act after the fifteenth day of May following, and no certificate bearing date on any day not falling within the periods before defined shall be held to be in force after the expiration of six months from the date thereof, and no certificate shall be in force after notice to the owner or master of the vessel to which the same relates by the lords of the said committee that they have revoked the same: provided always that if any steam vessel shall have been absent from the United Kingdom

for the whole of the month of April or the whole of the month of October in any year, or the whole of the thirty days next before the expiration of six months from the date of the certificate last granted in respect of such vessel, the certificate previously granted to such vessel (if not expressly cancelled or revoked), shall continue in force till the return of such vessel to the United Kingdom, and for twenty-one days afterwards.

#### *Fees to be paid for Certificates.*

VIII. The owner of every steam vessel requiring a certificate under this act shall pay for every certificate granted by the lords of the said committee such sum as the lords of the said committee appoint, not exceeding the sums following; that is to say,

Where the tonnage of such vessel does not exceed one hundred tons, a sum not exceeding two pounds:

Where such tonnage exceeds one hundred tons and does not exceed three hundred tons, a sum not exceeding three pounds:

Where such tonnage exceeds three hundred tons, a sum not exceeding four pounds.

#### *Application of Fees and Forfeiture.*

And such fees, as well as such forfeitures as hereinbefore mentioned, shall be paid to the lords of the said committee, or as they may direct, and shall be applied towards defraying the expenses incurred in execution of this act; and the lords of the said committee may regulate the manner in which such fees and forfeitures are to be received, and in which they are to be kept, and in which they are to be accounted for.

#### *Forgery of Declaration or Certificate to be a Misdemeanor, &c.*

IX. Every person who knowingly and wilfully makes or assists in making a false or fraudulent declaration or certificate with respect to any vessel requiring a certificate under this act, or who knowingly and wilfully forges, counterfeits, or fraudulently alters, or assists in forging, counterfeiting, or fraudulently altering, any declaration or certificate required by this act, or any words or figures in any such declaration or certificate, or the signature thereto, shall be deemed guilty of a misdemeanor, or shall be liable, on summary conviction, to a penalty not exceeding fifty pounds, or to imprisonment, with or without hard labour, not exceeding one month.

#### *Copy of Certificate to be placed in conspicuous part of vessel.*

X. The owner or master of every steam-vessel shall forthwith, on receipt of any such certificate as aforesaid by him or his agent from the lords of the said committee, cause the same, or a true copy thereof, in distinct and legible characters, to be put up in some conspicuous part of the vessel, so as to be visible to all persons on board the same, and shall cause it to be continued so put up so long as such certificate remains in force and such vessel is in use, and in default such owner, or if he can prove the default to have been caused by the master, such master shall

for every offence be liable to a forfeiture or penalty not exceeding £10.

*Vessel not to proceed on her voyage without Certificate.*

XI. It shall not be lawful for any steam-vessel (other than any such mail packet as aforesaid) to proceed to sea or upon any voyage or excursion with any passengers on board, the owner of which has not transmitted to the lords of the said committee the declarations hereinbefore required, and the owner or master of which has not received from them a certificate that the provisions of the law in that respect have been complied with as hereinbefore provided for, such certificate being a certificate applicable to the voyage or excursion on which such vessel is proceeding; and no officer of her Majesty's customs shall clear out any steam-vessel (other than any such mail packet as aforesaid) for sea or for any voyage or excursion, with passengers on board, or grant to the owner or master thereof any transire or other customs document necessary for the conduct thereof, unless upon the production of such certificate as aforesaid (being a certificate then in force); and if the owner or master of any steam-vessel (other than any such mail packet as aforesaid) proceed to sea or on any voyage or excursion, with any passengers on board, without having such certificate as aforesaid, or a true copy thereof in distinct and legible characters on board, and so put up as aforesaid in some conspicuous part of the vessel, (such certificate being a certificate then in force,) the owner thereof for such offence shall be liable to a penalty not exceeding one hundred pounds, and the master of such vessel shall also be liable to a further penalty not exceeding twenty pounds.

*Penalty on Owner, &c., for carrying more Passengers than specified in Certificate.*

XII. If in any such certificate the number of passengers which the vessel to which such certificate relates is constructed to carry is stated, it shall not be lawful to carry on board thereof any greater number of passengers, whether deck passengers or other passengers, than the numbers thereof respectively stated in such certificate; and if the owner or master or other person in charge of any such vessel receive on board thereof, or if such vessel shall at any time have on board, any greater number of passengers, whether deck passengers or other passengers, than the numbers thereof respectively specified in such certificate, the owner or the master or other person having charge thereof shall forfeit a sum not exceeding twenty pounds, and shall also forfeit five shillings for every passenger over and above the number so specified in the certificate as aforesaid.

*Penalty on persons forcing their way on board when vessels are full.*

XIII. If any person, after having been refused admission into any steam-vessel by the owner or person in charge thereof, or by any person in the employ of the owner thereof, on account of such steam-vessel

being full, and after having had the full amount of his fare (if he has paid the same) returned or tendered to him, shall nevertheless persist in attempting to enter the same, or if any person, having got on board any steam-vessel, be requested, on the like account, by the owner or person in charge thereof, or by any person in the employ of the owner, to leave such steam-vessel before the same has quitted the place at which such person got on board, and shall refuse so to do, after having had the full amount of his fare (if he has paid the same) returned or tendered to him, then, and in either of such cases, such person shall for such offence forfeit and pay to the owner of such vessel any sum not exceeding forty shillings.

*Penalty on persons refusing to pay their fares or to quit the vessel*

XIV. If any person travel, or attempt to travel, in any steam-vessel that has been duly surveyed in conformity with the provisions of this act, without having previously paid his fare, and with intent to avoid payment thereof, or if any person, having paid his fare for a certain distance, knowingly and wilfully proceed in any such vessel beyond such distance, without previously paying the additional fare for the additional distance, and with intent to avoid payment thereof, or if any person knowingly and wilfully refuse and neglect, on arriving at the point to which he has paid his fare, to quit such vessel, every such person shall for every such offence forfeit and pay to the owner of such vessel a sum not exceeding five shillings, in addition to the fare payable by him.

*Penalty on Offenders refusing to give their name and address.*

XV. Every person who, having committed any of the offences mentioned in the last two preceding sections, or either of them, refuses, on application of the master of the vessel, or other person in the employ of the owner thereof, to give his name and address, or who, on such application, gives a false name or address, shall forfeit and pay to the owner of such vessel a sum not exceeding twenty pounds.

*Power for Board of Trade to appoint and remove Shipwrights, Surveyors, &c.*

XVI. The lords of the said committee may from time to time appoint such number of fit and proper persons to be shipwright surveyors and engineer surveyors for the purposes of this act, at such ports or places as they think proper, and may from time to time remove such surveyors, or any of them, and they may from time to time fix, alter, or vary the rates of remuneration to be received by such surveyors.

*Surveyors to make returns of the Build, &c., of vessels.*

XVII. The said surveyors shall make such returns from time to time to the lords of the said committee, with respect to the build, dimensions, draft, burthen, rate of sailing, room for fuel, and the nature and par-

ticulars of machinery of the vessels surveyed by them, as shall be required by the lords of the said committee; and every owner, master, and engineer of any such vessel shall, on demand, give to such surveyors all such information and assistance within his power, as may be required by them for the purpose of such returns; and every such owner, master, and engineer who, on being applied to for that purpose, wilfully refuses or neglects to give such information or assistance, shall be liable to a penalty not exceeding five pounds.

*Surveyors to act under direction of Board of Trade,*

XVIII. The said surveyors shall execute their duties under the direction of the lords of the said committee; and in the execution of such duties it shall be lawful for them to go on board any steam-vessel at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereto of which the provisions of this act or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the vessel from proceeding on any voyage, and, if in consequence of any accident to any such vessel or for any other reason they consider it necessary so to do, to require the vessel to be taken into dock for the purpose of surveying the hull thereof; and any person who hinders any such surveyor from going on board any such steam-vessel, or otherwise impedes him in the execution of his duty under this act, shall be liable to a penalty not exceeding five pounds.

*Penalty on Surveyors demanding or receiving fees unlawfully.*

XIX. Every such surveyor who demands or receives, directly or indirectly, from the owner or master of any vessel surveyed by him under the provisions of this act, any fee or remuneration whatsoever for or in respect of such survey, otherwise than as the agent, and by the direction of the lords of the said committee, shall be liable to a penalty not exceeding fifty pounds at the suit of any person whomsoever.

*Build of Iron Steamers.—Iron Steamers to be divided by water-tight partitions.*

XX. That the owner of every steam-vessel built of iron, of one hundred tons burthen or upwards, the building of which shall have been commenced since the twenty-eighth day of August, in the year of our Lord one thousand eight hundred and forty-six, and the owner of every steam-vessel built of iron of less burthen than one hundred tons, the building of which shall have commenced after passing of this act, except vessels used solely as steam-tugs, shall cause the same to be divided by transverse water-tight partitions, so that the fore part of the vessel shall be separated from the engine-room by one of such partitions, and so that the after part of such vessel shall be separated from the engine-room by another of such partitions; and it shall not be lawful for the officers of her Majesty's customs, or for any other person, to grant a certificate of British registry to, or to clear out or grant a transire to,

or allow to proceed to sea, any iron steamer of one hundred tons burthen or upwards, built since the said twenty-eighth day of August, one thousand eight hundred and forty-six, or to any iron steamer of less burthen than one hundred tons built after the passing of this act, except as aforesaid, unless the same be so divided as aforesaid; and if any steamer hereinbefore required to be so divided proceeds to sea without being so divided, the owner shall be liable to a penalty not exceeding one hundred pounds.

*Safety Valves.*

And with regard to the safety valves, be it enacted as follows:—

*Steam-vessels to carry Safety Valves out of control of Engineer.*

XXI. After the thirty-first day of March one thousand eight hundred and fifty-two it shall not be lawful for any steam boat, of which surveys are required by the provisions of this act, to go to sea, or to steam upon the rivers of the United Kingdom, without having a safety valve upon each boiler, free from the care of the engineer, and out of his control and interference; and such safety valve shall be deemed to be a necessary part of the machinery, upon the sufficiency of which the engineer surveyor is to report as herein provided.

*Boats, &c., in sea-going vessels.*

And with respect to the boats and other equipments to be provided for sea-going vessels, be it enacted as follows:—

*Sea-going vessels to be provided with the number of Boats and of the dimensions herein mentioned.*

XXII. No decked vessel, except vessels used solely as steam tugs, shall proceed to sea from any port or place in the United Kingdom whatsoever unless it shall be provided, according to its tonnage, with boats duly supplied with all requisites for their use, and not being fewer in number nor less in their cubic contents than the boats the number and cubic contents of which are specified in the following table;\* provided that the said limits of dimensions be not considered applicable to vessels engaged in the whale fishery:—

And no such vessel carrying more than ten passengers shall proceed to sea unless, in addition to the boats hereinbefore required, it also be provided with a life boat furnished with all requisites for use, or unless one of its boats hereinbefore required be rendered buoyant after the manner of life boats; and no such vessel shall proceed to sea with passengers as aforesaid unless it also be provided with two life buoys, to be kept ready for immediate use: provided, that the enactments with respect to boats and life buoys herein contained shall not apply in any case in which a certificate has been duly obtained under the ninth section of the Passengers Act, 1849.

\* See table at the end of this article.



*No steamer to proceed to sea without being provided with a Hose, and Signals.*

XXIII. No steam-vessel, except vessels used solely as steam-tugs, shall proceed to sea unless it shall be provided with a hose adapted for the purpose of extinguishing fire in any part of the vessel, and capable of being connected with the engines of the vessel, nor, if carrying passengers, without being provided with the following means of making signals of distress, that is to say, twelve blue lights, or twelve portfires, and one cannon, with ammunition for at least twelve charges, or, in the discretion of the master or owner of such vessel, with such other means of making signals as shall have been previously approved by the lords of the said committee.

*Penalties on Masters, &c., neglecting to provide Boats, Equipments, &c.*

XXIV. If any such steam or other vessel as aforesaid proceed to sea without being provided with such boats and other equipments as hereinbefore required for such vessel, or if any of such boats or other equipments be lost or rendered useless in the course of the voyage through the wilful fault or negligence of the owner or master, or if in case of any of such boats or life buoys being accidentally lost or injured in the course of the voyage the master or other person having charge of the vessel wilfully neglect to replace or repair the same on the first convenient opportunity, then and in every case where the owner shall appear to be in fault he shall be liable to a penalty not exceeding one hundred pounds, and in every case where the master or other person having charge of the vessel shall appear to be in fault he shall be liable to a penalty not exceeding fifty pounds.

*Officers of Customs not to clear out vessels not complying with the above provisions.*

XXV. It shall not be lawful for any officer of customs to clear out, or to grant a transire to, or allow to proceed to sea, any such steam or other vessel as aforesaid unless the same is provided with such boats and other equipments as hereinbefore required for such vessel; and in any case in which any vessel is delayed by reason of non-compliance with any of the provisions hereinbefore contained the tidewaiter left on board shall be maintained at the expense of the master or owner of such vessel until such provisions are complied with.

*Lights, and Provisions against Accident from Collision.*

And with respect to the lights to be carried, and other provision to be made for guarding against accidents from collision, be it enacted as follows:

*Admiralty to make Regulations as to Lights.*

XXVI. The Lord High Admiral, or the commissioners for the executing the office of Lord High Admiral, shall from time to time make

regulations requiring the exhibition of such lights, by such classes of vessels, whether steam or sailing-vessels, within such places and under such circumstances as they think fit, and may from time to time revoke, alter, or vary the same, and they shall cause such regulations to be published in the *London Gazette*, and to be otherwise publicly made known, and such regulations shall come into operation on a day to be named in such *Gazette*, and they shall cause such regulations to be printed, and shall furnish a copy thereof to any owner or master of a vessel who applies for the same, and production of the *Gazette* containing such regulations shall be sufficient evidence of the purport and due making thereof; and all owners and masters or persons having charge of vessels shall be bound to take notice of the same, and shall, so long as the same continue in force, exhibit such lights, and no others, at such times, within such places, in such manner, and under such circumstances as are enjoined by such regulations; and in case of default the master or other person having charge of any vessel, or the owner of such vessel, if it appear that he was in fault, shall for each and every occasion upon which such regulations are infringed forfeit and pay a sum not exceeding twenty pounds: provided always, that all regulations made by the said Lord High Admiral, or commissioners for executing the office of Lord High Admiral, under the authority of the said recited acts or either of them, and in force at the passing of this act, together with the penalties applicable thereto, shall continue and be in force as if the same had been made under this act, until the same be revoked.

*Rules to be observed by vessels passing each other.*

XXVII. Whenever any vessel proceeding in one direction meets a vessel proceeding in another direction, and the master or other person having charge of either such vessel perceives that if both vessels continue their respective courses they will pass so near as to involve any risk of a collision, he shall put the helm of his vessel to port, so as to pass on the port side of the other vessel, due regard being had to the tide and to the position of each vessel, with respect to the dangers of the channel, and, as regards sailing vessels, to the keeping of each vessel under command; and the master of any steam-vessel navigating any river or narrow channel shall keep as far as practicable to that side of the fairway or midchannel thereof which lies on the starboard side of such vessel; and if the master or other person having charge of any steam-vessel neglect to observe these regulations or either of them, he shall for every such offence be liable to a penalty not exceeding fifty pounds.

*Owners not entitled to compensation in certain cases of Collision, but Master to be liable to penalty.*

XXVIII. If in any case of a collision between two or more vessels it appear that such collision was occasioned by a non-observance either of the foregoing rules with respect to the passing of steamers, or of the rules to be made as aforesaid by the Lord High Admiral, or the commissioners for executing the office of Lord High Admiral, with respect

to the exhibition of lights, the owner of the vessel by which any such rule has been infringed shall not be entitled to recover any recompense whatsoever for any damage sustained by such vessel in such collision, unless it appears to the court before which the case is tried that the circumstances of the case were such as to justify a departure from the rule; and in case any damage to person or property be sustained in consequence of the non-observance of any of the said rules, the same shall in all courts of justice be deemed, in the absence of proof to the contrary, to have been occasioned by the wilful default of the master or other person having the charge of such vessel, and such master or other person shall, unless it appears to the court before which the case is tried that the circumstances of the case were such as to justify a departure from the rule, be subject in all proceedings, whether civil or criminal, to the legal consequences of such default.

*Accidents to be Reported to Board of Trade.*

XXIX. Whenever any steam-vessel (other than a ship of war) has sustained or caused any accident occasioning loss of life, or any serious injury to any person, or has received any material damage affecting her seaworthiness or efficiency either in her hull or in any part of her machinery, the owner, master, or other person having the charge of such vessel, shall within twenty-four hours after the happening of such accident or damage, or as soon thereafter as possible, transmit through the post-office to the lords of the said committee, by letter, signed by such master or other person, a report of such accident or damage, and the probable occasion thereof, stating the name of the vessel, the port to which she belongs, and the place where she is; and if such master or other person neglect so to do he shall for such offence be liable to a penalty not exceeding fifty pounds.

*Notice to be given of apprehended Loss of Steam-vessels.*

XXX. If the owner of any steam-vessel have reason, owing to the non-appearance of such vessel, or to any other circumstances, to apprehend that such vessel has been wholly lost, he shall, as soon as conveniently may be, send notice thereof, in like manner, to the lords of the said committee, and if he neglect so to do within a reasonable time he shall, for such offence, be liable to a penalty not exceeding fifty pounds.

*Inspection of Steam-vessels.*

And with regard to the provision to be made for the inspection of steam-vessels, be it enacted as follows :—

*Board of Trade may send Inspectors on Board Vessels  
whenever necessary.*

XXXI. The lords of the said committee may from time to time, whenever it seems expedient to them so to do, appoint any of the surveyors to be appointed by them as aforesaid, or any other fit person, as an inspector, to go on board any ship or vessel, to report to them whether

the provisions of this act, or the regulations made under or by virtue of this act, have been complied with, and also whether the hull and machinery of such vessel, if the same be a steam-vessel, are sufficient and in good condition, or to report to them upon the nature and causes of any accident or damage which such vessel has sustained or caused, or is said to have sustained or caused.

#### *Powers of Inspectors.*

XXXII. It shall be lawful for any such inspector as aforesaid, and also for any person being a member of the said naval department of the Board of Trade, to go on board any steam-vessel at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof, to which the provisions of this act, or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the vessel from proceeding on any voyage; and in all cases of accident or damage, such inspector or other person may make such inquiries, and require answers or returns thereto, as to the nature, circumstances, and causes of such accident or damage, as he thinks fit, and may, by summons under his hand, require the attendance of all persons whom he thinks fit to call before him upon any question or matter connected therewith or relating thereto, and may administer oaths and examine such persons upon oath, and may require and enforce the production upon oath of all log-books, accounts, agreements, or other papers or writings in anywise relating to any such matter as aforesaid, or in lieu of requiring and administering an oath may require any person to make and subscribe a declaration of the truth of the matters respecting which he has been examined or interrogated: provided always, that no person shall be required, in obedience to any summons from such inspector or other person, to travel more than ten miles from his actual abode at the time of receiving such summons, unless such reasonable allowance for expenses in respect of his attendance to give evidence, and of his journeys to and from the place where he may be required to attend for that purpose, be made and tendered to him as would be allowed to any witness attending on subpoena to give evidence before any of her Majesty's courts at Westminster; and in case of any dispute as to the amount of such expenses, the same shall be referred by such inspector, or other person, to one of the Masters of her Majesty's Court of Queen's Bench, and such master shall, on a request made to him for that purpose, under the hand of such inspector or other person, ascertain and certify the proper amount of such expenses.

#### *Penalty for Obstructing Inspectors.*

XXXIII. If any person wilfully impede such inspector or other person in the execution of any part of his duty, whether on board any ship or vessel, or elsewhere, every person so offending, and all persons aiding and assisting therein, may be seized and detained by such inspector or other person, or by any persons called by him to his assistance, until such offender can be conveniently taken before some justice of the peace or other officer having proper jurisdiction; and every such offender, and also every person

who refuses to attend as a witness before any such inspector or other person, when required so to do, in the manner hereby directed, or who refuses or neglects to make any answer, or to give any return, or to produce any document in his possession, or to make or subscribe any declarations which such inspector or other person is hereby empowered to require as aforesaid, shall for each offence be liable to a penalty not exceeding five pounds.

*Legal Proceedings,*

And with respect to legal proceedings for enforcing the provisions of this act, be it enacted as follows :—

*Misdemeanors or Offences to be Prosecuted by Information or Indictment,*

XXXIV. All misdemeanors or offences created by this act may be prosecuted by information at the suit of her Majesty's Attorney-General, or by indictment or other appropriate legal proceeding in any court having appropriate jurisdiction in any of her Majesty's dominions, and shall be punishable with fine or imprisonment, or both, as such court thinks fit; and all penalties and other sums of money hereby made payable or recoverable may be recovered, with costs, and all offences hereby made punishable may, unless previously punished as misdemeanors, be prosecuted and punished, and the costs of such prosecution recovered, by some appropriate summary proceeding, before two or more justices, or before a judge exercising maritime jurisdiction, or other officer or officers having appropriate jurisdiction in any part of her Majesty's dominions; and all such summary proceedings, if instituted in England or Wales, shall, so far as is consistent with the provisions of this act, be carried on in the manner directed by an act passed in the session of the eleventh and twelfth years of the reign of her Majesty Queen Victoria, intituled "An Act to facilitate the Performance of the Duties of Justices of the Peace out of Sessions within England and Wales, with respect to summary Convictions and Orders."

*Sheriffs in Scotland authorised to Exercise Jurisdiction, &c.*

XXXV. Every sheriff in Scotland shall, within his own county, and in all places in which sheriffs are authorised to exercise jurisdiction, in virtue of the act of the session of the eleventh year of King George the Fourth, and first year of King William the Fourth, chapter sixty-nine, have such powers and be entitled to exercise such jurisdiction under this act as any justices have, or are entitled to exercise under the provisions of this act; and any proceedings instituted under this act before any such sheriff may be conducted in the same way as any summary proceedings before any sheriff court in Scotland may for the time being be lawfully conducted; and every deliverance, sentence, and conviction of any sheriff under this act shall be final, and not subject to any review whatsoever.

*Jurisdiction to be where the offence is committed and wherever the offender is.*

XXXVI. For the purpose of giving jurisdiction under this act, every

offence shall be deemed to have been committed, and every cause of complaint to have arisen, either in the place in which the same actually was committed or arose, or in any place in which the offender or person complained against may be.

*Service to be good if made personally, or at abode, or on board ship, &c.*

XXXVII. Service of any summons or other matter in any legal proceeding under this act shall be deemed good service if made personally on the person to be served, or if made at his last known place of abode or business, or if made on board any vessel to which he belongs, and accompanied with a statement of the purport thereof to the person in command or appearing to be in command or charge of such vessel.

*Proof of issue and transmission of Certificates,*

XXXVIII. All certificates purporting to be issued in pursuance of this act by the lords of the said committee, and to be signed as hereinbefore required, shall be taken to have been so issued and signed, unless the contrary is proved; and every document purporting to be an office copy of any such certificate as aforesaid, and to be signed in the manner hereinbefore required for the signature of such certificate, shall be received in evidence, and shall be deemed to be a true copy of the original of which it purports to be a copy, and in proving the transmission of any such certificate from the lords of the said committee to the master or owner of any steam vessel, it shall be sufficient to prove that the same was duly received by some officer of customs or other public servant, and was by him delivered to or left at the place of abode or business of such master or owner, or delivered to any person in charge or appearing to be in charge of the vessel to which the same relates.

*Burden of proof that a ship is exempted.*

XXXIX. If in any legal proceedings under this act any question arises whether any vessel is or is not within the provisions of this act, such vessel shall be taken to be within such provisions, unless proof to the contrary is adduced.

*Application of Penalties.*

XL. Any justice or other court imposing any penalty under this act of which no specific application is herein provided may, if he or they think fit, direct that a part, not exceeding one moiety thereof, shall be applied to compensate any person for any wrong or damage which he may have sustained by reason of the default in respect of which such penalty is imposed; and, subject to such directions or specific application as aforesaid, all such penalties shall be applied as the lords of the said committee direct, in aid of the expenses to be incurred in execution of this act.

*Indictments to be preferred by direction of the Board of Trade or of Commissioners of Customs.*

XLI. No indictment shall be preferred for any offence against this

act, unless under the direction of the lords of the said committee or of the commissioners of her Majesty's customs, and no suit or proceeding shall be commenced for the recovery of any penalty or forfeiture for any such offence, except where such penalty or forfeiture is made payable to the owner of a vessel, and, except in any other cases in which directions to the contrary are hereinbefore contained, unless in the name of some public officer under the direction of the lords of the said committee or of the said commissioners respectively; and in any indictment preferred or suit or proceeding instituted under this act the averment that the lords of the said committee or the commissioners of her Majesty's customs have directed the same to be preferred or instituted shall be sufficient proof of the fact, unless the contrary is shown.

*Penalties to be sued for within six months.*

XLII. No person shall be liable to the payment of any penalty or forfeiture imposed by virtue of this act, and made summarily recoverable thereunder, unless the complaint respecting such offence be made before such justice within six months next after the commission of such offence.

*No proceedings to be void for informality or removed by certiorari.*

XLIII. No conviction, order, or other proceeding in pursuance of this act shall be quashed or vacated for want of form, or be removed by certiorari or otherwise into any superior court.

*Distress not unlawful for want of form.*

XLIV. No distress levied in any proceeding under this act shall be deemed unlawful, nor shall any person making the same be deemed a trespasser, on account of any defect of form in the summons, conviction, warrant of distress, or other proceeding relating thereto, nor shall such party be deemed a trespasser *ab initio* on account of any irregularity afterwards committed by him, but all parties aggrieved by such defect or irregularity may recover satisfaction for the special damage in an action.

*Parties aggrieved may appeal to quarter sessions.*

XLV. If any person shall think himself aggrieved by any determination or adjudication of any justice with respect to any penalty or forfeiture under the provisions of this act, he may appeal to the general quarter sessions for the county, or place in which the cause of appeal shall have arisen; but no such appeal shall be entertained unless within one month next after the making of such determination or adjudication ten days notice in writing of such appeal, stating the nature and grounds thereof, be given to the party against whom the appeal shall be brought, nor unless the appellant forthwith after such notice enter into recognizances, with two sufficient sureties, before a justice, conditioned duly to prosecute such appeal, and to abide the order of the court thereon.

*Court to make such Order as they think reasonable.*

XLVI. At the quarter sessions for which such notice shall be given,

the court shall proceed to hear and determine the appeal in a summary way, or they may, if they think fit, adjourn it to the following sessions; and upon the hearing of such appeal the court may, if they think fit, mitigate any penalty or forfeiture, or they may confirm or quash the adjudication, and order any money paid by the appellant, or levied by distress upon his goods, to be returned to him, and may also order such further satisfaction to be made to the party injured as they judge reasonable, and they may make such order concerning the costs both of the adjudication and of the appeal as they think reasonable.

*Miscellaneous.—Not to affect 12 & 13 Vict. c. 33.*

XLVII. Nothing in this act contained shall be taken to repeal or alter any of the provisions of the "Passengers Act, 1849."

*Not to extend to Ships of War or Foreign Vessels.*

XLVIII. Nothing in this act contained shall apply to any ship belonging to her Majesty, nor to any vessel not being a British vessel or a vessel owned wholly or in part by British subjects, nor to any steam ferry boat working in chains, commonly called a steam floating bridge.

*Nothing to affect Privileges or Corporation of London.*

XLIX. Nothing in this act contained shall prejudice or derogate from the estates, rights, privileges, franchises, jurisdiction, or authority of the mayor and commonalty and citizens of the city of London, or their successors, or the Lord Mayor of the said city for the time being, nor prohibit, defeat, alter, or diminish any power, authority, or jurisdiction which at the time of passing this act the said mayor and commonalty and citizens, or the said Lord Mayor for the time being, as conservator of the River Thames, or otherwise, or the Lord Mayor and Court of Aldermen, or the Lord Mayor, Aldermen, and commons of the city of London, in common council assembled, under or by virtue of any act of parliament, did or might lawfully claim, use, or exercise.

*Copy of this Act, &c., to be kept on Board.*

L. The master of every steam-vessel to which this applies shall provide himself with a copy thereof, and also of all regulations made by virtue of this act by the Lord High Admiral, or the commissioners for executing the office of Lord High Admiral, with respect to the exhibition of lights, and shall at all times keep the same on board his vessel, and in case he refuse or neglect to do so shall be subject to a penalty not exceeding five pounds.

*Commencement of Act.—Short Title.*

LI. This act shall come into operation on the thirty-first of December after the passing thereof, and may be cited as "The Steam Navigation Act, 1851."



| Registered Tonnage. |                | Column 1.<br>To be carried by Sailing Vessels and Steam Vessels. |         |          |        |         |         |          |        |           |         |          |        | Column 2.<br>To be carried by Sailing Vessels and Steam Vessels which do not carry the Boats in Col. 2. |         |          |        | Total Number of Boats. |                |     |     |    |     |     |    |   |   |      |   |
|---------------------|----------------|--|---------|----------|--------|---------|---------|----------|--------|-----------|---------|----------|--------|---|---------|----------|--------|------------------------|----------------|-----|-----|----|-----|-----|----|---|---|------|---|
| Sailing Vessels.    | Steam Vessels. | Boats.   |         |          |        | Boats.  |         |          |        | Launches. |         |          |        | Boats.  |         |          |        | Sailing Vessels.       | Steam Vessels. |     |     |    |     |     |    |   |   |      |   |
|                     |                | Number.  | Length. | Breadth. | Depth. | Number. | Length. | Breadth. | Depth. | Number.   | Length. | Breadth. | Depth. | Number.   | Length. | Breadth. | Depth. |                        |                |     |     |    |     |     |    |   |   |      |   |
| Tons.               | Tons.          | ft.  | ft.     | in       | ft.    | ft.     | in      | ft.      | ft.    | in        | ft.     | ft.      | in     | ft.   | ft.     | in       | ft.    | ft.                    | in             | ft. | ft. | in | ft. | ft. | in |   |   |      |   |
| 800 & upw.          | 500 & upw.     | 1  | 18      | 5        | 6      | 2       | 3       | 2        | 24     | 5         | 6       | 2        | 6      | 1   | 26      | 8        | 0      | 3                      | 2              | 22  | 5   | 6  | 2   | 6   | 4  | 4 | 4 | or 5 |   |
| 600 to 800 "        | 360 to 500 "   | 1  | 16      | 5        | 6      | 2       | 3       | 2        | 24     | 5         | 6       | 2        | 6      | 1   | 25      | 7        | 0      | 3                      | 2              | 22  | 5   | 6  | 2   | 6   | 4  | 4 | 4 | or 5 |   |
| 400 to 600 "        | 240 to 360 "   | 1  | 16      | 5        | 6      | 2       | 3       | 1        | 22     | 5         | 6       | 2        | 5      | 1   | 22      | 8        | 6      | 3                      | 2              | 22  | 5   | 6  | 2   | 6   | 3  | 3 | 3 | or 4 |   |
| 200 to 400 "        | 120 to 240 "   | 1  | 14      | 5        | 0      | 2       | 2       | —        | —      | —         | —       | —        | —      | 1   | 20      | 6        | 0      | 3                      | 0              | 2   | 22  | 5  | 6   | 2   | 6  | 2 | 2 | or 3 |   |
| 100 to 200 "        | 60 to 120 "    | 1  | 14      | 5        | 0      | 2       | 2       | —        | —      | —         | —       | —        | —      | 1   | 16      | 5        | 6      | 2                      | 9              | 2   | 18  | 5  | 6   | 2   | 4  | 2 | 2 | or 3 |   |
| Under 100 "         | Under 60 "     | 1  | 14      | 5        | 0      | 2       | 2       | —        | —      | —         | —       | —        | —      | —   | —       | —        | —      | —                      | —              | —   | —   | —  | —   | —   | —  | — | — | 1    | 1 |

NOTE.—In the case of Steam-Vessels, Two Paddle-box Boats may be substituted for any two of the Boats in Column No. 3.

THE PIRATE SLAVER.

(Concluded from page 310.)

It was on the 26th of August, 1834, that the *Savage* arrived at Salem, and a primary examination having been held in the Town Hall, before the Honourable John Davis, the district judge, the prisoners were directed to be transferred to the jail at Boston, to await their trial at the next sessions of the United States Circuit Court, which was to be held in October. On the 23rd of October, they were accordingly brought up before that court, and arraigned, and an indictment was found against them. Three days were allowed them to consider and determine on their pleas, when they again appeared before the court, and severally pleaded "not guilty." José Perez was admitted as State's evidence.

The 11th of November was appointed as the day of trial, on which day the court was opened by the presiding judge, the Honourable Joseph Story, a judge no less known and estimated in the Old World than in the New for his admirable works on jurisprudence. After certain preliminaries were gone through, and sundry objections made by Mr. Child, the counsel for the prisoners, which were overruled by the court, the district attorney, Mr. Dunlap, opened the proceedings on the part of the government; and notwithstanding the clearness of the evidence, the trial was protracted during a period of no less than twelve days. Much of interesting incident occurred in the course of the trial. Mr. Child,

who conducted the defence of the prisoners with great ingenuity and eloquence, omitted nothing that could possibly be adduced as likely to benefit their cause, and indeed, exceeded the limits of his duty by trying to throw discredit on the motives which influenced Captain Trotter's conduct in seizing the *Panda*, alleging amongst other things that he had illegally seized her, she having had no slaves on board to justify her detention; and he attempted to show that the charge of piracy was subsequently directed by Captain Trotter to screen himself from the consequence of her accidental detention. Mr. Dunlap in his reply shewed the groundlessness of the charge, referring to the conduct of the pirates in deserting their vessel on the approach of the *Curlew's* boats, and took occasion to render a high tribute to the British navy.

"The English boats came up with the Union Jack hoisted; the flag which was the protection of honest men, but the terror of pirates—the flag of the Queen of the ocean! But those men preferred to destroy their vessel and place themselves under the protection of the negroes, rather than submit to the search of a lawfully commissioned cruiser of the greatest naval power in the world. They had nothing to fear even on the score of their being slavers, because no vessel can be captured unless she have slaves on board, which the *Panda* had not at the time she was taken. And what became of them after they left the vessel? Why, they sought refuge among the negroes in the forest. How different was the conduct of the Portuguese, who joined at Princes Island on the African Coast, and had no concern in the robbery. One of them went on board the *Panda* immediately after the English took possession of her.

Judge Story's charge occupied more than six hours. The Court-room was crowded, and among those present were observed a considerable number of ladies. This important and protracted case, the Learned Judge said, was now, he hoped, drawing to a close. As regarded its duration, and the extraordinary nature of the circumstances developed, it was without parallel in the history of our Courts. Great diligence and exertion had been used to bring out facts; those facts were now before the jury, and it was for them to decide as to the guilt or innocence of the prisoners. The prisoners all pleaded not guilty, and he felt sure, that in a case like this, he need not say much to the jury in relation to the necessity of using deliberation and caution in the formation of their judgment. On the one side, the lives of the prisoners were in their hands; and on the other, the preservation of public justice. The lives of the prisoners were dear to them, and the due and fit administration of justice was not the less dear to the country.

There was another topic on which he must say a few words, and that was the remarks which had been made in relation to the manner in which the prisoners had been brought here, and upon the circumstance of their capture. He should feel himself unworthy of the station he occupied if he did not advert to this topic, because, if he rightly understood the prisoners' counsel, an attempt had been made to throw a great degree of doubt over the motives and actions of Captain Trotter, and even of the British Government itself, for having sent the case to this

country. The British Government, on this occasion, finding persons in England in custody of one of her own officers, and accused of piracy on an American vessel, chose to send those persons here where the best evidence could be obtained, and where the greatest facilities and advantages for their trial were to be found. Over piracy all nations exercise equal jurisdiction, and the British Government might justly have exercised it in this case; but they preferred that the offenders should be tried by the citizens of that country against whom the offence had been committed. And I may say, that this conduct of the British Government can scarcely receive too much praise from an American citizen.

How could this cause have been decided in England? None of the crew of the *Mexican*, nor her owner were there. How could the evidence heard before this Court, and which occupied its attention during the three first days of the trial, have been heard in England? Let them look too at the conduct of Captain Trotter. He was an officer of the British Navy, stationed on the coast of Africa, with directions to use his exertions in suppressing the slave trade. He was there discharging the particular duty which had been assigned to him, and was under no obligation to trouble himself about pirates. But he receives information of the robbery of the American brig, and that the pirate is supposed to be on the African coast, and immediately goes in quest of her. What motive could this gallant officer have had to interfere in this matter, but a sense of justice and a desire to protect the rights of the whole world. He had nothing to gain, and he might encounter a great deal of peril, obloquy, and responsibility. Under these circumstances Captain Trotter does interfere. He goes in search of the pirate. And you know, Gentlemen, said the learned Judge, it was no ordinary peril he encountered. Mr. Quintom has stated facts sufficient to prove to you the danger of the undertaking, even when the crew of the *Panda* were not on board to make resistance. Had the crew remained on board and used the means in their possession, the loss of lives among the British, they being in open boats, must necessarily have been great.

Now, what inducement had Captain Trotter to encounter all this, but a high sense of public duty, not merely to his own country, but to the commercial world. It is said that there was something mysterious about the conduct of this brave officer. I have never observed anything of this kind, Gentlemen, during this trial; it remains for you to say whether anything of the kind exists. His station was on the African coast, and he could not leave it without orders from home. He made the capture, and communicated it where he was in duty bound to do,—to the heads of the Admiralty. We know that he did this, because we find the British Government taking cognizance of his act, and sending the prisoners to be tried here with reference to it. The learned Judge further stated that, if in this first instance of national reciprocity, British officers found themselves the accused without sufficient reason, it would be, as it was the first, most assuredly the last time they would expose themselves to such consequences.

With respect to the capture of the *Esperanza*, the rule of law was, that a probable cause would justify taking possession of her, and if

this could be proved, no damages could be recovered. Damages could only follow a wanton and manifestly improper seizure. Judge Story then passed from this topic to the merits of the case between the government and the prisoners. He admonished the jury, that if there remained a reasonable doubt in their minds as to the guilt of the prisoners, they were to give them (the prisoners) the benefit of it. It must, however, be a reasonable and not a vain or trifling doubt. It was obvious that the individuals, whoever they were, after committing the robbery, had resolved upon consummating their crime by the sacrifice of every one of the crew; by the murder of those against whom they could have no angry feeling, and whom they had never before seen. It was a horrible crime; but the horror which it excited was not, at the present time, to weigh an atom against these prisoners in the minds of the jury. They (the jury) were first to see if the prisoners were guilty.

In the course of his examination and elucidation of the above questions, Judge Story went over laboriously and minutely, the whole of the testimony for and against the prisoners.

With reference to the good characters given by some of the witnesses of Captain Gibert, the judge said, that a good character certainly availed much, but numerous instances were on record of men, long held in high estimation, suddenly committing the greatest and most horrible crimes. With regard to De Soto, the generous act performed by that individual was fully estimated by every person in the court. I stand humbled before you, gentlemen, said the judge, by a fact brought out in the course of the testimony you have heard; the fact of an American ship passing by, and leaving American citizens to perish in sight of their countrymen\* We have had from the counsel for the defence, eloquent allusions to the parable of the Priest and the Levite, and never from the days of our Saviour till now, could that parable have been more fully illustrated, than by the fact to which I have alluded. The American passed by the sufferers, the Spaniard stopped and saved them. But the prisoner's guilt must outweigh all these considerations. We cannot dispense mercy. That is the attribute of a higher power. You and I, gentlemen, are bound to do our duty according to the law, and we should be false to our country and our God, if we shut our eyes to the face of the testimony before us.

Judge Story concluded at fifteen minutes past three o'clock, and after the reading by Mr. Child, of several proposed instructions to the jury,

\* The American ship *Minerva*, with seventy-two souls on board, was stranded on the Bahama bank, out of sight of land. Having a cargo of lime, she would have taken fire on its coming in contact with the water, and she had already sprung a leak. Another American ship the *Chariot* came in sight, which, though aware of her extreme peril, passed by and left the sufferers unnoticed. The *Leon* commanded by De Soto most providentially hove in sight, just as the crew and passengers awaited death from the two most opposite elements, fire and water; and, at the risk of taking on board so many additional people for whom he had not an adequate quantity of provisions, conveyed them all safely to the Havana. For this noble conduct he was presented with a piece of plate by the Merchants of New Orleans, and received a medal from the President of the United States, accompanied by a handsome letter of thanks.

only one or two of which could be complied with, the case was given to the jury, and the court adjourned till the next day at eleven o'clock.

On November 26th, the court assembled at eleven, and after half an hour the jury came in with the verdict. The prisoners were directed to rise as soon as called to receive the verdict. The captain, Pedro Gibert, was the first named; he arose, raised his hand, and regarded the jury with a firm countenance and steady eye. When the foreman said *Guilty*, he slightly bowed and resumed his seat, without betraying the smallest emotion. The same verdict was pronounced against De Soto, (the mate), Ruiz (the carpenter), Boyga, Castello, Garcia, and Montenegro. Three others were declared not guilty. A fourth had destroyed himself in prison previous to the trial.

The foreman then read to the court the following recommendation to mercy.

“The sympathies of the jury have been strongly moved in behalf of Bernardo de Soto on account of his generous, noble, and self sacrificing conduct when captain of the *Leon* in saving the lives of more than seventy human beings, constituting the passengers and crew of the ship *Minerva*, and they desire that his case should be presented to the merciful consideration of the government.”

Judge Story replied that the wish of the jury would certainly be complied with. De Soto on being informed of the paper read by the foreman was much affected, and while being removed from the court covered his face with his handkerchief.

On the acquitted prisoners being discharged, many of the others loudly and angrily expressed their dissatisfaction at the result of the trial. Castello pointed towards Heaven and called upon God to bear witness that he was innocent. Ruiz uttered some words with great vehemence; and Garcia said “all were in the same ship, and it was strange that some should be permitted to escape, while others were punished.” Most of them uttered some invective against the “Picaro who had sworn away their lives.” Costa the cabin boy, who had been brought on board the *Curlew* at death's door, and saved, humanely speaking, by the extreme attention and kindness shown to him, behaved with the most reckless effrontery and indecorum during the trial. When standing up to receive the verdict of the jury, his face bore an impudent smile, and he evinced a total disregard of the mercy which was extended towards him. Motions for a new trial, and for an arrest of judgment were filed by prisoners' counsel, and were eventually considered and overruled by the court. At length *sentence of death* was passed on the 23rd of December. When Pedro Gibert was called upon to say why the sentence of the law should not be pronounced against him, he stood up and said firmly in Spanish, waving his hand with a commanding dignity—“I am innocent of the crime, I am innocent;” and handed in a protest which attributed all his misfortunes and troubles to the conduct of Captain Trotter.

Mr. Child now obtained a respite of the execution of the sentence on the plea of requiring documents or information which would extenuate, if not clear, the conduct of his clients. His wife was not less ardent in

her endeavours to save the prisoners. She seemed to have come to the conclusion that all was rank perjury or reckless delusion on the side of the government witnesses. She went, it was said, to the President at Washington to sue for pardon, and endeavoured to gain the sympathy of the public by publishing a pamphlet (which she widely distributed), containing violent invective against Captain Trotter to whom she imputed the worst motives. A gentleman to whom she had given a copy, when he reached England obtained a perusal of the official correspondence relative to the subject of the capture of the *Panda*, and was at once convinced of Mrs. Child's delusion. A leading London journal, the advocate for the abolition of capital punishments, had in the mean time taken Mrs. Child's view, and even a royal Duke was misled for a time, who, however, on being better informed took steps to do away with any wrong impression that might have been made in England by the pamphlet.

It is with no small pleasure we proceed to record the devotedness of another female advocate. Donna Petrona Pereyra, the wife of Bernardo De Soto, was living at Corunna, their native place, when tidings reached her of the impending trial of her husband. She instantly crossed the Atlantic to Havana, where she obtained letters of introduction to Washington. She there threw herself at the President's feet and presented a petition, signed by a number of American ladies, praying that, as he (De Soto) had saved the lives of a number of their countrymen by an act of heroism, the President would save his by an act of mercy. The appeal was successful, and she had thus the happiness of contributing her efforts towards the pardon of her husband.

Though the sentence was pronounced against the pirates on the 16th of December, 1834, it was not until the 11th of June, 1835, owing to an attempt to arrest the sentence, that they were brought up for execution. They expressed much satisfaction on hearing of the reprieve of De Soto. When the procession arrived at the foot of the ladder which led to the platform of the gallows, the Rev. Mr. Varella, the Roman Catholic priest, looking directly at Pedro Gibert, said "Spaniards ascend to Heaven." Gibert mounted with a quick but stately step, followed by his comrades excepting Boyga. They all had a subdued smile as they took their appointed stations on the platform. Boyga was lifted up on a chair, nearly lifeless from having attempted to bleed himself to death in prison. Gibert passed over to him, leaned over his shoulder and kissed him—then addressing the others he said, "We are going to die, but let us be firm for we are innocent;" afterwards taking off his linen collar, he said to his attendant "This is all I have to part with; take it as a keepsake; I die innocent, but I die like a Spaniard, good bye brother, we die in the hope of meeting you in heaven." Judging from Gibert's air, and carriage, and unembarrassed eye, as he glanced at the surrounding multitude and surveyed the mechanism for his ignominious death, he might have been taken for an officer in attendance, rather than a convict. He spoke but little afterwards except in repeating prayer after the priest. As the cap was about to be drawn over his face, the Spanish priest fervently embraced him, and whilst the faces of the others were

being covered, another priest read a brief declaration in behalf of the prisoners, addressed to the assembled multitude, setting forth that as, at the trial, they had declared their innocence, so did they now continue to do so. De Soto had only been reprieved for fifty days: at the end of that time he received his pardon.

"About two years after this event" says Captain Matson, in a reply to a letter asking for information, "I visited Havana, being the second lieutenant of the *Pearl*. On the English consul hearing that I had a share in the capture of the pirates, who had originally sailed from the Havana, he strongly advised that I should not make myself known, and on no account go on shore after dark, as those men had many friends in the place who would gladly take an opportunity to revenge their death. I did not pay much attention to the latter part of his recommendation, and on that very evening went to the Opera in company with the captain of the *Pearl*, Lord Clarence Paget, and Mr. Schenlez, the judge of the Mixed Commission Court. We had not been long seated on the front row of one of the boxes, before Lord Clarence called my attention to a man in the pit who was looking earnestly at our box: I looked at him, but not recognizing his countenance, paid no more attention to him. Some time afterwards Lord Clarence Paget said, 'Matson don't look down, but that man has never taken his eyes off you since we came into the box; I should not wonder if he is one of those pirate fellows.' I looked again, and then recognized my old friend De Soto. There was evidently no harm in the expression of the man's face, so after looking at him for a minute I gave a nod of recognition. His eyes were immediately filled with tears, and he appeared much pleased at my noticing him. At the end of that act, or between the opera and ballet, he rose and pointed to the door, evidently inviting me to meet him outside or below. I immediately went out, much against the wish of my two friends who tried to detain me. I felt thoroughly convinced that the man meant no harm. He was not, however, to be found among the crowd, either in the saloon or the lobbies, and I returned to the box. De Soto did not make his appearance again in the house during the whole evening.

"Soon after breakfast on the following morning, De Soto made his appearance, much to my surprise, on the quarter deck of the *Pearl*. I offered him my hand, on taking which he was much affected; I then asked him to walk below, but this he begged to be excused doing, and he firmly persisted in refusing; he said he did not forget the difference in our position; he recollected what he had been, and had no wish to bring disgrace on a British officer by introducing himself in his apartment. He stated that he merely came on board to thank me for the kindness he had formerly received at my hands. I was certainly not aware that he owed me any thanks. During the eight or nine months he remained a prisoner on board the *Esperanza* under my command, he was in irons, in the hold, except when taking his daily walk under charge of the sentinel. He told me that Perez who turned king's, or rather State's evidence, was assassinated on the very day he returned to Havana.

“We walked the deck for upwards of an hour, when he gave me the whole history of his connection with the *Panda*; he stated that when he joined that vessel as chief mate, he believed she was going on an ordinary slave trading voyage; he was not aware that piracy was intended until they had actually put to sea, when he found that no cargo was on board, and that they were to trust to robbery to obtain goods wherewith to purchase a cargo of slaves. This was the only part of his story that I had reason to disbelieve, because, as chief mate he must have known all along that the vessel was without any cargo. However, he emphatically denied that either he, or Don Pedro, ever contemplated the commission of murder;\* that piracy then attracted little notice, unless accompanied by the loss of life. They boarded two vessels before they fell in with the American brig, namely an English and a Dutch vessel, but as they had neither money nor other valuables, nothing was taken excepting some cabin stores and a little rope, and none of the crews were in any way illtreated. After the money had been taken out of the *Mexican* they hurried away on account of another sail being in sight, which they perceived was a man-of-war. It was then discovered that the brig was on fire, and as no person was to be seen on her decks, Don Pedro taxed the boatswain, who commanded the boarding party, with having killed the crew. This he denied having done, but he had in fact secured them all below, and then set the vessel on fire. As he had received orders not to illtreat any person, this proceeding gave rise to much ill feeling between the captain and boatswain; the latter being often put in irons and confined by Don Pedro's orders.

“De Soto informed me, that the fatigue and excitement undergone by his wife in procuring his pardon, brought on a severe illness, of which she died soon after his release.”

“I was at Havana again ten years after this, being then in command of the *Daring*. On my sending a message to De Soto, to say I should be glad to see him, he came on board. He did not appear then to fancy that he was inflicting any disgrace by taking a seat and a glass of wine in my cabin. The world had gone well with him since his trial, and he was now undoubtedly a reformed character. He never looked like a pirate, he had a benevolent expression of countenance, and was particularly mild and gentlemanly in his manners. During ten years he had commanded a large steamer, running between Havana and Matanzas, and latterly had become part owner. He told me he had made a considerable sum of money, but had never been engaged in the slave trade since his liberation. This was strictly true, for I heard it confirmed from other sources. He was then moving in a very respectable sphere at Havana, and was known generally as “Don Bernardo.” I made many enquiries about him, and heard that he now bore a very excellent character, and was generally respected. May his good deeds be remembered when his crimes are forgotten.”—H. J. M.

\* Perez declared that when Garcia was ordered on board the *Mexican*, he asked De Soto, if the crew were to be despatched? De Soto replied, “No, do not touch a hair of their heads for human life is sweet;” to this Garcia simply answered, “Dead cats don't mew.”



The following correspondence will show, that the capture of these pirates was appreciated on both sides of the Atlantic :

"Admiralty, 8th April, 1835.

"SIR,—Permit me in sending you the official letter from this Board, granting you promotion for your gallant and judicious conduct, to add personally my expression of respect for your bravery, coolness, decision and disinterestedness.

"I am, &c.,

"GEORGE R. DAWSON.

To Lieut. Matson, R. N.

"Admiralty, 7th September, 1835.

"SIR,—I am commanded by my Lords Commissioners of the Admiralty to transmit to you herewith a copy of a letter from Mr. Vail to Lord Palmerston, and I am to express their Lordships' approbation of your conduct, and the satisfaction with which they have received this testimonial of the manner in which your services in this matter have been appreciated by the American Government.

"I am, Sir, &c.,

(Signed)

"JOHN BARROW."

"Commander Trotter, 17, Orchard Street."

"Upon the receipt of the two notes which the Right Honourable Lord Viscount Palmerston, &c. did the undersigned, &c. the honour of addressing to him on the 13th June and 6th July of last year, the undersigned hastened to communicate to his Government the information they contained respecting the apprehension by His Majesty's ship *Curlew*, on the coast of Africa, of several individuals, formerly of the Spanish schooner *Panda*, on suspicion of having been concerned in an act of piracy against an American vessel. That information having been laid before the President, together with the report of the trial which led to the conviction of the individuals referred to by the circuit court of the United States sitting at Boston, the President has perceived with a lively satisfaction the motives by which Captain Henry Dundas Trotter, of His Majesty's service, then in command of the *Curlew*, was led to effect the seizure of the *Panda*, and the gallantry and persevering zeal which characterised his agency and personal exertions, in the pursuit and ultimate capture of the pirates. Impelled by a high sense of approbation of the conduct of that officer, and in justice to him individually, as well as to the service to which he belongs, the President has caused the undersigned to be instructed to express to His Majesty's Government the satisfaction he has derived from the gallant and praiseworthy services rendered by Captain Trotter on the occasion alluded to, and from the manifestation afforded by his conduct of the readiness of the officers of His Majesty's naval service to lend to general commerce on the high seas that protection in which the United States have so deep an interest, in common with all other maritime nations. In performing this pleasing duty, the undersigned, in further compliance with his instructions, has the

honour to request that Lord Palmerston will have the goodness to communicate the sentiments thus expressed on behalf of the President to the Lords Commissioners of the Admiralty, and that they may likewise be made known to Captain Trotter himself.

“The undersigned prays Lord Palmerston to accept the renewed assurances, &c.

(Signed) “A. VAIL.”  
“3rd September, 1835.

“*The Right Hon. Lord Viscount Palmerston.*”

“*Admiralty, 16th September, 1835.*”

SIR.—My Lords Commissioners of the Admiralty having had under their consideration your exertions while in command of the *Curlew*, in the capture of the piratical schooner *Panda* and her crew, and the perseverance displayed by you in circumstances of extreme difficulty, and involving you in great personal responsibility, for which, and the protection thereby afforded to American commerce, you have received through His Majesty’s Secretary of State for Foreign Affairs the thanks of the President of the United States, are pleased, as a mark of the sense which my Lords entertain of your conduct, to promote you to the rank of Captain in the Royal Navy.

“I am, Sir, your most obedient servant,

(Signed) “C. WOOD.”

“*Commander H. D. Trotter.*”

In conclusion, we should observe that the *St. Helena* packet, and the *Morning Star*, are similar instances of piracy to the one detailed above, and happened only a short time before. In the former the whole crew were murdered; in the latter the horror was increased by the atrocious treatment of several ladies who were on board. The captain’s throat was cut, and the ship was scuttled, and (with the crew and passengers fastened below,) left to carry every record of the crime with its unhappy victims down into the secret depths of the ocean. But Providence ordered it otherwise; the crew broke open the hatches and carried the ship into port.

The pirate was as usual a slave vessel; she had made one voyage, and after thus varying her course of crime would probably have returned to the slave trade, had she not been lost near Cadiz, which led to the detection and execution of the captain and his crew at Gibraltar.

Nor must the case of the *Felicidade* be forgotten—a slave vessel violating her own country’s laws, was siezed by an English cruizer by virtue of the treaty authorizing England to treat Brazilian slave dealers as pirates. These pirates murdered the British prize crew; Serva the captain, repeating the pirates maxim “Dead men tell no tales.” Whether this was the first act of regular piracy upon their part will not be known till “the sea shall give up her dead;” but if not, the slave trade had well trained these miscreants to the work, for at their trial it was recorded that they murdered in cold blood an unarmed and unresisting boy

of fourteen, a midshipman ; that when the fray was over one of their victims, who had been thrown overboard badly wounded, was discovered clinging to the ship's side, on which one of the pirates deliberately chopped off his hands ; and lastly, that another of these traffickers in human flesh, scooped up the blood of his victims from the deck with the palm of his hand and lapped it up !

The maxim of *Serva* is the ruling principle of the pirate, and the very instinct of self-preservation urges him to do his work thoroughly. The fate of Bernardo de Soto\* (the slave dealer and pirate of the *Morning Star*) would strongly operate with Pedro Gibert, and both instances are now operating on the minds of their successors, as to the absolute madness of failing to make assurance doubly sure. In these cases it is certain that the providential escape of the intended victims was in no degree to be traced to the humanity of the miscreants concerned, for never were murders more deliberately planned, or (as far as the intention went) more ruthlessly executed. But "dead men tell no tales ;" and these cases are still teaching, "that while there is life there is hope," and that there can be no certainty of escape for the pirate, if he leaves any degree of chance to his victims. Rare then must be the instances in which witnesses can be thus miraculously preserved to bring the criminals to justice—probably not one piracy in fifty is thus brought to light. But the list of "missing" ships, amounts to a yearly average of sixty, from the mercantile shipping of England alone : how many of these have been the spoil of the pirates, and their crews—the victims of this fell policy ?

Such men as *Serva*, Bernardo de Soto, and Pedro Gibert are the natural and necessary growth of the slave trade : to those habituated to its crimes, all moral restraint must be destroyed ; and what feelings of humanity can remain to the man who can deliberately inflict the torture of the middle passage, and witness such sufferings with absolute indifference, except through the medium of profit and loss. Pirates against the people of Africa, will always become pirates in the general sense, when temptation shall occur, and impunity be apparently secure to them.

---

### WHICH IS THE BEST LIFE-BOAT?

[The substance of the following remarks on "which is the best Life-boat" has already appeared in the Hampshire Advertiser ; but the great importance of the subject has secured for it republication in the Nautical Magazine, with many amendments and additions by its experienced author, who must be considered, in making them, to be promoting all in his power the object of the late committee in deciding "which is the best Life-boat?"—Ed.]

The Northumberland Committee have made their award, and published their report ; and it was hoped their decision would have settled the question of construction. But to say that their decision has given entire satisfaction would mislead !

The committee are unquestionably men of honour, professional talent, and integrity ; and, at the time when the noble duke placed his munificent offer in their hands, he did what was then best calculated to promote his benevo-

\* Not the individual of the same name who was first of the *Panda*.

lent object, and if some few are dissatisfied, it is only what among 280 competitors could be expected. With such a variety of models, one can imagine the difficulty of making any selection. However, a scale was formed which was supposed to place the best boat in the best position; and to crown their labours, and with a view to remove all possibility of discontent, they, with the sanction of the Admiralty, ordered six of the boats which stood highest in this scale, to be built in a royal dockyard. But the decision of the prize is one which affects so seriously those who venture on the deep, that should any comments appear calculated to promote still further the views of the Duke of Northumberland, his Committee themselves would doubtless be the first to listen and assist. But no one seems inclined to undertake the delicate task of calling public attention to a few points, which, while they are discussed freely enough in private, are actually embarrassing other Life Boat committees.

One point which appears to cause some little, and perhaps justifiable remark, is, the value given by the committee to certain qualifications in the scale.

When the Duke heard that the Shields' boat had drowned twenty of the best pilots of the Tyne, *through not righting herself when capsized*, he considered that defect to be the chief objection to life boats as then constructed: he offered a handsome premium, and models were made *with special reference* to the printed and circulated suggestions of his Grace, which were as follows:—

“It is considered that the *chief objections* to the present life boats, generally speaking are:

“1.—That they do not right themselves in the event of being upset.

“2.—That they are too heavy to be easily launched, or transported along the coast, in case of need.

“3.—That they do not free themselves from water fast enough.

“4.—That they are very expensive.”

In the scale, however, which determined the prize, very little value is attached to these: a boat's righting herself, is supposed to merit only six per cent and among various qualifications it stands only seventh in the order of precedence! while buoyancy forward for launching through a surf stands third! The remark is consequently heard, of what use would be facilities for launching, &c., if this main point of safety be neglected, or if (as in the case of the Shields' boat) her construction was so defective as, when afloat, to drown her crew? With the exception of this qualification of righting herself, and another, of freeing herself from water, (which in this scale was only estimated at eight per cent.) *the Shield's boat had answered general purposes admirably for years*. So then, these two great qualifications, without which no boat could be called a life-boat, (for those which had defects in these particulars often lost as many lives as they launched to save), were estimated at only fourteen per cent: while for fast pulling alone was given twenty per cent and it is remarkable that more than one half of the boats, which are deemed worthy of the honor of being figured in the splendid Northumberland report *do not right themselves!* while *some do not even free themselves* from water! Nor is it considered that the disadvantage of great weight, which the noble duke placed second in his list of objections appears to have been duly appreciated, either in the prize model, or in those which were honourably mentioned!

Now, without going further into the scale, for fear it should imply a desire to depreciate the difficult labours of the committee (a desire which no seafaring man ought to feel), it is sufficient to infer that this scale may have excluded some boat even better qualified than that which was selected for the prize!

But how is this to be ascertained? Is there any other tribunal,—any other class of men whose opinion on life-boats can with confidence be relied on? If so, why not consult them? Let those who doubt, come to the Goodwin! Talk to the brave fellows whose well handled open luggers almost speak under their management, and which forcibly remind one of the high mettled racer, or the courageous war-horse, in their seeming to partake of the ardour of their masters! Go to the Brake, the Galloper, the Forelands, to Chale Bay, to the Mersey, to Yarmouth, to Shields, and indeed to the whole coast, and see veterans of some sixty or seventy winters, with their sons (worthy of them); see how by the experience of half a century they snatch life from the very jaws of death! Look at their weather-beaten and toil-furrowed cheeks, in which the cool intrepidity of English courage glows with as much self possession and determination in the face of danger, as on ordinary occasions on shore. These are men who are able to observe! All fears of personal safety are in them habitually absorbed in the one oft recurring intense anxiety as to the best means of saving the lives of others! When one of these fine fellows, who has rescued more shipwrecked persons from the deep than there are pence in his pockets, offers an opinion on life-boats, is it of any worth?

But there are among others, the Cinque Ports' pilots, who, to a training in this hardy school, have added superior attainments, and whose seamanship must have been the subject of rigorous examination, and that by a still higher class of most distinguished men who compose the active members of the Trinity Board. Have all these no opinion of value? There are also the North Sea pilots, the merits of one of whom (the esteemed Secretary of the Royal Yacht Squadron) has recently been the subject of deserved comment. His experience and obtained opinion are alone sufficient to justify this public communication. He, too, is a man of our county. Again, look into the unpretending "parlour" of one (and doubtless others) of the superannuated Deal pilots—notice the medals and testimonials for saving not only individual lives, but whole crews of distressed seamen, displayed in all the praiseworthy and cheering confidence of self approval, and as a warm encouragement to others—consider the worth of an opinion from him! If we think a certain amount of scientific skill indispensable in the man who is to decide upon life-boat construction, there are such men (though few!) as the talented harbour-master of a royal harbour of refuge—a veteran of some sixty years; the highly estimated chairman of the Lord Warden's Commissioners of Salvage, trained to feel high responsibilities, and whose single opinion, from his great experience and observation, would sway those of his coast and neighbourhood! Could he, if asked on this subject, enlighten us? What did he mean in August last, when, in looking approvingly at the plans of one of the rejected models, he exclaimed with some considerable feeling, "Had I possessed a boat on this principle last winter, I could have saved the two crews who perished so miserably before our eyes, and when neither Ramsgate nor Deal luggers could attempt it." Where are the officers of the coast-guard, and their commanders—men of immense boat experience, who have been the first on all occasions to offer to man our life-boats when accident occurs? Surely these and their boat's crews have some pretension to an opinion! The crews themselves would not have been specially mustered by their inspecting commanders (with such laudable promptitude) on this question, upon hearing the "voice from the Goodwin," if such commanders had not attached great importance to the opinions of their men! There are again the commanders of revenue cruisers, whose skill and experience in boat work cannot for a moment be disputed.

*We appear then, to have another most competent tribunal! Would it not be therefore well to get the combined and unanimous opinions of all these, as to*

*what are the actual requirements of a life-boat! Be it known, that all this has been done.*

While London Committees were working, and plans were being multiplied, and all the resources of science were in active request at Board Room tables (and with what success?) "a voice from the Goodwin" was heard along the whole coast, from Ramsgate to the Needles, and the unanimous opinions of the high and indisputable authorities above referred to (and who have allowed their names to be used if necessary) are embodied in the general Life Boat Axioms, which are annexed hereto, and such parties have now the opportunity of refuting anything herein contained which might be contrary to their expressed authority.

The result of such enquiry proves that whatever were the difficulties and doubts of the Northumberland committee, those doubts must have unavoidably clung to the members up to the time of their decision; if not, why was it necessary for six full sized boats to be built for still further experiments? and they also *prove* that there is yet another tribunal to which at least equal authority belongs, and whose competency in all particulars pertaining to life-boats would be recognised as well by landsmen as by the maritime world! For it is submitted that there are specific qualifications required in a member of a committee which is selected to decide on this question, which can only be the consequence of much and continued personal observation and experience in saving life; much and continual exposure to the difficulties and dangers in which life boats are at times placed; not merely as such would be seen from the shore or cliffs through a telescope, but such only as active occupation in the boat herself can give! And without for a moment attempting to depreciate the advantages which science can offer *when combined* with the actual experience alluded to, it would generally be safer to trust our lives in a plain wholesome Portland Laulette, a Norway yawl, or a Chinese sampan, than in a life (?) boat "contrived" by mere engineers (whatever be their mechanical talent) of some ordinary boating, yachting, or shipping experience!

"Humano capiti cervicem pictor equinam  
Jungere si velt; et varias inducere plumas  
Undique collatis membris———

(Risum teneatis?)

He whose voice is heard in this appeal affirms without fear of contradiction, that he has often gained more solid and useful experience in any one trip to the Goodwin, made for the purpose of saving life, than from any cruise in a big ship on the wings of a Cape Nor' Wester, in an easterly gale on shipboard in the North Sea, or in the tail of a typhoon!

In a few hours this letter will reach all parts of Great Britain (thanks to your wide spread circulation). Let, therefore, each district send forth its approval or rejection of these axioms (local prejudices and circumstances may perhaps modify them in some degree), but let them be fairly considered in a spirit apart from all feeling but that of humanity, taking for a pattern the benevolent labours of the Shipwreck Societies, whose worth is too little known, and which, it is hoped, will soon astonish the public into hearty co-operation, and produce more adequate pecuniary assistance to funds which even now cheer the home of many a widow, and feed and clothe many an orphan; societies which alike strive to prevent shipwreck, and to cure the evils arising therefrom, so far as worldly comforts and sympathy can palliate the sufferings of the bereaved!

Doubtless the noble Duke himself, and his distinguished committee will not leave any attempts untried to promote still the final settlement of the question. No one will, it is hoped, pretend to gather from what is said herein the slightest charge of unfairness against the committee. They did even more

than could have been expected, as their reports evinced; and when a certain model of a life boat, which had been rejected by them, was seen in August last exposed for fair and open scrutiny on a capstan head on Deal Beach, surrounded by some forty or fifty Deal men (it is a pity their names cannot all be consistently given herein, although that of George Pettett as a sample is offered, than whom a finer fellow never dared the elements), the supposed cause of her rejection was fairly pointed out. On this occasion among many other proofs of approval, it was regretted by the boatmen that they had not had a boat on her principle last winter to veer down to leeward to a drowning crew, even as a large and available life-buoy, at a time when no other known boat could, from her peculiar form, have borne such a surf, and when the unfortunate crew all met a watery grave! Even Deal and Ramsgate luggers were then powerless!

The plan adopted in seeking opinions on the model was this:—In most cases without any previous notice, it was shown to persons of ascertained experience, *by an utter stranger*, with an openly expressed avowal of indifference as to the result, so far as regarded personal interest, *in order that a fair test* of qualifications might be obtained. In some cases Inspectors of Coast-Guard obligingly mustered their officers and crews. In one Cinque Port, the Pilots and Life-Boat Committee met by appointment, being summoned by the commander of one of Her Majesty's cruizers, (*Victoria*) at Dover, who saw the model accidentally. Of course they will see this statement, and recognise the "voice" which addressed them as a perfect stranger.

Doubtless a word of explanation to either of the members of the Northumberland Committee would have prevented misconception of her fittings, and have placed her in the high position which she has since obtained from the authorities on the coast above referred to.

Committees are not always accessible. Gentlemen who compose them have their private prejudices; and with all their desire to aid this question with head and hand, they generally leave these things principally to the most scientific member of the Committee; and although this is the cause of the difficulties which still embarrass,—what else can they do? 'Longshore men do not like valves, and handles, and levers, and pumps and stop-cocks; but if they are wrong in this, their very prejudices must be studied. They are the men who risk their lives, but they like to be allowed to do it in their own way:—and simplicity and snugness are the two words most frequently heard from them when describing what they desire in a life-boat.

If this rejected model have sufficient merit to draw the following note (among many others) from a naval officer of some forty-eight years active service (one third of which was spent in the Coast-Guard, at one of the most terrible parts of the coast), and who, at various times, has been honoured with the Lloyd's gold medal, and many silver ones, besides testimonials for having saved upwards of forty lives, who must have perished but for his intrepidity, the "voice" which presumes to speak through your columns, is not trifling with public spirit nor improperly brings forward this difficult question in the cause of humanity, of, *which is the best life boat?* for further discussion, and with increased facilities:—

"Having minutely examined your model for a life boat, I have no hesitation in stating I consider her well adapted for saving life from stranded vessels in extreme bad weather. I can confidently state, (from practical knowledge) that her construction is such as to give confidence to her crew when in peril, being buoyant, fast, and safe, in heading through a violent surf, as also in closing the object.

"Permit me to say that I consider her construction (if lighter built) better adapted for ships' quarter-boats, to communicate with the shore when

stranded, or with ships at sea when in peril, than any boat I have hitherto seen.—Wishing, &c.”

6th October, 1851.

#### *Life-Boat Axioms.*

1. Two smaller boats are better than one large heavy boat, as in case of accident the one can help the other, and can render more efficient assistance to the wreck. N.B. In such cases men will go afloat with greater confidence.

2. Life-boats should be pulled single banked. This is contrary to general custom; but it has been often proved that six oars single banked will propel a boat faster in a sea way than twelve oars double banked. In single banked boats the men have more room to work their oars: it causes less fatigue, and leaves more space for the rescued; and besides two life-boats rowing single banked require only the same number of men as one rowing double banked. At Howth near Clontarf, Ireland, three years since, experiments were tried to determine the question of “double banked” and “single banked” with life boats, and in all respects *single banked was found to answer better*. Some years since H.M.S. *Bedford*, 74, which had two cutters of equal build and dimensions often tried them single banked against double, when *single banked always beat, and were preferred to double*. A deal pilot, justly remarked “why do not regatta boats row double, if it rows faster.”

3. Everything on the outside of a life-boat should be as snug as possible.

4. Everything in the inside as simple as possible—all handles, plugs, levers, valves, and stop-cocks, are dangerous, as breakers generally hold in suspension much sand or shingle, and every man in a life-boat has enough to do to “mind his oar.”

5. Oars should be pulled from a pin and grummet, so as readily to fall alongside on occasion.

6. No boat is properly a life-boat that does not right herself.

7. The life or strength of a crew depends on the boat freeing herself rapidly from water. A perfect life-boat will do this between the seas in a heavy gale.

8. Speed and activity are indispensable in all life-boats.

9. A life-boat should have a “good bow,” with “clean entry,” and “something above to catch her easily in a sea way;” also a good “long floor,” for pulling fast and stability; the bottom not too flat, as this causes great lee-way in bad weather. Flatness of floor is a fundamental error in a life-boat. Its theoretical advantages are antagonistic to essential qualifications, such as speed, righting herself, &c. Wrecks invariably occur on the weather side of a shoal or out-lying sand bank. How can a flat boat with very light draught of water pull ahead on shipping a sea, or pull round a sand-head against a head wind and head sea? If ever accomplished, it is by hard work and fatigue at a time when all the best energies and strength of her crew are required near the wreck. Fancy a bladder beating to windward!

10. A life-boat should not have too much shear. Flat boats must not, in order to right themselves, expose too much above water, to the force of the wind. Let the boat have more hold on the water than on the wind.

11. The upper works should round in, to prevent damage alongside a wreck, and it is convenient in launching; this renders a boat less likely to capsize when struck by a sea, and gives facilities in a very difficult operation that of hauling an exhausted man over a gunwale.

12. Great care is requisite in forming the ends of a life-boat. Persons are generally in bad weather saved over the bow of a boat. It is often necessary to keep the boat “well in hand” near a wreck to avoid a breaking sea, and fall of water, off a wreck, by suddenly backing astern. A life-boat should therefore have two complete bows, whale-boat fashion.



13. The crew of a stranded vessel are generally found lashed to the rigging, &c.—boatmen therefore require firm footing on the boat's bow, which at the same time must present no obstacle to water running off. A deck forward is therefore likely to disable a boat momentarily, while a well rounded forepart above to a boat will often prevent her being turned over, as the Scarborough boat was in 1836 end for end. An open space to jump into from a wreck, in a rolling or pitching boat is highly dangerous, as, when a sea is breaking, men have no time to wait for opportunity, but must jump at once for their lives.

14. All buoying powers in any part of the sides of a boat are hindrances to their righting themselves. (The model above referred to proves that they may there be entirely dispensed with.)

15. All cases containing buoyancy to be detached from the boat.

16. A rudder has not sufficient power in a heavy sea : life-boats should therefore steer with an oar. A rudder in a life-boat projecting below the keel from necessity, implies some defect in the lines of the boat.

17. There should be life-lines on the outside, and near the water-line, for drowning men to grasp; and these are very useful in giving the men "hand hold" while launching or transporting her alongshore.

18. A few easily detached cork life-buoys should be in every boat, to be thrown to drowning men, when the sea is high, and when caution is necessary in a heavy sea.

19. All boats "for hire," carrying passengers, should have on board at least one well-trained and approved sailor, and should be compelled by law to carry a life-buoy.

20. No boat can be built that will not capsize.

Now, whatever be the nature of a coast, there are but three kinds of sea, viz. the "roller," the "short sea," and the "over-fall," which we have in Races, such as Portland, Dunnose, Alderney, &c. Every good life boat ought to be able to contend with either, as they may each or all in some modification be found near outlying sands, upon shoals, &c. That different coasts, actually require such differently constructed boats is therefore a question. If they appear to do so, it will be found on inquiry that it mainly depends on the habits or prejudices of the boatmen. There are only three principal kinds of boats, the Deal lugger (and its diminutives), the Portland laurette, and the coble of the east coast—all equally well handled by those accustomed to them, but there is no reason why one boat may not combine the best properties of the three, and therefore be generally useful. This is of importance as far as regards the Coast-Guard, who are so frequently the first volunteers in case of wreck, but who are periodically changed from coast to coast. It must, at least, be admitted that a good ship's quarter boat should be equal to any emergency upon every coast. All these desirable points have been indisputably combined in one boat (one of the rejected); and the assertion is made on such high testimony as one of our most distinguished naval officers, of high service rank, pronounces to be "irresistible." There is not an important qualification in any known boat, which this does not possess. *Nor are these qualities, the result of modification, but existed in the original and only model, (though a rough one) as it was shewn along the coast.*

I am, &c.

S. M. SAXBY.

October 14th, 1851.

ARCTIC SEARCHING EXPEDITIONS.—*The Western Route.*

WHEN Expeditions to the Arctic Seas are projected now, how different is their object compared with those of former days. In these times the safety of our lost voyagers is their sole purpose, while in years gone by that purpose was specially maritime geographical discovery, necessarily including the acquirement of all the important observations relating to natural history, and the physical structure of our globe. It must not be forgotten, that in the year 1818, when Expeditions into the Arctic Seas were so zealously commenced, our knowledge of Baffin Bay, the principal gate by which that sea was entered, was limited to little more than that which Baffin had left us. The large island\* which occupied the middle of that extensive gulph in the old charts, conjured up by the difficulties of ice navigation has, like icebergs, been swept away; and the limits of the Arctic shores of America, which were then a blank to us, are now defined as well as many of the numerous islands lying off them, and the channels by which they are separated. But any such Expeditions as these cannot be accomplished without a specific gain of some kind to geography, for do they touch the ground, some description of it must be included in their history, which would be necessarily imperfect without it. Within the last few days only an instance of this has occurred in the account of Dr. Rae's explorations, which have added to our maps some 250 miles or more, of a description of the shore of Victoria and Wollaston Islands.

The old question *cui bono*, which was formerly applied to such expeditions cannot be asked now! But even to the *cui bono* enquirers, when pure discovery is the only object, in our turn we would ask—are we as a great nation, which has been among the first to extend the limits of the known world in both hemispheres, ever to sit still and do nothing? When the all absorbing current of war is stopped, and the blessing of peace established, are we to sit still with our hands before us and see neighbouring nations busily occupied in a work with ships, which, by inheritance belongs to us? May we not employ a band of gallant men, who are ever ready for adventurous action, a chosen few from that service celebrated for daring deeds, and who aspire to distinguish themselves in risk and privation? and will such a country as England not encourage them, when their achievements are for the benefit of the world, and the harvest is important contributions to science? Are we not employing expensive expeditions in many distant seas? Have not the shores of British America, the field of Arctic discovery, a right to our attention as well as the coast of New Guinea? And when this leads, as it has done, to the extension of our whale fisheries, does it not come with still stronger claims to our patronage? Let the querulous remark *cui bono*, of the political economist, find his answer here, and let not glorious England, the admiration of the world, be obliged from unworthy parsimonious motives, to check the spirit of enterprise and noble daring, for which

\* One large island is shewn in the middle of the bay in the old charts, which afterwards became divided and found to be chimerical.

her navy is distinguished, and leave it to languish in times of peace for want of some choice—some difficult and splendid enterprise to achieve. Such was that of Arctic discovery in 1818, and the chart of that period compared with the present, affords ample evidence of what has been done in its cause.

Costly expeditions have been sent into the Arctic Seas purely with these motives. But if we look into the present aspect of Arctic matters, for such we must call them, we shall find some reasons, as we have previously observed, for making a final enquiry into the case of Sir John Franklin's ships, and should another expedition be sent final indeed it must be considered. We are not yet thinking of looking after her Majesty's ships, *Enterprise and Investigator* on the coast of America, although we may expect to hear from them in that direction.

The only real motive then, with which another search for Sir John Franklin's ships can be instituted, is to save the lives of their crews. But as it has been asserted that a wide channel exists, called Queen Victoria Channel leading out north-west from Wellington Channel through which Sir John Franklin is said to have passed, to prove the accuracy of this statement, becomes a subject of considerable interest; for after all land may exist beyond the reported opening, making the Wellington Channel nothing more than a deep inlet or gulf. Here then are ample reasons for establishing the propriety of sending out another expedition; and assuming the assertion to be true that there is an opening through which the *Erebus* and *Terror* have gone, the scale of it should be no less liberal than the last. When the report and evidence of the enquiring committee are published, some light may perhaps be thrown on this subject. In the mean while let us consider the chart which represents this Victoria Channel.

One has been published by Arrowsmith which is replete with information, relating to the part which it includes, and finished with all the neatness and ingenuity for which that geographer is remarkable. But "all is not gold that glitters," and the beauty of this production will yet have to undergo the test of data. Of the discoveries which it displays no one can speak but in terms of admiration at the extraordinary amount of coast line walked over on the very ground which it describes, and certainly no parallel instance can be shewn of severer trial, or object more completely accomplished under circumstances of extraordinary difficulty.

All west of Cape Walker is new as well as much of the north shore. The Wellington Channel was not known beyond Cape Bowden at its entrance nor entered even to that, so that the large gulf to which the channel leads is entirely new, the latter having been added by Capt. Penny's officers and the former by those of Capt. Austin. As far as the coast has been actually visited, the result may be accepted, but when we find about seventy miles of the north shore of the Victoria Channel beyond Capt. Stewart's furthest, and more of the south and west shore of this same Channel, which was never visited, all laid down in Arrowsmith's beautiful chart, we must demur before we can admit of its ac-

curacy. Where is the data for its confirmation. We are aware that high elevations and the pranks of refraction in the Arctic climate will make land visible at great distances. An elevation of two hundred feet will command an horizon of about six leagues, distant and the summit of elevated land then seen beyond it must be proportionally high to be visible, but the coast line may be found far short of the distance at which the land is. The north shore of this new channel is made to trend north-west. It would be somewhat remarkable if it were hereafter found to trend but little to the northward of west! and yet we have reason for making this remark, a difference which has nothing to do with the effects of refraction.

Of the western shore of the Victoria Channel as laid down in the chart refraction comes again to the aid of the discoverer! The north-west extreme of the land, Cape Lady Franklin, is supposed to be seen seventy miles distant from Capt. Stewart's furthest, from whence it trends south to the latitude of  $75^{\circ}7'$  first curving round to that point. How much of the coast-line of all this has really been seen? None of it has been examined. The answer would be about as easy to give as that relating to Barrow Island between them. Here then we say is ample field for discovery yet. Here is a large gulf unexplored of above sixty miles in extent. The limiting shores have not even been visited.

It is stated to have a communication with the Polar Sea north of it by which Franklin could have passed? Does the land trend north-west or more westerly from Capt. Stewart's furthest? Is there an opening of eight leagues between the points of land forming that communication? In fact we know little, indeed next to nothing of it.

These are questions which are worth attention if Franklin's ships are to be again sought for in the direction of the Wellington Channel, which it is yet only *supposed* they will be.

The old question of the North-west passage has long ago been virtually answered. This original question which gave rise to these Expeditions from the days of Baffin, and continued them at intervals down to those of Parry, centering in the discovery of a short way to the Pacific, for all the common purposes of navigation has long been declared futile, and the last effort to achieve it should be considered as extending the limits of Arctic discovery, and adding to the stores of Arctic knowledge; rather than the mere fact of passing through Behring Strait from the Polar Sea.

Our last number contains a brief view of the proceedings of the expeditions under Captain Austin. We had proposed here to throw together the intelligence received from Captain Collinson and the ships under his command, with a view to shew his proceedings, since he left England; but we are obliged to reserve it for our next number, when we may again take up the subject, and to render our papers as complete for reference as we can make them, we shall insert first the orders under which he is proceeding.

The following is a copy of the orders with which the *Enterprise* and *Investigator*, left England on the 20th January, 1850.

## SAILING ORDERS FOR CAPTAIN COLLINSON, OF H.M.S. "ENTERPRIZE."

*By the Commissioners for Executing the Office of  
Lord High Admiral of the United Kingdom of  
Great Britain and Ireland.*

1. WHEREAS the efforts that have been made during the last two years to relieve the *Erebus* and *Terror* have failed, and all access to the Parry Islands has been prevented by the accumulation of ice in the upper part of Barrow Straits; and whereas it is possible that the same severity of weather may not prevail at the same time in both the eastern and western entrances to the Arctic Sea, We have now determined, in a matter of such moment, to send an Expedition into the Polar Sea from the westward, and having a full confidence in your zeal and skill, we have thought proper to appoint you to the command of Her Majesty's ship *Enterprize*, and also to place under your orders Her Majesty's ship *Investigator*, both of which vessels having been duly fortified against collision with the ice, equipped for the Polar climate by warm-air apparatus, and furnished with provisions for three years, as well as a large supply of extra stores, you are now required and directed, so soon as they are in all respects ready for sea, to proceed to make the best of your way to Cape Virgins, in order to arrive at Bhering Straits in July.

2. At Cape Virgins, the commander-in-chief in the Pacific has been desired to have a steam-vessel waiting for you, and by her you will be towed through the Straits of Magellan, and the Wellington Channel, and on to Valparaiso.

3. At that port you will use the utmost dispatch in watering and refreshing your crews, and in fully replenishing your bread and other provisions and stores; and having so done, you will again use your best exertions to press forward to the Sandwich Islands.

4. There is only a bare possibility of your reaching those islands in time to meet Her Majesty's ship *Herald*, under the command of Captain Henry Kellett; but if that should be the case, you will receive from him, not only every assistance, but much useful information touching your passage to the Strait, and your further proceedings to the northward. It is still more improbable that Her Majesty's ship *Plover* should be there; but wherever you may fall in with her, you are hereby directed to take her and Commander Moore under your orders.

5. At the Sandwich Islands you will find additional orders from Us for your guidance, which we propose to forward from hence by the Panama mail of next March; but if none should arrive, or if they do not in any way modify these directions, you will enforce the greatest diligence in re-victualing your two vessels, in procuring, if possible, the necessary Esquimaux interpreters, and in making all requisite preparations for at once proceeding to Bhering Straits, in order to reach the ice before the 1st of August.

6. An examination of the several orders issued to Captain Kellett will show that it is uncertain where he may be fallen in with. You may probably find the *Herald* and *Plover* together.

7. We consider it essential that after entering the ice there should be a *dépôt*, or point of succour, for any party to fall back upon. For this purpose the *Plover* is to be secured in the most favourable quarter, as far in advance as can be found—such as Wainwright's Inlet, or the Creek at Hope Point; but if they be unsafe, and none has been discovered nearer to Barrow Point, then at Chamisso Island, or any part of Kotzebue Sound, which may afford the necessary shelter.

8. Considering, however, the nature of the service in which the *Plover* will already have been employed, and that a portion of her crew may be unfit

to contend with the rigours of a further stay in those latitudes, you will call for volunteers from that ship, and from the *Herald* if in company, sufficient to form a crew for the *Plover*; taking care that the men to be selected are men of good character, and that they do not exceed in number what is actually required for the care of the ship, and for the defence and security against any treacherous attack on the part of the natives of Norton Sound.

9. The Petty Officers' ratings that may be vacated by men invalidated, are to be filled up by men volunteering to remain; such volunteers are to be subjected to a strict and careful survey by the medical officers of the several ships; and those only are to be retained who would seem to be in all respects fit to encounter this extended service; and the remainder necessary to complete the crew is to be made up from the *Enterprise* and *Investigator*.

10. Such crew having been formed, (to continue under the command of Commander Moore, and with the officers now in the *Plover*, or with those who may volunteer for the service,) the *Plover*, if the *Herald* should be in company, is to be filled up by Captain Kellett with all the provisions, fuel, and stores, that can possibly be spared by Captain Kellett, who will bear in mind, not only what may be required for the use of the *Plover's* crew until the autumn of 1853, and the contingency of parties arriving on board from Sir John Franklin's expedition, but also the possibility of any party from the *Enterprise* or *Investigator*, having to fall back upon the *Plover*.

11. In providing for this necessary equipment for the *Plover*, attention will be paid to the numbers left in the *Herald*, and the supplies necessary to carry that vessel to Woahoo; and having received from Captain Kellett any baidars, or light boats, that he may be able to spare, and which may be likely to form a useful addition to your own boats, or those of the *Investigator*, when searching parties may be detached from the ships in the spring, the *Herald* will return to the Sandwich Islands, there to fill up provisions, and from thence proceed to Hong Kong on her way to England, in pursuance of Our Orders of the 14th December last.

12. On detaching the *Plover* to take up her winter quarters, you will direct Commander Moore to remain there until you join him, or, failing your return to him, until the end of the summer of 1853; when, but not until it is absolutely necessary for securing the *Plover's* passage through the Aleutian Group of Islands, he is to quit Bhering Straits, and make the best of his way to Valparaiso, (touching at the Sandwich Islands for refreshment) where he will receive further instructions relative to his return to England, from the Commander-in-Chief.

13. If the *Herald* and *Plover* should be fallen in with to the northward and eastward of Bhering Straits, or in the Polar Sea, Captain Kellett, on detaching himself from your company, should consort with the *Plover* as far as her winter quarters, and if time and circumstances admitted of it, he should assist in securing her there.

14. In the event of your having to winter your ships on the continent or Esquimaux shores, you will probably meet with some of the wandering tribes, or with Indians. With these you will cultivate a friendly feeling, by making them presents of those articles to which they are apt to attach a value: but you will take care not to suffer yourself to be surprised by them, but use every precaution, and be constantly on your guard against any treacherous attack. You will also, by offering rewards, to be paid in such manner as you may be able to arrange, endeavour to prevail on them to carry to any of the settlements of the Hudson's Bay Company an account of your situation and proceedings, with an urgent request that it may be forwarded to England with the utmost possible dispatch.

15. In whatever place you may have to establish your winter quarters, you

will devote every resource in your power to the preservation of the health, the comfort, and the cheerfulness of the people committed to your care.

16. We leave it to your judgment and discretion, as to the course to be pursued after passing Point Borrow, and on entering the ice; and you will be materially assisted in this respect by what you will learn from Captain Kellett, if he should be fallen in with at the Sandwich Islands, as well as from the observations of Sir E. Parry, and Captain Beechey, contained in the Memoranda of which we send you copies.

17. We have desired that you shall be furnished, not only with a copy of the Orders under which Commander Moore is now acting, but also with copies of all the Orders which from time to time have been given to Captain Kellett, as well as with those under which an attempt was made to relieve the *Erebus* and *Terror* by Captain Sir James Ross, on the eastern side through Baffin Bay. You will further be supplied with all the printed voyages or travels in those northern regions; and the Memoranda and Instructions drawn up by Sir John Richardson, as to the manners and habits of the Esquimaux, and the best mode of dealing with that people, (a copy of which is also sent,) will afford a valuable addition to the information now supplied to you.

18. We deem it right to caution you against suffering the two vessels placed under your orders to separate, except in the event of accident or unavoidable necessity; and We desire that you will keep up the most unre-served communication with the commander of the *Investigator*, placing in him every proper confidence, and acquainting him with the general tenor of your Orders, and with your views and intentions from time to time; so that the service may have the full benefit of your united efforts in the prosecution of such a service; and, that in the event of any unavoidable separation, or of any accident to yourself, Commander McClure may have the advantage of knowing, up to the latest period, all your ideas and designs relative to the satisfactory completion of this undertaking.

19. We also recommend that as frequent an exchange may take place as conveniently may be, of the observations made in the two ships; that any information obtained by the one, be as quickly as possible communicated for the advantage and guidance of the other.

20. In case of any irreparable accident happening to the *Enterprise*, you are hereby authorized to take command of the *Investigator*, and to make such arrangements for the officers and crews as may be the most consonant to the Rules of the service, and most conducive to the objects of the Expedition.

21. In the event of Great Britain being involved in hostilities with any Foreign Power during your absence, you are to abstain from the smallest act of aggression towards any vessel belonging to such nation, it being the practice of all civilized countries to consider vessels engaged in service of this kind, as exempt from the rules and operations of war.

22. In carrying out the foregoing Orders, you will avail yourself of every practicable occasion of acquainting Our Secretary with every step of your progress, as well as with your future intentions; and occasionally during your voyage, you will throw overboard one of the tin cylinders with which you have been supplied, (headed up in any cask or barrel that you could manufacture or spare), containing an account of the date, position, &c. On your reaching England, you will call on every person, in both vessels, to deliver up their logs, journals, charts, and drawings, but which, they may be informed, shall be returned to them in due time.

23. With respect to your search proving fruitless, and your finally quitting the Polar Seas, as well as your securing your winter quarters towards the close of any one season, We cannot too strongly impress upon you the necessity of the utmost precaution and care being exercised in withdrawing in

time, so as in no case to hazard the safety of the ships, and the lives of those intrusted to your care, by your being shut up in a position which might render a failure of provisions possible.

We feel it unnecessary to give you more detailed instructions, which might possibly embarrass you in a service of this description; and We have therefore only to repeat Our perfect reliance on your judgment and resolution, both in doing all that is possible to relieve the missing ships, and in withdrawing in time, when you come to the painful conclusion that your efforts are unavailing.

24. You will bear in mind that the object of the Expedition is to obtain intelligence, and to render assistance to Sir John Franklin and his companions, and not for the purposes of geographical or scientific research; and We conclude these Orders with an earnest hope that Providence may crown your efforts with success, and that they may be the means of dispelling the gloom and uncertainty which now prevail respecting the missing Expedition.

Given under Our hands, this 15th day of January, 1850.

(Signed) F. T. BARING,  
J. W. D. DUNDAS.

By Command of their Lordships,

(Signed) J. PARKER.

*Richard Collinson, Esq., C.B.,  
Captain of H.M.S. Enterprize, at Devonport.*

We must not however, omit to note here, the departure of that enterprising gallant young officer, Lieut. Bedford Pim, R.N., who left this country on the 20th of November, for the purpose of exploring the shores of Siberia in the expectation of finding traces of Sir John Franklin's ships. That Lieut. Pim will gain to himself honor and credit we have no doubt in whatever he undertakes, and that he will do "as much as man can do," we have no doubt; as seamen say, he is "cut out for it." Still we are not of opinion that he will return by the Wellington Channell! If he should do so, he will certainly come laden with information for the Geographical Society, if not with intelligence of the missing ships! But by whichever route he does return he cannot fail to bring honor. His outward course lies through Petersburg, Moscow, Tobolsk, Irkoutsk, Yakoutsk, and thence by the Lena to the Arctic Sea, where his *search* is to commence along its ice-girt shore, eastward and westward.

#### EDWARDS' PATENT PRESERVED POTATO.

This valuable prepared vegetable having long been adopted in the various scales of victualling in Her Majesty's Navy as well as other Services, a large quantity was supplied to H.M. Ships in the late Expedition under the command of Captain Horatio T. Austin, C.B. The reports state that this preserved vegetable afforded universal satisfaction to all engaged in the Expedition, and that it was infinitely preferred to *rice*; and the medical officers certify that this preserved potato was found to be a valuable antiscorbutic, as well as a most agreeable vegetable diet. We add for our readers information the subjoined extracts of some of the reports from the Arctic Expedition, and others recently received by Her Majesty's Government from the Cape of Good Hope, showing the high estimation in which the preserved potato is held by His Excellency Sir Harry Smith, and officers



at Head Quarters, which has led to a large supply (being despatched per last mail steamer) for the Army service, we believe at a cost not exceeding the common potato.

*Her Majesty's Ships Resolute and Assistance, Pioneer and Intrepid, Steam-Tenders, in search of Sir John Franklin, &c., 1850 and 1851.*

We the Commanders and Officers employed in the Arctic Expedition under Captain Horatio Thomas Austin, C.B., feel bound to record our favourable testimony of the excellent properties of Edwards' Patent Preserved Potato. In fact we can scarcely speak too highly of it as a vegetable: being able to use it in various ways, it retained all the virtue, and much of the flavour of fresh mashed potato, during the whole voyage out and home, a period of eighteen months; and that remaining is as good and serviceable as ever. The men having been perfectly free from scurvy, we are induced to entertain a high opinion of its antiscorbutic properties. The whole of the people appeared to relish the Preserved Potato more with their salt meat than with anything else, and infinitely to prefer it to *rice*, or the mixed vegetable or carrots, with which these ships were supplied.

Signed by the Officers and Surgeons of H.M.S. RESOLUTE,  
ASSISTANCE,  
PIONEER,  
INTREPID.

*Extract from Captain Horatio T. Austin, C.B., H.M.S., Resolute.*

I feel it incumbent upon me to express the value I set upon this production (Edwards' preserved potato), for the use of the table during sea voyages. In my own case as well as in that of the ship's company of the *Resolute*, it was prized beyond rice, and as a substitute it is difficult to express its importance with salt provisions.

(Signed) HORATIO T. AUSTIN.

*From Admiral Sir John Ross.*

I have much satisfaction in joining with other officers employed in the late Arctic Expedition, in the expression of the most unqualified and universal opinion of the excellent properties of Edwards' preserved potato, especially as an antiscorbutic, which has been fully established in the different ships and vessels lately employed in that trying climate, and I can have no hesitation in giving my strongest recommendation, that it should be liberally supplied to every ship employed on Foreign service.

(Signed) JOHN ROSS.

*Extracts from Special Reports made to H.M. Government upon Edwards' Patent Preserved Potato.—From Dr. Hull, Dy. Inspector General of Hospitals, dated 13th August.*

Dr. Murtagh's Report of the eligibility of this article for Hospital use, I have the honour to enclose, and I beg to add that from my own daily observation of its use in the Hospitals, I perfectly concur in what he has stated. I had an opportunity of testing the article at His Excellency Sir Harry Smith's table, and was much pleased with its sweetness and perfect resemblance to the fresh vegetable, as, indeed, was every one else who was present at the Governor's table on that occasion. There happened to be a dish of fresh potatoes at dinner the same day, and all gave a preference to the preserved over the fresh vegetable. I am of opinion the virtues of the recent potato are well preserved in the Patent Preparation, and I think it would be of the greatest importance as an article of diet, both for sick and well, at such posts as Fort Cox and Fort White, &c., where the garrisons have been

kept for many months isolated, and almost in a state of siege, and when fresh vegetables cannot be procured.

I beg therefore, most strongly to recommend that a supply be sent out with as little delay as possible, with ample instructions for its use pasted on each package. Scurvy has invariably followed war on this frontier on all former occasions.

(Signed) JOHN HALL, M.D.

*King William's Town, Cape of Good Hope.*

*Report from Dr. Murtagh, addressed to Dr. J. Hall.*

I have the honour to acknowledge the receipt of your letter, dated 10th June, 1851, requesting my opinion respecting the eligibility of Edwards' Preserved Potato as an article of diet, either for the sick in Hospital or for men in the Field. In reply, I have great pleasure in bearing testimony of its importance as an article of diet, both for men in hospital and in barracks—the fact is, that the men infinitely preferred it to the Potatoes procurable here. It appears to me to possess all the nutritious qualities and flavour of the fresh potato, and to be perfectly free from any irritating effects on the stomach and bowels.

(Signed) J. MURTAGH, M.D.  
*Surgeon, 6th Regiment.*

*King William's Town, 24th June, 1851.*

*Extract from Report on Edwards' Patent Preserved Potato and Rice, by Dr. Pereira, author of the celebrated Treatise on Food, &c.*

Having been requested to give my opinion of the relative merits of Edwards' Preserved Potato and of rice as antiscorbutic articles of food, I beg to say that I consider potatoes to possess valuable antiscorbutic properties, and rice to be devoid them.

A few years ago when in consequence of the potato disease, the potato and other antiscorbutic vegetables became scarce and dear, Rice, Indian corn, and other kinds of grain, were substituted by the poorer classes, and in pauper establishments for the potato; the consequence was, the appearance of scurvy in a very aggravated form in many parts of England, Scotland, and Ireland.

The facts that were at that time brought to light, satisfied me that rice is incapable of preventing the appearance of scurvy, and that the potato is a most useful and valuable antiscorbutic.

I further believe Edwards' Patent Preserved Potato is a wholesome and nutritious food, and is especially adapted for general use as an antiscorbutic at sea.

(Signed) JNO. PEREIRA, M.D., F.R.S.,  
*Fellow of the Royal College of Physicians, &c.*

*London, July 30th, 1851.*

#### CHRONOMETERS USED IN THE GRINNELL EXPEDITION.

*National Observatory, Oct. 14th, 1851.*

SIR.—The chronometers sent in the Grinnell Expedition, Lieut.-Commanding E. I. De Haven, in search of Sir John Franklin and his companions, have been returned into the hands of Arthur Stewart, Chronometer Maker, New York, the agent of this office.

Mr. Stewart has compared them with his regulator, and reported to me the results.

The performance of three of them has been most remarkable, doing great credit to their makers. Those furnished the *Advance* are No. 2131, Parkinson and Frodsham, and No. 121, Loseby.

The Loseby was sent from this office, May 9th, 1850, with a daily gaining rate of four seconds and thirty-seven hundredths of a second, (4s. 37). It was returned to Mr. Stewart October 10th, 1851, with a daily gaining rate of four seconds and forty hundredths of a second, (4s. 40.) But according to Mr. Stewart's comparison, it has averaged, during the 519 days of its absence, four seconds and ninety-seven hundredths of a second per day (4s. 97).

Those furnished the *Rescue*, passed Midshipman S. P. Griffin, commanding, were No. 2,110 Parkinson and Frodsham and No. 114 Loseby. No. 2,110 went from this office with a losing rate of no second forty-eight hundredths of a second (Os. 48), during its absence its average loss has been no second and thirty-four hundredths, (Os. 34). No. 114, Loseby, went from this office with a gaining rate of four seconds and three hundredths of a second (4s. 03) daily. Its average rate during its absence has been a gain of exactly four seconds (4s.) per day.

Loseby's chronometers are provided with a new means of compensation.

The performance of his two chronometers, and No. 2,110 Parkinson and Frodsham, may be considered truly remarkable.

These instruments have been subjected to the severest tests to which it is possible to subject instruments of such delicate construction; yet, so exquisitely were they provided with adjustments and compensations for the very great extremes of temperature to which they have been subjected, that one of them, No. 114, Loseby, after having suffered all sorts of exposure to which such instruments are liable in a Polar winter, is returned with a change in its daily rate, during a year and a half, (seventeen months,) of only three hundredths of a second in time.

I am, &c.

M. F. MAURY,

*Lieut. U. S. Navy.*

*Hon. C. M. Conrad, Acting-Secretary.*

*National Observatory,*

*Oct. 15th, 1851.*

SIR.—Enclosed herewith, please find the trial paper of your chronometer 112, with an order 285 dollars\* for it. Also the copy of an official report concerning your chronometers in the Grinnell expedition.

I should be glad to have twelve more of your chronometers on trial.

I am, &c.

M. F. MAURY.

*To E. T. Loseby, Esq., London.*

\* The dollar being reckoned, and paid, at the old value, for the Navy accounts, this sum is £64. 2s. 6d.—E. T. L.

## PIRACY IN THE MEDITERRANEAN IN 1851.

BEFORE referring our readers to the cases of brigandage and piracy which we were, from want of room, compelled to omit from the *November Nautical*, in the article headed "Shakings from Smyrna," we reprint a report from the *Times* of 7th November, and which had a few days previously appeared in other London papers. This shows that a pirate is supposed to be hovering between Sicily and the Main.

"Genoa, 29th October, 1851.

A bombardra having no flag, with a crew of about thirty-six men in Greek apparel, was seen off Cape Passaro by the *Secondo Vittorioso*, corvette (arrived at Genoa from Constantinople) bearing down towards her. The *Secondo Vittorioso* took her to be a pirate and fired two shots, in consequence of which she altered her course. The following day being off Cape Spartivento the same bombardra was seen cruising about."—*Morning Herald*, 4th Nov., 1851.

Any Englishman will on perusing the above paragraph immediately exclaim, "Why did not the corvette chase, close, and board this suspicious bombardra?"

Turning next towards Greece and Turkey, we, without further comment subjoin a few cases which will rather astonish those

"Gentlemen of England who live at home at ease."—

*Highway robbery near Smyrna.*—A band of brigands under Yanni Katergi, a noted robber, attacked the mail-courier of Aidin, on April 2nd [1851], in the environs of Thyra, and robbed him of about 35,000 piastres (9,000 francs) after murdering the three guards who escorted him. Detachments of troops were immediately despatched in pursuit, and one of them coming up with a party of Katergi's men, a sharp engagement ensued which ended in the defeat of the brigands, who lost nine horses but no men.—*Daily News*, 23rd April, 1851.

*Piracy near Rhodes.*—A letter from Genoa dated 3rd May, reports that the *Ann* (Ottoman) and a Greek vessel were plundered by a pirate (Il Negro) in the Roads of Bezza, 140 miles south of Rhodes, previous to the 16th of April, *Morning Chronicle*, 16th May, 1851.\*

H.M.S. *Frolic*, was sent in pursuit of Il Negro and his three vessels, but unsuccessfully.

*Brush with a Pirate.*—Letters from Athens dated 25th April, state that a pirate who had intended to lay in wait for the pilgrims going to the island of Tenos (opposite Syra) to celebrate the annual fete of the Virgin, could not succeed in hiding in even the harbour of an uninhabited island. Being chased he tried to take refuge on the Turkish coast but a Greek ship succeeded in getting up to him, and in boarding his vessel. The pirate was killed in the scuffle and his boat taken.—*Morning Chronicle*, 12th May, 1851.

*A July Freak in the East.*—At Smyrna a party of brigands recently carried off M. Van Lennep, the Dutch consul whilst walking with his children in the garden of his country residence, about four miles from the city. He was forced to accompany these brigands to the mountains, and was there detained until their demand for 50,000 piastres (£415 sterling) had been paid as a ransom for

\* We believe the only English yacht in the Archipelago during the exploits of these pirates was the *Sybil*, schooner, 104 tons, Henry Oglander, Esq., which vessel safely arrived at Smyrna on the 17th of April, 1851, from the coast of Egypt, bound to Constantinople. Il Negro would not have let the *Sybil* pass unattacked, had his "squadron of three," fallen in with her, especially if becalmed. Not that we think he could have captured the *Sybil*, but, nevertheless, he would probably have tried.

his liberation. Occurrences of this nature have several times taken place, and large sums are frequently extorted by way of ransom.—*Times*, 6th August, 1851.

The *Morning Chronicle* of 20th September, 1851, has a reference to the same outrage:—At a village called Seddi-kui, four miles distant from Smyrna, and inhabited in summer by the principal European families, the Dutch consul M. Van Lennep was taken by the brigands along with his two children, whilst walking in his garden, and carried up the hills for ransom. The ruffians with difficulty agreed to let the children be taken back by the peasant who was charged to carry their conditions to M. Van Lennep's friends, whilst he himself was detained thirty-six hours until the money was sent.

*Landing at Cea.*—The *Courrier D'Athènes* of 17th August, 1851, gives several accounts of further acts of piracy and brigandage, and among them records that the celebrated pirate George Negros (Il Negro) landed at Cea on the 7th of August, at the head of six men armed to the teeth. They illtreated the quarantine officer, robbed him of all he had, and even of his seal of office, they then compelled him to procure them provisions and broke into a store from which they took more. They next robbed several boats and went away. The authorities despatched thirty men in pursuit of them but without success; and the French ambassador also sent out the *Capital* steamer. The pirate Negros, subsequently landed at Naxos, robbed the officers of the quarantine, and took away their seal, (as at Cea) together with forty drachms in money. A monastery has since been pillaged in Eubœa.—*Morning Chronicle*, 30th August, 1851.

*Another Outrage at Smyrna.*—The *Impartial* of Smyrna of 22nd August, 1851, reports that at Boudja, a village close to Smyrna, and the chief residence of the English merchants, five men headed by one Bibaki, burst at half past 8 p.m. into the house of the Chevalier, l de Iongh, consul-general for Denmark, secured the maid-servants in the kitchen, then rushed into the sitting room where the consul and the ladies of his family were sitting, and demanded the watches of the party. Being refused, a struggle ensued, when the cries of the family alarmed the neighbours and M. J. Van Lennep, the son-in-law of M. de Iongh, rushed in to the rescue. A man-servant returned at the same instant, and the robbers took to flight, carrying off however, two watches, a gold chain, a gun, a sword, and some plate. The other Smyrna Journals are filled with accounts of violence and robberies committed in the neighbourhood of that place.—*Morning Chronicle*, 10th September, 1851. The *Times* of the same day adds, that Messieurs Iongh and Van Lennep offered an energetic resistance in the above contest, and that several pistol shots having been fired, the soldiers of a neighbouring post came to their relief, and the malefactors then took to flight.

*Pirate Boats at Smyrna.*—Letters from Smyrna of the 27th August, state that the neighbourhood continued to be infested by banditti. The pirate boats had just landed forty Greeks on the side of Phocœa, who immediately proceeded to the mountains. There they attacked and plundered two native tribes, and carried off fifteen men prisoners. The governor of Magnesia sent 200 cavalry in pursuit, who however, could not overtake them.—*Times*, 10th September, 1851.

But 1850, as well as 1851, was a remarkable year for violence at Smyrna. On the 9th March, 1850, three Maltese, a Sicilian, and Corsican, were shot in that city, by the guard of the Austrian consulate, being detected in the very act of breaking into the iron chest in which the deposits and records of the consulate were preserved.—[And see *Times* of Friday 3rd May, 1851.]

The above cases occurred in the Grecian Archipelago and near Malta; and looking more to the westward, we find that the *Moors of the Riff* have recently taken both a Spanish and an English vessel; that H.M.

steamer *Janus* has been in action with these Riffians; and that a second expedition is now fitting at Gibraltar to chastise them as they deserve. We might easily have recorded more cases than we have given above (for the details are now before us), but, we shall now content ourselves with stating that so far as the *Archipelago* is concerned, the desperado *Il Negro*, has at last met his deserts and lost his life while resisting some Turkish troops sent to capture him. May such be the fate of all pirates!

#### CAPTURE OF THE BRITISH BRIG VIOLET ON THE RIFF COAST.

Information has been received from Gibraltar by the *Montrose* steamer, of an atrocious act of piracy having been committed by the Moors of Fez, in the Bay of Botoya, upon the brigantine *Violet*, of Wisbeach, Thomas Leyton, master, laden with Indian corn from Galatz, and bound to Queens Town. The *Violet* belonged to Mr. Edward Bailey Cross, brother to Mr. Samuel Massy Cross, of the Steam Corn Mills, Wisbeach.

Mr. E. B. Cross, unfortunately went out with his ship upon this voyage to Galatz. She sailed from thence on the 12th of August, and it is reported at Lloyd's, that one man was killed by the pirates, and the master wounded and detained with the rest of the crew as captives to be ransomed. News of the capture reached Gibraltar on the 16th ult., and the Governor of Gibraltar dispatched her Majesty's steamer *Janus* on the 17th, if possible, to recover the missing vessels, and to effect the release of any British subjects who might possibly be held in captivity by the Moors; and also to chastise these lawless tribes, who inflict so much inconvenience on the operations of commerce. By correspondence from Gibraltar, dated 25th ult., it appears that the *Janus* came back on the 20th; she arrived on the Riff coast on the 18th instant, and found another vessel, the *Joven Emilia*, high on the beach, a total wreck, entirely stripped. As some of the Riffians' boats were about the wreck, the *Janus* sent a few shells among them, and the next morning manned her boats and proceeded to the wreck. The Riffians observing their movements, set fire to it. The *Janus's* boats thereupon commenced firing upon them with shot and shell, and having, after two hours' firing, completely destroyed them (the boats), rejoined the steamer, which again put to sea. On the morning of the 19th, having steamed twenty miles westward of Cape Tres Forcas, she perceived the ribs of another vessel on the beach, and as she approached the Bedouins began to fire upon her. The *Janus's* boats were immediately manned and armed, and the crews being landed, they endeavoured to destroy the Bedouins' boats; but, their greater number enabling them to keep up an overpowering fire, our people were compelled to re-embark, and retreat to the *Janus*, which, during the whole of the contest, had been firing shot and shell; a circumstance which warrants the conclusion that the enemy must have sustained a very heavy loss. The following is a list of the casualties on board the *Janus's* boats:—

Commander Powell, shot through both thighs, not dangerously; Mr. Paynter, shot through both thighs, slightly; John Ford, boatswain's mate, leg shattered, dangerously; J. Reading, seaman, leg shattered, dangerously; James Frost, seaman, shot through the body dangerously; J. M'Lean, marine, shot in the hip, slightly; James Connoly, boy, shot in the arm, dangerously; R. Mason, boy, slightly wounded in the head.

The *Janus* proceeded to Tangier on the 21st, no doubt for the purpose of acquainting our Consul there with what had taken place, that the same might be made known to the Emperor.

On the day of her departure accounts were brought from the Commandant of Melilla, that five Christians were in the hands of the Bedouins, who demanded the sum of 100 dollars each for their ransom. The Commandant offered them sixty dollars, and immediately informed our Consul at Malaga of it, understanding that the five Christians were British subjects:—and it is understood that the Governor of Algeciras has despatched a war steamer to Melilla, the *Janus* being at Tangier.

The mishap to the *Janus* will probably be shortly followed by a more effective demonstration against the pirates. The Governor of Gibraltar on the 25th forwarded despatches by the Peninsular and Oriental Company's steamer *Sultan*, to Admiral Sir W. Parker at Malta. Despatches were also sent by the *Montrose* to Commodore Martin, at Lisbon, on receipt of which the *Arethusa*, 50, and screw-frigate *Dauntless*, were instantly ordered for Gibraltar. It was also understood that reparation would be demanded from the Emperor of Morocco for the aggressions and piracies of his subjects on the Riff coast.

Much anxiety is felt by Mr. Cross's relatives as to his fate—especially as the *Janus* has been beaten off by the pirates. Mention is made of five British subjects being held as captives. The *Violet's* crew consisted of either eight or nine hands. The ransom demanded was 100 dollars each, and it is stated that sixty dollars were offered. It does seem somewhat strange that when five Englishmen are detained as prisoners by barbarians, there should be any haggling as to the price paid for their liberation. The better plan would have been to have paid the 100 dollars each, and then have compelled the Emperor of Morocco, who harbours these Riffian pirates on his coast, to pay heavy compensation for this atrocious piracy and murder.

The Indian corn which formed the cargo of the *Violet* and was destroyed with the ship by the Riffian pirates, was consigned to Messrs. H. and J. Johnston and Co., of Bush-lane, Cannon-sreet. Messrs. Johnston and Co. have petitioned Lord Palmerston to take steps for demanding reparation from the State of Morocco for the loss. The next mail from Gibraltar is most anxiously looked for, as it will bring most probably some definite information about the survivors of the *Violet's* crew. Mr. Cross's brother has laid the matter fully before Lord Palmerston.

By the arrival of the *Euxine* steamer on Thursday in the Southampton Docks, we have accounts from Gibraltar to the 31st ult. No further intelligence had reached that place from the Riff coast relative to the Moorish pirates who had beaten off Her Majesty's steam sloop *Janus*, except that the five men taken by the Moors and now held in captivity, belonged to the British brig *Nelson*, which was laden with Indian corn, and had been captured during her voyage from the Black Sea to Cork. Her Majesty's ship *Arethusa*, 50, and screw-steamer *Dauntless*, 33, arrived at Gibraltar on the 31st ult., and were there when the *Euxine* left. Her Majesty's ship *Janus* was also in the bay, and it was expected that these three ships would speedily be dispatched to the Riff coast to avenge the late defeat, and to rescue the British subjects held in captivity. Some other ships were also looked for from Sir W. Parker's fleet, and it was proposed to land a sufficient force near Cape Tres Forcas, in order, if possible, utterly to extirpate the powerful and daring hords of Arabs who systematically rob and plunder the merchant shipping of all nations.

---

## NAUTICAL NOTICES.

### LIGHT ON CAPE FINISTERRE.

Nov. 24th, 1851.

MR. EDITOR.—I have recently had an opportunity of observing, that the Spanish Government is making preparations for the erection of a light-house on the summit of Cape Finisterre: a substantial looking barrack for the accommodation of the workmen is nearly completed, and its appearance has already imparted a more pleasing aspect to the adjacent savage though grand scenery.

This addition to the European Lights is said to have been determined upon, in order to facilitate steam navigation in its vicinity, and the light-house is to be built close to the barrack, namely, on the pitch of the Cape. On this choice of a site, I propose to offer a few remarks, because, some very competent, and perhaps one of the most competent judges on the subject, consider the site indicated to be injudicious.

The approach to, and doubling of Cape Finisterre from the British Channel,

by steam-vessels proceeding to the southward, is confessedly a far more anxious task than is the reverse operation; and chiefly so, because in the latter case perhaps the Bayona Islands would have been seen a few hours previously, and almost certainly the Burlings during the previous thirty-six hours before sighting the Cape.

It becomes, therefore, most material to consider the winter landfall from the north-eastward. Now this may have been preceded by an interval of a week's departure from the channel, and which in such case would have been passed in heavy south-westerly gales, accompanied by thick weather, before a vessel arrives abreast of Cape Prior.

In such a situation, the earliest gleam of an established light on the north-western extremity of Spain, would greatly relieve the mind of an anxious master.

Generally speaking, this warrantry for altering course more to the southward, would be more certain, oftener, and always with greater confidence by his making a light on Cape Torrinana, than on Cape Finisterre.

Because, although the lofty Finisterre is popularly regarded as forming the westernmost point in Europe, yet, amongst nautical men, who are acquainted with this coast, and likewise by some public Hydrographers, the above distinction is commonly believed to pertain to the humbler Torrinana.

In Norie's Epitome, and also in Purdy's Memoirs of the North Atlantic, Torrinana is placed a mile nearly to the westward of Finisterre. Raper assigns to both Capes the same longitude; moreover, he places Finisterre four miles further to the west, than is done by the other authorities above quoted,—a too serious discrepancy, in these days of hydrographic accuracy, to be allowed to exist much longer.

Still more important however, for the main object under consideration, the smallest difference of latitude derived from all of those authorities, places "Torrinana eight miles to the north of Finisterre."

In the *Nautical Magazine*, for September 1840, there is an article entitled "Observations on Steam Navigation to Spain and Portugal," and from which I make the following extract.

"Leaving the *Lizard*, a south-west course will generally take a steamer just clear of Cape Torrinana, which should always be referred to, as the south-west boundary of the Bay of Biscay, and on which for the facility of Steam Navigation, a light is quite essential, and not on Cape Finisterre."

The above article was written by a very intelligent steam commander, since deceased. The suggestion, however, does not appear to have attracted notice until the loss of the Peninsular and Oriental Company's steam brig *Great Liverpool*. Then much was written promoting the object, but no steps were taken to carry it into effect, at least none that publicly transpired.

The Spaniards are proverbially a slow people. But whenever their Government undertake works of the description under notice, they spare no expense in carrying them out with becoming solidity and architectural beauty.

Of light-houses in general, it is notorious, that some of them have been perched too high to render the greatest possible assistance to ships in their offing when most they need such guidance. In clear weather, that is to say when the sight of a light is least needed, granted, that one on Finisterre would command the wider horizontal range, inasmuch as sometimes it would be seen over Torrinana; but generally speaking, the lesser elevation of the latter cape, is a feature which in moderately hazy weather or when a light is most wanted would enable its light to be descried furthest, and especially so would this be the case from vessels coming from the northward.

W. H. B.

To the Editor N.M.



## FRIENDLY ISLANDS, PACIFIC OCEAN.

His Excellency the Governor has directed the publication, for general information, of the following letter and translations of its enclosures, from Her Majesty's Consul at Tahiti, communicating the rectified positions of the Island of Toobouai and six of the Paumotu or Low Islands, as ascertained by recent surveys of French Hydrographers:—

*British Consulate, Tahiti,  
March 15th, 1851.*

SIR,—As vessels from New South Wales frequently pass amongst the Islands in this neighbourhood, many of which (particularly of the Paumotu Group,) appear to be very incorrectly laid down on the charts, I do myself the honour of transmitting to your Excellency herewith, the copies of two letters which I have received from the French Commissioner at this place, communicating the rectified provisions of the Islands of Toobouai and six of the Paumotu or Low Islands, as ascertained by recent Surveys of French Hydrographers.

I have the honour to be, Sir,

Your Excellency's  
Most obedient humble servant,

G. C. MILLER, *H. M. Consul.*

*His Excellency the Governor of New  
South Wales, Sydney, &c.*

---

*Papeete, (Tahiti,) January 12th, 1851.*

SIR,—On terminating his hydrographic operations, M. Delamarche, the Hydrographic Surveyor, addressed me in the following observations.

The Island of Toobouai is erroneously placed on the existing charts.

The Flagstaff, situated about the middle of the north extremity of the Island, is in  $23^{\circ} 21' 45''$  south latitude, and in  $151^{\circ} 55' 44''$  longitude west of Paris. ( $149^{\circ} 35' 23''$  west from Greenwich.)

The variation is  $9^{\circ} 38' 10''$  N.E.

The anchorage, situated at the termination of the reef, at about 2500 metres, (2700 yards), from the Flagstaff, bearing S.  $\frac{1}{4}$  E. true, is very bad, for the bottom being of coral, vessels are liable to drive or lose their anchors, and there is no shelter whatever; smaller vessels can, however, be conveniently anchored near the shore. As there are pilots, it would not be prudent to dispense with them.

These remarks being of importance to navigators, I have the honour without delay to bring them under your notice, and to inform you, that I have also caused them to be made known in France, and to all our Consuls in these seas.

I have the honour to be, &c.,

BONARD,

*Commissary of the French Republic, at the Society Islands.  
H. B. M. Consul, Papeete.*

---

*Papeete, (Tahiti,) February 12th, 1851.*

SIR.—The hydrographic labours performed, in pursuance of my orders, in October, 1850, by M. Delamarche and by Captain Gizolme, have, amongst other results led to the detection of very considerable inaccuracies in the positions which the existing charts give to the Islands of the Pomotou Group Main, Vahé, Rurick, and Vliégen. As the islands are situated in a track much frequented by vessels coming to Tahiti from the northward, and are not to be discerned until one is (as it were) actually upon them, I consider it will be useful to make known to navigators their exact position.

I have the honour to communicate to you the subjoined table relative to them:—

| Islands.  | Extremes             | Lat. south. | Long. west from Greenwich.* |
|-----------|----------------------|-------------|-----------------------------|
|           |                      | ° ' "       | ° ' "                       |
| Manni .   | { North Point . . .  | 14 19 24    | East Point . 145 49 15      |
|           | { South Point . . .  | 14 28 20    | West Point . 146 2 57       |
|           | { Passage or Channel | 14 28 10    | — . 146 2 4                 |
| Vahe .    | { North Point . . .  | 14 25 20    | East Point . 146 10 59      |
|           | { South Point . . .  | 14 33 40    | West Point . 146 24 45      |
|           | { Passage or Channel | 14 27 20    | — . 146 21 49               |
| Rurick .  | { North Point . . .  | 15 15 10    | East Point . 146 37 59      |
|           | { South Point . . .  | 15 27 45    | West Point . 146 53 59      |
|           | { Passage or Channel | 15 22 20    | — . 146 39 39               |
| Vliegen . | { East Point . . .   | 15 18 7     | — . 147 15 1                |
|           | { North Point . . .  | 15 41 0     | East Point . 146 26 39      |
| Auura .   | { South Point . . .  | 15 51 55    | West Point . 146 50 24      |
|           | { Passage or Channel | 15 41 20    | — . 146 47 39               |
|           | { North Point . . .  | 16 8 10     | East Point . 146 18 19      |
| Nian .    | { South Point . . .  | 16 12 50    | West Point . 146 23 39      |

I have t' e honour to be, &c.,

BONARD.

- \* The difference of Longitude between Paris and Greenwich is  $2^{\circ} 20' 21''$ .

#### THE IRISH BANK—Off the North West Coast of the Texel Island.

For some time past my attention has been directed towards the frequent wrecks which take place on the North-west Coast of Texel Island. At page 448, for the year 1848, of this work, I made mention of my endeavours to point out as far as I could the dangerous shoals that exist there.

It is well worthy of notice, that this portion of the coast of the North Sea, in all probability one of the most dangerous of this much frequented navigation, is by no means accurately represented in any chart. In all those that have come under my notice,—Danish, English, French, and the earlier Dutch charts,\* the North-west Coast of the Texel Island appears, with the exception of a small bank close in shore, to be free from any danger, yet there are some shoals off it. These shoals are, by Mr. Zwaal's letter to me, and in accordance with the opinion of the inhabitants of the Texel, as dangerous, or more so, as the *Haaks*, before the Gat of that Island. The banks in question are called the Irish Banks; their position is North-west from the northernmost point of the Eijerland, or the *Horn on Texel Island* projecting four English miles to seaward, and extending from thence in a South-westerly direction a little North of the village *de Koog*, on North Texel. The North-easterly part dries at low water, and is known by the name of *Jan Ransplaat*.

This *Eijerlandsche* shoal from the information I obtained, is inserted in my chart of the *Zuiderzee*, published by Van Keulen in 1851, and also in the recent one of the *Noordzee*, the *Southern part*; and in that of the general chart of the North Sea—all recently issued by me.

The following is a list of wrecks that have happened on the *Eijerlandsche Gronden*, and the *Haaks*, kindly furnished by Mr. Zwaal.

\* The charts mentioned are:—The important Danish chart of the North Sea, in two sheets, in 1842, published by the Royal Danish chart archive, and corrected in 1850. The general chart of the North Sea, by Purday, published by Laurie, 1847, corrected 1849. Chart of the Coast of Holland, Germany and Denmark, from the Texel to the river Hever &c., 1849. Steel's new and accurate chart of the South part of the North Sea &c., corrected and materially improved by Norie, 1833, corrected in 1851. Chart of the North Sea, comprising the Eastern Coasts of Britain &c., to the Straits of Dover, up to Bergen &c., in 1807. Chart of the North Sea from the  $46^{\circ}$  to the  $75^{\circ}$  N. Lat., by Dausy, Engineer and principal Hydrographer in 1838. The two last charts were issued by the French Marine Depot of charts.

List of Vessels wrecked on the Coast of Texel, from 1836 to 1850.

| Where bound. |                           | Where wrecked | Date.        | Remarks.   |
|--------------|---------------------------|---------------|--------------|------------|
| From         | To                        |               |              |            |
| 1 Northern   | Anna Margaretha Elizabeth | Noorderhaaks  | 17 Nov 1836  | & v. s.    |
| 2 Hamburg    | Maria Magdalena           | do            | 23 Jan 1837  | do         |
| 3 English    | Georgina                  | Eijerland     | 9 March -    | c. ld.     |
| 4 do         | Flora                     | Coog          | 4 Apl -      | c. s.      |
| 5 do         | Maria                     | Noorderhaaks  | 1 May -      | all lost   |
| 6 do         | Campbell                  | Eijerland     | 3 Aug 1838   | c. s.      |
| 7 Northern   | Union                     | do            | 9 -          | do         |
| 8 English    | Penelope                  | do            | 13 Oct -     | all lost   |
| 9 Dutch      | Hillegona                 | do            | 19 -         | do         |
| 10 do        | Helena                    | Western       | 8 Jan 1839   | 16 d. 1 s. |
| 11 do        | Diana                     | do            | 9 -          | c. s.      |
| 12 do        | Nancy                     | do            | 12 -         | Aban.      |
| 13 French    | La Confidence en Dieu     | Eijerland     | 14 Apl -     | all lost   |
| 14 English   | John and Amelia           | do            | 30 July -    | 2 s.       |
| 15 do        | Ann Scott                 | Western       | 30 Oct -     | 1 lost     |
| 16 Dutch     | De Vrouw Magdalena        | do            | 30 Jan 1840  | c. s.      |
| 17 Iver      | Concordia                 | Eijerland     | 2 Feb -      | do         |
| 18 Dutch     | Heemskirk                 | do            | 5 July -     | do         |
| 19 English   | Falcon                    | do            | 20 Oct -     | do         |
| 20 do        | Richard and Ann           | doorn         | 14 Jan 1841  | do         |
| 21 Dutch     | Aldia Marie               | Coorn         | 23 June -    | do         |
| 22 French    | Le Francois               | doorn         | 18 Oct -     | do         |
| 23 English   | G. Dean                   | Coog          | 19 -         | do         |
| 24 Hanover   | Diana                     | do            | 20 -         | do         |
| 25 do        | Ostria                    | Antwerp       | 20 -         | do         |
| 26 Sweden    | Mercurius                 | doorn         | 22 -         | do         |
| 27 Hamburg   | Dorothea                  | Zanddykshuis  | 12 Dec -     | Aban.      |
| 28 Dutch     | Johanna                   | Eijerland     | 23 -         | c. s.      |
| 29 American  | Amelia                    | do            | 14 Mch 1842  | 1 d.       |
| 30 do        | Le Blamo                  | Hamburg       | 15 Jan 1843  | c. s.      |
| 31 Dutch     | De Guede Trouw            | Flaibing boat | 20 Nov 1843  | Flot s.    |
| 32 Belgian   | Aling                     | do            | 23 Dec -     | c. s.      |
| 33 Russian   | Brig Fing                 | doorn         | 16 Sep 1844  | do         |
| 34 do        | La Samaritaine            | do            | 4 Oct -      | 1 d.       |
| 35 English   | Dawdon                    | Coog          | 21 July 1845 | c. s.      |
| 36 Northern  | Ida                       | Eijerland     | 2 Oct -      | do         |
| 37 Russian   | Atalante                  | Zanddykshuis  | 21 -         | do         |

| Nation.     | Description. | Names.             | Captains.   | Freight.             | Where bound.   |                | Where Wrecked | Date.        | Remarks.    |
|-------------|--------------|--------------------|-------------|----------------------|----------------|----------------|---------------|--------------|-------------|
|             |              |                    |             |                      | From.          | To             |               |              |             |
| 38 Hanover  | Kof          | Ryndina            | Reents      | Piece Goods          | Hull           | Bremen         | Ejlerland     | 16 Feb 1846  | 2 s.        |
| 39 Dutch    | do           | Maria Catharina    | Kiwit       | Rye                  | St. Petersburg | Antwerp        | do            | 26 Oct -     | c. s.       |
| 40 Hanover  | do           | De Jonge Antonie   | Beekman     | do                   | do             | do             | do            | 25 -         | do          |
| 41 English  | Schooner     | Fairy              | Walker      | Ballast              | London         | Whitby         | Western       | 22 Nov 1846  | Aban.       |
| 42 Northern | Kof          | Emanuel            | Florenefs   | Timber               | Christiansand  | Caen           | Ejlerland     | 22 Apl 1847  | do          |
| 43 Dutch    | do           | Hendrika Iautina   | Struk       | Rye                  | St. Petersburg | Rotterdam      | do            | 3 Sep -      | c. s.       |
| 44 Prusslan | Brig         | Die Junge Caroline | Zuhr        | Timber               | Memel          | Antwerp        | Western       | 3 -          | 1 s.        |
| 45 Dutch    | Kof          | Anna Margaretha    | Naatje      | Iron, &c.            | Cardif         | Hamburg        | Ejlerland     | 23 Oct -     | 3 s.        |
| 46 English  | Schooner     | Armlia             | Fitzpatrick | Coals                | Sunderland     | St. Petersburg | Western       | 26 June 1848 | 3 s.        |
| 47 do       | Brig         | Fredens Minde      | Coatsworth  | Timber               | Fredrikstad    | Nieuwe Diep    | Ejlerland     | 23 Oct 1849  | c. s.       |
| 48 Northern | do           | Erick Borresen     | Anderson    | do                   | Drammen        | Harlingen      | do            | 17 Nov -     | 10 d.       |
| 49 Bremen   | do           | Agnes              | Hesselberg  | Tobacco & Passengers | N. York        | Cornwall       | Western       | 18 Dec -     | 42 d. 17 s. |
| 50 Danish   | Frigate      | Kund               | Arensfeld   | Barley               | London         | Bremen         | Koog          | 28 -         | 1 d.        |
| 51 do       | Yacht        | Aurora             | Christensen | Ballast              | Hobro          | Ipswich        | do            | 38 -         | c. s.       |
| 52 do       | Schooner     | Ewart              | Rieper      | Wheat                | Ostend         | Newcastle      | Ejlerland     | 18 Feb 1850  | do          |
| 53 English  | do           | Alda               | Cogle       | Timber               | do             | do             | Zandijkshuis  | 2 May -      | do          |
| 54 Dutch    | Smaack       | Cornopea           | Ebes        | Coals                | Christiansand  | Harlingen      | Ejlerland     | 1 July -     | do          |
| 55 English  | Brig         | Thomas Almsworth   | Baker       | do                   | Seabam         | Amsterdam      | do            | 29 Sep -     | do          |
| 56 Dutch    | Kof          | Adriana            | Jonker      | Piece Goods          | Newcastle      | Zwolle         | do            | 5 Nov -      | do          |
| 57 do       | do           | Two Brothers       | Kremer      | Pease                | Amsterdam      | Riga           | Schansvuurd   | 9 -          | do          |
| 58 English  | Sloop        | Pomona             | Freat       | do                   | London         | Groningen      | Ejlerland     | 9 -          | do          |
| 59 Hamburg  | do           |                    |             |                      |                |                |               |              |             |

At page 74 of the eighth year of this work, was inserted a list of charts of our Coast, published by the Dutch Marine Department. These are correct—from *Blankenburgh* to *Hook of Holland*, to the South, and from *Calandsoog* to part the island of *Borkum* to the North; but they are deficient of the Irish Banks. It is very strange, and much to be regretted, that the chart of *Viteland, Terckelling*, and *Ameiland*, issued by the department did not extend more westerly to include these banks, and fully lay down the whole of our Northern Coast, and the *Eijerlandsche gronden*.

We deem it our duty to warn seamen of these hitherto little known Banks.

We wish that these shoals (unknown to foreign seamen especially, were buoyed or marked by buoys, and if possible a floating light placed off them. But should a light be placed there, it would be necessary to make a distinction between it and the light on the North-east of *Viteland*, and that on *Kijkdam* on the *Heider*, between which, this light would appear.

We trust that the Editors of *Foreign Maritime Journals* will take up this subject, and make known these dangerous banks, for the benefit of seamen in general.

*Amsterdam, 17th July, 1851.*

J. SWART.

### THE TYNE, A HARBOUR OF REFUGE.

It is a lamentable fact, that the seaboard district of the Tyne is more abundant in shipping disasters and wrecks, than any other portion of the coasts of the British islands.

Out of 681 wrecks that took place last year, on the British coasts, and in the British seas, nearly *one-seventh* occurred within fifty miles of the Tyne.

By a "Wreck Map" for 1850, it will be found—

1. That, taking the *Tyne* as a centre, within fifty miles north and south there were ninety-two wrecks; while, notwithstanding the exposed coast to the north and south of the *Thames* (the commerce of the world passing), and including the dangerous Goodwin sands, within a similar range, there were only seventy-nine wrecks.

2. That the *Mersey*, with its extensive commerce and dangerous approaches, taking the same distance, had only fifty-nine wrecks.

3. That the *Bristol Channel*, and the same extent of coast, had fifty-four wrecks.

4. That *Yarmouth*, with all the intricacies and dangers of its shoals, and, within the same fifty miles radius, forty-three wrecks.

5. That *Harwich*, including Dover, the mouth of the Thames, the Goodwin Sands, &c., had, in the same coast extent, seventy-four wrecks.

6. That *Dover*, as a centre, including in its radius the mouth of the Thames and Goodwin Sands, had sixty-eight wrecks.

7. The *Holyhead*, and its fifty miles of coast N. and S., had thirty-four wrecks.

8. That *Portland*, with its fifty miles, had eighteen wrecks.

9. And that the entire coast of the *Channel Islands* had but six wrecks.

Harwich, Dover, Holyhead Portland, and the Channel Islands, notwithstanding, as we see, their fewer casualties and less danger than the Tyne and its coasts, are constituted harbours of refuge, and received this year from the Legislature, for this purpose, no less a sum than £205,681.

For Harwich, £20,000; for Portland, £30,000; for Dover, £34,000; for Channel Island, £60,000; Holyhead, £61,481. Try this question by a radius of ten miles, and—Harwich had twenty wrecks; Portland, three; Dover, eight; Holyhead, twelve; Channel Islands, all round their coast, six; while the Tyne, within the ten miles radius, had thirty-four.

Yet the Tyne had nothing voted to render it a harbour of refuge, and save the immense mass of property annually lost:—not less, in her last ninety-two wrecks, than £100,000—as well as many valuable lives regularly sacrificed.

On what grounds are these large votes of public money granted, but to save lives and property where most exposed?

If this be so, then the Tyne, more important, with her 40,000 ships entering and leaving her harbour annually, and more exposed at all seasons (for such is the nature of her trade) to the chances of wreck on her iron-bound coasts, evidently requires, not only similar consideration from the Legislature, but greater—inasmuch as the loss of British property and life is greater than on the coasts of any other port.

The disastrous nature of the gales on these coasts is caused by the want of a secure harbour—a *harbour of refuge*.

For upwards of 200 nautical miles, from the Frith of Forth to Yarmouth Roads, there is no certain place of shelter, in heavy gales, to leeward.

A vessel caught on the coast by a gale from the N.E., if drawing more than fourteen feet of water, durst not run to the Tyne—cannot shelter in Burlington Bay in that wind—and could not take the Humber. Boston or Lynn

Deeps, or Yarmouth Roads, she must seek ; but even there not safe, she must then press on to Harwich or the Thames, after running along a lee-shore, with destruction impending every mile, for 150 miles, as the only chance of safety. Less security in such a case in attempting Sunderland rather than the Tyne—the dry harbours of Seaham and Hartlepool still less—and Scarborough and Whitby less too than Sunderland. None of them afford shelter to the vessel in her extremity.

If a vessel be caught in an E.N.E. gale, often the heaviest on these coasts, she flies to the southward ; but, embayed as she lies, she merely protracts her fate, and goes ashore on the Yorkshire coast, if she weathers it so long. She cannot enter the Tyne though caught at its very mouth :—she must fly from it as from immediate destruction.

In south-east gales, still no shelter from Yarmouth Roads to the Firth of Forth. She must keep her foaming course till she arrives at Leith Roads. It is thus that laden vessels from the Tyne, the Wear, Seaham, and Hartlepool, however far on their voyage to the southward, must pass their ports of departure, too happy to be able to do so, and find security in a Scottish harbour ; while a vessel involved upon these coasts in a heavy gale from the east must go ashore if over fourteen feet water. North or south she cannot clear herself—she is embayed. There is now no Yarmouth Roads or Firth of Forth, Thames or Harwich, even after a deadly struggle for ship and life :—no chance—no hope—only despair—in such an extremity.

Does such a state of things not cry aloud for some speedy remedy ? Do these facts not demonstrate its nature ?

*The Tyne a harbour of refuge*, these dangers would be nearly all removed.

If Dover, Portland, Harwich, the Channel Islands, and Holyhead, be constituted and maintained as harbours of refuge, chiefly because they are packet-stations, and that passengers and mail property may be secured, (which we do not grudge,) surely the property of British shipowners and British merchants, and the lives of British seamen, should be equally dear to a British Legislature.

By establishing the Tyne as a harbour of refuge, not only would her own immense traffic be secured, but hundreds of thousands of British property saved—as the vessels of the Wear, and all the other northern ports, English and Scotch, would in almost every gale find a certain place of refuge.

The time is propitious for such a work. The projected piers and constructions at the mouth of the Tyne will deepen the water from three to four feet at the bar. Now, by extending these works, and fitting them, not merely for local but for national purposes, you may have, there can be no doubt, from seven to eight feet more water ; and then the largest merchant vessels, or ships of war, will seek the Tyne in confidence and find security, where now they only see injury or destruction.

There cannot be a question that an effort, becoming this great object, from all the important communities and interests of the Tyne, would induce the Government and Legislature to give a willing aid. The interests of the merchants and coalowners of Newcastle and Gateshead, the shipowners and others of North and South Shields, the advantage to property on both banks of the river, the increased trade to the port, would bind together these important communities in a great common object ; while the influence and interest of the Duke of Northumberland, (himself a gallant sailor sympathizing with sailor)—of the Bishop and the Dean and Chapter of Durham, bound by their secular interests as their religious impulses—the active exertions of the Members for Newcastle, Gateshead, Shields, Tynemouth, and the two counties—would bring to bear upon it an irresistible force. Here no sectional antagonisms could arise, but a concentrated and honourable combination of

men of all parties and of every part of the Tyne and surrounding districts, would appear—not merely for local, but for the higher objects of benevolence and of national advantage.

The River Commissioners are going to Parliament not only for power to construct new works, but for authority to lay a new impost upon shipping in the Tyne.

That interest has got enough to bear already. Raise not pecuniary obstructions while removing material ones. Rather go for a public grant for a great public purpose—for a national port for the security of property and life.

Our own funds, properly applied and invested, with two or three annual grants from the Legislature, will accomplish this great work; and then the Tyne, almost a free port, secure and prosperous, will become what nature originally designed it to be.

M.

*Gateshead Observer, November 8th, 1851.*

## METEOROLOGICAL REGISTER.

Kept at Croom's Hill, Greenwich, by Mr. Rogerson, of the Royal Observatory,  
From the 21st of October, to the 20th of November, 1851.

| Month | Day. | Barometer.              |        | Thermometer   |        |     |     | Wind.   |      |          |      | Weather.     |         |
|-------|------|-------------------------|--------|---------------|--------|-----|-----|---------|------|----------|------|--------------|---------|
|       |      | In Inches and Decimals. |        | in the shade. |        |     |     | Quarter |      | Strength |      | A.M.         | P.M.    |
|       |      | 9 A.M.                  | 3 P.M. | 9 A.M.        | 3 P.M. | Min | Max | A.M.    | P.M. | A.M.     | P.M. |              |         |
| 21    | Tu.  | 30.08                   | 30.00  | 57            | 59     | 54  | 60  | SE      | E    | 1        | 1    | o            | bc      |
| 22    | W.   | 30.01                   | 30.05  | 55            | 54     | 59  | 56  | SE      | E    | 1        | 1    | og           | og      |
| 23    | Th.  | 30.24                   | 30.28  | 53            | 57     | 50  | 58  | NE      | E    | 1        | 1    | o            | o       |
| 24    | F.   | 30.41                   | 30.41  | 55            | 56     | 51  | 57  | NE      | NE   | 1        | 1    | o            | o       |
| 25    | S.   | 30.40                   | 30.38  | 48            | 54     | 43  | 55  | NE      | NE   | 1        | 1    | bc           | og      |
| 26    | Su.  | 30.24                   | 30.17  | 52            | 54     | 49  | 55  | N       | W    | 1        | 1    | bc           | bc      |
| 27    | M.   | 30.10                   | 30.10  | 48            | 57     | 45  | 58  | W       | NW   | 2        | 2    | bcm          | o       |
| 28    | Tu.  | 30.10                   | 29.90  | 48            | 52     | 44  | 54  | SW      | SW   | 4        | 4    | o            | er 4)   |
| 29    | W.   | 29.42                   | 29.32  | 43            | 45     | 41  | 47  | W       | NW   | 2        | 3    | o            | bc      |
| 30    | Th.  | 29.43                   | 29.55  | 44            | 46     | 38  | 48  | NE      | NE   | 5        | 5    | qbcp (3)     | qbcp 4) |
| 31    | F.   | 29.62                   | 29.59  | 40            | 44     | 37  | 45  | N       | NW   | 3        | 3    | b            | bcm     |
| 1     | S.   | 29.58                   | 29.58  | 44            | 48     | 37  | 49  | W       | W    | 2        | 2    | op (2)       | bc      |
| 2     | Su.  | 29.36                   | 29.42  | 47            | 44     | 36  | 49  | NW      | NW   | 3        | 2    | bcp (2)      | bcp (2) |
| 3     | M.   | 29.76                   | 29.84  | 34            | 41     | 32  | 42  | NW      | NW   | 2        | 4    | bc           | bc      |
| 4     | Tu.  | 29.79                   | 29.87  | 34            | 37     | 30  | 38  | N       | N    | 6        | 5    | qops (1) (2) | qbc     |
| 5     | W.   | 30.00                   | 29.95  | 30            | 40     | 27  | 41  | NW      | NW   | 2        | 4    | bm           | bcp 4)  |
| 6     | Th.  | 29.86                   | 29.83  | 41            | 45     | 40  | 46  | NW      | NW   | 3        | 4    | bcm          | bc      |
| 7     | F.   | 29.83                   | 29.78  | 44            | 44     | 38  | 46  | NW      | N    | 4        | 4    | o            | or (3)  |
| 8     | S.   | 29.90                   | 29.90  | 41            | 42     | 36  | 44  | N       | N    | 2        | 2    | bc           | og      |
| 9     | Su.  | 29.86                   | 29.88  | 42            | 45     | 39  | 46  | E       | SE   | 2        | 1    | o            | or 4)   |
| 10    | M.   | 29.66                   | 29.63  | 42            | 45     | 41  | 47  | NW      | N    | 2        | 3    | bcp (1)      | o       |
| 11    | Tu.  | 30.03                   | 30.07  | 38            | 47     | 33  | 48  | N       | NE   | 3        | 3    | b            | bc      |
| 12    | W.   | 30.24                   | 30.28  | 41            | 43     | 38  | 44  | NE      | NE   | 2        | 2    | b            | bc      |
| 13    | Th.  | 30.41                   | 30.43  | 39            | 43     | 35  | 44  | SW      | SW   | 2        | 3    | of           | bc      |
| 14    | F.   | 30.32                   | 30.27  | 41            | 42     | 39  | 43  | NE      | NE   | 4        | 4    | b            | bc      |
| 15    | S.   | 30.00                   | 29.93  | 33            | 32     | 30  | 34  | SE      | SE   | 2        | 2    | bf           | bm      |
| 16    | Su.  | 29.43                   | 29.79  | 32            | 40     | 26  | 41  | S       | NE   | 1        | 3    | baf          | bcm     |
| 17    | M.   | 29.78                   | 29.79  | 29            | 31     | 28  | 32  | NE      | NE   | 4        | 5    | bc           | qbc     |
| 18    | Tu.  | 29.83                   | 29.81  | 32            | 35     | 26  | 36  | NW      | NW   | 4        | 4    | beps 2)      | bc      |
| 19    | W.   | 29.78                   | 30.74  | 30            | 33     | 24  | 34  | NW      | NW   | 2        | 2    | bcm          | bcm     |
| 20    | Th.  | 29.81                   | 30.93  | 31            | 39     | 28  | 40  | N       | N    | 4        | 4    | beps 1)      | bc      |

November, 1851.—Mean height of the barometer = 29.871 inches; mean temperature = 52.3 degrees; depth of rain fallen = 1.44 inches.

Hunt & Son, Printers, 6, New Church Street, Edgware Road.

## GENERAL INDEX TO VOL. FOR 1851.

## ENLARGED SERIES.

- Abandon bay, 541.  
 Aborigines of Newfoundland, 263.  
 Aberbeen sailors' home, 430.  
 Act of parliament evaded, 289.  
 Accidents, report of, 644.  
 African slave trade, 390.  
 ——— information, 453.  
 Agamemnon, baths of, 238.  
 Argia Islands, 238.  
 Ajax shoal, 331.  
 Alderney Harbour, 435.  
 Aldrich, Lieut., expedition of, 545.  
 Algoa bay, sailing directions, 214.  
 America sailing match, 499.  
 ——— Yacht sailing, 558.  
 American fishing, 291, 299.  
 ——— nautical life car, 93.  
 ——— polar expedition, 543.  
 ——— Arctic ships, 545, 565.  
 ——— officers, 582.  
 Angelos point, 375.  
 Anna bank St., 1.  
 Antilles, description of, 13, 140.  
 Antioch, bay of, 57, 153.  
 Arabic vocabulary, 606.  
 Arctic searching expedition, 158, 324,  
 385, 529, 569.  
 ——— Western, 108.  
 ——— objects of former,  
 667.  
 ——— recent, 577.  
 ——— western route, 667.  
 ——— steamer fuel, 415.  
 ——— despatches, 570.  
 ——— spoils, 590.  
 ——— committee, 591.  
 ——— vigias, 614.  
 Ardaseer, ship, destruction of, 445.  
 Arenas point, 271.  
 Armenians, 469.  
 Ashmore on Pacific hurricanes, 610.  
 Asia, Eastern, ethnology of, 132.  
 Atmospheric influences, 191.  
 NO. 12.—VOL. XX.
- Atlantic passage, 53.  
 ——— packets, 99.  
 ——— bank, 103.  
 ——— soundings, 275.  
 Anfitrite breakers, 103.  
 Aurora borealis, 299.  
 Austin, Capt., proceedings of, 529.  
 ——— despatch of, 543.  
 ——— orders, 554.  
 ——— letters of, 570.  
 Axim bay, rock in, 277.  
 Axioms for life-boats, 665.  
 Aylen, Mr. J., on Porgas bank, 104,  
 155.  
 Baboyan settlement, 4.  
 Baffin's bay, on passage up, 170, 171,  
 172.  
 ——— open, 169.  
 Baffyn, opinion of, 578  
 Bairam feast, 468.  
 Ballycotton light, 328.  
 Banca strait, remark on, 563.  
 Bangkok, visit to, 565.  
 Barbacan settlement, 4.  
 Barnett, Capt., on Antilles, 13, 140.  
 Barometer, Capt. Thorn on, 380.  
 ——— in China sea, 453.  
 Barrow tower description, 28.  
 ——— monument, 145.  
 ——— Sir John, on Wellington'chan-  
 nel, 584.  
 Bartlett, Lieut., on Francis's boats, 93.  
 Bassa, port of, 152.  
 Basses, great, light proposed on, 334.  
 Bate, Com., on Palwan, 1.  
 ——— Royalist rock, 43.  
 Bay of Fundy beacons, 612.  
 Beazeley, Mr. E., on Clifton shoal, 330.  
 Becher cape position, 541.  
 Beechey island explored, 537.  
 Bell Buoy of Needles, 43.



- Belleisle straits, 417.  
 Bégon, Mons., 354.  
 Bhering strait, expedition to 158.  
 Bigan Road, 450.  
 Bilbao bar, signals, 494.  
 Birds, tallies on, 612.  
 Bishop rock beacon lost, 251.  
 Boats in sea-going vessels, 641, 650.  
 Bodie, Mr. J. on San Juan, 268.  
 Bonny river, 454.  
 Bosphorus, first packet to Cape, 53.  
 ——— screw steamer, 211.  
 Boston bay, light in, 611.  
 Bottle papers, 334, 386, 437.  
 Boutakoff, Capt., compass, 617.  
 Bradford, Mr., expedition, 545.  
 British flag used, 387.  
 Brooks, Mr., on Redcar, 143.  
 Bruni, a visit to, 464, 525.  
 Buchan, Capt., 262.  
 Builth, town of, 9.  
 Bull roads, cattle at, 506.  
 Bulwer, on tobacco, 77.  
 Bungalow island, 451.  
 Burnabat Skelessy, 239.  
 Burnett, Capt. J., on globular sailing, 517.  
 Butman, Capt., 197.  
  
 California, state of, 148.  
 Callum bay, 320.  
 Cambay gulf, tide in, 222.  
 Cambrian port, 10.  
 Campbell, Capt., Levenside, 484.  
 Canoes of Pacific, 312.  
 Cape Breton island, 261.  
 Cape packets, agents, commanders, 52.  
 ——— at Devonport, 53.  
 Cape, passage to, 212.  
 Cape Riley, explored, 537.  
 Cargados Garajoes, position, 231.  
 ——— wrecks on, 233.  
 ——— light proposed, 234.  
 Carandaga islands, 4.  
 Carrier pigeons, flight, 615.  
 Cæsar's landing place, 337.  
 Celebes, division of, 208.  
 Celtic philosopher, 7.  
 Cemetery, Jewish, at Smyrna, 469.  
 Certificates of survey, 635.  
 Charts, Admiralty, 111.  
 ——— on transforming plane to Mercator, 424.  
 ——— incorrect, 450, 491, 492.  
 China sea, on avoiding, 490.  
 Christian Cruize, his story, 511.  
 Church, protestant, at Smyrna, 68.  
 Chapman light, 613.  
 Chronometers, on rating, 624.  
 Classet, cape, 319.  
  
 Clazomene, position of, 238.  
 Clifton shoal, 330.  
 Clipperton rock, 612.  
 Coco, island of Carg: Garajoes, position of, 232.  
 Cod, preparing, 301.  
 Collinson, Capt., accounts of, 54.  
 ——— accounts from, 158.  
 ——— last account of, 385.  
 Columbia, bar of, 41.  
 Columbine, H.M.S., escape, 462.  
 Cock crow at Smyrna, 181.  
 Collinson, Capt., 334.  
 ——— orders, 670.  
 Compass, Russian, 617.  
 Command, on attaining, 410.  
 Committee report, on Indian steam navigation, 387.  
 Conception bay, supposed colony in, 405.  
 Consular fees, regulated, 321.  
 Cook, Capt., traits of character, 52.  
 Cooking apparatus, success of, 391.  
 Corax mount, 239.  
 Crescent bay, 374.  
 Cresson settlement, 558.  
 Croce, Card., took tobacco to Italy, 78.  
 Cunningham, Mr., on reefing, 55.  
 Curlew's African cruize, 196.  
 Currents of Palawan, 5.  
 ——— charts, Maury, 220.  
 ——— along Formosa, 450.  
 ——— in Baffin bay, 174, 580.  
  
 Dampier strait, reef in, 42.  
 Date, on finding, at sea, 165.  
 Dattoo house, Palawan, 7.  
 Dartmouth light, 612.  
 Davis, Capt., thanks to, 391.  
 ——— rock, China, C., 383.  
 Dempster, Mr., on smoking ships, 438.  
 Deep sea soundings, 102, 273, 435.  
 Dervishes, various, 468.  
 Declaration of survey, 637.  
 Discipline of merchant ships, 427.  
 Disco island, 171.  
 Distances to New York, 415, 423.  
 Domus on the Taptee, 223.  
 Donna Maria, accident to, 54, 65.  
 Dover harbour, progress of, 434.  
 ——— landing place of Julius Cæsar, 343.  
 Drake, first introduces tobacco, 78.  
 Dumarran island, 2, 3.  
 Dundee, sailors' home, 430.  
 Dungeness, B. Juan de Fuca, 376.  
 Duties on tobacco first levied, 79.  
  
 East India, mail statistics, 372.

- Eclipse of the sun, 481.  
 Edmond, wreck plundered, 48.  
 Edwards, preserved potato, 219, 441, 673.  
 English harbour, Antigua, 14.  
 Erasmus York, 589.  
 Esquimaux in Labrador, 297.  
 Ethnology of Eastern Asia, 19, 86, 132,  
 Ewig harbour, 6.  
 Examination of masters, 45, 442.  
 ————— regulations for, 37.  
 Expedition proposed, 583.  
 Exploring parties, 545, 546.
- Falconer, W., on Mazagan, 217.  
 Falkland islands, resources, 276, 505  
 506.  
 ————— Governor, 508.  
 Falmouth packet establishment broken  
 up, 58.  
 ————— Antigua, 15.  
 Fincham, Mr., naval architecture, 389.  
 Fish flakes nuisance, 289.  
 — prices in markets, 292.  
 Fishbourne, Com., on Algoa bay, 214.  
 Fine writing illustrated, 362.  
 Fishermen, American, 294.  
 Fisheries, regulations of, 408.  
 Fishery of Newfoundland, 265.  
 Fishing Stakes in Indian seas, 222.  
 Finisterre, notice of light on, 680.  
 Flag, eligibility for, 74.  
 Flamer, H.M.S., loss of, 111.  
 Florida light, 104.  
 Forteau bay, 356.  
 Forbes' new rig for ships, 440.  
 Formosa, current on, 450.  
 — visit to, 520.  
 Fox hurricane, 387.  
 Francis's life car, 439.  
 ————— metallic boats, 93.  
 Franklin, Capt. Sir J., position consi-  
 dered, 530.  
 ————— orders to, 579.  
 ————— search for, 218, 324.  
 ————— intentions, 583:  
 Freaks hurricane, 272.  
 French Metres and English fathoms,  
 44.  
 Friendly islands, Pacific, 682.  
 Frodsham's chronometers, 675.  
 Fruit of St. Michaels, prices, 432.
- Galway, advantages of, 257.  
 ————— claims as a packet port, 419.  
 ————— steam to Temple bay, 419.  
 Gaspar strait, remark on, 563.  
 Geographic miles, and Kilometres, 105.  
 Globular sailing, 517.  
 Goodsir, Mr., exploration of, 540.
- Goodwin sand, dangers, 191.  
 Gordon, Lieut., notice of, 463.  
 ————— Mr. Alex., on lighthouses,  
 248.  
 Gorters rock, Java sea, 277.  
 Gouram, meaning of, 468.  
 Graham shoal, 329.  
 Graves, on Beechey island, 543.  
 Great circle sailing, 562.  
 Greedy harbour, 295.  
 Greytown, Mosquitta, 268.  
 Griffith island, 544.  
 Grog, effects of, 279.
- Hall, Capt., on sailors' homes, 53, 129,  
 205, 322, 602.  
 ————— Com. reward to, 447.  
 Harbour Grace, 405.  
 Harbour island, 452.  
 Harbours of refuge, 434.  
 Harwich harbour, progress, 434.  
 Hawes, Capt., testimonial to, 55.  
 Helston island light, proposed, 251.  
 Helpman, Lieut., on Sharks bay, 383.  
 Henderson bank, 103.  
 Hermus river, 238.  
 Hewit, Capt., on Redcar, 278.  
 Hind, Mr., on sun's eclipse, 481.  
 Holmes, Mr., ill treated, 305.  
 Hooghly pilot station, 493.  
 Hope, Admiral, on grog, 279.  
 Horsburghs charts, 231.  
 Hoy sound lights, 327, 494.  
 Humboldt, remark on, 291.  
 Humboldt's writings, 362.  
 Hurl Gate channel, 612.  
 Hurricane in Atlantic, 301.  
 ————— management of, 35.  
 ————— of Pacific, 610.
- Iccius Portus, 341.  
 Icebergs, 268.  
 Ice open in Baffin bay, 169.  
 Ice navigation, 174.  
 ————— treatment of, 302.  
 Illan settlement, 4.  
 Impossibilities, how to conquer, 342.  
 Indefatigable, crew of, 111.  
 Indian cove, 288.  
 ————— harbour, 300  
 ————— steam navigation, 387.  
 Ionia Asiatic, 240.  
 Inspectors of steamers, 645.  
 Insurance, effect of, 191.  
 Irish hamlets, 259.  
 Iriou bank, Texel island, 683.  
 Iron steamer, build of, 640.  
 Iron lighthouse, description, 162.  
 Iron ship, longest, 558.

- Janus, attack on pirates, 679.**  
**Japan, visit to, 447.**  
**Jersey harbour, 435.**  
**Joachim St., bank, 7.**  
**Johnston, Mr., on Scotch maps, 473.**  
**Jones sound, 573.**  
**Juan de Fuca, bank, 268.**  
 — de Fuca strait, 316, 374.  
 — strait port, 317.  
 — St., Fort, 317.  
**Judgments of the sea, 46, 96.**  
**Julius Cæsar's expedition, 373, 607.**  
**Jurisdiction of act, 645.**  
  
**Kane, Dr., Arctic expeditions, 536.**  
  
**Labour, division of, 301.**  
**Labrador, cruize on coast, 254, 287, 352, 403.**  
 — chart, bad, 292.  
**Labuan, notes on, 527.**  
**Lady Franklin, ship, 535.**  
**L'Ance a Loup, breakfast, 360.**  
**Lamy island, Formosa, 522.**  
**Lancaster sound, advice, 179.**  
**Lanterns of lighthouses, sizes and cost, 253.**  
**Larpernt, loss of the brig, 520.**  
**Latour cape, light on, 158.**  
**Lawrance, Lieut., on Oxholm shoal, 380.**  
**Leontine breakers, 103.**  
**Letter of approval, 590.**  
**Lewis's lighthouse, 253.**  
**Levenside, seizure of, 484.**  
**Liberia, commerce, 145.**  
 — success of, 503.  
**Lite-boats at Liverpool, 164.**  
 — American, 488.  
 — committee, 660.  
 — axioms, 665.  
 — remarks on, 660.  
**Life car, American, 93.**  
**Light, Cape Pasaro, 276.**  
 — on cape St. Mary, 437.  
 — required, 452.  
 — of Giedserodde, 437.  
 — steamers, 642.  
**Lighthouse boards, 250.**  
 — economy, 248, 333.  
 — cost of Gordon's, 254.  
**Lightning, effects of, 145.**  
**Lights colonial, number of, 250.**  
 — of steamers, 591.  
**Lievly bay, 171.**  
**Liverpool life-boats, 164.**  
**Logan, Mr., on Eastern Asia, 19, 86, 132.**  
**Log books, circular on, 332.**  
**London sailors' home, 128.**  
**Lopez, Cape, affair of, 307.**  
  
**Loseby's chronometers, 675.**  
**Lovett, Capt., on loss of Ardaseer, 445.**  
**Luconia, wrong in charts, 449.**  
  
**M'Clintock, Lieut., expedition, 545.**  
**M'Clure, Capt., proceeding, 159.**  
 ————— directions to, 161.  
 ————— latest accounts of, 161.  
**M'Dougal, Mr., on regulations for sailing vessels, 49.**  
 ————— expedition of, 546.  
**M'Neale, Lieut., made prisoner, 307.**  
**Mackellar reef, Dampier strait, 42.**  
**Magdalena, launch of, 446.**  
**Mail statistics, 372.**  
**Malom rock, light on, 382.**  
**Malcolm, G. S., death of, 547.**  
 ————— Admiral. Sir Charles, 385.  
**Man, isle, light off, 493.**  
**Manson, Mr., expedition of, 540.**  
**March, Capt., on discipline, 427.**  
 ————— on passage from Singapore to Shanghai, 449.  
**Mariners' compass, 617.**  
**Marshall, Mr., expedition of, 541.**  
**Martin, Capt., on tides, 191.**  
 ————— on Cæsar's expedition, 337.  
**Mary Wright, loss of, 195, 231.**  
**Massachusetts humane society, 439.**  
**Masters and mates examination, 37, 384.**  
 ————— passed, 45.  
**Mates certificates, 332.**  
**Matson, Mr., adventures of, 242.**  
 ————— Capt., on Panda, 656.  
 ————— Com., promotion of, 658.  
 ————— made prisoner, 306.  
 ————— Capt., story of, 307.  
**Maury, Lieut., on sub volcano, 165.**  
 ————— on whale fisheries, 443.  
 ————— charts, 220.  
 ————— on Loseby's chronometers, 675.  
**Mazagan bay, Africa, 217.**  
**Mechem, Lieut., expedition, 546.**  
**Mutiny of the Kelso, 54.**  
**Menam river, bar, 564.**  
**Menimen town, 239.**  
**Merchant seamen entry in navy, 104.**  
**Mercantile navy list, 616.**  
**Meridian distances, 633.**  
**Metres and fathoms, table of, 44.**  
**Mexican, story of, 197.**  
**Milford haven rock, 613.**  
**Mind, conditions of, 86.**  
**Mine Head, light, 328.**  
**Minns, Mr., bottle papers, 437.**  
**Minerva, American ships saved, 653.**  
**Mooltan's hurricane, 35.**  
**Mooney, Lieut., on Tabasco, 81, 134.**

- Morte Stone buoy, 276.**  
**Mucking light, 613.**
- Nautical notices, 41, 102, 152, 380, 437, 489, 611.**  
 ——— sayings and doings, 53.  
 ——— treasure hunt, 509.
- Naval architecture, 389.**  
**Navigation enigma, 207.**  
**Navy thoughts on an efficient, 73.**  
**Neptune wrecked, 388.**  
**New charts, Admiralty, 224, 391, 335, 447.**  
**Newfoundland, bank of, 156.**  
 ——— Indian, 264.
- Nicaragua canal company, 279.**  
 ——— route followed, 503.
- Nicot, Jean, introduces tobacco, 77.**  
**Niger sound, 288.**  
**North Star, provisions left by, 537.**  
**Notices, printed, deposited, 549.**  
**Neah bay, 319.**  
**Northumberland, Duke of, 660.**  
 ——— life-boat, 660.
- Ocean soundings, 102, 165, 275, 433.**  
**Ogle castle, cause of loss, 193.**  
**Oil, comparative prices, 253.**  
**Oleron, original laws of, 46.**  
**Omar Ali, sultan, 464, 525.**  
**Ommaney, Capt., reports, 544.**  
 ——— expedition, 546.
- Orders to Captain Austin, 554.**  
 ——— Capt. Penny, 551.
- Ordinance survey, Scotch, 473.**  
**Oregon bark, rescue by, 220.**  
**Orion testimonial, 55.**  
**Orontes river, 59.**  
**Osborn, Lieut., expedition, 546.**  
**Oxholm shoal, 380.**
- Pacha steamer, loss of, 597.**  
**Pacific, north, hurricane in, 272.**  
 ——— hurricanes, 610.  
 ——— islands, 388.  
 ——— nautical sketch, 225.  
 ——— sketch of, 311.
- Packet station, Atlantic, 257.**  
 ——— steamers, 99.
- Packman river, bar, 564.**  
 ——— longitude, 568.  
 ——— long. of, 633.
- Palawan, eastern side, 1.**  
 ——— first settled, 2.  
 ——— traffic of, 2.  
 ——— government of, 4.  
 ——— no anchorage, 5.
- Palm oil captains, 305.**  
**Panama railroad, 51.**  
**Panda, story of, 196, 242.**  
 ——— crew sent to Salem, 310.  
 ——— pirates of, 651.
- Parker, Capt., on Arctic expedition, 535.**  
**Pasaro, light, cape, 276.**  
**Passengers regulation, 638.**  
**Passages, Atlantic, 280.**  
 ——— to Bonny, 458.  
 ——— mail, 372.  
 ——— quick, 447, 391.
- Passing vessels, rules, 591.**  
 ——— vessels laws, 643.
- Pattimar, escape of, 222.**  
**Peaked island, 451.**  
**Pedro, Don, capture of, 247.**  
**Penalties, application, 647.**  
**Penny, Capt., return of, 535,**  
 ——— his report, 537, 547.  
 ——— orders to, 551.
- Pensions of widows, 106.**  
**Peterson, Mr., devotion of, 538.**  
**Peytons and Indians, 263.**  
**Phoka Veetchia, 237.**  
**Phocca town, &c., 238.**  
**Pidington on hurricanes, 35.**  
**Pilot stations, False point, 493.**  
**Pim, Lieut., departure, 673.**  
**Pinnacle island, 452.**  
**Pirate slaver, 196, 304, 650.**  
 ——— story of, 242.
- Piracy in the Mediterranean, 617.**  
**Pitcairn island, refreshments at, 331.**  
**Pope Innocent, on tobacco, 79.**  
 ——— Urban on tobacco, 79.
- Porgas bank, 104, 155.**  
**Porcupine as food, 298.**  
**Porto Grande, harbour, 361.**  
**Portland breakwater, progress, 331.**  
 ——— harbour, 436.
- Portsmouth sailors' home, 130, 378.**  
**Posidium city, 57.**  
**Powell, Com., wounded, 679.**  
**Precious and inferior metals, 113.**  
**Prince Albert, departure, 385.**  
 ——— track, 169.
- Privateer, Russian journal, 115.**  
**Proudfoot, Capt., on Cargados, 236.**  
**Pullen, Com., proceedings, 218.**  
 ——— Capt., note on, 578.
- Pyke, Lieut. misfortune of, 306.**
- Quick passage, 391, 447.**
- Rainy season, at Bonny, 454.**  
**Raleigh, Sir W., tobacco, 78.**  
**Recife cape, light, 322.**  
**Records deposited at, 549.**

- Redcar harbour, Hewett on, 143, 278.  
 Reed rocks, Pacific, 43.  
 Regulations for seamen, 149.  
 Renard, loss of, 496.  
 Rennie, G., Falkland island, 508.  
 Rescue at sea, 220.  
 Resolute, rock Baffin bay, 43.  
 ——— proceedings, 544.  
 Riff pirates, 679.  
 Retirement in the navy, 73.  
 Reynolds, Capt., on hurricane, 381.  
 Rhoio strait, 563.  
 Rides round Smyrna, 183.  
 Robinson, H., Admiral, cruize of, 254.  
 ——— salvages, 509.  
 ——— treasure hunt, 509.  
 ——— Capt., selected for Labrador, 408.  
 ——— on steam to America, 411.  
 Rocks and Shoals.  
 ——— Acheron, cruize of hills, 281.  
 ——— Aparime river, 284.  
 ——— Avarua harbour, 284.  
 ——— Asim Bay, 277.  
 ——— Cooper bay, 282.  
 ——— Foveaux st., New Zealand, 283.  
 ——— Gaspar strait, unknown, 278.  
 ——— Gorters rock, Java strait, 277.  
 ——— Great Kikora, height of, 281.  
 ——— Jacobs river, 284.  
 ——— Lone Womans' island, 286.  
 ——— Morte stone buoy, 276.  
 ——— Needles, Bell buoy at, 43.  
 ——— New river, 284.  
 ——— New Zealand hill, South Acheron on, 281.  
 ——— Otago, coal at, 282.  
 ——— Pegasus bay, New Zealand, 282.  
 ——— Port William, N. Zealand, 285.  
 ——— Preservation harbour, 286.  
 ——— Ruspuke island, New Zealand, 283.  
 ——— Sauuders cape, New Zealand, 282.  
 ——— Traps, New Zealand, 285.  
 Roman miles and English fathoms, 163  
 Ross, Sir John, 538.  
 ——— letter of, 570.  
 ——— on Smith sound, 579.  
 ——— pigeons, 615.  
 Rottenest island, light, 493.  
 Roy island, 451.  
 Royal navy at home, 100  
 Royalist cruize of, 1.  
 ——— reef, Labuan, 43.  
 Ruad island, 61.  
 ——— amount of, 213.  
 Russian privateer journal, 115, 185.  
 ——— mariner's compass, 617.  
 Sabbath in Smyrna, 468.  
 Sabine, Col, opinions, 579.  
 Safety valves, 641.  
 Saxby, Mr., on life-boats, 660.  
 ——— on the Polar sea, 586.  
 Sailors' homes, Liverpool, 56.  
 ——— objects, 127.  
 ——— regulations, 131.  
 ——— 205, 378, 602.  
 ——— Portsmouth, 322.  
 ——— progress of, 430, 502.  
 Sailors' reflections, 410.  
 ——— strike, 148.  
 Sailing vessels regulations, 49.  
 St. John's harbour, 141.  
 ——— Newfoundland, 261.  
 St. Martin island, described, 140.  
 St. Michaels, hints to visitors, 431.  
 ——— precautions at, 432.  
 St. Modeste, 356.  
 St. Paul's bay, Malta, 338.  
 St. Peter's chair, Smyrna, 123.  
 St. Thomas island, 304.  
 Salamander's visit to Formosa, 520  
 Salvages treasure, 509.  
 ——— description, 516.  
 Sandjak Kalessi, 238.  
 Sandon rocks, 451.  
 Sandwich bay, 257, 287, 296.  
 Sandy bay, Labrador, 293.  
 Scotland, maps of, 473.  
 ——— ordnance survey, 473.  
 Screw steamers, advantages of, 92.  
 Screw steamers, 212.  
 Sculpture of Pacific islands, 311.  
 Sea eagles, 191.  
 Seamen picked up at sea, 53.  
 ——— management of, 430.  
 Seaton, Mr., on finding date, 207.  
 Seven churches of Asia, 468.  
 Shadwell, Com., on great circle sailing, 562.  
 Shakings from Smyrna, 66, 121, 180, 237, 366, 467, 603.  
 Shanghai, directions for, 453.  
 Sharks bay, sailing directions, 382.  
 Sheringham, Capt., on tides, 393.  
 Shortland, Capt., on charts, 424.  
 Shadwell, Com., on chronometers, 624.  
 Signals and hose, 642.  
 Siam gulf, 563.  
 Signal hill, height, 267.  
 Seleucia harbour, 59.  
 Simpson, on Freak's hurricane, 272.  
 Singapore to China, east passage, re-commanded, 453.  
 Sisal light, 437.  
 Skerki light proposed, 252.  
 Skerryvore light, cost of, 251.

- Sketches in India, 222.  
 Smith sound, opinion of, 579.  
 Smyrna, port of, 180.  
     — a Pachalic, 237.  
 Smoking ships mode, 438.  
 Sombrero island, described, 140.  
 Sooloo sea, remarks on, 491.  
     — charts of, 491.  
 Speed of steamers, 413.  
 Sphinx, remarks of, 561.  
     — H.M.S., proceedings, 624.  
 Spiritualism, character, 20.  
 Spithead tides, 397.  
 Spratly Capt., on eastern navigation, 490.  
 Spurn lights, 490.  
 Stakes fishing, construction, 222.  
 Steam advantages of, 557.  
     — navigation to America, 412.  
     — navigation act, 633.  
 Steamers lights, 591.  
 Stewart, Capt., expedition, 539.  
 Stockton, Com., on Africa, 210.  
 Stoke's Capt., on New Zealand, 282.  
 Story, Judge, Panda, 651.  
 Stuart's hurricane, 35.  
     — Mr. J., expedition of, 540.  
 Suediah, province of, 57.  
 Submarine volcano, Maury on, 165.  
 Sullivan, Capt., on Falklands, 507.  
 Suloo pirates, account, 527.  
 Sun, eclipse of, 481.  
 Superstition, African, 460.  
 Supplies at Dumarran, 4.  
 Surat, rambles in, 221.  
     — a commodore's station, 223.  
 Surrogate, naval, 407.  
 Surveys of steamers, 634.  
     — returns, 639.  
 Sutherland, Dr., exploration of, 540.  
 Swan river light, 489.  
 Swartz, J., on Gorters rock, 277.  
 Swedish scientific expedition, 447.  
 Suediah, healthiness, 64.  
  
 Tabasco and its resources, 30, 81, 136.  
 Tahiti, taste of islanders, 113.  
     — something about, 227.  
 Taitai port, 2.  
 Taptee, delta of, 223.  
 Tallies on birds, 612.  
 Thomson, James, rescue of, 220.  
 Thorn, Capt., on barometer, 380.  
 Tidal phenomena, 191.  
 Tide rips, Lieut. Maury on, 166.  
 Tides about Goodwin, 191.  
     — effects of wind on, 192.  
     — marginal, 393.  
     — of Arctic sea, 587.  
 Titania yacht, sailing, 558.  
  
 Tobacco, anathema against, 30, 81, 136.  
     — ancient restrictions on smoking, 209.  
     — law against, in Russia, 79.  
     — more about, 76.  
     — on smoking, 209.  
 Trade, south-east, found, 563.  
 Traits of character, Cook, 52.  
 Trinity-house, rules for vessels passing, 597.  
 Trotter, Capt., cruize of, 196.  
     — promotion of, 659.  
 Turkish and English vocabulary, 470.  
     — bath, 126.  
 Turks island, proposed light, 489.  
 Tyne, a harbour of refuge, 686.  
  
 Upernavick, 172.  
  
 Vancouver island, hemp, 56.  
 Vancsirtart, Com., on Antioch, 153.  
     — on island of Ruad, 213.  
 Variations observed, 632.  
 Velocipede, loss of, 496.  
 Vesey, Capt., Levenside, 484.  
 Versova, rambles in, 221.  
 Victoria harbour, 143.  
     — port, 317.  
 Vigias of the Atlantic, 614.  
 Violet, capture of, 679.  
 Vocabulary, Turkish and English, 470.  
 Vourlah, position of, 238.  
  
 Walks in Smyrna, 184.  
 Water at Palawan, 3, 5.  
 Webster, Mr., on barometer, 447.  
 Wellington Channel blocked up, 539.  
     — explored, 539.  
     — 546.  
     — reasons for Franklin having gone up, 585.  
     — considered, 668.  
 Wells, Mr. J. S., on Ajax shoal, 331.  
 Whale fisheries, where found, 443.  
     — position, 496.  
     — fish islands, 171.  
     — encounter with, 333.  
 Whalers in Bhering strait, 159.  
 White's models of ships, 221.  
 Widows, royal navy, pensions, 106.  
 William the conqueror, 346.  
 Wilson, Mr., on the Falkland islands, 505.  
 Winter quarters, entering date, 538.  
 Wolstenholme sound, 543, 556.

- Wood, Com., on Juan de Fuca strait 374.  
 Wreck plundering, 48.
- Yacht match, 499.  
 Yangtsekiang, on navigation, 26.
- on making, 452.  
 Yates, Dr., on Suediah, 57.  
 York island, Antilles, 13.
- Zichmri colony, 364.

## NEW BOOKS.

- Traits of Character, 52.  
 Voyage of the Prince Albert in search of Sir John Franklin, 108.  
 Narratives of the Shipwrecks of the Royal Navy, 109.  
 Reminiscences of a Naval Officer during the late war, 110.  
 Evidence relative to the Slave Trade, 166.
- Remarks on the African Squadron, 166.  
 Regulated Slave Trade, 167.  
 British Squadron on the coast of Africa, 167.  
 History of Naval Architecture, 389.  
 Africa Redeemed, 390.  
 Sir John Franklin in the Arctic Regions, 390.

## PLATES.

*Directions to the Binder.*

|                                   |                     |     |
|-----------------------------------|---------------------|-----|
| The Barrow Tower, .....           | <i>to face page</i> | 28  |
| Francis Metallic Life-boats ..... | "                   | 93  |
| Redcar Harbour .....              | "                   | 143 |
| Iron Lighthouses .....            | "                   | 249 |
| Marginal Tidal Streams, .....     | "                   | 393 |
| Russian Compass .....             | "                   | 617 |









