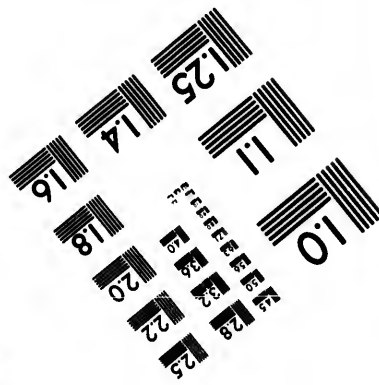
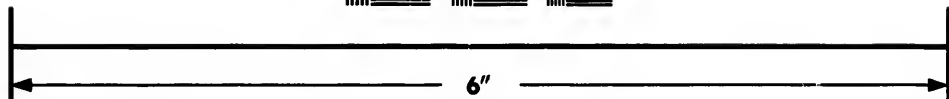
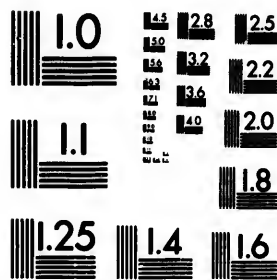


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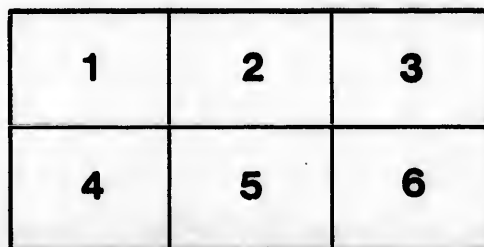
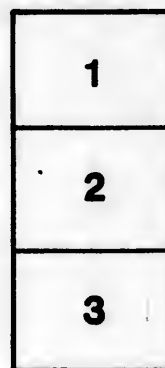
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Sailing THE NEW
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FOR THE

ISLAND and BANKS of
NEWFOUNDLAND,

THE
GULF AND RIVER OF ST. LAWRENCE,

BRETON ISLAND,

NOVA-SCOTIA,

THE BAY OF FUNDY,

AND THE COASTS THENCE TO

PORTLAND, BOSTON, CAPE COD, &c.



COMPOSED,

From a great Variety of Documents, public and private, which include those of Captain
JAMES COOK, F.R.S.; of Mr. THOMAS BACKHOUSE, M.R.N.; of Lieut. CHARLES
HARE, R.N.; of Mr. FRANCIS OWEN, M.R.N.; of Messrs. DES BARRES,
HOLLAND, BOUCHETTE, LAMBLY, LOCKWOOD, and other eminent
Navigators, Surveyors, &c.

By JOHN PURDY, HYDROGRAPHER.

SECOND EDITION: MATERIALLY IMPROVED.

London:

PRINTED FOR R. H. LAURIE,

CHART SELLER to the ADMIRALTY, &c.

And Agent for the Sale of the Admiralty Charts,

No. 53, FLEET STREET.

1827.

FOR A TABULAR STATEMENT OF THE LIGHTHOUSES described in
this Work, see page 140.

WINDS SOUTHWARD OF NEWFOUNDLAND. The following may be read
as a NOTE to the last line but one of page 5.

The brig *RECOVERY*, Captain *T. Hamlin*, on her return from New Orleans towards Greenock, 21st April, 1822, was proceeding E.N.E. on the parallel of 40° towards the Grand Bank. In the first part of the twenty-four hours the weather was moderate, a breeze sprung up at west, and the vessel made all sail. In the middle part strong gales succeeded, still at west, and sail was reduced. At one, a.m. black and gloomy, with rain. At 5, a strong gale from the eastward took the ship aback, and drove her astern against the old sea: it struck the boat and broke the larboard davit, and a new sea rising with the shift of wind, the two seas met in dreadful confusion. With a scend forward the brig dipt the jib-boom under, and broke it off in the cap; and, with the scend aft again, stove in the cabin-window. While all hands were employed, trying to secure the boat, repeated seas struck her, and at length raised her above the stern, and unshipt the other davit. They then held on the tackle-fall that was fast to her, and dropt her astern, with the hope that a favorable opportunity might occur for taking her in, but she filled and broke adrift. From 5 to 8 the wind continued to blow a gale; sometimes at East, then at West, and back again repeatedly; while the vessel was quite unmanageable, and lying exposed to the contending elements. At 8 a.m. the easterly wind prevailed, and the vessel was then laid to under close reefed main topsail, &c. Lat. at noon, by acc. $40^{\circ} 25'$, long. $53^{\circ} 0'$. At one, p.m. of the 22d it became calm: the vessel then drifted with the sea, going round and round: but on the next day the wind was S.W., and the brig proceeded eastward.

At one, a.m. on the 23d, a sensible change in the atmosphere and sea was experienced: from which it was concluded that the *Recovery* had entered on the Grand Bank. At day-light the colour of the water was found to be altered, and a numerous quantity of ice-birds and murre were upon it.

On the 31st of October and 1st of November, 1822, the *Recovery*, on her return from New Orleans to London, at $3\frac{1}{2}$ degrees more to the southward, and nearly on the same meridians, met with heavy squalls, a strong gale from the N.W., and a high cross sea, which continued for nearly twenty-four hours, and to longitude 48° . Hereabout, therefore, all the seaman's spirit, vigilance, and skill, are required.

Between the meridians of 52° and 47° W. 28th to 31st July, 1823, Captain Hamlin, in the ship *George IV.*, from the S.W., crossed the parallel of 40° N., all moderate and pleasant weather, with N.W. and westerly winds.

Ship *George IV.*, 3d April, 1824, homeward. "Squally and unsettled with lightning: At noon, lat. $40^{\circ} 14'$, long. $50^{\circ} 33'$. Next day, variable, with heavy showers. On the 5th, heavy showers of hail, succeeded by a smart breeze from the North. Lat. at noon, $40^{\circ} 28'$, long. $46\frac{1}{2}^{\circ}$."

The Communications of intelligent Seamen, for the future Improvement of
this Work, are earnestly and respectfully solicited.

[Entered at Stationers' Hall.]

CONTENTS.

02		
18	<hr style="width: 10%; margin: auto;"/>	
82		
88		

I. GENERAL REMARKS AND DIRECTIONS.

	PAGE
NOTES on the GIVEN BEARINGS, COURSES, and VARIATIONS of the COMPASS.	1
Remarks on the Currents and Wrecks occasioned thereby	1
Remarks on the Winds, &c.	5
Passages from England to Newfoundland, Nova-Scotia, and New Brunswick	6
Gulf of St. Lawrence, &c.	7

II. The ISLAND and BANKS of NEWFOUNDLAND.

General Remarks and Directions	8
Harbour of St. John, &c.	9
St. John's Harbour to Conception Bay	10
Conception Bay	11
Trinity Bay	13
Trinity Harbour	14
Catalina Harbour	15
Bonavista	15
Bonavista Bay	16
St. John's Harbour to Cape Race	20
Cape Race to Cape Chapeau Rouge, including the Bay of Placentia, &c.	22
Cape Chapeau Rouge to Cape Ray, including Fortune Bay, &c.	30
Cape Ray to Cow Head	41

III. The GULF and RIVER of ST. LAWRENCE.

1. The Gulf St. Lawrence, with its Islands	45
2. The River of St. Lawrence	47
Seven Isles, Trinity Bay, St. Nicolas, &c.	47
Particular Description of the River, from Cape Gaspé upwards	49
Tides in the River of St. Lawrence	55
Directions for Sailing up the River, from Anticosti to Quebec	56
General Description of the River, from Montreal to Quebec	65
Description of the Old Traverse, or North Channel	66
Rates of Pilotage for the River of St. Lawrence	67

IV. The EASTERN COASTS of NEW BRUNSWICK, &c. to the GUT of CANSO, inclusive; with PRINCE EDWARD ISLAND.

Gaspé Bay to Miramichi, &c.	68
Northern Coasts of Nova-Scotia, &c.	70
Gut of Canso and thence to Inhabitant Bay	72
Prince Edward Island	74

V. BRETON ISLAND, with CHEDABUCTO BAY.

Description of the Coasts of Breton Island, with its different Harbours	77
Louisbourg, Arachat, and Chedabucto Bay	80

**VI. The SOUTHERN COASTS of NOVA-SCOTIA, from CHEDA-
BUCTO BAY to HALIFAX HARBOUR.**

	PAGE
Cape Canso to White Haven.....	80
Torbay to St. Mary's River	81
St. Mary's River to Sheet Harbour	82
Sheet Harbour to Halifax Harbour	83

VII. The ISE of SABLE and BANKS of NOVA-SCOTIA.

Particular Description of Sable Island and the Banks	85
--	----

**VIII. HALIFAX HARBOUR and the COAST thence, WESTWARD, to
CAPE SABLE.**

Environs and Harbour of Halifax.....	89
The Coast from Halifax, westward.....	92
Sambro' Harbour to Margaret's Bay.....	93
Margaret's Bay to Liverpool.....	95
Liverpool to Shelburne	97
Shelburne to Cape Sable.....	99

**IX. CAPE SABLE to the BAY of FUNDY and CHIGNECTO BAY,
including St. JOHN'S, GRAND MANAN, and PASSAMAQUODDY BAY.**

Cautions to be observed on the S.W. Coast of Nova-Scotia, &c.....	101
Tides on the same Coast, and in the Bay of Fundy.....	101
Description of the Coasts, Islands, &c.....	102
Cape Fouchu to Annapolis.....	103
Annapolis to the Basin of Mines, &c.....	105
North Coast of the Bay of Fundy	106
St. John's and Meogenes Bay.....	107
Grand Manan Island	109
Passamaquoddy Bay and its Harbours	110
Bearings and Distances of Places in the Bay of Fundy	112
General Remarks on, and Directions for, the same.....	112

**X. The COASTS of FREDONIA, or of the UNITED STATES, from
PASSAMAQUODDY to CAPE COD, &c.**

Appearances of the Land and General Description	113
Machias to Penobscot River	114
Penobscot to Kennebec River	117
Kennebec River to Cape Elizabeth and Portland.....	118
Cape Elizabeth to Cape Anne; including Portsmouth, Newbury-port, &c.....	119
Cape Sable, of Nova-Scotia, to Cape Cod, Plymouth, Boston, &c.....	125
Cashe's Ledge and George's Bank	125
Cape Cod to Plymouth	128
Cape Cod to Boston	129
Salem Harbour	131
Marblehead Harbour	133
Beverley, Manchester, and Cape Anne	134
Boston Bay to Cape Cod, &c.....	135
Description of the Eastern Coast of the County of Barnstable, from Cape Cod, or Race Point, to Cape Malabar, or Sandy Point of Chatham; pointing out the Spots on which the Trustees of the Humane Society have erected Huts, &c., for Shipwrecked Seamen	137

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NEWFOUNDLAND, &c.

* * THROUGHOUT THIS WORK, THE GIVEN LONGITUDE IS THE LONGITUDE FROM GREENWICH. THE BEARINGS AND COURSES ARE THOSE BY COMPASS, UNLESS WHERE OTHERWISE EXPRESSED; BUT THOSE GIVEN THUS [E.N.E.], SIGNIFY THE TRUE; AND THE GIVEN DIRECTION OF WIND, TIDE, AND CURRENT, IS ALWAYS TO BE CONSIDERED AS THE TRUE.

VARIATIONS OF THE COMPASS.—The Variation of the Needle in the Environs of St. John's is from 26 to 27 degrees West: in Bonavista Bay, from 28 to 29 degrees: at Cape Ray, 24 degrees: at the Mouth of the River of St. Lawrence, 20 degrees: at Quebec, 13 degrees: at Montreal, 8 degrees: at Breton Island, 21 degrees: at Halifax, 17 degrees: off Mahone Bay, 16 degrees: near Liverpool Bay, and in the Entrance of the Bay of Fundy, 15 degrees: at St. John's, New Brunswick, 16 degrees: near Cape Elizabeth, 8 degrees: at Portsmouth, New Hampshire, 7½ degrees; at Boston and Cape Cod, 6½ and 6 degrees.

I. GENERAL REMARKS AND DIRECTIONS.

CURRENTS, &c.—It has been shown, in our volume on the Navigation of the Atlantic Ocean,* how the Currents generally set, from Hudson's Strait, &c., to the Eastern coast of Newfoundland, and through the Strait of Belle-Isle into the Gulf of St. Lawrence. Hence it may be seen, that they also affect the western navigation of the island; and, with the vast ebb of the River of St. Lawrence, which constantly sets down, with great strength, into the Gulf, they produce an accumulation of water, which can escape by the southward only. In the early part of the year, when the snows and ices are in a melting state, the outset must be considerably increased; it may, therefore, be presumed, that there is, in this season, a considerable efflux or stream of water from the Gulf, setting to the south, S.W., and south-castward.

Captain Pornton, a commander, who has long sailed in the Newfoundland trade, states that the branch of current, which appears to come from Hudson's Bay, always sets to the south-westward, off the eastern coast of Newfoundland: sometimes with a velocity of two miles an hour. Its strength, however, varies, with the direction and force of the wind. Passing down the eastern coast of Newfoundland, it turns round Cape Race, and sets thence, along the south side of the island, until it meets with the current from the St. Lawrence, a little to the westward of St. Peter's and Miquelon Islands. The combined action of these two currents, with that of the Stream to the southward, may, perhaps, produce that *counter current* which has been found along the inner edge of the Gulf-Stream: But, be this as it may, it is very probable that it is owing to the influence of the Hudson's Bay current that so many shipwrecks happen on the south coast of Newfoundland, about Cape Pine, &c. For ships coming from the St. Lawrence and thence along the coast of Newfoundland, meet this current; and, if it happen that they have calms, or light or head winds, it sets them imperceptibly to the westward of their reckoning: and when, supposing that they are to the eastward of Cape Race, they alter their course more to the northward, should the weather, as it often is, be foggy, they get on shore at a time when they consider themselves clear of the land.†

At times, it seems, the westerly current may extend farther than the limit above described. In a letter from a captain of the Royal Navy, dated *Breton Island*, 13th May,

* "Memoir, Descriptive and Explanatory," which accompanies the large Chart of the Atlantic Ocean; fifth edition, lately published.

† Substance of a communication to and from Mr. Wm. Heron, of Greenock.

1822, we have the following expressions:—"It frequently happens that a ship bound from England to Quebec, strikes soundings on the Banks of Newfoundland, and shapes her course thence to pass between Cape North, on Breton Island, and Cape Ray, on Newfoundland, into the Gulf of St. Lawrence, without seeing the land, which is hid in fog; and, unable to make a proper allowance for a current that sometimes runs at the rate of *four miles an hour*, is swept away to the westward, and runs, with a leading wind, on our iron-bound shores, when her commander fancies he is steering directly into the gulf; a misfortune that is too often announced by the bodies of the unhappy mariners, and the fragments of their vessels with which our shores are strewed.

"It should be made known that there is a settlement on Ashpé Bay, to the southward of Cape North; as, from want of this information, many an unfortunate seaman has perished from cold and hunger, after escaping shipwreck; and that vessels of any draught of water may safely anchor all round the island, as wind and weather may require. The soundings, at half to three-quarters of a mile, are 7 and 8 fathoms."*

But, to revert to the currents. The British frigate, Tweed, on her passage to St. John's, Newfoundland, struck upon the coast, near Cape Spear, and was wrecked in the night of the 5th of November, 1813. This event, most probably, was the effect of an unknown south-westerly current, or a current setting south-westward.

To different currents must be attributed the loss of the sloop Comus, the transport Harpooner, H. M. ship Drake, and the brig Spence, all of which were lost, at different times, upon *one spot*; the little bay, called *St. Sho's Bay*, on the South coast of Newfoundland, and lying between Cape Freels and St. Mary's Bay. The particulars of all these melancholy events are detailed in the following paragraphs.

"The Currents about Newfoundland are yet imperfectly understood, and among the first notices of them are some Remarks given by M. de Cassini, which ought, long since, to have been generally known. This voyage of M. de Cassini was undertaken for the purpose of making experiments on M. Le Roy's timekeepers, in 1768. The frigate L'Enjouée sailed from Havre de Grace, on the 14th of June, and the mist over the Great Bank was discovered on the 9th of July. On the 11th, soundings were found at 84 fathoms, and a cod was caught. The fish and the plummet came up almost at the same instant, and confirmed the ship's arrival at the Bank.

"The very next day after we had reached the Bank of Newfoundland, the fog and calm overtook us: this is the weather that commonly prevails there.† As the calm continued the whole day, we employed the time of this inaction in fishing.

"The fourteen days we spent from our arrival at the Bank to our landing, were one continued series of fogs, which made us very uneasy. The great number of ships that crowded about the Bank, kept us in continual apprehensions of running foul of some of them in the fog. Besides, having been for several days unable to observe the latitude, we durst not advance, from fear of striking against the bars of Cape Race.‡ Our charts placed us about the longitude of those rocks, and the computed latitude brought us pretty near them. These last days of our first run were the worst we had yet met with, and indeed the worst of the whole voyage. Transplanted into a horrid climate, constantly choked with fogs, we seemed to be, for ever, excluded from the sight of the sun; nor could we hope to land, whilst this fog intercepted the coast. It was dangerous to go in search of the shore, even when the mist seemed to be dispersing. It is no uncommon thing in this latitude to see the finest clearing succeeded by a prodigious thick fog, and this within half an hour. Then the pilot repents his having approached the land, misled by the appearance of a clear sky, especially if he has not had time to take a survey of it; how can he get clear, if the wind is not very favourable? What track shall he pursue to escape running aground? Such are the inconveniences and hazards

* It has been justly observed, that a light-house on the Isle of St. Paul, at the entrance of the Gulf, would be eminently useful. We hope that one, worthy of the name, will be established here.

† At and about the Great Bank, these horrid fogs infect the air most part of the year, and will last eight or ten days successively, sometimes longer. In winter they are not so frequent; but, from the middle part of spring till December, they are almost constant: they are so thick, that one cannot see at ten fathoms distance. An incessant rain drops from the sails and rigging. The sea is seldom rough about the Great Bank. The sailors commonly ask those who come from the open sea, "*How is the weather abroad?*"

‡ The Virgin Rocks, to the E. by S. from Cape Race, hereafter described.—(EDIT.)

of navigation, in the latitudes we were then in; and we were not long before we experienced how critical our situation was.

"We waited only for the instant when the weather should clear up, to go and reconnoitre the land, from which we deemed we were not far distant. We thought we had at last attained the summit of our wishes. On the 22d of July, the finest sky imaginable filled us with hope and joy. The horizon, though not quite so clear as we could have wished, seemed, nevertheless, to promise a sight of land at five or six leagues distance. Upon the strength of this delusive appearance, we run directly towards the landing-place, with a brisk wind; but how great was our amazement, when, without discovering any land, we suddenly perceived, at a small distance before us, the dashing of the waters, which could only be occasioned by the coast, or by rocks or breakers, which the fog concealed from our sight. No time was to be lost; we tacked about, and made all the sail we could, to get away from a coast where it is dangerous being wind-bound, on account of the violent currents, which may drive the vessel ashore, if she has the misfortune to be becalmed.* Happily for us, the wind favoured our flight, and we made for the Great Bank, there to wait, till a less fallacious change of weather should permit us to go safely in quest of land.

"This we had an opportunity of effecting two days after, by the finest weather imaginable. Nothing is more gloomy than the sky darkened by that thick and damp fog, as nothing is more beautiful than that very sky, when a north-east wind drives away the fog, and exhibits a well-terminated horizon. The sun was not yet risen, when the mist, which had been constant all the 23d, dispersed in an instant; a clear sky and a fair wind determined us to make directly for land. We set sail at two in the morning; at eight we discovered a small eminence rising in the most distant horizon. At noon the figure of this, and several other points, which appeared as we drew nearer, made us conjecture that the land we saw was the coast of Newfoundland, and that this first eminence was the *Chapeau-rouge*, or *Red-hat*. However, we were still too far off to judge with any certainty; but at four in the afternoon, being but four leagues distant, we plainly saw we were not mistaken. The *Red-hat*, and, in general, the whole coast of Newfoundland, is very steep, and rises very far above the level of the sea: we first discovered it at near 16 leagues distance. The ships that sail in this latitude commonly take notice of this mountain, its form being very distinguishable."

The *Comus*, above mentioned, was lost in the night of the 24th of October, 1816, at the entrance of *St. Shot's Bay*. At ten o'clock, it was supposed, "from reckoning and double altitude, (which was taken that day,) they were on the inner edge of the Green Bank; sounded, and found that they were in 25 fathoms of water, the exact depth on that bank as laid down in the Admiralty charts, which they referred to; but, for the greater safety of the ship, it then blowing very fresh, hauled her wind, with the head off-shore, and stood on under easy sail. At forty-five minutes past eleven, struck on a reef of rocks, extending from the eastern head of *St. Shot's Bay*, into the sea, owing to the amazing indraught into the different bays, and which are not accounted for in the Admiralty charts, which threw the ship out of her reckoning. The helm was immediately put down, and the sails braced aback, to get stern-way, when she was unfortunately caught by a rock, on the larboard quarter, and bilged before the boats could be got out; every exertion was used to save the ship, but in vain. At the same time, the weather was so foggy that little more than half the ship's length could be seen."

The *Harpooner*, which was lost on the 10th of November, 1816. On the 26th of October, detachments of the 4th Royal Veteran Battalion, with a few belonging to other corps in Canada, in all 380, embarked on board this ship, and sailed from Quebec for London, on the 27th. On the passage to the Gulf of *St. Lawrence*, moderate weather and favourable winds prevailed; but, on arriving in the gulf, the weather proved boisterous, and the wind contrary. Not a sight of land, nor an observation of the sun, could be depended on for several days. On Sunday evening, November 10, at a few minutes after 9 o'clock, the second mate, on watch, cried out, '*the ship's aground!*' at which time she lightly struck on the outermost rock of *St. Shot's*. She beat over, and proceeded to a short distance, when she struck again, and filled. Encircled among rocks, with the wind blowing strong, the night dark, and a very heavy sea, she soon fell over

* The Island of Newfoundland is surrounded with the most violent currents: they have no fixed direction, sometimes driving towards the shore, sometimes towards the main sea. This uncertainty requires the greatest caution.—(Original note.)

on her beam-ends, and the dreadful consequence may be readily imagined. We cannot attempt to describe it; and shall only add, that it may be found in *Bell's Weekly Messenger* of December 22, 1816.

It is worthy of particular notice that, the two wrecks occurred within three weeks of each other; and it is an extraordinary coincidence that they should happen upon the same spot. Can we doubt that they were produced by similar causes?

After the publication of these lamentable particulars, it was hardly to be expected that similar events were again to occur on this fatal spot; but the melancholy loss of his Majesty's ship *Drake* will long be remembered.

"The *Drake* sailed from Halifax on Thursday morning, the 20th of June, 1822, for St. John's. The weather being uncommonly fine, and the wind favourable, she continued to steer a direct course for Cape Race: on Sunday morning it came on extremely thick, with a fresh breeze from W. S. W.; at noon it cleared up for about a quarter of an hour, just giving time to get a good observation of the latitude, which agreed very well with the latitude by account. At the time we supposed ourselves, by our reckoning, to be 90 miles from Cape Race. At six in the evening, having run about 60 miles since noon, and finding the fog still continued, we hauled out four points, intending to have steered S. E. during the night; about half-past seven o'clock, all hands being on deck, breakers were reported to be a-head; the ship was instantly hauled to the wind; but, not being able to clear the danger on that tack, we endeavoured to stay the vessel; but, from the heavy sea, and, whilst in stay, her stern took the breakers, and she immediately fell, broadside on, the sea beating completely over her; the masts were immediately cut away, with the view of lightening the vessel, as well as affording a bridge to save the crew, but without success in either point; for, in a few moments, she bilged, at which time there did not appear the slightest hope of saving a man. The cutter was launched over the lee-gangway, but immediately sunk. A man attempted with a lead-line to swim on shore, but the current setting strong to the northward, he was nearly drowned in the attempt. The only hope remained in the gig, the jolly-boat having been washed away, which was launched in the fore-castle, with the boatswain and lead-line; a heavy surf washed her upon a rock not communicating with the main, and dashed her to pieces, and the line was carried away; but the boatswain succeeded in scrambling up the rock with a few fathoms of line. The sea at this moment making heavy breaches over the ship, the crew were on the fore-castle, hanging by the ropes, each succeeding wave appearing to bring with it total destruction, when a tremendous sea lifted her quarter over the rock on which she first struck, and close to another comparatively sheltered. The fore-castle, hitherto the most sheltered part of the ship, was now abandoned for the rock; and, all hope of the vessel being gone, it was determined, if possible, to quit her. The people severally stepped from the poop to the rock; in attempting which, a few (among whom was Lieut. Stanley) were washed away, and dashed with tremendous force against the wreck. Capt. Baker, after seeing the whole of the crew on the rock, followed; but it was now found that the rock was insulated, and the rising tide would cover it. The boatswain, observing this, swam with the piece of line in his possession, and, in spite the surf, succeeded in reaching land; and, coming opposite the rock on which we were, threw the line across: it was found just long enough for one to hold upon the main, and one on the rock at arm's length: by this trifling assistance forty-four out of fifty, landed on the rock, succeeded in gaining the main; and it is probable all would, had not a man and a woman attempted to cross together, which took the line out of the man's hand on the rock, and, in the attempt to get it back, it was washed away. Capt. Baker was repeatedly requested to cross, but every time resolutely refused, and, throughout the whole unfortunate occurrence, to save the lives of the crew appeared to be his principal object, regardless of his own. Every instant the water rose, and the surf increased, when the officers and ship's crew used every endeavour, by tying handkerchiefs together, to make another holdfast; but, proving too short, we were soon reluctantly compelled to abandon them to their fate; and, at day-break, there was not the slightest trace of the unfortunate sufferers. At this time we found the frame of the wreck broken in halves, with the after-part thrown on the top of the bow. On discovering we were on the eastern head of St. Shot's, we repaired to a house we found there, after having in vain searched for the body of Capt. Baker; and then proceeded, after a little refreshment, to Trepassey. The only reason of so many lives being saved, certainly was from the great order and discipline of the crew. Every man's exertion appeared to be, not for his own life, but for the general good. Had any confusion prevailed, there is little doubt but few

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few would have remained to tell the mournful tale. The end of those left upon the rock was truly melancholy; for it is probable they might have remained half an hour after the line was gone, the tide rising rapidly, and their inevitable fate approaching nearer every instant. Captain Baker died peculiarly regretted by both officers and the crew: his uniform kindness and attention to every individual on board, during the whole of his command, made a deep impression; and it will be long before the recollection of him and of his untimely fate will be effaced from the memory of the survivors."

The brig Spence, of Sunderland, 305 tons, M. Wilson, master, from Richebucto, bound to Liverpool, with lumber, was totally lost near St. Shot's, on the 16th of July, 1822, at four in the evening: but the crew were saved, and arrived at St. John's. The narrator says, "Scylla and Charybdis could not have been more terrifying to the mariners of old, than will the name of *St. Shot's* shortly be to our modern navigators. It is certain that, on the small extent of coast which divides the two bays of St. Mary and Trepassy, more vessels are lost than on all North-America beside; yet no steps appear to have been taken by Government, or any institution connected with any of our shipping interest, to ascertain the cause, or to guard against it in future. The cost of any one of the men of war which have been wrecked within these few years would have maintained a small military post for the purpose of firing fog-guns, or a bell might be so constructed as to toll at intervals.

"With due respect to the Governor of this island, we think one of the men of war under his command could not be better employed than in ascertaining the strength and set of the current at spring and neap tides from St. Peter's to Cape Race; it might be the means of saving many valuable lives, and a considerable amount of property. The conduct of the people who live in the neighbourhood, in plundering wrecks, and even the baggage of the crews, also requires a strict investigation, and some example made for the purpose of deterring them in future."—*Newspaper, Sept. 1st, 1822.*

These events imperiously demand an enquiry into the causes; but it does not appear that any measures have been taken for an investigation. The four vessels, it may be seen, were all from the *westward*, and all, it may be presumed, were set to the *northward*, as well as to the *westward*, of the situations which they were supposed to occupy, and the route which each intended to pursue. They can, at present, be accounted for only by the supposition of currents winding round the coast, opposing each other, and operating as above explained.

It has been already shown that the waters of the St. Lawrence run off partly to the S.W. from Breton Island; so that here, likewise, allowance for a westerly set is to be made: for, as Mr. Darby has said, "On the South side of SABLE ISLAND, the *Current*, in shoal water, with prevailing South and S.W. winds, sets rapidly eastward until it reaches the end of the N.E. Bar. It then unites and blends with the *St. Lawrence's Stream*, which passes the Bar in a S.S.W. direction, and runs strongest in April, May, and June. I have sufficient reason for believing that the Gulf Stream, on the parallel of 42° 30', running E.N.E., occasions the St. Lawrence's Stream, then running S.S.W., to glide to westward. The strength of this stream has never been noticed, and three-fourths of the vessels lost on Sable Island have been supposed to have been to the *eastward* of the island, when, in fact, they were in the longitude of it."

WINDS.—The winds hereabout are very variable; and there can be little doubt that their irregularities produce as various changes in the currents. To the southward of Newfoundland shifts of wind are very common, and it frequently happens that, after blowing a gale upon one point of the compass, the wind suddenly shifts to the opposite point, and blows equally strong. It has been known that, while one vessel has been lying-to, in a heavy gale of wind, another, not more than 30 leagues distant, has, at the very same time, been in another gale, equally heavy, and lying-to, with the wind in quite an opposite direction.

In the year 1782, at the time the *Ville de Paris*, *Centaur*, *Ramilies*, and several other ships of war, either foundered, or were rendered unserviceable, on or near the Banks, together with a whole fleet of West-Indiamen, (excepting five or six,) they were all lying-to, with a hurricane from West; the wind shifted in an instant to East, and blew equally heavy, and every ship lying-to, under a square course, foundered.

The winds within the Gulf of St. Lawrence are not so liable to sudden shifts as on the outside,

outside, or to the eastward, of Breton Island. The weather to the southward of the *Magdalen Islands*, between them and Prince Edward Island, is generally much clearer than on the North.

PASSAGES FROM ENGLAND, &c.—On referring to our Chart of the Atlantic Ocean, it may readily be found that, from the *Land's End of England to St. John's, Newfoundland*, the true bearing is $W. 4^{\circ} S$; and, from the same point to *Cape Sable*, or the S.W. end of Nova-Scotia, it is about $W. 9^{\circ} S$. But the circumstances of Navigation, in general, render a direct course more tedious and difficult than a circuitous route; and the best passages have been made by pursuing a high northerly course.

It seems probable, from all that we have said on the Winds and Currents, that, on prosecuting a north-westerly course, from the Bank of Channel Soundings, the Winds and Currents, respectively, may counteract and balance each other: that, on a farther prosecution of the same course, the winds will be found less westerly, and therefore more favorable, than in the more southerly parallels; and that, in advancing towards the mouth of Davis's Strait, the advantages both of wind and current may be combined.

Caution must be taken not to advance too near the Eastern coast of Newfoundland, if bound to New Brunswick or the Southern ports; nor to the Eastern coast of Breton Island, as here the vessel may be swept round by the strong westerly currents, which have been described, and which, now understood, instead of producing mischief, may prove highly advantageous in facilitating the ship's course.

The propriety of these arguments has been confirmed by experience, in more than forty passages made to and from New Brunswick, &c. by Lieutenant Chas. Hare, of the Royal Navy, of which the last was in the fall of 1824. Annexed is a copy of that gentleman's communication.

"Ships from Scotland, in the spring of the year, and bound to New Brunswick, have always arrived sooner than those from the English Channel, which is attributed to their being more to the northward on leaving the land.

"Ships from Liverpool generally arrive before those which sail from the English Channel, the cause being the same.

"In the **Spring** of the year, I would never go to the southward of latitude 46° or 47° until I reached longitude 37° or thereabout; then edge to the southward as far as latitude 43° in order to avoid the ice-bergs, keeping a very strict look-out; this parallel (43°) I should endeavour to preserve, or nearly so, but nothing to the southward, until up to Cape Sable, Nova Scotia; for it carries you to a safe and proper distance from Sable Island, a place that cannot be too much dreaded. In this track you will be without the northern edge of the Gulf-Stream, and assisted by a south-westerly current from the banks until past that island.

"In the **FALL** of the year, my track is far more to the northward than in the Spring. On leaving the land as late as the middle of October, or thereabout, I generally steer to the north-westward until I get as far north as 55° , and until I enter the longitude 30° , then edge to the southward, to enter the Banks in latitude 46° , shaping again a course to pass about sixty miles to the southward of Sable Island, as above. If bound to Halifax, and very sure of my latitude, I might be tempted to pass to the northward of Sable Island; but, at all events, it would be at great risk; and I should not, under any circumstances, recommend a stranger to attempt it; as the weather is mostly foggy, and the set of the currents unaccountable. The soundings on Banquereau are incorrectly laid down in every chart that I have yet seen; being, in fact, within one hour's sail of the N.E. Bar of Sable Island; from which cause I once very narrowly escaped shipwreck. Numerous Gannets are always hovering about this island, and are a very excellent indication of your near approach to it, particularly on the South side.

"By crossing the Banks thus far North, you will find the advantage as you approach the longitudes of Newfoundland and Nova Scotia: the strong N.W. and North gales having then commenced, you will frequently be compelled to lie-to for two or three days; and should then ensure sufficient drift, before you are blown into the strong influence of the Gulf-stream; which would be the case at a few degrees to the southward, and inevitably in a S.S.E. direction, at an inconceivable rate. Last November (1824) the case occurred: the vessel being hove-to, under main-topsail and storm-trysail, to the westward of the Banks, in latitude 45° , and was, in four days, swept into latitude $39\frac{1}{2}^{\circ}$, consequently

quently into the Gulf-stream; when the longitude became also considerably affected, and I took the first opportunity of making a N.N.W. course, to get out of it as soon as possible.

"To prove the advantages of a northern track, late in the fall of the year, I may notice that I have, in one or two instances, read, in the American newspapers, the accounts of very long passages experienced by ships which met heavy gales in the latitudes of 35° and 38° , when several vessels were disabled, and others suffered loss of sails; yet, on the same day, in latitude 54° , I had moderate weather from the N.N.E. with top-gallant studding sails set; which strongly encourages me to believe that the blowing weather, incident to approaching winter, comes from the south, and inclines northerly as the season advances, and not the reverse; an hypothesis generally formed by English ship-masters, but, in my opinion, certainly erroneous.

"I am farther of opinion that the influence of the Gulf-stream, in the parallels from latitude 35° to 42° , whether from the warmth of the water or other natural causes, has a strong tendency to attract the wind from a western direction; as I have invariably found the wind more alterative in the northern latitudes before mentioned than the southern ones; and it unquestionably must be allowed, by all mariners of any observation, that gales experienced in the Gulf-stream, or its vicinity, blow with much greater violence than they do in that part of the northern Atlantic not under its influence: besides, the squalls from the southward or S.W. are much more sudden and heavy, and near the Banks they are attended with dangerous lightning. The thermometer (an instrument easily understood) is of the greatest importance for ascertaining your approach to it; and, if bound to the West, I would, for my own part, endeavour to avoid its effects as cautiously as I would a lee-shore: for it may be depended on, that no ship, however well she may sail, will effect westing in the Gulf-stream with a wind from that quarter; and it is to be remembered that its velocity is accelerated according to the strength of those winds; and its extent in breadth, at a few degrees to the westward of the Azores, is many more degrees than is commonly supposed.

"These observations, I hope, may be useful to my brother mariners engaged in these voyages; and permit me to say, that they are grounded on the experience of at least forty times crossing the Atlantic, in his Majesty's and the merchant service, and in the command of vessels in both; latterly in one of nearly four hundred tons burthen, the *Waterloo*, owned in St. John's, New Brunswick; and, as the Custom Books at Liverpool can testify, landed four full cargoes in thirteen following months; which, including the time required to discharge the same, then load outwards to St. John's, there discharge and load home again, leaves but very little time for the ship to cross the Atlantic eight times in fourteen months, which, in fact, was done.

"Still further, in corroboration of my approved northern track, allow me to observe that, in the fall of 1823, by keeping in a high latitude, the brig *Ward*, myself master, also owned in New Brunswick, performed a voyage out and home in seventy-two days. The same vessel likewise, on the 3d of October, 1824, left the English Channel, and arrived again in the Downs on the 3d of January following.

"I must add that, a strong well-found and well-manned vessel alone can perform these voyages; for they must be maintained with unremitting attention and perseverance.

"The necessity and propriety of the above remarks was particularly exemplified by the *Ward*, which, on her passing through the Downs, in 1824, left ships there which were bound to the westward, weather-bound, and found them there on her return, having been driven back by adverse winds; while she, getting out of the Channel, performed with ease a prosperous voyage to St. John's, New Brunswick, and back, exactly in three months, assisted by chronometer, thermometer, &c."

GULF OF St. LAWRENCE, &c.—Those bound to the Gulf of St. Lawrence, after passing to the southward of the Virgin Rocks, on the Grand Bank and the Island of St. Peter, should keep a middle course between Newfoundland and Breton Island; not forgetting what has been heretofore said on the Winds and Currents. Recollecting, also, that the harbours on the coast, westward of Fortune Bay, are impeded with dangers; there are many rocks about the entrances, and most of the harbours are imperfectly known. The rocks are not to be seen in thick weather, and fogs very much prevail on the coast.

The little island of St. Paul, which lies to the north-eastward of Cape North, is bold-to, steep, and high; and, with a good look-out, in the day time, cannot be considered

as dangerous even in thick weather. The land of Breton Island is very high, and though fogs are about it frequently, it is seldom so much obscured as not to be seen in time. On entering the Gulf, the Magdalen and Bird Islands will be seen, as they lay in the direct course from Cape North to the River of St. Lawrence.

There is, in clear weather, a safe passage between the Bird Islands and the Magdalens; but, in thick weather, it is advisable to keep either to the southward or northward of both, as the wind may permit.

In Pleasant Bay, on the S.E. side of the Magdalen Islands, there is clear and good anchorage, very near the shore; and it is a very safe place for vessels to ride in, with a westerly wind, and infinitely preferable to beating about in the Gulf with a foul wind. There is a safe passage into it between Amherst Island and Entry Island.

As the weather to the southward of these islands, between them and Prince Edward Island, is generally much clearer than on the North, the passage that way is preferable, particularly after the early part of the year, when S.W. winds mostly prevail.

II. *The* ISLAND *and* BANKS *of* NEWFOUNDLAND.

GENERAL REMARKS.—NEWFOUNDLAND is, in general, a hilly and rugged country, variegated with extensive woods of birch, small pine, and fir. The interior is covered with snow about five months in the year, and the coasts are involved, for a still longer period, in thick fogs, accompanied with sleet.

Its chief towns are, St. John's, in the S.E., situate on an excellent harbour, which will presently be described, and Placentia in the South, on the bay of that name.

The **BANKS**, which are, in their fisheries, the source of all the opulence in the island, are vast submarine elevations, of various depths and very unequal figure, as shown by the Chart. The depths on the Great Bank vary from 15 to 80 fathoms. The bottom, which is generally of sand or gravel, is covered in many places with shells, and abounds with different sorts of fish; but more particularly with cod, which is inconceivably numerous: for, although from 200 to 400 vessels have been annually freighted with this article of commerce for nearly two centuries, there appears to be no sensible decrease of the former plenty. A great swell and thick fog usually indicate the place of the bank.

The cod are usually most abundant where the bottom is sandy; and the least so where it is muddy. The best depth for them is between 30 and 40 fathoms, or less water. In the months of February and April, the fish, which in the winter retire to the deepest water, come on the banks, and fatten quickly.

The great fishery generally commences on the banks about the 10th of May, and continues until the end of September.

The admiral or commodore of the squadron sent out annually to protect the fisheries and settlements, is, *pro tempore*, governor of the island; and there are two lieutenant-governors, one at St. John's, and the other at Placentia.*

* By the Treaty of Utrecht, 1713, the FRENCH retained the liberty of fishing off the coasts, and of drying their nets on the shores, of Newfoundland, within certain limits; and, by the treaty of 1763, they may, also, fish in the Gulf of St. Lawrence, but not within the distance of three leagues from any of the coasts belonging to Great Britain.

By the treaty of 1763, it was defined that, the subjects of France were to enjoy, under the restrictions of the previous treaties, the fisheries on the eastern, northern, and western, coasts of Newfoundland, from Cape St. John to Cape Ray; and this concession was confirmed by the treaty of 1814.

By Convention with the UNITED STATES, of the 20th of October, 1818, the people of the said States, renouncing previous claims, have, for ever, in common with British subjects, the liberty of taking fish on the southern coast, between Cape Ray and the Ramea Isles, and on the western and northern coasts, from Cape Ray to the Quirpon Isles; also on the shores of the Magdalen Islands, and on the coasts, bays, harbours, and creeks, of Labrador, from Mount Joli through the Strait of Belle-Isle, and thence northward, indefinitely, along the coast, but without prejudice to the exclusive rights of the Hudson's Bay Company: and the fishermen of the United States have liberty, for ever, to dry and cure fish in any of the *unsettled* bays, harbours, or creeks, of the southern parts of Newfoundland, above described, and of the coast of Labrador, but so long as unsettled only, without previous agreement with the inhabitants, &c.—See, farther, the large Map of the Canadas, Nova Scotia, Newfoundland, &c., under the title of CABOTIA, published by the proprietor of this Work.

There

There are, generally, in the spring, within 125 or 130 leagues of the land, and between the Outer and Grand Banks, numerous ice-bergs, or ice-islands, that float down with the current from the north-westward, and which, during the foggy weather, are very dangerous: even in the months of June, July, and August, there are frequently a number of them; some of which may be seen aground, in 40 or 50 fathoms of water. In thick weather, the place of these may commonly be distinguished by the *ice-blink*, a brightness of the sky above them: the breaking of the sea against them may, also, be heard at a considerable distance.

On approaching the banks, there will generally be found a number of sea-fowls, as *malinauks*, *roaches*, and *divers*. The last-mentioned are seldom found at more than 30 leagues from the banks; but *malinauks*, and several other kinds, are frequently seen during the whole passage; although not so numerously elsewhere as in the vicinity of the banks.

In approaching towards Cape Race, (the S.E. point of Newfoundland,) be careful to avoid the *Virgin Rocks*, a dangerous reef, lying 18 leagues S.E. $\frac{1}{2}$ E. [*E. by S.*] from that cape. They are said to extend in a true N.E. by E. direction, 4 miles; in gales of wind a heavy sea breaks over them; and a strong current, which sets about them, often increases the danger.*

SHIPS BOUND TO ST. JOHN'S are, therefore, recommended to keep on the parallel of 46° , or a degree and a half to the southward of the parallel of that port, as and until they approach the outer edge of the Great Bank; and, when they obtain soundings, to steer directly to the north-westward for Cape Spear, which is in $47^{\circ} 31'$.

The HARBOUR OF ST. JOHN, which is the principal harbour of Newfoundland, is an excellent one, although the entrance be narrow, being only 160 fathoms in breadth, with high, bold, and precipitous, land on each side.† The entrance in lies N.W. by W., and within will be found to narrow; as, in the inner part, there is a rock on each side, but above water. Here the breadth of the channel is only 95 fathoms, and the depth 8. When past these rocks, you may run on boldly, without any fear of danger, only avoiding a rock on the South side, called *Prosser's Rock*, on which there are only 9 feet of water, and lying at about 30 fathoms from the shore, off a reef lying within the King's wharf.

Within the harbour you may anchor in any depth, from 4 to 10 fathoms, land-locked from all winds; as the harbour within the Narrows lies W.S.W. It is, however, to be noticed that, there is no possibility of sailing in, unless with the wind from S.W. by S. to East. The wind from S.W. to N.E. by N., blows out of the Narrows. Here ships must then anchor, and warp in, for which purpose there are rings in the rocks on both sides.

THE FOLLOWING DIRECTIONS FOR ST. JOHN'S have been given by Mr. OWEN.

"The Entrance of St. John's Harbour is readily known by the block-house on Signal-hill on the North Head, and Amherst Fort on the South Head. There is a sunken rock, called the *Vestal*, 50 fathoms without South Head, with only 25 feet of water on it. This rock is about 10 fathoms long and 7 broad; the marks for it are, Fort William (which stands within the harbour on the north side) open of South Head, bearing N. 39 deg. W.; and the outer *Wash-ball Rock* open with Cuckold's Head, bearing N. 47 deg. E. The *Wash-ball Rocks* join the North Head; they are all above water and steep-to, therefore not dangerous. The course in the Narrows is N.W. by W., distance 370 fathoms, to *Chain Rock* on the North, and the *Pancake* on the South, side. Both these rocks are

* The existence of the Virgin Rocks having been questioned, it may not be improper to communicate the following extract of a letter, addressed by Arthur Kemp, master of the brig *Indiana*, of Dartmouth, to the publisher of the *Newfoundland Gazette*:—"On the 23d of October, 1823, at noon, I left Cape Broyle, after a strong gale from S.E. with the wind at W.N.W., steering S.E. by S. The following morning, at 8 a. m., having run 84 miles, I was alarmed with the cry of "*breakers a-head*," and almost immediately saw them to such an alarming extent, as obliged me to alter the course from S.E. by S. to E. by N., it not being possible to clear them on the other tack. After giving the breakers a good berth, and leaving them to the southward, distant 4 miles, I hove the main-topsail to the mast, and lay by from 10 o'clock till noon, and observed in lat. $46^{\circ} 35'$, long. $50^{\circ} 51'$; the extent of breakers appeared to be about 2 miles, and were more tremendously alarming than I have ever experienced during twenty-three years that I have (chiefly in this trade) commanded a vessel."

† An appearance of the entrance is given by Mr. Owen, on his particular Chart of the Harbour.

above water, and steep-to. Sixty-five fathoms within the Pancake Rock, on the South shore, lies the *Little Pancake* a rocky shoal, dry at low water; and 80 fathoms within the latter lies the sunken rock, called *Prosser's Rock*, running off 30 fathoms from a rock above water, in form of a saddle, with 18 feet of water in the hollow, and only 5 feet on the outside. It is steep-to, with 5 fathoms close to it. After you have passed *Prosser's Rock*, you may stand to either shore, as they are clear and steep-to. You may anchor in what water you please, from 8 to 4 fathoms, muddy bottom.

"The tide of St. John's sometimes rises 7 or 8 feet; it is not regular, but greatly influenced by the wind."

Be very cautious, if unacquainted with the coast, that you mistake not the place called *Kitty Vitty* for the harbour of St. John's, as it shows an opening like a good harbour, but is fit only for boats, and not safe even for these at low water. *Fort Amherst*, which stands on the South head of St. John's, appears white, and the flagstuffs on the hill, over the North head, will point to the harbour of St. John's: besides these, the course from *Cape Spear* is N.N.W., and the distance about 4 miles. The position of *Fort Amherst*, as lately given, is lat. $47^{\circ} 33\frac{1}{2}'$, long. $52^{\circ} 36'$. It may, probably, be more to the eastward.

Between the harbour of St. John and *Cape Spear* are three bays; the first is from St. John's to *Low Point*, and is called *Freshwater Bay*; the second, from *Low Point* to *Black Head*, is called *Deadman's Bay*; the third is from *Black Head* to *Cape Spear*, and is called *Cape Bay*.

ST. JOHN'S HARBOUR TO CONCEPTION BAY.—FROM ST. JOHN'S TO TORBAY the course is between N.E. by N. (being at a little distance without the harbour) and N.N.E. Between St. John's and Torbay are several points, which have names; viz. first, *Cuckold's Head*, on the South side of the Gut of *Kitty Vitty*; the next is *Small Point*, which lies N.E. by E. about 2 miles from the entrance of St. John's; the third is *Sugar-Loaf Point*, and it lies N.E. by N. half a league from *Small Point*; the fourth is *Red-Head*, lying N.N.E. from *Sugar-Loaf*, about 2 miles. Between the *Sugar-Loaf* and *Red-Head* is a Bay, called *Logy Bay*. The fifth point is the South point of *Torbay*, which lies N. $\frac{1}{2}$ E. from *Red-Head*, about 2 miles. This point of *Torbay* is the lowest of these points.

From the South point of *Torbay* to the anchoring place, where ships usually ride, the course is N.W. by W. more than 2 miles. Here you may anchor in 14 fathoms, against *Green Cove*. Should you be open of the bay, the course is in West; for the bay is large, and at least a league in extent between the South and the North points. The latter is a low black point, with a flat rock off it, over which the sea breaks: in passing this, from the northward, the course into *Torbay* is W.S.W. *Torbay* is a bad place for ships to ride in with the wind from sea-ward; for, being open to the ocean, a great sea falls into it.

From *Flat Rock Point*, or the North point of *Torbay*, the course and distance to *Red-head* are N. by E. about half a league; and from *Flat Rock* to *Black-head*, N. $\frac{1}{2}$ E. 4 miles.

FROM BLACK-HEAD TO CAPE ST. FRANCIS the bearing and distance are N.N.W. $4\frac{1}{2}$ miles; *Cape St. Francis* is a whitish point, and low in comparison with the other land; but, from sea, the high land over it marks a cove, called *Shoe Cove*, where boats used to come a tilting, (using the fishermen's expression,) that is, to split and salt the fish they catch, when blowing hard and in bad weather, when they cannot gain the places they belong to in time. In this cove you may haul up a boat to save her, if the wind be out; for, with northerly, westerly, and southerly, winds you will lie safely. There is a good place off it for fishing.

From *Cape St. Francis* to the distance of half a league off, triangular-wise, lie sunken rocks; the outermost, east from the cape, about a mile and three-quarters: There are also islets, or great rocks above water, the outermost of which lies about three-quarters of a mile E.S.E. from the cape; and the innermost not half a mile off-shore; between these islets and the sunken rocks, you may go with boats, and find fresh water: but men are generally unwilling to venture. *Shoe Cove* is protected by the rocks.

There is another cove, to the northward of the point of the cape, for boats, when the wind is off the shore; but, if otherwise, it is not safe.

CONCEPTION BAY.—From Cape St. Francis to *Belle Isle* the course is W.S.W. and S.W. by W. $4\frac{1}{2}$ leagues. This is a large island, not above a league from the shore, against the cove, called *Portugal Cove*. *Belle Isle* is about 5 miles in length, and 2 miles broad, and the ships that fish there lie in a little cove on the south side of the island, which will contain 5 or 6 ships, according to the rate.

From Cape St. Francis to the Island *Bacalieu*, the bearing and distance are N.N.E. about $6\frac{1}{2}$ leagues. *Bacalieu* is an island 3 miles long, and one mile and a half broad. Here boats were used to fish: Abundance of fowls, of several sorts, breed here in the summer. Between this island and the main is a channel about 2 miles broad, having a sufficient depth for ships. The *Bay of Verde* and the S.W. end of *Bacalieu* lie E. by N. and W. by S. from each other, about a league and a half.

BAY VERDE.—From Cape St. Francis to the Bay of Verde-head, the bearing and distance are N. by E. about 6 leagues. And, from the head to the bay, or cove, where ships ride, to the westward of the head, is about three-quarters of a mile. The roadstead is not above a cable's length in extent between the points, which lie N.N.E. and S.S.W. from each other; you lay your anchors in 10 fathoms, and your ship will lie in 5, with a cable out; the stern will then be not above half a cable's length from the stages. The ships that ride here, are forced to seize their cables one to the other; and there cannot be, at once, above 7 or 8 ships: It is a bad and hazardous place for ships, except in the summer-time, but the great plenty of fish make it desirous, although it is very deficient in wood, water, &c.

Bay Verde may be readily known by the Island *Bacalieu*, and also by another head within *Bacalieu*, called *Split Point*; as well as by *Bay Verde-head* itself, which is the westernmost; these three heads shew very bluff, and very like each other, on coming from the southward: there is no danger in going into *Bay Verde* but what may be seen.

From *Bay Verde-head* to *Flamborough-head* the bearing and distance are W.S.W. $\frac{1}{2}$ W. about a league and a half. *Flamborough-head* is a black steep point, but no place of shelter for a boat, unless when the wind comes from the shore; neither is there any safety between *Bay Verde* and *Carboniere*, (8 leagues S.W. $\frac{1}{2}$ W.) excepting two places for boats, the one in the S.W. cove of the *Green-bay*, which is but an indifferent place, and lies S.W. $\frac{1}{2}$ W. about 4 leagues and a half from *Bay Verde*, and the other in *Salmon Cove*, which is about 2 leagues northward of *Carboniere*.

From *Bay Verde-head* to *Green-bay* is S.W. $\frac{1}{2}$ W. about four leagues and a half. This bay is above a league over, but has nothing remarkable in it, excepting the S.W. cove, above mentioned, and a place at the bottom of the bay, to which formerly the Indians came every year, for the purpose of obtaining ochre.

From the South point of *Green-bay* to *Black-head* is S.W. $\frac{1}{2}$ W. a league; and from *Black-head* to *Salmon Cove*, W. by S. 4 miles. The latter is a place of shelter for boats, an island lying in the middle; a river runs up from the cove, which abounds with salmon.

From *SALMON COVE* to *CARBONIERE*, the course is W.S.W. about 2 leagues. The Island of *Carboniere* is at about a mile from the shore. Its South side is low. The harbour is very bold on both sides; so is the island, between which and the main are rocks, just under water. This is a good place for ships to ride in, and for catching and curing of fish. Here are good pasturage and cattle, affording milk and butter during the summer. There is very good anchorage, in clear ground, fair turning in or out, being more than half a mile broad, and 3 miles long; the depth, 5 to 8 fathoms, and deeper water. To the northward of the point of *Carboniere* are two coves, in which planters live, and keep boats for fishing; the northernmost of these, called *Clown Cove*, is fit for boats only, and is about 2 miles above *Carboniere Harbour*; the other is called *Crocker's Cove*, and is to the entrance of *Carboniere Bay*.

The proper channel in to *Carboniere* is on the North side of the island, which lies off its southern point; the entrance here being more than a mile wide. Ships may, however, pass on the S.W. side of the isle; but they must keep in mid-channel, because the ground is foul and shoal on each side, so as to form a narrow passage only.

To the W.S.W. of *Carboniere Island* is a small cove, called *Mosquito Cove*: in this cove ships may ride, but it is seldom used, as it is not convenient for fishing-ships, although the ground is clean, and it has sufficient depth of water.

HARBOUR GRACE.—The entrance of Harbour Grace is a league to the southward of Carboniere Island. A rock, called the *Salvage*, stands nearly in the middle of the channel; and there is another, called the *Long Harry*, near the North shore, having only a boat-passage between it and the main. Both are of great height above the water.

Within the bay, a bar or ledge extends from the South side, more than half way over, as shown in the particular plan of the Harbour, in the 'NORTH AMERICAN PILOT.'

You may turn into Harbour Grace, all the bay over, from side to side. The *Salvage* may be passed on either side, as most convenient: and, having passed within this rock, you may turn from side to side, by the lead, till you draw towards the edge of the bank, then proceed by the North shore.

You may know when you are near the bar, or ledge, by two white rocks on the land, by the water-side, in a bank on the North side, which shew whiter than any other part: these are about a mile below, or to the eastward of, the beach, which is proper to be known: by keeping near the North shore, you will find 3 fathoms and a half on the bar, and presently after 4, 5, 6, and 7, fathoms; but if you stand over to the southward, till you have advanced within the bar, or ledge, you shall not have above 7, 8, or 9, feet of water: This sand trends S.E. from athwart the two white rocks above mentioned, and extends close up to the South shore. Having passed its outer extremity, you may turn from side to side till within the beach, on the North side, and ride land-locked in 4, 5, or 6, fathoms, or higher up in 7, 8, 9, or 10, fathoms, as you please.

Three islets, called **HARBOUR GRACE ISLANDS**, lie off the South point of the entrance of Harbour Grace, in an East and West direction. No vessel should attempt a passage between them and the main, as the ground is foul and shoal, and there are rocks about the islets.

From Harbour Grace to Cape St. Francis, the bearing and distance are E. $\frac{1}{4}$ S. 6 leagues.

BYRANT'S COVE, to the southward of Harbour Grace, is not a place for ships: It is, however, a good place for fish. In the middle of the entrance is a rock above water. You may pass in on either side, and have 4 or 5 fathoms, and then anchor within it in clean ground.

From Harbour Grace to *Spaniard's Bay*, the distance is about two leagues. This bay is deep and large, and there is good anchoring all over it: It is divided from *Bay Roberts* by a small neck of land only.

BAY ROBERTS is about half a league broad. There is very good turning into it, and no danger but what may be seen. You may borrow on either side, and go close to the island which lies on the starboard side of the entrance. The bay is, at least, three miles long. Being past the island, or to the westward of it, which is bold-to, you may run up about a mile, and lie land-locked in 9 or 10 fathoms within the island.

From the point of Bay Roberts to *Port Grave*, the distance is 3 miles. Port Grave is extensive, deep, and very bold, as the other bays are: there is a cove on the starboard side of the entrance, called *Sheep's Cove*, where you may moor by head and stern, and ride in $4\frac{1}{2}$ and 5 fathoms; but your anchor to the W.S.W. will be in 22 fathoms, at about a cable and a quarter's length from the ship.

From *Sheep's Cove* to Port Grave, the distance is a mile, or rather more; but ships do not ride within the small islands which are by Port Grave, the water within them being shoal, but they ride off without them.

From *Sheep's Cove* to *Cupid's Cove*, on the South coast of Port Grave, the course is S.W. about a league. This is a good place for a ship or two to ride in, in 4, 5, or 6, fathoms, and not above a point open. The cove lies in a W.S.W. direction, and the South side of the bay to *Burnt-head* trends E. by N. about two miles.

From *Burnt-head* to *Brigus*, is S.S.W. a league. The South point of *Brigus* is a high rugged point: The bay of *Brigus* is not above half the breadth of Port Grave Bay; you run up W. by S. and West, about half a league, and anchor on the North side. Small ships only use this place, it being so far up the Bay of Conception.

Collier's Bay.—From *Brigus* to *Collier's Bay* is S.S.W. two and a half or three miles. And from *Collier's Bay* to *Salmon Cove* or *Pool*, the distance is nearly two miles and a half.

Harbour

Harbour Main.—From Salmon Cove to Harbour Main, the course is South about two miles. This is a good place for fishing; but ships seldom go up so high in the bay.

From Burnt-head, of Port Grave, to Harbour Main, the course and distance are S. by W. about three leagues. And from Harbour Main to *Holyrood S.* by E. about two miles; then the land trends about to the eastward towards *Belle Isle*. *Holyrood Harbour* has 10 fathoms of water, and good ground.

TRINITY BAY.—This extensive Bay, between Bacalleu Island on the S.E. and Trinity Harbour on the N.W., is seven leagues in breadth, and its depth, from the entrance, is 20 leagues. The south point of the entrance, westward of Bacalleu Island, is called the **POINT OF GRATES**. The next point within is *Break-heart Point*. Between these points is a small bay, in which boats may lie with a wind from the land of *Break-heart Point*: there is a ledge of rocks, but they are above water.

From *Break-heart Point* to *Sherwick Point*, going into *Old Perlican*, the course is S.W. by W. 5 or 6 miles. To the southward of *Break-heart Point* is an islet, at some little distance off the shore, called *Scurvy Island*; between this island and *Sherwick Point*, the coast falls in a pretty deep bay, and trends S.S.E. from *Sherwick Point* about three-quarters of a mile.

OLD PERLICAN.—*Sherwick Point* is bold; there is a rock off it, above water: this point is the north point of *Old Perlican*. They who are bound to *Old Perlican*, cannot go in with a ship to the northward of the island; that is, between the island and *Sherwick Point*; although it seems a fair passage, yet it is altogether foul ground, and a shoal of rocks extends from the main to the island; (which island is about a mile and a quarter round, and about half a mile in length;) therefore, whoever intends for *Old Perlican* with a ship, must pass to the southward of the island, between it and the main. Within it is anchorage, in 4 or 5 fathoms. It is, however, to be observed that, there is a rock just even with the water, and some under water, about the middle of the bay, within the island, or rather nearest to the main. *Old Perlican* has but an indifferent road: and, if the winds come out from N.W., you are forced to buoy the cables, from the badness of ground. The boats go a great way to catch fish, (about five or six miles,) excepting in the very middle of summer.

Sille Cove.—From *Old Perlican* to *Sille Cove*, the coast rounds to the Westward, S.W., and S.S.W. about 7 leagues. *Sille Cove* is but an indifferent place for ships, such as *Bay Verde*, already described.

NEW PERLICAN.—From *Sille Cove* to *New Perlican*, the distance is a league. This is a very good harbour, where you may lie land-locked in 5, 6, 7, 8, 9, or 10, fathoms. It is very bold and large going in, so that, if you can see the point before night, you may safely run in, there being nothing to hurt you but the shore itself. The easternmost point of the entrance, is called *Smutty-nose Point*, and the westernmost *Gorlob Point*; the entrance between is almost two miles broad, and has about 20 fathoms of water. On sailing in, it will be found narrower and shallower, lying in first west, and terminating in a bight, where you may lie land-locked, in a berth half a mile broad; so that you may turn in or out, and anchor in what depth you please, from 12, 10, 8, 6, 5, or 4, fathoms, very good ground.

From *New Perlican*, the distance over to *Random-head*, is 5½ leagues. These places lie N. by W. and S. by E. from each other. In *Random Sound* are several arms and harbours. *Random* and *Smith's Sound* uniting form *Random Island*, the channel being in the whole 13 leagues in length. At the conjunction of the two sounds is a little island, where there are 4 and 5 fathoms; with a bar at the island of not above 12 feet of water. Here it is not a mile broad.

PORT BONAVENTURE.—From *Bonaventure-head* to *Bonaventure*, the course is N.N.W. ¼ W. about two miles; but, having advanced a mile from the head, then the harbour lies N. by W. to the *Admiral's Stage*. *Port Bonaventure* lies within two small islands, between which is the proper channel, but you may go on either side, if you have a leading wind, there being no danger, and 4 or 5 fathoms of water, at least. Within the islands, you may anchor in that depth, in good ground. There is a very secure place for boats in bad weather, running in within a point, behind, or to the northward of, the *Admiral's Stages*, like a great pond. This place will contain above 100 boats in security.

There are several islands without, off Bonaventure; the middle one, called *Green Island*, is S. S.W. from the port, distant two leagues. It is so high as to be seen, in fair weather, so soon as you come out of *Trinity Harbour*.

From Bonaventure-head to the point called the *Horsechops*, the bearing and distance are E. $\frac{1}{2}$ N. 3 leagues.

From Bonaventure-head to Trinity Harbour, is N.E. about two leagues; between are some bays, but not for ships to ride in, unless with the wind off the shore.

The Horsechops and Sherwick Point (being the East point of Trinity Harbour) lie W.N.W. and E.S.E. from each other, distance 4 miles. Between the Horsechops and Trinity Harbour is *English Harbour*, at the distance of 3 miles from the Horsechops. Within the outer point this harbour trends eastward; it is a clean bay, and you ride in 4 or 5 fathoms of water.

From English Harbour to Salmon Cove, the course is N.W. by N. westerly, about half a league; it is a place for fishing; and there is a river which runs up about two miles to the northward.

Without Salmon Cove is a headland, called *Fox's Island*, connected to the main by a neck of beach. To the northward of the headland, between it and Sherwick Point, is a bay, called *Robin Hood's*; and in this bay, behind a point, small ships ride and fish.

TRINITY HARBOUR.—From the Horsechops to Trinity Harbour, the course and distance are W.N.W. five miles.* Trinity Harbour is the best and largest harbour in all the land, having several arms and coves, wherein several hundred ships may ride land-locked: it is a place which you may turn in or out of, being bold-to on each side, and having no danger; but what may be seen; excepting that, at the entrance of the S.W. arm, where the Admiral's Stage usually is, lies a shoal, called the *Muscle Bank*, which shoots off from a point within the islet on the larboard side going in, and extends N.N.W. about a third of the breadth over that arm. Being within this bank, which will discover itself by the colour of the water, you may edge over close to the south shore, if you please, or keep your lead, to avoid the *Muscle Bank*, giving it a little distance. You may anchor in 14, 12, or 10, fathoms, and approach so near to the stage on shore, as to make a stage with topmasts to your stage on shore, to lade or unlade your ship. This is a most excellent harbour; for, after you are in the S.W. arm, you find another running up to the N.W., which is continued by another extending S.W., but there is a bar, or ledge, at the entrance of the latter. The N.W. arm is a large harbour, having good anchorage for 500 sail of ships. Besides the fore-mentioned arms, the main harbour turns up to the north.

Ships, being within the harbour's mouth, may ride in a cove, large and good, on the starboard or east side, and land-locked in good ground, off the town. Over against that cove, on the larboard or west side, are two other coves; the southernmost of them is called the *Vice-Admiral's Cove*, convenient for curing fish; and above, or to the northward of that, is a large cove, or arm, called *Got's Cove*, where there is room enough for 300 or 400 sail of ships to ride, all in clear ground, protected from winds, sea, and tide. In this place ships lie unseen until it appears open.

There are several other places in this excellent harbour, in good clean ground. The bottom, in all the arms and coves of Trinity, is of tough clay, with 4 and 5 fathoms of water, within two boats' length from the shore; and there are 6, 7, 8, 9, 10, 12, and 14, fathoms, and some places more, in the middle of the arms and channels. You may turn in or out, as already noticed, observing your tide, which rises about 4 feet, and sometimes more.

From the Horsechops to the south head of *Catalina Bay*, a distance of $8\frac{1}{2}$ miles, the coast rounds to the N.E. About two miles to the northward of the Horsechops is an indent, named *Green Bay*, but it is no place for ships to ride or fish in. Being past *Green Bay*, there is no place or cove for boats till you come to *Rugged Harbour* or to *Catalina*.

From the South Head of *Catalina Bay* to the North Head, the bearing and distance are N.W. by W. $\frac{1}{2}$ W. [N.W. by N.], $5\frac{1}{2}$ miles: between the two heads is *Rugged Harbour* and *Catalina Harbour*. The South Head is in latitude $48^{\circ} 27' 38''$.

* A particular plan of Trinity Harbour is given in the North-American Pilot, Part I.

RUGGED HARBOUR is so called from the numerous rugged and craggy rocks which lie before and within it, above and under water. They who proceed for this harbour with a ship, must pass to the northward of all the rocks or islets, and run to the northward till they bring the harbour open; then sail in between a round island which lies close to the main, and a great black rock, which lies off the north end of all the islets. There is a river of fresh water at the head of the harbour.

CATALINA HARBOUR.—One mile and a half to the northward of Rugged Harbour is the Harbour of Catalina, which is very safe, with good ground, not above 8 fathoms, from 3 to 4, 5, 6, 7, or 8, fathoms, as you please. You may, with a leading wind, sail between the small island, which is a little to the southward of the harbour, and have 4 or 5 fathoms at the least, in going through, but it is not above a cable's length broad; or you may go without that island, to the eastward of it, giving the island a small berth, and so sail in with the middle of the harbour; for, at about half a mile distant from the south point of the harbour, to the east, is a reef, called the *Brandys*, upon which, if there be ever so small a sea, it breaks; but you may sail between the island and the reef, or you may go to the northward of it, between the reef and the north shore.

A rock, having over it but 9 or 10 feet of water, lies off the north shore of Catalina Harbour, at one-third of a mile within the *Brandys*, above-mentioned; but between the two is a depth of 10 fathoms, with a continued depth of 7 fathoms more than half a mile along the south shore. Within this, up the harbour, you may anchor in 5 fathoms, land-locked. You may likewise anchor in 3½ fathoms, to the southward of the little green island, at the entrance of *Little Catalina*, or the N.E. arm of the Harbour; or you may run up towards the village or the river-head, whence fresh water runs down. A kind of bore rises in this place very often, that will cause the water to rise three feet presently, and then down again; and you may find it so two or three times in three or four hours, at certain seasons. It is a very good harbour, and abundance of the herb *Alexander* grows on the small island. Salmon abound at the head of the harbour. Near a small cove in the N.W., within the small island, is a fire-stone of a glittering colour: excellent willocks grow on the rocks.

From the North-head of Catalina Bay to *Flower Point*, the coast, which is a high cliff, trends N.E. ¼ N. 2½ miles. Off the point is a reef of sunken rocks, called *Flower Rocks*; over which the sea breaks during a swell, and they discover themselves plainly. They lie about half a mile off-shore, and extend a mile true East. You may go between *Flower Point* (which has some rocks lying about it) and the sunken rocks above described. A mark to go without them is, to keep the Gull Island, off Cape Bonavista, open of all the land to the southward: this will lead clear without them to the eastward.

Bird Islands.—From *Flower Point* to the two islets called *Bird Islands*, the distance northward is two miles. Within the *Bird Islands* is a bay, with one arm within the south point of the land, which runs up some distance to the west, where ships may ride: another arm, also, runs up within some rocks, which are above water. The bay extends to *Cape Larjan*, half a league farther north. The *Bird Islands* abound with willocks, gannets, pigeons, gulls, &c., which breed there in summer.

From *Flower Point* to *Cape Larjan*, the bearing and distance are N.N.E. [N. ¼ W.] 3½ miles; the extremity of *Cape Larjan* is but a low point, off which lies a great rock above water.

From *Cape Larjan* to *Spiller's Point* is N. by E. half a league; between this cape and *Spiller's Point* the land falls into a bay. Over the point, between it and *Cape Larjan*, you will see the high land of *Port Bonavista*, from a considerable distance off at sea. *Spiller's Point* is moderately high, steep, and bold-to.

BONAVISTA.—From *Spiller's Point* to *Cape Bonavista*, the course is north 2½ miles; between is a bay, apparently deep, which persons unacquainted with would suppose to be the harbour of *Bonavista*.

Cape Bonavista is in latitude 48° 42'. The head of it appears at a distance of a sky-colour. At about half a mile N.N.E. from the cape is a small islet called *Gull Island*, easy to be known, being moderately high, but highest in the middle, and makes somewhat like the form of a *Fleur-de-lis*; or a hat with great brims; you may see it 4 or 5 leagues off in clear weather.

At N.N.E. ¼ E. 3½ miles from *Gull Island* lies a rock, which bears the name of *Old Harry*, and has only 13 feet of water upon it. The sea breaks over this spot, unless when

when the water is very smooth. To the N.E., from the Old Harry, within an extent of nearly three miles, are several dangerous spots, with from 3 to 4 fathoms: the outer or northern edge of these is called *Young Harry*. Vessels when passing, in order to avoid these rocks, must be careful to keep Cape Bonavista open with the westernmost extremity of a high range of land to the southward, named the *Green* or *Inner Ridge*. These dangers, together with the long ledge called the *Flower Rocks*, near Flower Point, above-mentioned, render it very imprudent to attempt making Cape Bonavista in thick or bolsterous weather; and, indeed, at any time, *Bacallieu Island*, between the entrances of Conception and Trinity Bays, is the best and safest land-fall for a stranger bound to any part of Bonavista Bay.

There is a channel between Gull Island and Cape Bonavista; it is nearly half a mile wide, with a good depth; but it is to be observed, that, in rounding the cape, you may not stand in close, as there is a sunken rock about 300 yards from the Gull Island, and another, on the opposite side within the cape, upwards of 200 yards to the N.E. of the land of *Green Island*, which will be presently noticed. Each has less than 3 fathoms of water.

Green Island is an isle half a mile in length, lying nearly parallel with the western side of Cape Bonavista. The passage between admits small vessels only, being narrow, and some spots have shoal rocks. At a mile and a quarter to the westward of Green Island is a small islet called *Stone Island*, with a reef on its eastern side, but the general depths between are from 8 to 16 fathoms.

At a mile to the southward of *Green Island* is a reef called the *Red Rocks*, lying off Red Cove, which is terminated by *Western Head*. In succession after this, between it and the port of Bonavista, are Red Point, Moses Point, and Swerry Head, the two last, with their surrounding rocks, marking the north side of Bonavista Harbour.

From Cape Bonavista to Port Bonavista, the courses are south-westward, about four miles. If you come from the southward, and intend for Bonavista, you must leave *Green Island* on your larboard side. You may sail between *Green Island* and *Stone Island*, with any ship, without danger, the channel being safe and bold; or, you may go to the westward of *Stone Island*, and run to the southward till you open the harbour of Bonavista, and are past *Moses Point*, and so to the southward of the rocks, called the *Swerrye*, which are high rocks, having no passage to the northward of them. Here you may anchor, in from 11 to 5 fathoms; as you please, but must always have a good anchor in the S.W., and another fast in the Swerrye, or in the N.W.; for westerly winds blow directly into the road.

With small vessels you may go between *Green Island* and the main, and so to Red-head; but the bay between the points (over against *Green Island*) and Red-head is all foul ground. At a little distance, or about a cable's length from the shore, is a sunken rock, but boats may go between the shore and it. The sea breaks on it. Being past Western or Red-head, the course to Moses Point is W. S. W.; between is a large bay or cove, called Bayley's Cove, where you may anchor on occasion, not advancing too far in, as all its shore is rocky and shoal.

Mr. Bullock, one of the surveyors of Bonavista Bay, &c. has said of BONAVISTA HARBOUR, that it is an anchorage of little or no consideration, further than being a very eligible situation for carrying on the fishery; being so very badly sheltered that, in N.W. gales, immediately following a continuance of heavy winds from seaward, the water breaks right athwart the harbour, and sometimes the whole of the fishing-boats founder at their anchors, and not unfrequently many of their stages are destroyed: however, vessels during the summer months, moor under Swerry Head, in 8 or 10 fathoms; but, even there, as in every other part of the harbour, the ground is so rocky and uneven, that they are necessitated to buoy up their cables.

BONAVISTA BAY.—This extensive Bay is limited by Cape Bonavista on the south, and by Cape Freels on the north. The bearing and distance from the one to the other is N. $\frac{1}{2}$ E. [N.N.W.], 41 miles. The position of Cape Bonavista is, lat. $48^{\circ} 42'$, long. $52^{\circ} 59'$; that of Cape Freels, lat. $49^{\circ} 20'$, long. $53^{\circ} 24\frac{1}{2}'$. The whole coast between is tortuous or much indented, rocky, difficult, and dangerous: on the south, the land is high and mountainous, and the coast steep and iron-bound: on the north side it is low and marshy, and from the shore the water is shoal to a considerable distance, abounds with small islands, and is encompassed with dangers on every side.

The

* See
Bullock

The harbours in Bonavista Bay are numerous, and safe when once gained; but they are, in general, so deeply embayed, the land is so diversified, and the passages so intricate, that their navigation is seldom attempted, unless by those who, from long experience, have a perfect knowledge of the coast: yet, should it become necessary, from stress of weather, or other circumstance, for a stranger to seek shelter, the places recommended for this purpose are, *Barrow* and *Great Chance Harbours*, in the S.W. part of the Bay; *New Harbour* and *Cat Cove* on the N.W.* These places are described hereafter.

BLACKHEAD BAY.—*Black Head* is $2\frac{1}{2}$ miles S. by W. [*S.W. $\frac{1}{2}$ W.*] from the Harbour of Bonavista, and *Southern Head* is 8 miles N.W. by W. [*West*] from *Black Head*. The latter are the two extremities of *Blackhead Bay*, which is two leagues in depth. On the S.W. side of this bay, at nearly a league and a half to the southward of *Southern Head* is the fishing establishment on *King's Coves*; but this is even a less desirable place of shelter than Bonavista, lying directly open to seaward, and having a foul bottom.

From *Southern Head* to *Western Head* the distance is four miles N.W. by W. [*West*]. The coast between forms five coves, on the second of which, *Keels*, is a fishing village; but neither this nor any of the other coves are fit places for vessels of burthen.

GREAT CHANCE HARBOUR.—The entrance of *Great Chance Harbour*, which is an excellent anchorage, lies 10 miles W. $\frac{1}{2}$ S. [*S.W. $\frac{1}{2}$ W.*] from *Western Head*. The passage to it is clear, with the exception of a rock of 18 feet, the *Bacon-bone*, lying a mile and a quarter south-westward from *Western Head*. In sailing for this place the safest way is, not to shut in *Southern Head* until the isle called *Little Denier*, bearing N. $\frac{1}{2}$ W., comes on with the outer *Shag Island*. Thus the *Bacon-bone* will be avoided, and you may steer for the harbour, S.W. by W. and West, without having any danger to encounter until you approach the entrance: but here, in the southern part, lies a sunken rock, with only 6 feet of water. Within this rock, and in a line with it, are two islets, called the *Mustard-bowls*; in order to avoid the rock, be careful not to shut in the western *Mustard-bowl* with the eastern; but, having passed the latter, you may stand boldly in, approaching the shore on either side as you please, and you may anchor any where above the narrows in from 11 to 5 fathoms, perfectly land-locked and good holding-ground. Wood and water may easily be procured here.

At two miles E. by N. from *Chance Point*, (the outer point of *Chance Harbour*.) is a spot of ground with 7 fathoms, over which the sea breaks in very heavy gales from seaward, but it is not dangerous in fine weather.

BARROW HARBOUR.—The island called the *Little Denier*, which lies off the entrance of *Barrow Harbour*, is situate in latitude $48^{\circ} 41'$, and long. $53^{\circ} 31'$. The harbour, which lies south-westward of it, is safe and convenient: it is formed by three islands, *Richard's*, *Goodwin's*, and *Keat's*; the entrance is about 500 yards wide, and not very difficult of access: the harbour is a mile long; the lower part is rocky, and not well sheltered; but the upper part is completely land-locked, and has good holding-ground. The course to this place, from Bonavista Gull Island, is N.W. by W. $\frac{1}{2}$ W., 22 miles.

On approaching *Little Denier*, you must be careful to avoid the *Outer Rock*, lying three-quarters of a mile E. $\frac{1}{2}$ N. from that island. It has only 4 feet of water on it; but as the sea constantly breaks, it is easily guarded against. Between *Little Denier* and *Richard's Island*, there is also a range of rocks, called the *Brandishes*, at distances from each other, and extending nearly half way over toward *Little Denier*, with from 14 to 17 feet upon them: between are channels of 7 and 8 fathoms. These make the northern channel preferable for strangers without a pilot. To run clear of the *Brandishes*, you must keep *Wedge Point*, (the projection within the harbour,) a little open to the southward of *Smoky Ridge*, (a range of high land at the top of the harbour,) until you bring *Broom Head*, N. by E. $\frac{1}{2}$ E. on with the middle *Shag Island*; the passage is then without obstruction till you near *Wedge Point*, off which, at 70 yards, lies a sunken rock, with 8 feet of water; you may then sail up abreast *Fudner's Cove*, until you are entirely shut in from the sea, and anchor in from 10 to 18 fathoms. There is a small fishing

* See the Admiralty Chart of Bonavista Bay, &c., from the Survey of Messrs. Holbrook and Bullock, 1822.

establishment here; good water in Pudner's Cove, and abundance of fire-wood. The land about Barrow Harbour is higher than the neighbouring coast, and may be easily recognised by its projection.

SANDY COVE, on the North side of Newman's Sound, about 4 miles beyond Barrow Harbour, has good anchorage, it will be readily known, having the only sandy beach on this side of the Sound; there is no danger in entering it, and it is perfectly safe. Soundings from 10 to 20 fathoms. Between this place and Barrow Harbour lies the Half-way rock above water, but if you keep outside there is no danger, it being steep-to in four fathoms.

GREAT and LITTLE HAPPY ADVENTURE, at a mile westward from Sandy Cove, are two snug little coves, on the same side of the Bay; but, from the narrowness of their entrances, they are adapted only for the resort of small vessels: between these places lies a sunken rock about 80 yards from the shore, with only 4 feet of water upon it.

NORTH BROAD COVE lies also on the northern side of Newman's Sound, two miles beyond Happy Adventure, and is a convenient well-sheltered anchorage; its entrance may be known by a high round island lying on the West side of it. On sailing in you must keep the island on board, until you make a tight or inlet, between it and the western shore, in order to avoid a sunken rock at the eastern side; after which keep as close as possible to the eastern shore, as a dangerous rock lies nearly in mid-channel; being inside of which you may anchor in from 10 to 20 fathoms, maddy bottom. Wood and water may be procured here.

DAMNA HARBOUR, (vulgo *Damnable*.) The little island called Ship Island, lies in latitude $48^{\circ} 45'$, long. $53^{\circ} 34'$, and at 8 leagues N.W. $\frac{1}{2}$ W. [$W. \frac{1}{2}$ N.] from Cape Bonavista, and *Damna Harbour* lies W. $\frac{1}{2}$ S. six miles from Ship Island. The island may be known by a remarkable bald point like a sugar loaf. The harbour is well adapted for small vessels, but its very narrow entrance disqualifies it for ships of burthen; there is a rock off the southern part of the entrance, and another off the northern side of the island, which lies in the middle of the harbour; there is good anchorage all round the island, in 4 to 5 fathoms; sandy bottom; water may be easily procured, but very little wood.

MORRIS COVE is a safe anchorage, situated on the North side of the island bearing that name, which lies to the northward of Damna; in sailing for it keep Ship Island well on board; as you will thus avoid the reef called the *Ship Rocks*, which lies to the northward; having got inside Ship Island, avoid shutting in Lackington Rock with Varket Island, (known by its forming two remarkable hummocks,) as there are several clusters of rocks between Ship and the Horsethop Islands, on the South side: steer for the Varket until you get abreast of Lackington Rock, then keep Lackington Rock on the northern extremity of Ship Island until the Varket bears North, to clear two sunken rocks off the N.E. end of Morris Island; you may then sail directly for the Cove, which you can enter without fearing obstruction, and anchor in any part of it, in 25 to 5 fathoms, but the western side of the Cove is preferable. Wood plentiful; water scarce in the summer season.

VARIATION.—It may not be unworthy of remark, that the polarity of the Needle is subject to several localities in different parts of Bonavista Bay, becoming gradually less as you get embayed; and this derangement is supposed to arise from the land's being impregnated with magnetic substance. At the Capes, which form the Bay, the variation of the compass was $30^{\circ} 20'$; at Barrow Harbour $28^{\circ} 30'$; and at Great Happy Adventure not more than 23° , in the year 1819.

GOOSEBERRY ISLES, &c.—The Gooseberry Islands are a cluster of islets, near the middle of Bonavista Bay. The Offer or Outer Gooseberry is in latitude $48^{\circ} 48'$, longitude $53^{\circ} 27'$. From Cape Bonavista, to sail clear of the *Eastern Rock*, which lies at a mile and a half to the E.S.E. of the Offer Gooseberry Island, the course is N. by W. $\frac{1}{2}$ W. and from thence to Copper Island, (at the mouth of Greenspond Tickle) N. $\frac{1}{2}$ E. here it is possible to obtain pilots for this and the adjacent anchorages, which are **NORTHWEST-ARM, NEW HARBOUR, and CAT COVE**; there is also good holding ground between Greenspond Island and the main; but, the water is so deep, that a

* All the wood on the coast-side is very diminutive, but it is, generally, much larger inland.

vessel is liable to drift on shore in the act of weighing, nor is there sufficient room to veer to a lengthened cable in heavy gales from the S.W., to which quarter it is much exposed.*

SHIPS COMING FROM THE EASTWARD, to round *Cape Freels*, have to avoid the *Charge Rock*, which lies S.E. $\frac{1}{2}$ S. 2 $\frac{1}{2}$ miles from *Cape Freels*; *Gull Island*; the rock has only 6 feet of water upon it, and is circumscribed by a large spot of rough fishing ground, having from 8 to 30 fathoms; from the *Gull Island* you may run immediately southward for the *Stinking Islands*, taking care not to open *Cape Fagnals* to the eastward of the *Gull*; this will carry you inside the danger; keeping in good look for the *Mid-rocks*, which are just above water, and lie two miles to the N.E. by E. of the *Stinking Islands*; but a vessel, not bound up the Bay, is enjoined to keep well outside; for should the weather become suddenly thick and foggy (which is not unfrequent with an easterly wind) she runs a great risk of getting bewildered among the innumerable rocks for which this part of the coast is remarkable, and from which neither chart nor compass can direct the stranger.

At three quarters of a mile N.W. from this *Gull Island*, is a rock with 3 fathoms of water upon it. In the winter months, when the north-easterly gales are very heavy and continuous, the sea breaks exceedingly high over several spots of the *Stinking Banks*, which lie E.N.E. $\frac{1}{2}$ E. from the *Stinking Islands*: in two places there is as little as 7 fathoms: in such weather, although a vessel would not strike, she would be in very great danger of foundering in the tremendous sea, which would be apt to break over her; but, in fine weather, no danger from them is to be apprehended. Having rounded the *Stinking Islands*, and wishing to sail into *New Harbour* or *Cat Cove*, steer directly for the *Offer Gooseberry Island*, S.W. by W. $\frac{1}{2}$ W. until you bring *Pouch* and *Flower's Islands* to touch each other: you will be then two miles outside the *Three Rocks*, which lie at a mile and a half to the southward of *Flower's Islands*. The outer of the *Three Rocks* has on it 3 fathoms of water, the middle 16 feet, and the inner only 11 feet. Now alter the course to W. $\frac{1}{2}$ S. keeping the white top of *Chalky Hills*, in *Locker's Reach*, a little on the starboard bow, which will carry you clear of *Copper Island* dangers, lying without *Shoe Cove Point*: should the roughness of the weather prevent your getting a pilot on board thereabout, continue on this course until you bring *Shoe Cove Point* (which may be distinguished from its bearing a resemblance to white marble) to bear N.W. $\frac{1}{2}$ W.: then shape your course for *Indian Bay* W.N.W.

NEW HARBOUR is two miles to the westward of *Shoe Cove Point*. With easterly winds it is quite inaccessible, from its narrow entrance: in which case you must continue onward for *Cat Cove*, lying 4 miles farther up the Bay on the same side. The *Cove* is formed by *Cat Island*, and may be easily recognised, it being the only part in the vicinity that is covered with live woods, the surrounding forests having been destroyed by conflagration; on sailing in keep the island open on your starboard bow. Off the upper part of *Cat Island* lie two high green rocks, which you must round, the passage formed by them being too shoal to pass between: you may then run till you get some distance inside the upper point of the island, and then anchor in from 5 to 13 fathoms, with the hawse open to N.W., the winds from that quarter being in general most heavy and squally. In working in, you may stand close to either shore, except off the point of the island, as there is a sunken rock within 100 yards of it, with not more than 10 feet of water.

NORTHWEST ARM is the best anchorage near *Cape Freels*; but its access is not without difficulty, from the multiplicity of Islands that lie in the neighbourhood, and which are almost undistinguishable from their great semblance of each other: the greatest danger you have to encounter, in making this place from the southward, is the *Northern Rock*, which lies N.E. $1\frac{1}{2}$ miles from *Copper Island*, (known by its height and without wood); it has never less than 22 feet of water upon it; so that, in fine weather, vessels which generally frequent this coast, may pass over it in perfect safety; but, in hard gales, the sea breaks over it incredibly high: to avoid it, be careful not to open *FOOL'S ISLAND*, at the entrance of N.W. Arm (which is somewhat higher and more pro-

* The course to *Barrow Harbour*, from the eastern *Gooseberry Rock*, is S.W. $\frac{1}{2}$ W. 18 miles: steering from the latter place to *Barrow Harbour* you have to avoid *Malons's Ledge*, a shoal lying S. $\frac{1}{2}$ W. one mile from the rock (above water) which bears the same name; it has never less than 4 fathoms, so that, in fine weather, no danger is to be apprehended.

minent than the rest, and which is covered with trees, except the crown) to the westward the *Western Pond Rock*, until you bring *Butterfly Island* to touch the inner point of *Flower's Island*, or until *Puffin* and *Copper Islands* touch each other; then, leaving the *Pond Rocks* on the starboard hand, steer in for *Fool's Island*; which island it is advisable to keep well on board, as there is a sunken rock lying exactly in mid-channel, between it and *Partridge Island Rocks*; with 18 feet upon it; to clear which, it is impossible to give a *Descriptive Mark*. The course then into the ARM is N.W. $\frac{1}{2}$ W., and as soon as you get inside *ODD ISLAND*, you may anchor in muddy ground with from 7 to 9 fathoms, *Fool's Island Hill* bearing S.E. to S.E. by S. During the dry summer months, vessels are compelled to send to *Loo Cove* for water, nor is wood to be procured on this part of the coast within the distance of twelve miles.

GREENSPOND TICKLE.—This is a small harbour on the eastern side of *Greenspond Island*, formed by several smaller ones which lie off it, and is of very little importance, not being capable of receiving vessels whose draught of water exceeds 14 feet; its dangers are in the *Northern*, the *Cookroom*, *Puffin*, and *Harbour Rocks*, but it is impossible to get in with a foul wind; or with a fair one without a pilot. Ships sometimes anchor between the island and the main; but the place is contracted, and the water is very deep, add to which it is much exposed to S.W. winds, so that it cannot be recommended as a place of safety: to sail into it, you must pass to the westward of *Copper Island*, in doing which, you must cautiously avoid the *Midsummer Rock*, which lies one mile off south-westward from that island, and has only 6 feet of water on it: when you shut in *Silver Hair Island*, with *Shoe Cove Point*, you are inside the danger.

ST. JOHN'S HARBOUR to CAPE RACE.*

HAVING already described, on pages 9 and 10, the environs on *St. John's Harbour*, we now resume the coast to the southward, commencing with *Cape Spear*.

From *Cape Spear* to the North point of *Petty Harbour Bay*, the course and distance are S.W. $2\frac{1}{2}$ miles; and thence to the South point, S.W. by S. $2\frac{1}{2}$ miles. *Petty Harbour* lies near a league in from the heads, and is a small cove, capable of containing only two or three vessels.

From the South point of *Petty Harbour Bay* to the *Bay of Bulls*, the course is S.W. $\frac{1}{2}$ S., and the distance about 3 leagues. About midway between is a place called the *Spout*, being a cavern into which the sea runs; and, having a vent on the top of the land, it spouts up the water to a great height, especially if there be any sea; so that it may be seen a great way off.

BAY of BULLS.—From the South head of the *Bay of Bulls* to the North head, called *Bull Head*, the bearing and distance are N.E. $\frac{1}{2}$ E. $1\frac{1}{2}$ mile; between these heads the bay runs in N.W. by W. for at least two miles, and then N.W. by N. for about a mile to the river-head. In this bay is good riding, in from 20 fathoms at the first entrance between the heads, to 18, 16, &c., after you are within *Bread and Cheese Point*, which is about half way up the bay, on the North side, where there is a cove. Off this point, nearly half a cable's length, lies a sunken rock, which must be avoided; every other part of the bay is bold-to, and free from danger. Being past the point, run up and anchor (or turn up) against *John Clay's Hill*, bringing it to bear N.E. by N., and anchor in 12 or 14 fathoms of water: merchantmen run farther in, and anchor in from 10 to 7 fathoms, and lie not above a point open.

From the *Bay of Bulls* to *Cape Broyle* the course and distance are S.W. $\frac{3}{4}$ S. $4\frac{1}{2}$ leagues.

WITLESS BAY lies about $1\frac{1}{2}$ mile to the southward of the *Bay of Bulls*; it is in some degree sheltered by *Green Island* and *Gull Island*, which lie before it, but is not safe for ships. To the southward of *Witless Bay Point* is *Momables Bay*, quite exposed to sea-winds. About two miles southward from *Momables Bay* is *Toad's Cove*, near which lies *Foxes' Island*. About two miles to the southward of *Foxes' Island* is *Baline Head*; between them lie *Isle de Spear* and *Goose Island*.

* For more clearly understanding these Directions, we recommend to the notice of the reader the particular Chart of the S.E. part of Newfoundland, containing the *Bays* of *Placentia*, *St. Mary*, *Trepassey*, and *Conception*, published by the Proprietor of this work.

From Baline Head to *Cape Neddick* the bearing and distance are S.W. by W. about half a league; and, from *Cape Neddick* to *Brigus Head*, S.W. by S. $2\frac{1}{2}$ miles. *Brigus Harbour* lies to the northward of *Brigus Head*, and it is fit for small vessels only.

CAPE BROYLE, &c.—From *Brigus Head* to *Cape Broyle* is about two miles South. *Cape Broyle Harbour* lies in about N.W. by W. $\frac{1}{2}$ W. above two miles; but it is exposed to the sea-winds. *Cape Broyle* is the most remarkable land on all the South coast of Newfoundland; for, coming either from the southward or northward, it appears like a saddle. S.E. by E. from the northern point of *Cape Broyle*, about half or three-quarters of a mile, lies a sunken rock, called *Old Harry*, on which is but 18 feet of water; the sea breaks upon it in bad weather; but, between it and the shore, there is 12 or 13 fathoms of water. In very bad weather, the sea breaks home almost to the shore from *Old Harry*, by reason of the current, which generally sets strong to the southward.

From *Cape Broyle Head* to *Ferryland Head*, the bearing and distance are S.S.W. about $2\frac{1}{2}$ miles; between are three islands, which lie before *Caplin Bay*, and ships may sail between them to that place: of these the northernmost is called *Stone Island*; the middlemost, *Goose Island*, which is the second in size; and the southernmost, *Isle au Bois*, which is the greatest. There is room for ships to turn between these islands, excepting between *Stone Island* and *Cape Broyle*, where there is a great rock.

CAPLIN BAY is large and good, and runs in a considerable way within the islands above mentioned, where a number of ships may ride in good ground, in from 10 to 20 fathoms of water.

From the North part of *Ferryland Head* to *Ferryland*, the bearing and distance are W.N.W. more than a mile. To go into *Ferryland Harbour*, you must sail between the North part of *Ferryland Head* and *Isle au Bois*; it is not wide, but there is water enough, and clean ground: when within the *Isle au Bois*, you may run in and anchor where you please, it being of a good breadth. The *Pool* is a place on the larboard side going in, within a point of beach, where you lie in 12 feet at low water. From *Isle au Bois* almost into the land to the westward, are small islands and rocks, which make *Ferryland Harbour*, and divide it from *Caplin Bay*; there is a passage for boats between the said rocks in some places. Spring-tides rise from 3 to 4 feet.

AQUAFORT.—From the South point of *Ferryland Head* to *Aquafort*, the course and distance are W. by N., about 3 miles. *Crow Island* lies about a mile E. by N. from the mouth of *Aquafort*; and from the S.E. end of *Crow Island* lies a shoal, about a cable's length. *Aquafort Harbour* lies in W.N.W.; there is a great rock above water on the South side of the entrance, which is bold-to: you run up about 2 miles within the harbour's mouth, and anchor on the North side, quite land-locked.

From *Aquafort Point* to *Black Head*, the bearing and distance are S.E. one mile; from *Black Head* to *Bald Head* S. by W., about a mile; and thence, about a mile southward, is the North point of *Fermowes*.

FERMOWES is a very good harbour, and bold going in; no danger but the shore itself: it lies in N.W. by N. and N.W. Being past the entrance, there are several coves on each side, in the harbour, where ships may ride. The first, on the North side going in, is *Clear's Cove*; the next within it at a little distance, on the same side, is the *Admiral's Cove*, where you may lie land-locked from all winds, in 7 or 8 fathoms of water, good ground. On the South side is the *Vice Admiral's Cove*, farther westerly, where several ships may lie; and, farther westward, is another cove, equally good. There are 20 fathoms of water in the entrance of the harbour, and within from 14 to 4 fathoms.

From **FERMOWES** to **RENEWES**, the bearing and distance are S.W. by S., about 1 $\frac{1}{2}$ league. Between these places is a cove, called *Bear's Cove*. Off the South point of *Renowes Harbour*, at a small distance from the shore, is an island; and, S.E. from the same point, about half a league, high above water, is *Renowes Rock*, which may be seen 3 leagues off. *Renowes* is but a bad harbour, being full of rocks, with shallow water. From *Renowes* to *Cape Ballard*, the course and distance are S.S.W. $\frac{1}{2}$ W. $2\frac{1}{2}$ leagues; between are *Burnt Head*, *Freshwater Bay*, and *Small Point*. From *Cape Ballard* to *Cape Race*, the bearing and distance are S.W. by W. 3 leagues; between which, and near *Cape Ballard*, is *Chain Cove*, with several rocks lying before it, but no harbour; and about half way is *Clam Cove*, which is fit for boats only.

CAPE RACE to CAPE CHAPEAU ROUGE.

FROM Cape Race the land trends away to the westward, W. by S., one mile and a half; then West one league to *Mistaken Point*; and from *Mistaken Point* to *French Mistaken Point*, about N.W. by W. two miles. From *French Mistaken Point* to the *Powles*, it is N.W. eight miles.

The *Powles* is the east point of the entrance into *Trespassey Harbour*: from the *Powles* to *Cape Mutton*, it is E.S.E. $\frac{3}{4}$ E., one mile. Between these points lies *Mutton Bay*, which is about two miles deep, with 12 to 3 fathoms of water, rocky bottom. The N.W. part of the head of this bay is separated from *Trespassey Harbour* by a low, narrow, sandy, stony, beach, over which the vessels in the harbour may be seen.

From *Mistaken Point* to *Cape Pine*, the course and distance are W.N.W. $\frac{1}{2}$ W. $4\frac{1}{2}$ leagues.

TRESPASSEY HARBOUR.—The entrance of *Trespassey Harbour* lies nearly 5 miles N.E. by E. from *Cape Pine*; it is about three-quarters of a mile wide, and runs nearly of the same breadth for $2\frac{1}{2}$ miles, where it narrows to one-quarter of a mile, but again increases to three-quarters of a mile, where the ships ride. The dangers in sailing into this harbour are, a small rock on the east shore, about a mile within the *Powle-head*, and about one-third of a cable's length from the shore; and, on the west shore in the harbour, off a stony beach, a shoal, which runs along shore up the harbour to a low green point. *Baker's Point* on with a low rocky point on the entrance of the harbour, will carry you clear of this shoal. When you are nearly up with the low green point, you may steer more to the westward, and anchor either in the N.W. or N.E. arm, in 5 or 6 fathoms.

From *Cape Pine* to *Cape Freels*, the course and distance are west $1\frac{1}{2}$ mile. The land about *Cape Pine* is moderately high, and barren. From *Cape Freels* the land trends about W.N.W. one mile, to *Black-head*, then N.W. $\frac{3}{4}$ W. one mile, to the eastern reef and head of *St. Shot's Bay*.

From the eastern head of *St. Shot's* to the western head, the bearing is N. by W. $\frac{3}{4}$ W. distance two miles: *St. Shot's Bay* is about a mile deep, and entirely open to the sea.*

From the eastern head of *St. Shot's* to *Point Lance*, the bearing and distance are N.W. $\frac{1}{2}$ N. 22 miles. These points form the entrance of *St. Mary's Bay*, which runs up $9\frac{1}{2}$ leagues to the E.N.E. with several good harbours in it, the land on each side being moderately high.

The land from *Point Lance* lies E. $\frac{1}{2}$ S. 3 leagues, to a *high bluff cape*, from which the land along the west side of the bay bears N.E. by E. 10 leagues, up to the head of the bay.

From the afore-mentioned bluff cape to *Cape English*, on the east shore, the course is S.S.E. $\frac{1}{4}$ E. distance 5 leagues.

From the western head of *St. Shot's* to *Gull Island*, the bearing and distance are N. $\frac{1}{2}$ E. 4 miles; this island is small, and close to the main land.

From *Gull Island* to *Cape English*, the bearing and distance are N. by E. $\frac{1}{4}$ E. about two leagues. This cape is high table land, terminating in a low rocky point, forming a bay about a mile deep, to the southward of it; at the bottom of which is a low stony beach, within which is *Holyrood Pond*, running to the E.N.E. about 6 leagues. This pond, being situated within the cape, makes *Cape English* appear like an island.

From *Cape English* to *False Cape*, the course is N.E. $\frac{1}{2}$ N. one mile distant.

From *Cape English* to *Point la Haye*, the bearing and distance are E.N.E. 3 leagues. This is a low point, from which a ledge of rocks extends a quarter of a mile into the sea, and above a mile along the shore, on which the sea breaks in bad weather. It is the only danger in all *St. Mary's Bay* that will take a ship up.

* On the rocks extending from the eastern side of this bay, the *Comus*, *Harpooner*, *Drake*, and *Spence*, were wrecked, as already shown on pages 3 and 4.

ST. MARY'S HARBOUR.—From *Point la Haye* to the south point of *St. Mary's Harbour*, called *Double Road Point*; the course and distance are E.N.E. $1\frac{1}{2}$ mile; the land between is low and barren. From *Point la Haye* to *Ellis Point*, which is the low point on the starboard side going into *St. Mary's Harbour*, it is two miles. The entrance of this harbour is above a mile wide, and bears from *Point Lance* E.S.E. $\frac{3}{4}$ E. 9 leagues. Within the points that form the entrance, it divides into two branches, one to the S.E., the other to the E.N.E. When you are within *Ellis Point*, haul in to the southward, and anchor abreast of the houses and stages, upon a flat, in 4 or 5 fathoms, where you will lie land-locked. This flat runs off about half a mile from the shore; and without it is from 15 to 40 fathoms of water over to the other side; but the best anchorage is about two miles above the town, where it is above half a mile wide, opposite *Brown's Pond*, which may be seen over the low beach on the starboard side; here you will lie land-locked in 12 fathoms of water, and excellent ground all the way up to the head of the bay. The E.N.E. arm lies open to the sea, and is not resorted to by ships.

Two leagues above *St. Mary's Harbour*, lie *two islands*, the largest of which is about one league long, and is called *Great Colinet Island*, the south end of which bears from *Cape English* N. by E., distant 3 leagues. On either side of this island is a safe passage up the bay, taking care to give *Shoal Bay Point* a berth of a quarter of a mile, to avoid some rocks which lie off that point. On the north side of *Great Colinet Island* is a stony beach, off which lies a bank for about a quarter of a mile, on which is from 7 to 17 fathoms of water, rocky bottom.

Little Colinet Island lies $1\frac{1}{2}$ mile north-eastward from *Great Colinet Island*; is above one mile long, and half a mile broad.

MAL BAY lies to the westward of the north-east point of *St. Mary's Harbour*; it is about a mile wide, and about two miles deep; but there is no good anchorage, a heavy swell generally setting into it.

Shoal Bay Point lies one mile distant from the east end of *Great Colinet Island*.

The entrance into **GREAT SALMON RIVER** lies E.N.E. $\frac{1}{2}$ E. two leagues from the north part of *Little Colinet Island*; it is about three-quarters of a mile wide, and runs from the E.N.E. 7 or 8 miles. There is very good anchorage in it; but the best is about three miles from the entrance on the north side, in a sandy cove, in 5 or 6 fathoms of water.

NORTH HARBOUR lies N. by E. three-quarters of a mile from the north part of *Little Colinet Island*; it is about a mile wide at the entrance, and runs to the northward about three miles; in it is very good anchorage, in about 6 or 7 fathoms of water, about two miles within the entrance, where it is not above half a mile wide: or you may run farther up, taking care to keep the starboard shore close on board, and anchor within the point of the Narrows.

COLINET BAY lies N.E. $\frac{1}{2}$ E. $5\frac{1}{2}$ miles from the north point of *Little Colinet Island*; in it is very good anchorage, in from 5 to 12 fathoms of water.

From **POINT LANCE** to **CAPE ST. MARY**, the bearing and distance are N.W. 8 miles: *Cape St. Mary* is a pretty high bluff cape, and the land along shore from it, for a considerable distance, appears even, and nearly of equal height with the cape itself.

From *Point Lance* W.N.W. 3 miles, lie the *Bull and Cow Rocks*; they are two flat rocks, and very near together, with several small rocks around them, all above water, and may be seen four leagues off, when open from the land. They bear S.E. by S. from *Cape St. Mary*, $5\frac{1}{2}$ miles, and one mile from the nearest part of the main land; at about two-thirds of the distance from them to the main, is a small rock, which appears above water at half tide; there are 10 fathoms of water between it and the main, and 15 fathoms between it and the *Bull and Cow*.

St. Mary's Kays or *Rocks* lie W. by S. from *Point Lance*, W.S.W. $\frac{1}{2}$ W. from the *Bull and Cow*, and S.E. $\frac{1}{2}$ E. $7\frac{1}{2}$ miles from *Cape St. Mary*. These are two rocks that appear just above water, and the sea always breaks very high upon them. They lie S.S.E. and N.N.W. from each other, about three cables' length; and there are 15 fathoms at a cable's length all around them, excepting to the S.S.E., where there are but 6 fathoms at two cables' length. Between them and *Cape St. Mary* is a depth of 26 and 30 fathoms.

PLACENTIA BAY.—From *Cape St. Mary* to *Cape Chapeau Rouge*, the bearing and distance are W.N.W. 17 leagues. These capes form the entrance of *Placentia Bay*.
Cape

Cape Chapeau Rouge is the highest and most remarkable land on that part of the coast, appearing above the rest like the crown of a hat, and may be seen in clear weather 12 leagues off.

From *Cape St. Mary* to *Point Breme*, the course is N. by E. easterly, distance 7 miles; and from *Point Breme*, to the *Virgin Rocks*, N.E. $\frac{1}{2}$ E. 12 miles. These rocks lie about two miles from the main, and show above water.

From the *Virgin Rocks* to *Point Verde* or *Green Point*, the bearing and distance are N.E. by E. $\frac{1}{2}$ E. 5 $\frac{1}{2}$ miles. There is no shelter for ships or vessels between *Cape St. Mary* and *Green Point*; the land between is of a moderate, and appears nearly of an equal height all the way; but over *Placentia*, and to the northward of it, the land is very high and uneven, with many peaked hills.

PLACENTIA HARBOUR.—*Point Verde*, or *Green Point*, is low and level, and forms the south side of the entrance of *Placentia Road* and *Harbour*, which is situated on the east side of the great bay of *Placentia*. If you are coming from the southward, and going into the road, you should keep a league from the shore, to avoid the *Gibraltar Rock*, which lies west from *Green Point*, till you bring the *Castle Hill* open to the northward of that Point. The *Castle Hill* is on the north side of the road on which stands the castle, and is distinguishable far out at sea. *Gibraltar Rock* has only 8 feet of water over it, at low water, spring-tides, and lies 2 $\frac{1}{2}$ miles west from *Green Point*. When you have the *Castle Hill* on with *Green Point*, it will lead you a quarter of a mile to the northward of it; run in with the mark on, keeping your lead going, as there are regular soundings on both sides, and giving *Green Point* a berth of near two cables' length, passing it in 4 fathoms of water, you may proceed to the anchorage under the *Castle Hill*, at three-quarters of the distance over from that side, where you lie in 6 or 7 fathoms of water, good ground. At the bottom of the road is a long beach, which terminates to the north in a point, on which stand the houses and a fort; between which and the *Castle Hill* is the entrance into *Placentia Harbour*; this entrance is very narrow, with 3 $\frac{1}{2}$ fathoms of water; but within the *Narrows* it widens to one-third of a mile, and runs up E.N.E. above a mile and a half, with 6 or 7 fathoms of water, where ships may lie in perfect security. In going in, keep nearest to the starboard side.

THE FOLLOWING DIRECTIONS HAVE BEEN GIVEN ON THE NEW CHART OF THE ROAD AND HARBOUR OF PLACENTIA, BY MR. F. OWEN.

“The Road and Harbour of Great *Placentia* are on the east side of the Bay of *Placentia*. The southern entrance of this road is *Point Verde*, which bears from *Cape St. Mary* N.E. distance 25 miles; from the *Outer Virgin Rock* N.E. by E. $\frac{1}{2}$ E., and from the south side of *Red Island* S. S.E. distance 14 miles.

“*Point Verde* is a low level point, with a pebble beach on the east side, nearly half a mile long, with several fishing-stages just within the point. At the end of this beach is a high rocky cliff, that extends to the S.E. corner of the bay, where it again terminates in a pebble beach. This beach runs E.N.E. one mile, to the old fort or south entrance of the harbour: on the inside of this beach stands the town of *Placentia*, which faces the S.E. arm of the harbour. A little to the southward of the town is a high hill, with a remarkable cliff on the middle of the beach.

“The outer point on the north side is level, with a clay cliff on the outer part. It bears from *Point Verde* N.E. by N. nearly, distant one mile and a half: from this point the land forms a small bay, with a stony beach round it, to the corner of the cliff under *Signal Hill*, which is the first hill on the north side of the road from this point. The cliff continues to *Freshwater Bay*, which is formed in a small valley between *Signal Hill* on the west, and *Castle Hill* on the east, with a pebble beach round it. A small rivulet runs down this valley, where ships can water. On the east side of this bay is *Castle Hill*, with an old fortification on its top; within this hill is a narrow beach, which forms the north entrance into the harbour. At low water, the entrance of the harbour is not more than 60 fathoms across, and the tide into it runs more than four knots an hour.

“The only dangers near *Placentia* are, the *Virgin Rocks* and *Gibraltar Rocks*, on the south, and *Moll Rock* on the north. The *Outer Virgin Rock* bears from *Point Verde* S.W. by W. $\frac{1}{2}$ W. distant 5 $\frac{1}{2}$ miles, and from *Point Breme* N.E. $\frac{1}{2}$ E. distant 12 miles. These rocks are all above water, with 10 and 12 fathoms round them. The *Gibraltar Rock*

Rock bears from Point Verde west, rather southerly, distant $2\frac{1}{2}$ miles, and is near two miles from the shore.

“The Moll Rock bears from Point Verde N. by E. $\frac{1}{2}$ E. distant two miles, and from Moll Point nearly S.W. three-quarters of a mile. There are only 12 feet of water on this rock, with 10 fathoms around it.

“The land from Cape St. Mary to Placentia is of moderate height, and nearly even; but, to the northward of it, the land is high and uneven, with several peaked hills.

“When bound to Placentia, after you have passed Cape St. Mary, the course from Point Breme to the Outer Virgin Rock is N.E. $\frac{1}{2}$ E. distant 12 miles; and thence to Point Verde N.E. by E. $\frac{1}{2}$ E. $5\frac{1}{2}$ or 6 miles. Before you get the length of the Virgins, if the weather be clear, you will see Point Verde, a long low point under the high land of Signal Hill and Castle Hill. The latter is remarkable by its having an old fortification on its summit, which may be seen a great way off at sea.

“When you have gotten the length of the Virgin Rocks, you must steer to the northward, till you bring the old fort on Castle Hill on, or open to the northward of, Point Verde. It bears from Point Verde E. $\frac{1}{2}$ N. This mark will bring you to the northward of the Gibraltar Rock; you may then steer for the road, taking care not to come nearer Point Verde than two cables' length; as a flat runs off to the northward, with only 12 and 15 feet of water on it. The soundings of the road are regular; from 6 to 3 fathoms, sandy bottom; but the deepest water is on the north side, as there are 5 and 6 fathoms close to the rocks. On the south side the water is shoal, as there are not more than 12 feet, at 100 fathoms from the shore. The best anchorage for ships of a large draught of water is abreast of Freshwater Bay, at about one quarter of the distance from the north shore; where you will have 5 or $5\frac{1}{2}$ fathoms, with sandy bottom. Point Verde will then bear W. $\frac{1}{2}$ N., and the outer point of Signal Hill N.W. $\frac{1}{2}$ N. The whole bay has a sandy bottom, and good holding-ground.

“The tide rises 7 or 8 feet; it is felt but little in the Road, but runs 4 or 5 knots in and out of the harbour. Here it flows on the full and change days of the moon at 9 h. 15 m. in the morning. The variation of the compass in the road, by observation on the 22d of August, 1800, was 22 deg. 40 min. W.” It is now about 24°

MAGNETIC BEARINGS AND DISTANCES OF PLACES ON THE EAST SIDE OF PLACENTIA BAY, AS TAKEN IN 1800.

		Miles.
From Cape St. Mary to Point Breme	N. 14° E. or N. by E. $\frac{1}{2}$ E.	7
	the south side of Red Island N. 22 E. or N.N.E.	34
From Point Breme to the Virgin Rocks	N. 48 E. or N.E. $\frac{1}{2}$ E.	12
	the south side of Red Island N. 14 E. or N. by E. $\frac{1}{2}$ E.	28
From the Virgin Rocks to Point Verde	N. 61 E. or N.E. by E. $\frac{1}{2}$ E.	$5\frac{1}{2}$
	Point Latina N. 46 E. or N.E.	12
	the south side of Red Island N. 1 E. or North	16
From Point Verde to Point Latina	N. 29 E. or N.N.E. $\frac{1}{2}$ E.	6
	the south side of Red Island N. 21 W. or N.N.W.	14
From Point Latina to the south side of Red Island	N. 43 W. or N.W. $\frac{1}{2}$ N.	11

NORTHERN PART OF PLACENTIA BAY.—Point Latina lies about 5 miles to the northward of Placentia Road; between which are several sunken rocks lying along the shore, about half a mile off. A large mile to the eastward of Point Latina lies Point Roche, off which a shoal stretches nearly one-third of a mile.

From Point Roche $1\frac{1}{2}$ mile S. by E. $\frac{1}{2}$ E. is the entrance of LITTLE PLACENTIA HARBOUR, which extends W. by S. above $1\frac{1}{2}$ mile, and is near half a mile broad. Here is good anchorage in a cove on the north shore, which may be known by the west point being woody: off the east point of the cove lies a shoal nearly one-third of the distance across; in the cove are 7 or 8 fathoms of water.

From Point Latina to SHIP HARBOUR the course is East $5\frac{1}{2}$ miles; this harbour extends N.N.E. $2\frac{1}{2}$ miles, and is a quarter of a mile wide. The anchorage is in a cove on the west side, in 10 fathoms, about a mile from the entrance.

FOX ISLAND is small and round, and lies N.E. $\frac{1}{2}$ N. 3 miles from Point Latina, and N.W. by W. a league from Ship Harbour Point, which is a low stony Point, lying about

1½ mile to the westward of Ship Harbour. Between Fox Island and this point are a range of rocks, which sometimes break quite across.

N.N.W. 1½ mile from Fox Island is a steep rock above water, called *Fishing Rock*; and N.N.E. 1½ mile from Fishing Rock lies a sunken rock, which almost always breaks.

The **RAM ISLANDS** are a cluster of high islands lying N.E. ¼ E. of Fox Island, about 8 miles. East 3 miles from the south point of Ram Islands is the entrance into *Long Harbour*; there is no danger in going in; the best anchorage is on the north side, to the eastward of *Harbour Island*, between it and the main, where you will lie secure from all winds, in 7 or 8 fathoms of water.

From **RAM ISLANDS** to **LITTLE HARBOUR** is N.N.E. about 5 leagues; there are several low islands and rocks along shore between these places; but not the least shelter, even for boats, along the coast. Little Harbour has bad ground, and lies quite exposed to S.W. winds.

LONG ISLAND.—From Point Latina to the south point of Long Island, the course is N. ¾ E. ¾ leagues; this island is nearly 3 leagues long, high land, the south point being of remarkably steep rocks. On the east side of it, about a league from the south point, lies *Harbour Buffet*, which is tolerably good; the entrance to it is narrow, but has 13 fathoms of water in it. This harbour has two arms, one extending westward, the other northward; the best anchorage is in the north arm, in 15 fathoms of water. This harbour may be known by the islands which lie in its mouth, and to the southward of it, and by Harbour Buffet Island, which lies E. ½ S. one mile from the entrance. To sail into it you must pass to the northward of all these islands.

About 4 miles from the south point of Long Island, on the west side, lies *Muscle Harbour*, the entrance to which is between Long Island and Barren Island, and opposite the north end of the latter; the depth is from 10 to 22 fathoms, rocky bottom.

SOUTH HARBOURS.—*Little South Harbour* lies one mile to the westward of Little Harbour; and it has several rocky islands before its mouth, which, in going in, must be left on your starboard side, excepting one, on either side of which is a safe passage of 15 fathoms of water. On the east shore, within the islands, is a sunken rock, about a cable's length from the shore, which generally breaks. Nearly opposite, on the west shore, are some rocks, about half a cable's length from the shore, that show at one-third ebb. This harbour is about 1½ mile long, near half a mile wide, with 7 fathoms, good bottom.

Great South Harbour is about a mile to the northward of Little South Harbour; there is no danger in sailing into it, and near the head is very good anchorage in 6 or 7 fathoms of water.

One mile to the westward of Great South Harbour is *Ile au Bordeaux*; a high round island near the main.

The entrance into *Come by Chance Harbour* lies N.N.E. 4 miles from the *Ile au Bordeaux*; it extends N.E. by E. 3 miles, and has from 20 to 3 fathoms of water, sandy bottom, but is quite exposed.

North Harbour is N.N.W. 2 miles from *Come by Chance*; and S.E. by S. 2½ miles from *Piper's Hole*; about 2 miles from the entrance is good anchorage in 7 fathoms of water, and no danger in sailing in.

RED ISLAND is high barren land, about 5 miles long, and 3 miles broad. The south point bears N.N.W. 11 miles from Placentia Head: and E. by N. 16 leagues from Mortier Head, which is on the west side of the bay.

From *Piper's Hole* to Barren Island the distance is nearly 3 leagues; between is a series of islands, about half a mile from the west shore, having from 4 to 17 fathoms of water within, good anchorage all the way.

Barren Island is about 3½ miles long, and one mile broad; it lies about half a mile from the main, and more than a league from the north end of *Merasheen Island*.

SANDY HARBOURS.—Nearly 4 miles W. ½ S. from the south end of *Barren Island* is *Great Sandy Harbour*, the entrance to which is narrow, but within there are 6 or 7 fathoms of water.

Little Sandy Harbour lies a quarter of a mile to the southward of *Great Sandy Harbour*, and is tolerably good; having 6 or 7 fathoms of water, good bottom. In going in, you

you must pass to the northward of a low rock above water, which lies in the mouth of it. This harbour may be known by *Bell Island*, which lies S.E. $\frac{1}{2}$ E. $1\frac{1}{2}$ mile from the mouth of it; and N.E. by N. 13 miles from the west point of *Merasheen Island*: off the south point of the island, is a remarkable rock, resembling a bell with the bottom upwards.

Nearly 3 leagues S.W. from *Bell Island*, is the north end of *Great Valen Island*, which is about 2 miles in length. On the main, to the westward of it, is *Clatise Harbour*, the entrance into which is half a mile wide; in it are 40 or 50 fathoms of water. The best anchorage is in the west cove, which is one mile long, but not a quarter of a mile wide, in from 17 to 20 fathoms of water, good bottom.

Grammer's Rocks are just above water, and lie $1\frac{1}{2}$ mile northward from the north end of *Great Valen Island*.

The *Little Valen Island* lies near the south end of *Great Valen Island*, and about a quarter of a mile from the main; it is high and round.

W.S.W. $\frac{1}{2}$ W. $3\frac{1}{2}$ miles from *Little Valen Island* lies *Presque*, in which there is very deep water, but no safe passage, there being a number of rocks lying before the entrance.

E.S.E. 4 miles from *Presque*, and S. $\frac{1}{2}$ W. from *Little Valen Island*, lies the west point of *MERASHEEN ISLAND*: this island is high, and trends to the N.E. by E. more than 6 leagues; it is very narrow, the broadest part not being more than 2 miles. At the south part of the island, near its west end, is a very good harbour, but small, with from 6 to 10 fathoms of water. To go into it, keep the starboard shore on board, in order to avoid a sunken rock, that lies a cable's length off a rugged rocky point on the larboard side when going in.

Indian Harbour lies on the east side of *Merasheen Island*, at about 3 leagues from the south point; in it the ground is not good.

S.W. $\frac{1}{2}$ W. two miles from *Presque* is a sunken rock: a quarter of a mile without this rock is a rock above water, called the *Black Rock*, which lies East 2 miles from *Matricot Island*.

The harbour of *LITTLE PARADISE* lies one mile to the northward of the east point of *Matricot Island*; the only safe anchorage is in a cove, at the head, on the larboard side. One mile to the eastward of *Little Paradise* lies *La Perche*, in which there is no safe anchorage. The harbour of *GREAT PARADISE* lies to the westward of *Little Paradise*, and is fit for boats only.

From *Matricot Island* to *Corbin Head*, the course is E.N.E. $\frac{1}{2}$ E. $11\frac{1}{2}$ leagues: this course will lead just without the *Saddle-back*. Between *Matricot* and the main is *Fox Island*: between these islands is a safe passage, with not less than 9 fathoms of water; but none between *Fox Island* and the main.

PARADISE SOUND.—To the westward of *Fox Island* is the entrance of *Paradise Sound*, which extends N.E. by E. $4\frac{1}{2}$ leagues, and is about a mile broad, with very deep water, and no safe anchorage till you get near the head of it.

One mile to the westward of *Paradise Sound* lies *Petit Fort Harbour*: a very good harbour, having in it from 14 to 7 fathoms of water, good bottom. The entrance is more than a quarter of a mile wide, and lies N.E. 5 miles from the south point of *Long Island*, and N. by E. $2\frac{1}{2}$ miles from the north point of the same. There is no danger in going in; and the best anchorage is on the starboard or eastern side. S.E. winds heave in a great swell on the western shore when it blows hard.

CAPE ROGER HARBOUR lies close to the westward of *Cape Roger*, which is a high round barren head, lying N. $\frac{3}{4}$ E. $3\frac{1}{2}$ miles from the south point of *Long Island*. There are several low rocks and islands lying off the eastern point of the entrance. In the harbour, at a quarter of a mile within, on the western side, lies a small island; to the northward of which, between it and the main, is very good anchorage in 7 or 8 fathoms of water, or farther up in 6 or 7 fathoms.

N.N.W. 2 miles from the south point of *Long Island*, lies a small *Green Island*, which has a shoal all round to nearly a cable's length. From *Green Island* N.N.W. $2\frac{1}{2}$ miles, lies *Great Gullows Harbour Island*, which is a high land. Vessels may pass on either side of this island into *Great Gullows Harbour*, which lies one mile to the E.N.E. of the island. In this harbour is exceedingly good anchorage, in 7 fathoms of water,

water, on the starboard side, just within a low stony point, taking care to give the point a small berth, in order to avoid a rock which is alternately covered and uncovered with the tide.

AUDIERNE ISLAND lies half a mile to the northward of *Cape Judas* or *Middle Island*, on the west side of which there is a tolerably good harbour. At about a cable's length from Audierne Island, to the southward of the harbour, is a sunken rock; the mark for avoiding which, in coming in from the southward is, not to haul in for the harbour till you open a remarkable green point on the southern side of the harbour. The best anchorage is on the north shore; just within a small island. A spit of rocks stretches just off the Green Point on the south shore, which are covered at high water.

Vessels bound for Audierne Harbour may pass between *Cape Judas* or *Middle Island* and *Audierne Island*; and between *Crow* and *Patrick's Island*, which are two small islands lying off the S.W. point of Audierne Island. Off the eastern point of Audierne is *Ford's Island*, on the west of which is a sunken rock, about a cable's length from the island, and another on the eastern side, which almost always breaks.

The *Saddle Back* is an islet lying E.N.E. 8 leagues from *Corbin Head*; E. by N. from *Mortier West Point*, and E.S.E. $\frac{3}{4}$ E. 3 leagues from *John the Bay Point*. Between it and the main are a great number of rocks and little islands, which render this part of the coast very dangerous. A chain of rocks extend N.E. by E. $1\frac{1}{2}$ mile from the *Saddle Back*.

CAPE JUDAS or **MIDDLE ISLAND** is about $2\frac{1}{2}$ miles in length, and 2 in breadth, and lies $1\frac{1}{2}$ mile north of the *Saddle Back*; on the south end of it is a round hill, which is called the *Cape*. Between this island and the main are a cluster of islands and low rocks, with a great number of sunken rocks about them, called the *Flat Islands*, the innermost of which lies about one mile from the main.

Two miles to the N.N.W. of *John the Bay Point* lies *John the Bay*, in which there is tolerably good anchorage, with about 8 fathoms of water, sandy bottom.

From *John the Bay Point* to *Mortier East Head*, the bearing and distance are S.W. $\frac{1}{2}$ W. 8 miles. Two miles S.W. by W. from *John the Bay Point* lies *Rock Harbour*, not fit for shipping. Between lie two sunken rocks, nearly half a mile from the shore.

MORTIER BAY.—Two miles W.S.W. from *Rock Harbour* is the entrance into *Mortier Bay*: at the entrance of which, on the west side, is a small harbour, called *Bobois*, of only 9 feet of water. The course into *Mortier Bay* is N.N.E. for about two miles, and in it there are from 50 to 70 fathoms of water, the land on each side being high; it then extends westward about two miles, and is nearly two miles wide. On the eastern side, at about three miles from the entrance, is an exceedingly good harbour, called *Spanish Room*, in which vessels may anchor in from 4 to 6 fathoms of water, good ground, and secure in all winds. There is not the least danger in going into this harbour, giving the low rocks above water, at the entrance, on the larboard hand, a berth of one cable's length.

About a mile westward of *Mortier East Head* is **LITTLE MORTIER BAY**, at the entrance of which is a round island, called *Mortier Island*, lying one-third of the distance from the west side; it is bold to all round, and may be passed on either side. Close to the first point beyond the island, on the larboard side, going in, is another little island, close under the land; and two cables' length from it, in a direct line towards the outer island, is a sunken rock, on which the sea breaks in bad weather, which is the only danger in the bay. At the bottom of it, $1\frac{1}{2}$ mile from *Mortier Island*, on the east side, is a cove, called *Fox Cove*, where there is good anchorage, and room for one ship to moor in 9 fathoms, good holding-ground, two points open to the sea, from S.S.E. to S.E. On the west side of the bay is the harbour, which is small and narrow; but a very good one for small ships, where they lie moored to the shore. Off the starboard point, going in, is a rock, which is always covered at high water.

About 3 miles S.W. from the entrance of *Little Mortier Bay* is *Iron Island*; and S.E. by E. 2 leagues from *Iron Island*, and S.W. $\frac{1}{2}$ W. 5 leagues from *Cape Judas*, lies the *Mortier Bank*, the shoal part of which is about one league over, and on which there are only 4 fathoms. The sea breaks heavily on it in blowing weather.

Iron Island is a small high land; and S.W. $\frac{1}{2}$ W. one league from it is the S.E. point of *Great Burrin Island*; and W.N.W. $1\frac{1}{2}$ mile from it is the north part of *Parley's Island*.

Island. On the main, within these islands, lies the harbours of *Great* and *Little Burin*. Vessels bound for Burin may pass on either side of Iron Island; the only danger in passing to the northward is the ledge called the *Brandy*, which almost always break; they lie near a quarter of a mile to the southward of a low rock, above water; close under the land of Mortier West Head. By keeping Mortier West Head open to the westward of Iron Island, you will avoid Gregory's Rock, on which is only 2 fathoms of water, and which almost always breaks. Vessels may pass with safety between this rock and Iron Island, by giving the latter a berth of above a cable's length.

On the main, within Pardy's Island, are two remarkable white marks in the rocks; the northernmost of these brought on with the North part of Pardy's Island and Iron Island N.E. $\frac{1}{2}$ N. will lead on the *Galloping Andrews*, a shoal with 5 fathoms of water on it.

The *White Horse* is a shoal with 8 fathoms on it, which bears S.S.W. one mile from Iron Island.

The *Dodding Rock* lies about a quarter of a mile from the easternmost part of Great Burin's Island.

Great Burin Island is about $2\frac{1}{2}$ miles in length N.N.E. and S.S.W.; and near its South end is *Cat Island*, high and round, lying E.N.E. nearly 4 miles from Corbin Head.

From Corbin Head to *Shalloway Point* the bearing and distance are N.E. $\frac{1}{2}$ N. $\frac{1}{2}$ miles. Between them, and nearly in the same direction, lie Corbin and Little Burin Islands, both high and round, and not more than a cable's length from the shore.

Shalloway Island lies N.N.W. $\frac{1}{2}$ W. one mile from Cat Island, and N.E. by E. a quarter of a mile from Little Burin Island; the passage into BURIN HARBOURS, from the southward, is to the westward of Shalloway Island.

In sailing in, take care to give *Poor Island* a berth on your larboard hand; and, when within Shalloway Island, you may anchor in safety between it and Great Burin Island, in from 12 to 18 fathoms. The best anchorage in Great Burin Harbour is in *Ship Cove*. The course up to it, after you are within *Neck Point*, which is to the westward of the Shalloway Island, is N.N.E. about $1\frac{1}{2}$ mile. It is about a quarter of a mile wide: in sailing up, keep the west shore on board, in order to avoid a sunken rock on the East shore, at about half way up, and about a cable's length from the shore. Another rock, with $2\frac{1}{2}$ fathoms on it, lies above a cable's length to the S.W. of *Harbour Point*, which is round and green, and of a moderate height, joined to Great Burin Island by a low, narrow, sandy, neck.

BURIN BAY is about one mile N.N.E. of Little Burin Island; it is clear, and about a mile wide every way: here ships may occasionally anchor, and lie almost land-locked. In this bay are two islands, one called *Poor Island*, low and barren; the other lies to the northward, before the entrance of Burin Inlet, and is high and woody.

BURIN INLET may be entered on either side of the island; it extends up 5 miles: a little within the entrance on the East side, half a cable's length from the shore, is a rock covered at three-quarter's flood; and $1\frac{1}{2}$ mile from the entrance, near the middle, is another rock, to the westward of which is good room, and good anchorage, in from 7 to 12 fathoms. There are 15 fathoms in the entrance; and, in the middle, two miles up, 15 to 23 fathoms; and thence up to the head are from 10 to 5 fathoms.

The East passage in is between Pardy's Island and Iron Island; but is not safe without a commanding gale, and that between the N.N.E. and S.E.

CORBIN HARBOUR is about a mile to the northward of Corbin Head, and is a good harbour for small vessels. A quarter of a mile eastward from this harbour, and 2 cables' length from the shore, is a sunken rock, of 5 or 6 feet of water, on which the sea breaks in bad weather. Vessels bound for this harbour must also avoid a shoal of 2 fathoms of water, which lies E.S.E. from the South point of the entrance about half a mile. The best anchorage is in the North arm, about half a mile within the entrance, opposite a cove on the starboard side.

From Corbin Head to *Small Point* the course and distance are W.S.W. $2\frac{1}{2}$ miles; and from *Small Point* to *Sauker Head* W. $\frac{1}{2}$ S. 2 miles: there are many head-lands between, which form coves, but afford no shelter. The coast is clear of rocks; and there are 30 fathoms of water close to the shore.

From

From Sauker Head to *Cape Chapeau Rouge*, the bearing and distance are West, 3 miles; between lie the harbours of *Great* and *Little St. Laurence*.

The harbour of *LITTLE ST. LAURENCE* is the first to the westward of Sauker Head. To sail in, you must keep the West shore on board, to avoid a sunken rock, which lies a little without the point of the peninsula, which stretches off from the east side of the harbour. The anchorage is above the peninsula, (which shelters it from the sea-winds,) in 3 or 4 fathoms of water, a fine sandy bottom. Ships may anchor without the peninsula in 12 fathoms, good ground, but this place is open to S.S.E. winds.

The harbour of *GREAT ST. LAURENCE*, which is the westernmost, is close to the eastward of Cape Chapeau Rouge. To sail in, you should be careful with westerly, particularly with S.W., winds, not to approach too near the *Hat Mountain*, in order to avoid the flaws and eddy winds under the high land. There is no danger but what is very near the shore. The course in is first N.N.W. till you open the upper part of the harbour, then N. $\frac{1}{2}$ W. The best anchorage for large ships is before a cove, on the East side of the harbour, in 13 fathoms of water.

A little above *Blue Beach Point*, which is the first on the West side, you may lie only two points open: you may anchor any where between this point and the point of *Low Beach*, on the same side, near the head of the harbour, observing that, close to the West shore, the ground is not so good as on the other side.

Garden Bank, whereon are from 7 to 16 fathoms of water, lies about half a mile off Little St. Laurence, with *Blue Beach Point* on with the East point of Great St. Laurence.

CAPE CHAPEAU ROUGE, or RED HAT, to CAPE RAY.

FERRYLAND HEAD lies W.S.W. one mile from Cape Chapeau Rouge; it is a high rocky island, just separated from the main.

W.N.W., 5 miles from Ferryland Head, lies the *Bay of Laun*, in the bottom of which are two small inlets, called *Great* and *Little Laun*. Little Laun is the easternmost, lies open to the S.W. winds, and therefore is no place to anchor in. Great Laun lies in about N.E. by N. 2 miles; is near half a mile wide, and has from 14 to 3 fathoms of water. In sailing in, be careful to avoid a sunken rock, which lies about a quarter of a mile off the east point. The best anchorage is on the east side, about half a mile from the head, in 6 and 5 fathoms, tolerably good bottom, and open only to South and S. by W. winds, which cause a great swell.

LAUN ISLANDS lie off the west point of *Laun Bay*, not far from the shore; the westernmost and outermost of which lies W.N.W., westerly, 10 miles from Ferryland Head. Nearly a quarter of a mile to the southward of this island is a rock, whereon the sea breaks in very bad weather; there are other sunken rocks about these islands, but not dangerous, being very near the shore.

Taylor's Bay lies open to the sea, about 3 miles to the westward of Laun Islands. Off the east point are some rocks, near a quarter of a mile.

Point Aux Gaul is a low point of land, which stretches out a little to the westward of Taylor's Bay: a rock lies off it above water, half a mile from the shore, called *Gaul Shag Rock*, which bears from Ferryland Head W.N.W. $\frac{1}{2}$ W. 5 leagues: there are 14 fathoms close to the off-side of it.

From Point Aux Gaul Shag Rock to the *LAMELIN ISLANDS*, the bearing and distance are N.W. by W. one league; between is the bay of Lamelin, which is unfit for shipping.

Near the south point of the westernmost Lamelin Island is a rock pretty high above water, called *Lamelin Shag Rock*.

From Lamelin Shag Rock to *Point May*, the distance is 8 miles; between lie the *Lamelin Ledges*, which are very dangerous, some of them being 3 miles from the land. To avoid them, in the day-time, you should not bring the Lamelin Islands to the southward of E.S.E. until Point May bears N.E. by N. from you; you may then steer northward between Point May and Green Island with safety. By night, approach no nearer than in 30 fathoms of water.

ST. PIERRE, or *ST. PETER'S ISLAND*.—The Island of St. Pierre lies 11 leagues W. by N. from Cape Chapeau Rouge; it is about 4 leagues in circuit, and pretty high, with a craggy,

craggy, broken, uneven surface. On coming from the westward, *Gallantry Head*, which is the S.E. point of the island, makes for a round hummock, like a small island, separated from St. Pierre. Here is a *lighthouse*, in lat. $46^{\circ} 46' 52''$ long. $56^{\circ} 8' 44''$.

A little to the N.E. of *Gallantry Head* lie three small islands, the innermost of which is the largest, and called *Dog Island*; within it are the road and harbour of St. Pierre. The harbour is small, and has from 20 to 12 feet of water; but there is a bar across the entrance, with only 6 feet at low water, and 12 or 14 at high water. The road lies on the N.W. side of *Dog Island*, and will admit ships of any burthen in 8, 10, or 12, fathoms of water. The best anchorage is on the north side; but in general it is rocky, and exposed to the N.E. winds. Be cautious, in going in or out, of some sunken rocks, which lie about a mile E.S.E. from *Boar Island*, which is the easternmost of the three islands above mentioned: this is the only danger about St. Peter's, but what lies very near the shore.

The *Island of Colombo* lies very near to the N.E. point of St. Pierre, it is pretty high; between is a passage of one-third of a mile wide, with 12 fathoms of water. On the north side of the island is a rock called *Little Colombo*; and about one-quarter of a mile E.N.E. from it is a sunken rock, with 2 fathoms on it.

GREEN ISLAND is about three-quarters of a mile in circuit, and low: it lies E.N.E. about 5 miles from St. Pierre, and nearly in the middle of the channel between it and Newfoundland; on its south side are several rocks above and under water, extending $1\frac{1}{2}$ mile to the W.S.W.

LANGLEY or LITTLE MIQUELON.—*Langley Island* lies to the N.W. of St. Pierre, with a passage of about $2\frac{1}{4}$ miles wide between, free from danger. It is about 8 leagues in circuit, of a moderate and pretty equal height, excepting the north end, which is a low point, with sand-hills; off which, on both sides, it is flat a little way; but every other part of the island is bold-to. There is anchorage on the N.E. side of the island, in 5 or 6 fathoms, a little to the southward of the *Sand-hills*, on a fine sandy bottom.

MIQUELON.—From the north point of *Langley* to the south point of *Miquelon* the distance is about one mile; and the depth of water between is 2 fathoms. *Miquelon* is 4 leagues in length from north to south, and is about 5 miles in breadth at the widest part: the middle of the island is high land, called the *High Lands of Dunn*; but down by the shore it is low, excepting *Cape Miquelon*, which is a lofty promontory at the northern extremity of the island.

Miquelon Road, which is large and spacious, lies at the north end, and on the east side of the island, between *Cape Miquelon* and *Chapeau*; the latter is a very remarkable round mountain near the shore, off which are some sunken rocks, at the distance of about a quarter of a mile; but every where else it is clear of danger. The best anchorage is in 6 or 7 fathoms, near the bottom of the road, on fine sandy bottom; but you lie exposed to easterly winds.

Miquelon Rocks stretch off from the eastern point of the island, under the high land, $1\frac{1}{2}$ mile to the eastward: some are above, and some under, water; the outermost are above water, and there are 12 fathoms of water close to them, and 18 or 20 a mile off. N.E. by E. $\frac{1}{2}$ E. about 4 miles from these rocks lies *Miquelon Bank*, on which are 6 fathoms of water.

The *Seal Rocks*, two in number, are above water, and lie about $1\frac{1}{2}$ league off from the middle of the west side of *Miquelon*; the passage between them and the island is very safe; and there are 14 or 15 fathoms of water within a cable's length, all round them.*

FORTUNE BAY, &c.—From *Point May* to *Pass Island*, the bearing and distance are N. by E. 12 leagues; between is the entrance to *Fortune Bay*, which is about 22 or 23 leagues deep; and in which are several bays, and islands.

* The Islands of St. Pierre, *Langley*, and *Miquelon*, were ceded to France by England, on condition that no forts should be built on either; that no more than fifty men of regular troops should be kept there, and that they should have no military stores, or cannon, capable of making a defence. During the late hostilities, these isles were annexed to the Government of Newfoundland, having been taken possession of by the British forces, 14th May, 1793: but they have been ultimately restored to France, on the original conditions, by the treaty of 1814.

The Island of *Brunet* lies pretty nearly in the middle of the entrance into Fortune Bay: it is about 5 miles in length: on its N.E. side is a bay, wherein there is tolerably good anchorage for ships, in 14 or 16 fathoms of water, sheltered from southerly and westerly winds. In the bottom of the bay, at about a quarter of a mile from the shore, are some rocks, which must be avoided. Opposite to this bay, on the south side of the island, is a small cove, with 6 fathoms of water. The islands lying off the west end of Brunet, to the southward, are called the *Little Brunets*, which, with Brunet, may be approached within a quarter of a mile all round.

The *Plate Islands* are three rocky islets, of a moderate height, the nearest of which lies W.S.W. one league from the west end of Great Brunet. The southernmost is about 2 miles farther off, and bears from *Cape Miquelon* E. $\frac{1}{2}$ S. $3\frac{1}{2}$ leagues; and in a direct line between Point May and Pass Island, 17 miles from the former, and 19 miles from the latter E.S.E. a quarter of a mile from the Great Plate (which is the northernmost) is a sunken rock, whereon the sea breaks, which is the only danger about them.

There are several strong and irregular settings of the tides or currents about the Plate and Brunet Islands, which seem to have no dependency on the moon and the course of the tides on the coast.

Sagons Island, which lies N.E. 2 leagues from the east end of Brunet, is about a mile across each way, of a moderate height, and bold to all round.

POINT MAY is the southern extremity of Fortune Bay, and the S.W. extremity of this part of Newfoundland; it may be known by a great black rock, nearly joining to the pitch of the point, and something higher than the land, which makes it look like a black hummock on the point. At about a quarter of a mile directly off from this black rock are three sunken rocks, on which the sea always breaks.

N. by E. $1\frac{1}{2}$ of a mile from Point May, is *Little Dantzick Cove*; and 2 miles farther is *Great Dantzick Cove*. From *Dantzick Point* (which is the north point of the coves) to Fortune Head, the bearing and distance are $2\frac{1}{2}$ leagues E.N.E.; and thence to Fortune, $1\frac{1}{2}$ mile S.E. by E. This is a fishing village, and the road where the ships lie has 6 to 10 fathoms of water, quite exposed to nearly half the compass. It lies S.S.W. from the east end of Brunet.

THE CAPE OF GRAND BANK is pretty high, and lies one league E.N.E. from Fortune. To the eastward of this cape is *Ship Cove*, where there is good anchorage for shipping in 8 or 10 fathoms of water, sheltered from southerly, westerly, and N.W. winds. Grand Bank lies S.E. half a league from the cape; this is a fishing village, and here is no security for shipping.

From the Cape of the Grand Bank to the *Point Enragée*, the course is E.N.E. $\frac{1}{2}$ E. distance 8 leagues: the coast between forms a bay, in which the shore is low, with several sandy beaches, behind which are bar-harbours, fit only for boats, of which the principal is *Great Garnish*, lying $4\frac{1}{2}$ leagues from the Cape of Grand Bank: it may be known by several rocks above water lying before it, at two miles from shore, the outermost of which are steep-to; but, between them and the shore are dangerous sunken rocks. To the eastward, and within these rocks, is *Frenchman's Cove*, where small vessels may anchor in 4 or 5 fathoms of water, tolerably well sheltered from the sea-winds. The shore is bold all the way from Point May to Cape of Grand Bank, there being 10 or 12 fathoms within 2 cable's length, and 30 or 40 at a mile off: between the latter and Great Garnish the water is not so deep, and ships may anchor any where in 8 or 10 fathoms of water, sheltered only from the land-winds.

From Point Enragée to the head of the bay, the course is, first, E.N.E. $\frac{1}{2}$ E. 3 leagues to *Grand Jervey*; then E. $\frac{1}{2}$ N. $7\frac{1}{2}$ leagues to the head of the bay.

Seven leagues to the eastward of Point Enragée is the *Bay L'Argent*, where there is anchorage in 30 or 40 fathoms of water, sheltered from all winds.

HARBOUR MILLÉ.—The entrance of Harbour Millé lies to the eastward of the east point of *L'Argent*. Before this harbour, and the *Bay L'Argent*, is a remarkable rock, which, at a distance, appears like a shallop under sail. Harbour Millé branches into two arms, one lying to the N.E., the other to the east; at the upper part of both is good anchorage. Between this harbour and Point Enragée are several bar-harbours, in small bays, wherein are sandy beaches: but the water all along the coast is very deep.

Cape

Cape Millé lies N.E. $\frac{1}{2}$ E. one league from the Shallop Rock above mentioned, and nearly 3 leagues from the head of Fortune Bay; it is a high reddish barren rock. The width of Fortune Bay at Cape Millé does not exceed half a league; but, immediately below it, it is twice as wide, by which the cape may readily be known; above this cape the land on both sides is high, with steep craggy cliffs. The head of the bay is terminated by a low beach, behind which is a large pond, or bar-harbour, fit only for boats.

Grand L'Pierre is a good harbour, situated on the north side of the bay, half a league from the head. The entrance cannot be seen until you are abreast of it; there is no danger in going in, and you may anchor in any depth from 8 to 4 fathoms, sheltered from all winds.

English Harbour lies a little to the westward of Grand Pierre; and to the westward of English Harbour is the *Little Bay de L'Eau*, both of which are small.

New Harbour is situated opposite to Cape Millé, to the westward of the Bay de l'Eau; it is a small inlet, and has good anchorage on the west side, in from 8 to 5 fathoms, sheltered from S.W. winds.

The *Harbour Femme* lies half a league to the westward of New Harbour; and one league to the westward of Harbour Femme, is *Brewer's Hole*, fit only for boats.

HARBOUR LA CONTE is situated one mile to the westward of Brewer's Hole, before which there are two islands, one without the other. The best passage in is on the west side of the outer island, and between the two; so soon as you begin to open the harbour, keep the inner island close on board, to avoid some sunken rocks that lie near a small island, which you will discover between the N.E. point of the outer island, and the opposite point on the main: also another rock which appears at low water, and lies higher up on the side of the main. So soon as you are above these dangers, you may keep in the middle of the channel, and will open a fine spacious harbour, wherein you may anchor in any depth, from 6 to 16 fathoms of water, on a bottom of sand and mud, shut in from all winds.

LONG HARBOUR lies 4 miles to the westward of Harbour La Conte, and N.E. by E. 5 leagues from Point Enragée. It may be known by *Gull Island*, which lies at its mouth, and a small rock, which lies half a mile without the island, and has the appearance of a small boat: this harbour runs 5 leagues into the country, but the only anchoring is in *Morgan's Cove*, on the N.W. side of the harbour, about two miles within Gull Island, in 15 fathoms of water, unless you run above the Narrows.

A little to the westward of Long Harbour is BELLE BAY, which extends about 3 leagues each way, and contains several bays and harbours. On the east point of this bay is *Hare Harbour*, fit for small vessels only.

Two miles to the northward of Hare Harbour is *Mal Bay*; and, to the westward of Mal Bay, near the shore, lie the *Rencontre Islands*, the westernmost of which is the largest, and has a communication with the main at low water.

BELLE HARBOUR lies 4 miles N.W. by N. from the westernmost Rencontre Island; it is but an indifferent harbour. About $1\frac{1}{2}$ of a mile westward of Belle Harbour is *Lally Cove*, fit for small vessels only, behind an island; the west point of this cove is high and bluff, and is called *Lally Head*; to the northward of this head is *Lally Back Cove*, where ships may anchor in 14 or 16 fathoms of water.

Two miles to the northward of Lally Cove Head is the Bay of the *East* and the Bay of the *North*; in both of these there is deep water and no anchorage near the shore.

The Bay of *Cinq Isles* lies to the southward of the North Bay, and opposite to Lally Cove Head; there is tolerably good anchorage for large ships on the S.W. side of the islands, in the bottom of the bay. A little to the southward of the Bay of Cinq Isles is *Corben Bay*, where there is good anchorage for any ships in 22 or 24 fathoms of water.

About 2 miles south-eastward from Lally Cove Head are two islands, about a mile distant from each other; the north-easternmost is called *Belle Island*, and the other *Dog Island*: they are bold to all round.

Between Dog Island and *Lord and Lady Island*, which lies off the south point of Corben Bay, something nearer to the latter is a sunken rock, with deep water all round it; and, about a quarter of a mile to the northward of Lord and Lady Island, is a rock, which appears at low water.

BANDE DE L'ARIER Bay lies on the west point of Belle Bay, and N. $\frac{1}{2}$ W. 3 leagues from Point Enragée; it may be known by a very high mountain over the bay, which rises almost perpendicular from the sea, called *Iron Head*. *Chapel Island*, which forms the east side of the bay, is high land also; the harbour lies on the west side of the bay, just within the point formed by a narrow low beach, and is a snug place: between the harbour and Iron Head there is tolerably good anchorage in 18 or 20 fathoms.

Bande de L'Arier Bank has 7 fathoms of water on it, and lies with the beach of *Bande de L'Arier Harbour* just open of the west point of the bay, and *Boxy Point* on with the north end of *St. Jacques Island*.

Two miles to the westward of *Bande de L'Arier* is the harbour of *St. Jacques*, which may be readily known by the island before it being high at each end, and low in the middle. The passage into the harbour is on the west side of the island; free from danger, as is the harbour, where you may anchor in from 17 to 4 fathoms.

About $1\frac{1}{2}$ mile westward of *St. Jacques*, is the harbour of *Blue Pinion*; a little to the westward of which is *English Cove*.

Boxy Point lies W. $\frac{3}{4}$ S. 8 miles from *St. Jacques Island*, and E.N.E. $\frac{1}{2}$ E. $12\frac{1}{2}$ miles from the east end of *Brunet Island*; it is of a moderate height, and the most advanced to the southward of any land on the coast. *Boxy Harbour* lies N.E. 3 miles from *Boxy Point*, in which there is anchorage in 4 or 5 fathoms of water, fine sandy ground.

W.N.W. one mile from *Boxy Point* is the *Island of St. John*, and N.N.W. half a league from *St. John's Island* is *St. John's Head*, high, steep, and craggy. Between *St. John's Head* and *Boxy Point* is *St. John's Bay*, quite exposed.

On the north side of *St. John's Head* are two rocky islets, called the *Gull* and *Shag*; at the west end of which there are several sunken rocks.

The **GREAT BAY DE L'EAU** is about $1\frac{1}{2}$ league to the northward of *St. John's Head*. In this bay there is good anchorage in various depths, sheltered from all winds. The passage in is on the east side of the island, which lies in its entrance.

To the westward of *Bay de l'Eau*, about 3 miles north from *St. John's Head*, is *Little Bay Barrysway*, on the west side of which there is good anchorage for large ships in 7, 8, or 10, fathoms.

HARBOUR BRITON lies to the westward of *Little Barrysway*, N.N.E. $1\frac{1}{2}$ league from the *Island of Sagona*, and N.E. by N. from the east end of *Brunet*. The heads which form the entrance are pretty high, and lie from each other S.E. and N.W., distant about 2 miles. Near the east head is a rock above water. The only danger in going in is a ledge of rocks, which stretch 2 cables' length from the south point of the S.W. arm, which is more than a mile within the west head. The only place for king's ships to anchor in is above this ledge, before the entrance of the S.W. arm, in 16 or 18 fathoms, mooring nearly east and west; the bottom is very good, and plenty of wood and water is to be obtained here.

Opposite to the S.W. arm is the N.E. arm, or *Jerseyman's Harbour*, which is capable of holding a great number of ships, secure from all winds, in 6, 7, and 8, fathoms of water: it has a bar at the entrance, on which there are 3 fathoms. The mark to sail over the bar is, the point of *Thompson's Beach*, which is the south point, at the entrance into the S.W. arm, open of *Jerseyman's Head*, which is high and bluff, on the north side of the entrance into *Jerseyman's Harbour*; so soon as you open the harbour, haul up to the northward, and anchor.

From the *West End of Harbour Briton* to *Connaigre Head*, the bearing and distance are W. $\frac{1}{2}$ N. $5\frac{1}{2}$ miles; between are *Gull Island* and *Deadman's Bay*, off which there is a bank stretching from the shore between 2 and 3 miles, whereon the depths vary from 34 to 4 fathoms.

CONNAIGRE BAY.—From *Connaigre Head*, which is high and craggy, to *Basseterre Point*, the bearing and distance are N.W. $\frac{3}{4}$ W. 7 miles; between is *Connaigre Bay*, which extends about 4 leagues inland. In the mouth of the bay lie the *Connaigre Rocks*, above water, which may be approached very near, there being no danger but what shews itself; the channel between them and *Connaigre Head* is the safest, as a ledge of rocks extends a mile from the north shore, which renders the other channel rather dangerous.

Connaigre

Connaigre Harbour is near 5 miles above the head, within a point on the south side of the bay; it is very small, and the depth of water is 7 fathoms; the passage in is on the S.E. side of the island, which lies before it. Abreast of this harbour, nearly in the middle of the bay, are two islands; and on the south side of the westernmost, are some rocks above water.

Dawson's Cove is on the N.W. side of the bay, and bears N.N.E. about 4 miles from the head, and W.N.W. 2 miles from the west end of the westernmost (and the greatest) island: the anchorage is in 6 or 5 fathoms, quite exposed to southerly winds.

From Basseterre Point, which is clear of wood, to *Pass Island*, the bearing and distance are, N.W. by N. one league. This island forms the N.W. extremity of Fortune Bay; it lies very near the shore, and is above a mile long. On its S.W. side are several rocks above water, which extend a mile off; and on the N.W. side is a sunken rock, at a quarter of a mile from the island.

In the night-time, or in foggy weather, too great dependence should not be placed on the soundings in Fortune Bay; for there is more water in many parts near the shore, and in several of its contained bays and harbours, than in the middle of the bay itself.

HERMITAGE BAY.—From *Pass Island* to the west end of *Long Island*, the bearing and distance are, N.E. 8 miles: between is the entrance of *Hermitage Bay*, which extends $7\frac{1}{2}$ leagues east from *Pass Island*, with very deep water in most parts of it.

Hermitage Cove is on the south side of the bay, about $3\frac{1}{2}$ leagues above *Pass Island*, opposite which, and nearly in the middle of the bay, lie the two *Fox Islands*; to go into the cove, keep between the islands and the south shore, where there is not the least danger. In the cove there is good anchorage in 8 or 10 fathoms.

LONG ISLAND, which separates the *Bay of Despair* from *Hermitage Bay*, is of a triangular form, about 8 leagues in circuit. The west entrance into the *Bay of Despair* from *Hermitage Bay* is by the west end of *Long Island*. About half a mile from its S.W. point are two rocks above water, with deep water all round them. The east passage is also very good, and is between the east end of *Long Island* and the main, called the *Passage of Long Island*.

There are four harbours on the south side of *Long Island*, the easternmost of which is called *Galtau*; the latter is but small, and lies near the east point of the island: the best channel into the harbour is on the west side of several rocky islands, which lie at the entrance, wherein are 4 fathoms, but in the harbour are from 15 to 24 fathoms. The next is *Picarre*, which lies N. by E. half a league from the easternmost *Fox Island*; in going in here, keep near the west point, in order to avoid some sunken rocks off the other: the anchorage is in the first cove on the east side, in 9 or 10 fathoms, sheltered from all winds.

The next harbour, called *Round Harbour*, is fit only for small vessels.

Long Island Harbour is the fourth, and it lies about $2\frac{1}{2}$ miles from the west end of *Long Island*. This harbour has two arms, one lying in to the north, the other eastward: they are both very narrow, and have from 40 to 7 fathoms of water; the eastern arm is the deepest, and affords the best anchorage. The passage in is on either side of an island which lies off the entrance, and has several rocks above water about it, but they are both narrow.

BAY OF DESPAIR.—The entrance of the *Bay of Despair* lies between the west end of *Long Island* and *Great Jervis Island* (which lies in the mouth of the harbour of that name); the distance between is one mile and a quarter, and midway no bottom is found with a line of 280 fathoms.

The *Bay of Despair* forms two capacious arms, one extending to the north-eastward, the other northward: in the north arm there is very deep water, and no anchorage excepting in the small bays and coves which lie on each side of it. In the N.E. arm are several arms and islands, and tolerably good anchorage in several places.

GREAT JERVIS HARBOUR is situated at the west entrance into the *Bay of Despair*; it is a safe harbour, with good anchorage in every part of it, in from 16 to 20 fathoms, secure from all winds, and plenty of wood and water. The passage in is on either side of *Great Jervis Island*; but the southernmost channel is the safest, there being no danger in it but the shore itself. In the northern channel are several sunken rocks.

BONNE BAY lies about a league to the westward of Great Jervis Head, and N.N.E. 7 miles from Pass Island; it has several islands in its mouth, the westernmost of which is the largest and highest. The best passage in is to the eastward of the largest island, between it and the two easternmost islands. The bay lies in north 4 miles, and there is no danger but what shews itself; you may go on either side of *Drake Island*, which is small, and nearly in the middle of the bay; between which, and two small islands on the west side of the bay, within Great Island, there is anchorage in 20 or 30 fathoms; but the best place for large ships is near the head of the bay, in 12 or 14 fathoms, clear ground, and convenient for wood and water. On the N.W. side of Great Island, within the two small islands, is very good anchorage in from 16 to 24 fathoms, secure from all winds; the entrance to this from the bay is to the northward of the two small islands. In sailing in or out of the bay, approach not too near the south point of Great Island, as there are some sunken rocks lying at one-quarter of a mile from shore.

W.N.W. 4 miles from *Bonne Bay* is the entrance to the Bays of FACHEUX and DRAGON: this entrance being very conspicuous at sea, the coast may here be readily known.

Facheux, which is the easternmost branch, lies in N.N.E. 2 leagues, and is one-third of a mile wide at the entrance, with deep water in most parts of it. On the west side of the bay are three coves, where ships may anchor in from 10 to 20 fathoms. Dragon Bay lies in N.W. one league, and is near half a mile wide, with 60 or 70 fathoms of water, and no anchorage excepting near the head.

One league to the westward of Facheux is *Richard's Harbour*, a place fit only for small vessels. N.W. by W. one league from *Richard's Harbour* is *Hare Bay*, which runs in N.N.E. about 5 miles, and is about one-third of a mile wide, with deep water close home to both shores on all parts of it, except about one league up on the west side, where there is good anchorage, in from 8 to 15 fathoms, with plenty of wood and water; and a small cove about one mile up on the east side, where there are 20 fathoms, with gradual soundings to the shore.

N.W. by W. $4\frac{1}{2}$ miles from *Hare Bay*, and one league N.E. from *Hare's Ears Point*, is *Devil's Bay*, a narrow inlet, extending a league to the northward, with deep water, and no anchorage until you come close to the head.

The *Bay of Rencontre* lies to the northward of *Hare's Ears Point*, and runs in N.W. by W. 2 leagues; it has deep water in most parts of it, and is near half a mile wide at the narrowest part. The anchorage is in 30 fathoms, above a low woody point on the south shore, quite land-locked.

Hare's Ears Point is pretty large, with a ragged rock upon it, which, from some points of view, looks like the ears of a hare. It divides the Bays of *Rencontre* and *Chaleur*, and lies N.W. $\frac{1}{2}$ W. 6 leagues from *Pass Island*.

W.N.W. 2 miles from *Hare's Ears Point* is the Bay of *Chaleur*; which runs in about 2 leagues N.N.W. It is very narrow, and has deep water in most parts.

West, near half a league from the Bay of *Chaleur*, is the *Bay François*, a small inlet; and west, 4 miles from the Bay *François*, on the east side of *Cape la Hune*, lies *Our Bay*; off the east point of the entrance of the latter is a low rocky inlet; and, in the entrance of the bay, is another with a passage on each side of it. The bay runs in northward about 5 miles, and is one-third of a mile wide, with deep water close to both shores all the way up; at the head is a harbour for small vessels.

CAPE LA HUNE is the southernmost point of land on this part of the coast, and lies in lat. 47 deg. 31 min. N.W. by W. $\frac{3}{4}$ W. $3\frac{1}{2}$ leagues from *Pass Island*, and N. by W. $\frac{1}{4}$ W. $10\frac{1}{2}$ leagues from *Cape Miquelon*; its figure much resembles a sugar-loaf: this cape may also be known by the high land of *Cape La Hune*, which lies one league to the westward of it, appears pretty flat at the top, and may be seen from a distance of 16 leagues.

The PENGUIN ISLANDS lie S.W. by W. $\frac{1}{4}$ W. 11 miles from *Cape La Hune*, and N.W. $\frac{1}{2}$ N. 10 leagues from *Cape Miquelon*: they are an assemblage of barren rocks lying near to each other, and altogether about two leagues in circuit; and may be approached in the day-time to the distance of half a league all round.

E.S.E. $\frac{1}{4}$ E. 7 miles from the *Penguin Islands*, and S. by W. 3 leagues from *Cape La Hune*, lies the *Whale Rock*, on which the sea generally breaks; it is about 100 fathoms in circuit, with 10, 12, and 14, fathoms of water close to all round it. From this rock

narrow

narrow bank extends, one league to the westward, and half a league to the eastward, with from 24 to 58 fathoms of water on it, rocky and gravelly bottom. In the channel between the shore and this rock, and also between the shore and the Penguin Islands, are 120 and 130 fathoms of water, muddy bottom, and there is the same bottom and depth of water at one league without them.

LA HUNE BAY lies close to the westward of Cape La Hune: it is about 2 leagues deep, and one-third of a mile wide, with deep water in most parts of it; but there is a sunken rock which lies off the west point of the entrance, nearly one-third of the channel over.

LA HUNE HARBOUR lies half a league to the westward of Cape La Hune; it has an island before its entrance, and is fit only for small vessels.

Four leagues N.W. $\frac{3}{4}$ W. from Cape La Hune, is the entrance of *Little River*, which is about 100 fathoms wide at the entrance, and 10 fathoms deep; a little way up there is anchorage in 10, 8, and 7, fathoms of water, good ground. Between Cape La Hune and Little River, the land is tolerably high, and forms a bay, where there are several small islands and rocks above water, the outermost of which lie N.N.E. $\frac{1}{4}$ E. 3 leagues from the Penguin Islands, and are called the *Magnetic Rocks*.

S. by W. $\frac{1}{4}$ W. 7 miles from the entrance of Little River, and N. by W. $\frac{1}{4}$ W. from the Penguin Islands, lie the *Little River Rocks*, which are just above water, with very deep water all round them.

The ISLES OF RAMEA, which are of various extent, both in height and circuit, lie N.W. $\frac{1}{2}$ N. $5\frac{1}{2}$ leagues from the Penguin Islands, and one league from the main: they extend east and west 5 miles, and north and south 2 miles, and have several rocks and breakers about them; but more on the south side than on the north. The easternmost island is the largest, and is very high and hilly: the westernmost, called *Columbe*, is a remarkably high round island, of small circuit, with some rocky islands and sunken rocks near it. There is a harbour for small vessels, formed by the islands which lie near Great Ramea and the Columbe, called *Ramea Harbour*, where they may lie sheltered from all winds.

The Ramea Rocks are two in number, close to each other; they lie about south 4 miles from the east end of Great Ramea: W. S.W. one league from these rocks is a small bank with only 6 fathoms of water on it; and, nearly in the middle, between Ramea and the Penguin Islands, is a bank with from 14 to 50 fathoms of water.

Four miles to the westward of Little River is *Old Man's Bay*, which lies in N.N.E. about 7 miles, and is about a mile wide; the water throughout the bay is very deep; the best anchorage is at the head, in 14 or 16 fathoms.

MOSQUITO HARBOUR lies about half a league to the westward of Old Man's Bay; it is a snug and safe harbour, but the entrance is so narrow, being only 48 fathoms in breadth, that it is difficult to get in or out.

Fox Island Harbour is formed by an island of the same name: it lies about half a league to the westward of Mosquito Harbour: between are several rocky islands and sunken rocks. This is a commodious harbour for small vessels, which may anchor in 8, 9, and 10, fathoms of water. You may go in on either side of the island, and there is no danger but what shews itself.

WHITE BEAR BAY lies about two miles to the westward of Fox Island Harbour, and N.N.E. one league from Great Ramea Island; it has several islands in its mouth. It lies in N.E. $\frac{1}{2}$ N. about 4 leagues, is near half a mile wide in the narrowest part, and has deep water close to both shores in most parts, to the distance of 8 miles up; then the ground rises at once to 9 fathoms, whence it shoalens gradually to the head with good anchorage. The best passage into the bay is to the eastward of all the islands. On the S.W. side of *Bear Island*, which is the easternmost and largest in the mouth of the bay, is a small harbour, lying in east half a mile, with from 10 to 22 fathoms of water, but there are several sunken rocks before its mouth, which render it difficult of access.

Six miles to the westward of White Bear Bay, and N. $\frac{1}{4}$ E. from Ramea Columbe, are two small harbours, called *Red Island Harbours*, formed by *Red Island*, which lies close under the land. The westernmost is the largest and best, and has from 6 to 8 fathoms of water, good anchorage. In going in, keep the island close on board, the outer part of which is composed of steep red cliffs.

The **BURGEO ISLES** are a cluster of islands extending about 5 miles along shore, and forming several snug and commodious harbours. They lie about 3 leagues N.W. by N. from Ramea Columbe. To sail into Burgeo from the eastward, the best passage is on the N.E. side of *Boar Island*, which is the northernmost, and lies N.N.W. from Ramea Columbe. S.E. by S. from this island half a league, is a rock, uncovered at low water, on which the sea generally breaks; you may go on any side of this rock, the water being deep all round it: so soon as you are to the N.W. of it, keep the north side of *Boar Island* on board, and steer W. $\frac{1}{2}$ N. for *Grandy's Cove*, the north point of which is the first low point on your starboard bow; haul round that point, and anchor in the cove in 14 fathoms, and moor with a fast on shore. The best place for large ships to anchor in is, betwixt *Grandy's Cove* and a small island, lying near the west point of *Boar Island*, in 20 or 24 fathoms, good ground, and sheltered from all winds. To sail into *Grandy's Cove* from the westward is dangerous, unless well acquainted: there are several safe passages in from the southward and eastward, between the islands, and good anchorage; and in bad weather all the sunken rocks discover themselves, and you may run in without any fear.

WOLF BAY extends inwards N.E. by E. one league; the entrance is E.N.E. 2 miles from *Boar Island*, and two miles to the westward of *Red Island Harbour*; the east point of the entrance is composed of low rugged rocks, off which is a sunken rock, at the distance of a quarter of a mile. Near the head of the bay is tolerably good anchorage, and plenty of wood and water.

King's Harbour lies round the west point of *Wolf Bay*, and lies in N.E. by E. three-quarters of a mile; before its mouth is a cluster of little islands. To sail in, keep the east point of the islands on board, and steer N. by W. and North from the entrance of the harbour, and anchor under the east shore in 9 fathoms.

HA-HA.—On the south side of the islands before *King's Harbour*, and north one mile from *Boar Island*, is the entrance into the *Ha-Ha*, which lies in W.N.W. one mile, and is about a quarter of a mile broad, with from 20 to 10 fathoms of water, and good ground all over. Over the south point of the entrance into this harbour is a high green hill; and a cable's length and a half from the point is a sunken rock that always shews itself. Over the head of the *Ha-Ha*, is *Richard's Head*, mentioned as a mark for running upon *Ramea Shoal*.

About 4 miles to the westward of the *Burgeo Isles*, is the **GREAT BARRYSWAY POINT**, which is low, white, and rocky; and N.E. by E. half a league from this point is the west entrance into the *Great Barrysway*, wherein is room and depth of water for small vessels. Between the *Burgeo Isles* and the *Great Barrysway Point*, are several sunken rocks, some of which are half a league from the shore.

CONNOIRE BAY.—N.W. $\frac{1}{2}$ N. 4 leagues from the *Burgeo Isles*, is the east point of the **BAY OF CONNOIRE**: this point is so far remarkable that it rises with an easy ascent to a moderate height, and much higher than the land within it: the west point of the bay is low and flat, and to the westward of this are several small islands. The bay lies in N.E. by N. about a league from the east point to the middle head, which lies between the two arms, and is half a league wide, with 14, 12, 10, and 8, fathoms, close to both shores, good anchorage, and clear ground, but open to S.W. winds. The N.E. arm affords shelter for small vessels from all winds. To sail in, keep nearest the starboard shore, and anchor before a small cove on that side, near the head of the arm, in $3\frac{1}{2}$ fathoms.

The **BAY OF CUTTEAU** lies about 2 leagues to the westward of *Connoire*: its depth will admit small vessels only. Round the west point of *Cutteau* is *Cinq Serf*, wherein are a number of islands, which form several small snug harbours. Right off *Cinq Serf*, about half a league from the shore, is a low rocky island, westward of which is the safest passage into the largest harbour.

Four miles to the westward of the rocky island of *Cinq Serf*, is the harbour of *Grand Bruit*, which is small and commodious; and may be known by a very high remarkable mountain over it, half a league inland, which is the highest land on all the coast: down this mountain runs a considerable brook, which empties itself in a cascade into the harbour. Before the mouth of the harbour are several little islands, the largest of which is of middling height, with three green hillocks on it. A little without this island is a round rock, pretty high above water, called the *Columbe of Great Bruit*; and a quarter of a mile to the southward of this rock, is a low rock: in the direct line between the

low

low rock and the rocky isles of *Cinq Serf*, half a league from the former, is a sunken rock, whereon the sea does not break in fine weather. The safest passage into Grand Bruit is to the N.E. of this rock, and of the islands lying before the harbour, between them and the three islands (which are low, and lay under the shore); and, after you are to the northward of the sunken rock above mentioned, there is no danger but what shews itself. The harbour extends N.N.E. half a mile, and is but a quarter of a mile wide in the broadest part; but it is bold-to on both sides, and has a depth of from 4 to 7 fathoms.

To the westward of Grand Bruit, between it and La Poile Bay, lies the *Bay of Rotte*, wherein are a great many islands and sunken rocks. The southernmost is a remarkable high round rock, called the *Columbe of Rotte*, which lies N.W. by W. $8\frac{1}{2}$ leagues from the southernmost of the *Burgeos*. Between this island and Grand Bruit is a reef of rocks, some above, and some under water, but they do not lie to the southward of the direct line between the islands. Within the islands of Rotte there is shelter for shipping.

LA POILE BAY is large and spacious, and has several commodious harbours. It may be known by the high land of Grand Bruit, which is only five miles to the eastward of it; and likewise by the land on the east side of the bay, which rises in remarkably high craggy hills. About $1\frac{1}{2}$ mile S.W. from the east point lies *Little Ireland*, a small low land, environed with sunken rocks, some of which are one-third of a mile off: north, about half a mile from *Little Ireland*, is a sunken rock that shews itself at low water, which is the only danger in going into the bay, excepting such as lie very near the shore.

Two miles within the west point of the bay, and N. $\frac{1}{2}$ W. 2 miles from *Little Ireland*, is *Tweeds*, or *Great Harbour*; its south point is low, and it extends inwards W.N.W. one mile; it is about $1\frac{1}{2}$ cable's length wide in the narrowest part: and the anchorage is near the head of the harbour, in 18 or 20 fathoms, clear ground, and sheltered from all winds. Half a mile to the northward of *Great Harbour*, is *Little Harbour*, the north point of which, called *Tooth's Head*, is the first high bluff head on the west side of the bay; the harbour extends inwards W.N.W. about a mile. In sailing in, give the south point a small berth. You may anchor about half-way up the harbour, in 10 fathoms of water.

GALLY BOY'S HARBOUR lies on the east side of the bay, opposite *Tooth's Head*; it is small, snug, and convenient for ships bound to the westward. The north point is high and steep, with a white spot in the cliff. To sail in or out, keep the north side on board. You must anchor so soon as you are within the inner south point, in 9 or 10 fathoms, good ground, and sheltered from all winds. One mile to the northward of *Gally Boy's Harbour*, between two sandy coves on the east side of the bay, and nearly two cables' length from the shore, is a sunken rock, that just uncovers at low water.

Broad Cove is about two miles to the northward of *Tooth's Head*, on the same side of the bay. In this there is good anchorage in 12 or 14 fathoms.

About two leagues up the bay, on the eastern side, is the N.E. arm, which is a spacious, safe, and commodious, harbour. In sailing in, give the low sandy point on the S.E. side a small berth, and anchor above it where convenient, in 10 fathoms of water, good holding-ground, sheltered from all winds, and very convenient for wood and water.

Indian Harbour and *De Plate* lie just within the outer west point of La Poile Bay; but they are not fit for shipping.

Little Ireland bears from the southernmost of the *Burgeos* N.W. by W. $\frac{1}{2}$ W. $9\frac{1}{2}$ leagues; and lies nearly 12 leagues to the eastward of *Cape Ray*.

From *Little Ireland* to *Harbour la Coue*, and *La Moine Bay*, the course is W.N.W. $\frac{1}{2}$ W. 11 miles; between lies the bay of *Garia*, and several small coves, fit only for small vessels; before these there are several small islands, and sunken rocks lying along the shore, but none of them lie without the above course. In bad weather, all the sunken rocks discover themselves. The bay of *Garia* affords plenty of timber, large enough for building of shipping.

The S.W. point of the entrance into *Harbour la Coue*, called *Rose Blanche Point*, (near to which are rocks above water,) is tolerably high, and the land near the shore over *Harbour la Coue* and *la Moine Bay* is much higher than any other land in the vicinity: by this they may know. *La Moine Bay* extends inwards N.E. $\frac{1}{2}$ E. about 4 miles, and is one-quarter of a mile broad in the narrowest part. Off the east point are some small

small islands, and rocks above water. In sailing in, keep the west point on board, until you have entered the bay; then edge over to the east shore, and run up to the head of the bay, where you may anchor in 10 or 11 fathoms, good ground: here is plenty of wood and water. To sail into Harbour la Coue, which lies at the west entrance into La Moine Bay, steer in N.N.W. between a rock above water, in the mouth of the harbour, and the west shore; so soon as you are within the rock, haul to the westward, into the harbour, and anchor in 6 or 8 fathoms of water, and moor with a hawser on shore; or you may steer into the arm, which lies in N.E. by E. from the harbour, and anchor in 20 fathoms, sheltered from all winds.

To the westward of Rose Blanche Point, is the harbour of the same name; it is small and snug, and the anchorage is in 9 fathoms of water.

Mull Face is a small cove two miles to the westward of Rose Blanche Point, wherein is anchorage for small vessels in 4 fathoms. Off the west point of the cove are two small islands, and several sunken rocks.

Seven miles to the westward of Rose Blanche Point are the *Burnt Islands*, which lie close under the shore, and are not to be distinguished from it; behind these is shelter for small vessels. On these islands are sunken rocks, some of which are half a mile from shore.

Ten miles to the westward of Rose Blanche Point, is *Coney Bay* and *Otter Bay*, both of which are rendered difficult of access by several sunken rocks without the passage.

W.N.W. $\frac{3}{4}$ W. 4 leagues from Rose Blanche Point are the *Dead Islands*, which lie close under the shore; in the passage between them and the main is good anchorage for shipping in 6 or 8 fathoms, sheltered from all winds; but it is very dangerous of access to strangers, as there are several sunken rocks in both the east and west entrances.

PORT AUX BASQUE.—From the Dead Isles to Port aux Basque, the course and distance are W.N.W. about 4 miles; between lie several small islands close under the shore, and there are sunken rocks, some of which are half a mile from the shore. Port aux Basque is a small commodious harbour, which lies about $2\frac{1}{2}$ leagues to the eastward of *Cape Ray*. To fall in with it, bring the *Sugar-Loaf* over Cape Ray to bear N.N.W. $\frac{1}{2}$ W., or the West end of the Table Mountain N.N.W. Steer in for the land with either of these marks, and you will fall directly in with the harbour: the S.W. point, called Point Blanche, is of a moderate height, and white; but the N.E. point is low and flat, and has, close to it, a black rock above water. In order to avoid the outer shoal, on which are three fathoms, and which lies E.S.E. three-quarters of a mile from Point Blanche, keep the said point on board, and bring the flag-staff which is on the hill over the west side of the head of the harbour, on with the S.W. point of *Road Island*; that direction will lead you in the middle of the channel, between the east and west rocks, the former of which always show themselves, and which you leave on your starboard hand: continue this course up to Road Island, and keep the west point on board, in order to avoid the *Frying-pan Rock*, which stretches out from a cove on the west shore, opposite the island; and, so soon as you are above the island, haul to the E.N.E. and anchor between it and Harbour Island, where you please, in 9 or 10 fathoms, good ground; and sheltered from all winds: this is called the *Road* or *Outer Harbour*, and is the only anchoring-place for *men-of-war*, but small ships always lie up in the *Inner Harbour*. To sail into it, run in between the west shore and the S.W. end of Harbour Island, and anchor behind the said island, in 3 or 4 fathoms. In some parts of this harbour ships can lay their broadside so near to the shore as to reach it with a plank. This place has been frequented by fishermen for many years.

GRAND BAY lies about two miles to the westward of Port aux Basque; there are several small islands and rocks in and before it, the outermost of which are not above a quarter of a mile from the shore, on which the sea generally breaks: it is fit for small vessels only.

From Port aux Basque to Point Enragée, the bearing and distance are W.N.W. about a league, and thence to Cape Ray N.N.W. nearly $1\frac{1}{2}$ league. Off Point Enragée, which is low, and to the eastward of it, are some sunken rocks a mile from the shore, on which the sea breaks.

CAPE RAY is the S.W. extremity of Newfoundland, situated in lat. $47^{\circ} 37'$, and long. $59^{\circ} 17'$: the land of the cape is very remarkable; near the shore it is low, but three

three miles inland is a very high Table Mountain, which rises almost perpendicular from the low land, and appears to be quite flat at the top, excepting a small hillock on the S.W. point of it. This land may be seen, in clear weather, from the distance of 16 or 18 leagues. Close to the foot of the Table Mountain, between it and the point of the cape, is a high round hill, resembling a sugar-loaf, (called the Sugar-Loaf of Cape Ray,) whose summit is a little lower than the Table Mountain; and to the northward of this hill, under the Table Mountain, are two other hills, resembling sugar-loaves, which are not so high as the former; one or other of these sugar-loaf hills are, from all points of view, seen detached from the Table Mountain.

There is a *sandy bay* between Cape Ray and Point Enragée, wherein ships may anchor with the winds from N.N.W. to East, but they must be cautious that they be not surprised with S.W. winds, which blow directly in, and cause a great sea. The ground is not the best for holding, being fine sand. Towards the east side of this bay is a small ledge of rocks, one mile from shore, on which the sea does not break in fine weather. The best place for large ships to anchor in is, to bring the point of the cape N.W., and the high white sand-hill in the bottom of the bay N.E., in 10 fathoms of water. Small vessels may lie farther in. Be careful not to run so far to the eastward as to bring the end of the Table Mountain on with the sand-hill in the bottom of the bay, by which means the ledge of rocks before mentioned will be avoided.

N.W. $\frac{1}{2}$ W., nearly one mile from the point of the cape, is a small ledge of rocks, whereon the sea always breaks; and, one mile to the northward of the cape, close under the land, is a low rocky island; there is a channel between the ledge and the cape, also between it and the island, with 14 or 15 fathoms of water; but the tides, which run here with great rapidity, render it unsafe to shipping.

The soundings under 100 fathoms do not extend above a league from the land to the southward and eastward of the cape, nor to the westward and northward of it, except on a bank which lies off Port aux Basque, between 2 and 3 leagues from the land, whereon are from 70 to 100 fathoms, good fishing ground. S.E. $\frac{1}{2}$ S. 8 leagues from Port aux Basque, in the latitude of $47^{\circ} 14'$ is a bank, whereon are 70 fathoms.

THE ISLAND OF ST. PAUL lies W.S.W. $\frac{1}{2}$ W. [S.W. $\frac{1}{2}$ W.] 14 leagues from Cape Ray, in Newfoundland, and E.N.E. $\frac{1}{2}$ E. 4 leagues from the North Cape of Breton Island; it is about 5 miles in compass, including the islet at its N.E. end, with three high hills upon it, and deep water close to all round.

CAPE NORTH is a lofty promontory at the N.E. extremity of Breton Island; its latitude is $47^{\circ} 3'$, and longitude $60^{\circ} 19'$: the entrance into the Gulf of St. Lawrence is formed by this cape and Cape Ray, and the latter bears from the former E.N.E. $\frac{1}{2}$ E. distant $18\frac{1}{2}$ leagues: the depth of water between, excepting near the island of St. Paul, is generally above 200 fathoms.

THE TIDES.—Between Cape Chapeau Rouge and Cape Ray, in all the bays, &c. the tide generally flows till 9 o'clock, on full and change, and its perpendicular rise is about 7 or 8 feet on springs; but it must be observed that, the tides are every where greatly influenced by the winds and weather. On the coast, between Cape Chapeau Rouge and St. Pierre, the stream sets generally to the S.W. On the south side of Fortune Bay it sets to the eastward, and on the north side to the westward. Between Cape La Hune and Cape Ray, the flood sets to the westward in the offing, very irregularly; but generally 2 or 3 hours after it is high water by the shore. The tide or current is inconsiderable, excepting near Cape Ray, where it is strong, and at times sets quite contrary to what might be expected from the common course of the tides, and much stronger at one time than at another: these irregularities seem to depend chiefly on the winds. See the Remarks on Currents, &c., pages 1 to 5.

CAPE RAY to COW HEAD.

FROM Cape Ray to Cape Anguille, the course and distance are N. $\frac{1}{2}$ E. nearly 6 leagues. Cape Anguille is the northernmost point of land you can see, after passing to the westward of Cape Ray; it is high table land, covered with wood, in the country over it. Between the high land of the two capes the land is low, and the shore forms a bay, wherein are the great and little Rivers of Con-Roy; the northernmost is the great

great river, which is a bar-harbour, fit to admit vessels of 8 or 10 feet draught only at high water. The shore may be approached between the two capes to half a league, there being no danger so far off.

The island of *Cod Roy* lies $1\frac{1}{2}$ or 2 miles to the southward of Cape Anguille, close under the high land; it is a low, flat, green island, of nearly two miles in compass, in the form of a horse-shoe, forming, between it and the main, a small snug bar-harbour for vessels of 10 or 12 feet draught; the safest entrance to it is from the southward.

South-eastward from the island is *Cod Roy Road*, wherein is very good anchorage for shipping, in 8, 7, or 6, fathoms, on a clay bottom. With the south point of the island bearing about W.N.W., and the point of the beach on the inside of the island, at the south entrance into the harbour, on with a point on the main to the northward of the island, you will lie in 7 fathoms, and nearly half a mile from the shore; one league to the southward of *Cod Roy* Island is a high bluff point, called *Stormy Point*, off which a shoal stretches full half a mile; this point covers the road from the S.S.E. winds, and there is good anchorage all along the shore, between it and the island.

From Cape Anguille to Cape St. George, the course and distance are N.E. by N. [*N. by E.*] 11 leagues; these two capes form the bay of St. George, which extends inwards E.N.E. 18 leagues from the former, and E.S.E. 11 leagues from the latter; at the head of this bay, on the south side, round a low point of land, is a good harbour, with excellent anchorage in 8, 10, or 12, fathoms of water; the river St. George empties itself into this head of the bay, but it is not navigable for any thing but bonts.

On the north side of the bay, before the isthmus of *Port-a-Port*, is good anchorage in 7 or 8 fathoms, with northerly winds: from off this place a fishing-bank stretches two-thirds across the bay, with from 9 to 19 fathoms of water on it, dark sandy bottom.

CAPE ST. GEORGE lies in latitude $48^{\circ} 29'$: it may be readily known, not only by its being the north point of the Bay of St. George, but also by the steep cliffs on the north part of it, which rise perpendicularly from the sea to a considerable height, and by *Red Island*, which lies 5 miles to the northward of the cape, and half a mile from the shore: this island is about $1\frac{1}{2}$ mile in length, and of a middling height: the steep cliffs around it are of a reddish colour: there is anchorage with off-shore winds under the N.E. end of the island, before a sandy cove on the main, which lies just to the northward of the steep cliffs, in 12 or 14 fathoms.

From *Red Island* to *Long Point*, at the entrance into the bay of *Port-a-Port*, the bearing and distance are E.N.E. $\frac{1}{2}$ E. 7 leagues: from *Red Island* to *Guernsey Island*, in the mouth of the Bay of Islands, E.N.E. 16 leagues: from *Red Island* to *Cape St. Gregory*, N.E. by E. $\frac{1}{2}$ E. 20 leagues: and from *Red Island* to *Point Rich*, which is the north point of *Ingornachoix Bay*, N.E. $\frac{1}{2}$ E. $48\frac{1}{2}$ leagues.

PORT AU PORT.—The land between *Red Island* and the entrance into *Port-a-Port* is rather low, with sandy beaches, except one remarkable high hillock, called *Round Head*, close to the shore, about 3 leagues to the E.N.E. of *Red Island*: but, up in the country, over *Port-a-Port*, are high lands; and, if you are 3 or 4 leagues off at sea, you cannot discern the *Long Point* of land which forms the bay: this bay is capacious, being above 5 miles broad at the entrance, and 4 leagues deep, lying-in to the South and S.W. with good anchorage in most parts of it. *Long Point* is the west point of the bay; it is low and rocky, and a ledge of rocks extends from it E.N.E. nearly a mile. S.E. by E. $\frac{1}{2}$ E. 4 miles from *Long Point*, and half a league from the east shore, lies *Fox Island*, which is small, but of middling height; from the north end of this a shoal stretches nearly 2 miles to N.N.E., called *Fox's Tail*; and, nearly in the middle of the bay, between *Fox Island* and the west shore, lies the *Middle Ground*, on one place of which, near the S.W. end, there are not above 3 or 4 feet of water. From the head of the bay, projecting out into the middle of it, is a low point, called *Middle Point*, off which, extending 2 miles N.E. by N. is a shoal spit, part of which dries at low water: this *Middle Point* divides the bay into two parts, called *East* and *West Bays*. From the head of the *East Bay*, over to the Bay of St. George, the distance is a large quarter of a mile: this isthmus is very low, and on the east side of it is a tolerably high mountain; rising directly from the isthmus, and flat at top; on the north side of this, and about 5 miles from the isthmus, is a conspicuous valley, or hollow, hereafter to be used as a mark. N.E. by E. $\frac{1}{2}$ E. above 2 leagues from *Long Point*, and half a league from the shore, lies *Shag Island*,

Island, which appears at a distance like a high rock, and is easily to be distinguished from the main: and W.N.W. about a league from it, lies the middle of *Long Ledge*, which is a narrow ledge of rocks stretching E.N.E. and W.S.W. about 4 miles; the eastern part of them is above water, and the channel into the bay of Port-a-Port, between the west end of this ledge and the reef which stretches off from the west point of the bay, is a league wide.

In sailing in, if coming from the S.W. advance no nearer to the Long Point of the bay than $\frac{1}{2}$ mile, until you have brought the valley, in the side of the mountain before mentioned, (on the east side of the isthmus,) over the east end of Fox Island, or to the eastward of it, which will then bear south a little easterly; you will then be clear of the Long Point Reef, and may haul into the bay with safety; but, if coming from the N.E. without the Long Ledge, or turning into the bay, in order to keep clear of the S.W. end of Long Ledge, bring the isthmus, or the foot of the mountain, (which is on the east side of the isthmus,) open to the westward of Fox Island, nearly twice the breadth of the island, and it will lead you into the bay clear of Long Ledge: and when Shag Island is brought on with the foot of the high land on the south side of *Coal River*, bearing then E. $\frac{1}{2}$ S. you will be within the Long Ledge; there is also a safe passage into the bay, between the Long Ledge and the main, on either side of Shag Island, taking care to avoid a small shoal, of $2\frac{1}{2}$ fathoms, which lies W. by N. one mile from the island.

To sail up into the West Bay and Head Harbour, keep the western shore on board: This shore is bold-to. In turning between it and the Middle Ground, stand no nearer to the Middle than into 8 fathoms: but you may stand to the spit of the Middle Point into 6 or 5 fathoms. The anchorage in West Bay is in about 8 fathoms, and in Head Harbour, in about 5 fathoms. The *West Road* lies before a high stone beach, about 2 miles south-westward from Long Point, where you may lie very secure from westerly and N.W. winds, in 10 or 12 fathoms of water.

The *East Road* lies between Fox Island and the east shore: to sail up to it, you should keep the high bluff head, which is about a league to the E.N.E. of the island, bearing to the southward of S.E. by E. $\frac{1}{2}$ E. until the isthmus is brought to the eastward of Fox Island; you will then be within the shoal called the Fox's Tail, and may haul to the southward, and anchor any where between the island and the main, in from 10 to 18 fathoms.

To sail up the East Bay, pass between the island and the east shore, and after you are above the island, come no nearer to the main than half a mile, until you are abreast of a bluff point above the island, called Road Point, just above which is the best anchorage with N.E. winds, in about 12 fathoms of water: and to sail up the East Bay, between the Middle Ground and the Fox's Tail, bring the said bluff point on with the S.W. point of Fox Island: this mark will lead you up in the fair way between the two shoals; give the island a berth, and anchor as before, in from 8 to 12 fathoms of water.

BAY OF ISLANDS.—From the Long Point at the entrance of Port-a-Port to the Bay of Islands, the bearing and distance are N.E. by E. $\frac{1}{2}$ E. 8 leagues. Be careful to avoid the Long Ledge: the land between is of considerable height, rising in craggy barren hills, directly from the shore. The Bay of Islands may be known by the many islands in the mouth of it, particularly the three named Guernsey Island, Tweed Island, and Pearl Island, which are nearly of equal height with the land on the main. If you are bound for *Lark* or *York Harbours*, which lie on the S.W. side of the bay, and are coming from the southward, run in between Guernsey Island and the *South Head*, both of which are bold-to; but with southerly and S.W. winds approach not too near the South Head, lest calms and sudden gusts of wind should proceed from the high land, under which you cannot anchor with safety. There are several channels formed by the different islands, through which you may sail in or out of the bay, there being no danger but what shews itself, excepting a small ledge of rocks, which lie half a mile north-eastward from the north Shag Rock, and in a line with the two Shag Rocks in one. The safest passage into this bay from the northward, is between the two Shag Rocks, and then between Tweed Island and Pearl Island.

From Guernsey Island to *Tortoise Head*, which is the north point of York Harbour, and the S.E. point of Lark Harbour, the course and distance are S. by W. $\frac{1}{2}$ W. 5 miles; Lark Harbour extends inwards W.S.W. nearly two miles, and is one-third of a mile broad in the entrance, which is the narrowest part: in sailing into it with a large ship, keep

keep the larboard shore on board, and anchor with a low point on the starboard side, bearing W.N.W., N.N.W., or N.N.E., and you will ride securely from all winds.

From Tortoise Head into York Harbour, the course and distance are W.S.W. nearly a league; there is good turning room between the Head and *Governor's Island*, which lies before the harbour: but you must be cautious to avoid a shoal which spits off from a low beach point on the west end of Governor's Island, called *Sword Point*; there is also a shoal which spits off from the next point of Governor's Island, which must also be avoided: Tortoise Head just touching *Sword Point* will lead clear of it; in sailing in, give *Sword Point* a berth, passing which, the best anchoring ground is in 10 fathoms, along the sandy beach on the main; with Tortoise Head open of *Sword Point*: westerly and S.W. winds blow here with great violence.

Harbour Island lies at the entrance of the river Humber, and S. by E. $\frac{1}{2}$ E. 7 miles from Guernsey Island: at its S.W. point is *Wood's Harbour*, which is unfit for shipping. The river Humber, at about 5 leagues within the entrance, becomes narrow, and the stream is so rapid in some places, for about 4 leagues up, to a lake, that it is with great difficulty that even a boat can be gotten up against it. The banks of this river are well clothed with timber.

The *North* and *South Arms* are long inlets, with very deep water up to their heads. On the east side of *Eagle Island*, between the North and South Arms, is anchorage in 8, 10, or 12, fathoms of water. Under the north side of Harbour Island, is good anchorage with S.W. winds; and opposite to the S.E. end of Harbour Island, on the south side of the bay, is *Frenchman's Cove*, wherein is good anchorage in from 20 to 12 fathoms.

From Guernsey Island to *Bonne Bay* the course is N.E. $\frac{1}{2}$ E. 5 leagues, to Cape St. Gregory, and thence E.N.E. $\frac{1}{2}$ E. 5 leagues to the entrance of Bonne Bay. The land near the shore from the north Shag Rock to Cape St. Gregory is low, along which lie sunken rocks, a quarter of a mile from the shore; but a very little way inland it rises into a mountain, terminating at top in round hills.

CAPE ST. GREGORY is high, and between it and Bonne Bay the land rises directly from the sea-shore to a considerable height.

BONNE BAY may be known, at the distance of 4 or 5 leagues, by the land about it; all that on the S.W. side of the bay being very high and hilly, and that on the N.E. side, and thence along the sea-coast to the northward, being low and flat; but, at about one league inland, is a range of mountains, which run parallel with the sea-coast. Over the south side of the bay is a very high mountain, terminating at top in a remarkable round hill. This bay extends inwards E.S.E. nearly 2 leagues, then branches into two arms, one of which runs into the southward, and the other to the eastward: the southern arm affords the best anchorage; small vessels must anchor just above a low woody point at the entrance into this arm, on the starboard side, before a sandy beach, in 8 or 10 fathoms of water, about a cable's length from the shore; there is no other anchorage in less than 30 or 40 fathoms, excepting at the head of the arm, where there are from 25 to 20 fathoms of water: in sailing into the *East Arm*, keep the starboard shore on board; and, short round a point at the entrance, will be found a small cove, with good anchorage in 17 to 20 fathoms, but you must moor to the shore. There is a snug cove also close within the North Point, with anchorage in 6 or 7 fathoms of water: in sailing in or out of Bonne Bay, with S.W. winds, come not near the weather shore, lest you should happen to be becalmed, or should meet with heavy gusts of wind; as the depth of water is too great to admit of your anchoring.

Ten miles to the northward of Bonne Bay is *Martin Point*, pretty high and white, off which, about three quarters of a mile, is a small ledge of rocks, whereon the sea breaks. *Broom Point* is low and white, and lies about a league to the northward of Martin Point; about half a mile W.S.W. from it lies a sunken rock that seldom shews itself: on the north side of Broom Point lies the Bay of St. Paul, wherein vessels may anchor with off-shore winds, but it is quite exposed to the sea-winds.

COW HEAD lies about one league to the northward of the Bay of St. Paul: this is a promontory, which has the appearance of an island, it being joined to the main only by a very low and narrow neck of land: about three-quarters of a mile off this head lies *Steering Island*, which is low and rocky, and is the only island on the coast between the Bay of Islands and Point Rich. *Cow Cove* lies on the south side of Cow Head, and slips

ships may lie there in from 7 to 10 fathoms, sheltered from northerly and easterly winds. *Shallow Bay* lies on the north side of Cow Head, and has water sufficient for small vessels; at the N.E. side of the entrance is a cluster of rocky islands, extending E.N.E. and W.S.W., and at the S.W. side are two sunken rocks close to each other, which generally shew themselves; they lie a cable's length from the shore, and there is a channel into the bay on either side of them. *Steering Island* lies right before this bay, which you may pass on either side, but come not too near its N.E. end, as there are some sunken rocks extending from it.

III.—The GULF and RIVER of ST. LAWRENCE, from CAPE RAY to QUEBEC.

1.—The GULF of ST. LAWRENCE.*

THE entrance of the Gulf of St. Lawrence lies between Cape North, the N.E. point of Breton Island, and Cape Ray, the S.W. point of Newfoundland. The distance between these Capes is $18\frac{1}{2}$ leagues; and the bearing from the former to the latter E.N.E. $\frac{1}{2}$ E.

At the distance of 4 leagues E.N.E. $\frac{1}{2}$ E. from Cape North, lies the little island of St. Paul, which has three hills upon it, and deep water all round. Hence it may be safely passed on either side. From Cape Ray, the bearing and distance to this island are W.S.W. $\frac{1}{2}$ W. 14 leagues. (See page 41.)

The following are the POSITIONS of the chief Points in the GULF of ST. LAWRENCE, as deduced from the Results of different Observations.

Cape North, the northern point of Cape Breton Island, lat. $47^{\circ} 3'$, long. $60^{\circ} 19' 20''$.

St. Paul's Island, lat $47^{\circ} 11'$, long. $60^{\circ} 4'$.

The latitude of *Cape Ray* is $47^{\circ} 37'$; that of *Entry Island*, one of the Magdalens, $47^{\circ} 16'$; that of the *Northern Bird Island*, $47^{\circ} 54\frac{1}{2}'$; that of *Brion or Cross Island*, $47^{\circ} 52'$; that of the north point of *Miscou*, on the south side of the entrance of Chaleur Bay, $47^{\circ} 58'$; that of the *Isle Bonaventure*, $48^{\circ} 29'$; and that of the west point of the island of *Anticosti*, $49^{\circ} 47'$.—The S.W. point of the latter lies in lat $49^{\circ} 22'$, and longitude $69^{\circ} 42'$. *Cape Gaspée* lies in lat. $48^{\circ} 42'$.

COMPASS-BEARINGS AND DISTANCES.

Cape Ray to the Bird Islands N.W. $\frac{1}{2}$ W. 22 leagues.

Cape Ray to the east point of Anticosti, N.N.W. $\frac{1}{2}$ W. $46\frac{1}{2}$ leagues.

Cape North to the N.E. end of the Magdalen Islands, N. by W. $\frac{1}{2}$ W. 16 leagues.

Cape North to the Bird Islands, North, 18 leagues.

N.E. end of the Magdalen Islands to the Bird Islands, N.E. by E. $\frac{3}{4}$ E. 17 miles.

N.W. end of St. Paul's Island to the east side of the Bird Islands, N. by W. $\frac{1}{2}$ W. 53 miles.

Bird Islands to the eastern end of Brion or Cross Island, W. $\frac{3}{4}$ N. 12 miles.

Bird Islands to Cape Rosiere, N.W. $\frac{1}{2}$ W. 47 leagues.

Cape Rosiere to the S.W. point of Anticosti, N.E. $\frac{1}{2}$ E. 13 leagues.

Cape Rosiere to the west end of Anticosti, N. $\frac{1}{2}$ E. 20 leagues.

REMARKS AND DIRECTIONS.

In crossing the Gulf of St. Lawrence, even during the summer months, islands of ice have frequently been met with. The ice that drifts out of the river all disappears by the

* A description of the harbours, &c. in the Gulf of St. Lawrence is reserved for the next Section. We here recommend to the notice of the Reader, the large Chart of the Gulf and its Harbours, constructed by the Editor, and published by the Proprietor, of this Work.

latter end of May, but these masses make no part of it. The conjecture is that, they are not formed on any of the neighbouring coasts, but descend from the more northerly regions of Davis's Strait, &c., where, it is presumed, they are severed by the violence of storms, from the vast accumulations of the arctic winter; and, passing near the coast of Labrador, are drawn by the in-draught of the current into the Strait of Belle-Isle. They often are a hundred feet in height, with a circumference of many thousands; the temperature of the atmosphere is very sensibly affected by them, which, even in foggy weather, when they are not visible, sufficiently indicates their neighbourhood: by day, from the dazzling reflection of the sun's rays, also by moonlight, at a safe distance, their appearance is brilliant and agreeable.

The MAGDALEN ISLANDS, although so near to the coast of Newfoundland, are included in the Government of Canada. They are thinly inhabited by people who are chiefly employed in the fisheries. Although the extent of these isles is more than 13 leagues from E.N.E. to W.S.W., there are no harbours among them capable of affording shelter to shipping. In passing to the eastward of the N.E. end, give it a berth of two miles, as a reef stretches from it to two-thirds of that distance. In approaching the Magdalen Islands, care must be taken to avoid the Pearl Ledge, which has only 15 feet over it, and which lies with the south-eastern extremities of Entry Island bearing S.W. by W. $\frac{1}{2}$ W. about 5 miles distant.

The BIRD ISLANDS are small, and not far asunder: in the passage between them is a rocky ledge. They are of moderate height, flat and white at top. The southernmost is the largest; from the east end runs a small ledge of rocks. Between these islands and the Isle of Brion, the depth of water is from 4 to 14 fathoms; a sufficient depth for any ships; yet it is generally recommended to pass to the eastward of the Bird Islands, unless a special advantage may be gained by passing between them and Brion. In sailing from these islands, towards Cape Rosiere, you will have a depth of from 30 to 60 fathoms, to the distance of 18 leagues from the islands, and then lose soundings until you approach the cape.

The ISLAND of ANTICOSTI is entirely destitute of a bay or harbour, capable of affording shelter to shipping in general: it is uncultivated; being generally of an unpropitious soil, upon which any attempted improvements have met with very unpromising results; yet, rude and forbidding as its aspect may be, it is not wholly without the means of succouring the distress of such as may happen to be wrecked on its coasts, there being two persons who reside upon it, at two different stations, all the year, as government-agents, furnished with provisions for the use of those who have the misfortune to need them. Boards are placed in different parts, describing the distance and direction to these friendly spots. These establishments were made in the year 1809; the humane intention of which will be honoured wherever it is made known, because the crews of vessels driven on shore here have, sometimes, at the utmost peril of their lives, forsaken them to make their escape to Gaspé.

The water around the island is, in general, of a moderate depth; but, from each end, a rocky bank extends outward, to the distance of two miles.

At two leagues S.E. from the west end of the island is *Cape Henry*, the west side of *Ellis Cove* or *Grand Bay*. *Cape Eagle* forms the east side of this cove, and is three miles S.E. from *Cape Henry*. The inlet is two miles and a half deep, and affords good anchorage for small vessels, in from 4 to $2\frac{1}{2}$ fathoms. In running down from the west end of the island to this place, approach no nearer than in 10 fathoms, until you near *Cape Henry*, when you may haul into 6 fathoms, towards a long flat spit of sand, which extends S.E. from the cape: this is very regular, and there are 5 and 6 fathoms at a good berth from it. In order to enter, run along the spit, and round the S.E. end of it, in 4 fathoms; then come to anchor, which will be at a mile and a half from the houses standing on the north side of the bay. Small vessels may anchor farther in, with shelter from S.W. and even S.S.W. winds; but the outer anchorage is exposed from S.S.W. round to the S.E.

The government-agent lives on shore at the houses, and has possession of a sufficient quantity of provisions for the supply of shipwrecked persons, which are to be issued, when required, in regular quantities to each man: the captain, &c., giving receipts for the expenditure.

From

From Ellis Cove, or Grand Bay, to *S.W. Point*, a distance of 11 leagues S.W. by S., the shore is all bold, and so steep that there is no trusting to the lead. You may here stand to the coast within one mile, and will see all the danger on the beach.

The shore from S.W. Point to *South Point* (distant 17 leagues,) is, likewise, all bold, and you may safely stand to within one mile; but there is no anchorage. At four leagues north-westward [*N.W. by W. ½ W.*] from South Point is the small creek, called *Shallop Creek*, where the other government agent resides, with provisions, &c. as at Ellis's Cove, above-mentioned. This is a very small creek, and has just water enough for a boat loaded with provisions at low-water. The *East Point* of Anticosti is 6½ leagues beyond South Point.

At Anticosti the Tide flows, on the full and change, at eleven o'clock; it runs tide and quarter. Springs rise 10, and neaps 4, feet.

MINGAN and ESQUIMAUX ISLES.—To the northward of Anticosti, near the main, lie the *Mingan* and *Esquimaux Islands*. The westernmost, called *Mingan Island*, bears from the west point of Anticosti N.E. ½ E. distant 10½ leagues. The settlement of *Mingan* is about 7 miles E.N.E. from *Mingan Island*. The harbour, as shewn in the particular plan on the Chart, is between *Canatchou Island* and the main. There is good ground in it, and from 9 to 15 fathoms, where ships may lie very securely in all weather. There is likewise good anchorage all within the *Paroquet* and other islands, and great plenty of cod-fish. It appears to be very convenient for the cod, seal, and salmon, fishery, and has the additional advantage of a level good soil, and profitable Indian trade. The tide flows here, on the full and change, at three o'clock, and commonly rises about 10 or 12 feet; but it varies much according to the weather.

From *Mingan Island* to *Esquimaux Island*, the distance is 6 leagues. *Esquimaux Island* lies about half a mile from *Esquimaux Point*, and from this island to that of *St. Genevieve*, which is the easternmost of the range, the distance is 19 miles. Nearly midway between lies the *Isle of St. Charles*, within the east point of which there is good anchorage, in from 7 to 10 fathoms.

2.—The RIVER of ST. LAWRENCE.

The Channel between Anticosti and the main land of Nova Scotia is, in its narrowest part, near 12 leagues broad; and has, in the middle, very deep water. No ground is to be found in some parts, with 180 or 200 fathoms of line.

The BAY or SEVEN ISLANDS, on the north side of the river, is a very secure harbour for a number of ships in any wind. Its entrance lies in latitude 50° 10' at the distance of 22 leagues N.W. ½ W. from the west end of Anticosti. The principal channel into it is more than 2 miles wide; and has a depth decreasing from 60 to 30 fathoms. When sailing in, bring the west point of the bay nearly to N.N.W., and steer for it in this direction, passing between the islands on either side. When approaching near the point, give it a berth, steering inwards, nearly North, whence you may come to an anchor one mile and a half to the westward of the Harbour Point, in from 14 to 9 fathoms.

At this harbour the tide flows, on the full and change days, at half-past one; spring-tides rise 18 or 19 feet; neaps, 10 feet. The settlement here, destroyed in 1759, was one of the French king's posts for trading with the Indians. Between it and the *Mingan Islands* there are few places of safe anchorage.

TRINITY BAY, on the same side of the river, lies at the distance of about 2½ leagues N.E. by N. from *Point Deamon*, the extremity of *Cape Pelés*. *Point Deamon* bears from *Cape Chat*, on the south coast, N. by W. ½ W. nine leagues. This is a safe place to anchor in, with westerly winds, for ships that cannot make way upwards, as the ground is every where clean; and the current, with those winds, is so strong against them as to prevent the progress of even fast-sailing ships.

The coast between *Point Deamon* and this bay is indented with small sandy coves; and in the interval are three large rocks, always above water, which will be avoided by not approaching nearer than in 8 fathoms.

On the N.E. point of the bay are two large rocks; there is no passage between them, and the northern one dries to the main in spring-ebbs. The southern rock lies nearly a quarter of a mile to the southward of the point. The bay is $3\frac{1}{2}$ miles round, from point to point. A river, which falls into it, will supply fresh water; and there is another stream at half a mile to the westward of the western point. Wood is abundant.

To anchor, come to at half a mile to the eastward of the west point, on which stands a cross, in from 9 to 5 fathoms, and with the point bearing W.S.W. or S.W. by W. Small vessels may anchor in 3 fathoms, at low water, just within the reef, the western point of the bay bearing S.W. At three-quarters of a mile S.W. from the point on which the cross is placed, is a ledge of rocks, dry at low water, and which should not be approached nearer than the depth of 4 fathoms.

On the WEST of POINT DEAMON, or CAPE PELÉS, the land trends to the N.W., and forms a slender bay, in which small vessels may be occasionally sheltered during easterly winds.

At five leagues W. by N. from Point Deamon, is HAVRE ST. NICOLAS, or St. Nicolas' Harbour: between these places, and five miles eastward of St. Nicolas, is GONDRET RIVER, where the North-west Company have a settlement, and where, therefore, provisions may occasionally be obtained, but it affords no shelter.

ST. NICOLAS' HARBOUR.—At the entrance of this harbour, which has lately been stated to lie in latitude $49^{\circ} 21'$, vessels may occasionally find shelter from westerly winds. The land about it is mountainous; and, if a ship be to the westward of the harbour, and bearing up for it, the entrance may be distinguished from the circumstance of its having all the land on the west dry and barren, the wood being burnt from the mountains; but, on the east side, the mountains are green and covered with trees. To enter, run boldly in, between the burnt cape and the green one, steering North, and the low point which forms the west side of the entrance will appear like an island; this point has a wooden cross on it, which will be seen on steering towards it. The eastern side of the entrance is limited by a reef, one-quarter of a mile long, which stretches S.W. from the green cape; opposite to this reef, on the western side is another: both dry at low water, but the largest is always to be seen. The anchorage is a little to the northward of the stream of the easternmost reef, in from 12 to 6 fathoms.

The distance between the points of the two reefs is about one mile; both are bold; 10 fathoms being close to the eastern, and 4 to the western, reef. Small vessels may haul alongside the rock, just within the entrance on the west side, in 10 feet at low water.

At about 100 yards within the cross above-mentioned, a bar commences, which extends thence across the entrance, and has only 10 feet over it at low ebbs. This part is only two ships' lengths in breadth at low water, but the harbour widens inward to a large basin, sufficiently capacious to moor fifty sail of the line, in from 10 to 12 fathoms of water, good ground: this place is, however, a bad outlet for ships bound to the westward, as an easterly wind blows directly in, and the land around being mountainous, there is no getting in or out, in a square-rigged vessel, with canvas set.

Those who proceed to the basin, must keep their canvas set, and borrow close round the point on which the cross is erected; then shoot in as far as they can, and down with the anchor. To warp in, keep the western side on board.

The bank to the southward of the eastern reef, and all along the shore, is very steep; there is a depth of 50 fathoms at about 500 yards from it. Near the reef, in 20 fathoms, cod-fish are generally abundant.

At St. Nicolas' Harbour the tide flows, on the full and change days, at XII h. Spring-tides rise 12 feet; neaps 7 feet. The flood, of spring-tides, runs to the westward about two miles an hour, and thus along-shore up to the Saguenay or Tadousac River.

MANICOUGAN BAY and SHOALS.—This dangerous bay is about $5\frac{1}{2}$ leagues to the west of St. Nicolas' Harbour. The shore between is bold and rocky; the land high, and the water deep. The flood-tide sets strongly into the bay, and the ebb strongly out. The land forming the western point of the bay is much lower than any other near it, and may be readily known by its yellowish appearance, being of sand, with a fine beach, very flat for two miles off.

The east end of the great shoal of Manicougan lies 14 miles W. by S. from St. Nicolas' Harbour. This end is of rocks, terminating in a spit, and dries at low water. The utmost extent of the great shoal, from the western point of Manicougan Bay, is 4½ miles; on its south side there are 80 fathoms within a quarter of a mile of it; in some places 50, and probably a greater depth. On the shore, within the shoal, the tides ebb one mile from high-water mark, and heavy breakers are seen for three miles off, with high reefs of rocks. About the edge of the shoals are strong and irregular eddies, which are dangerous to those who approach too near. In these, several men of war have been caught, during a fresh breeze of wind, when not a single ship could answer its helm. Some drove on board each other, and it was not without much difficulty that great mischief was prevented by their running foul of each other, in endeavouring to avoid the danger of driving on the shoals.

To the westward of the Land of Manicougan is the River and Bay of OUTARDES. The latter is terminated by Point Bersiamites, and the whole is lined with extensive and dangerous shoals. Ships, in rounding Bersiamites Point, should advance no nearer to it than two miles, as the shoal surrounding it is steep-to. From Bersiamites Point to that of Mille Vaches, the course and distance are W. by S. 9 leagues. On Jeremie Isle, westward of Point Bersiamites, the North-west Company have a settlement, frequented by small craft, but inaccessible to shipping. The houses may be seen very plainly from within the distance of six miles.

On the N.E. of Mille Vaches Point, is the little river of Port Neuf, where, also, the North-west Company have a settlement: below this is a range of remarkable cliffs, like chalk-cliffs, the only land of this appearance in the river, and which, therefore, is a sure mark.

Ships, being up to Bersiamites Point with the wind at West, and flood-tide, may cross over thence to Father Point, and engage a pilot for the river. Should the wind be at S.W. by W., keep the North land on board until sure of fetching the point.

In Outardes Bay the ebb-tide is slack, and the flood strong. Ships may always get ground in the bay, but should stand in no nearer than two miles.

PARTICULAR DESCRIPTION of the RIVER, from CAPE GASPE', UPWARDS.

From the N.W. end of Anticosti to Cape Chat, the bearing and distance are W. by S. 30 leagues. The coast of the district of Gaspé, from Cape Gaspé to Cape Chat, is high, rugged, bold, and totally destitute of harbours. The only settlement on its eastern part is in the small cove, called Griffin Cove, which is about four leagues to the northward of Cape Gaspé, and here was only one family, in 1817.

CAPE CHAT is a remarkable hummock, like a short sugar-loaf, on a point which is lower than the land about it. At about three miles to the S.E. of the cape is a small river of the same name; and, at six miles E.N.E. from the latter, is the little river of St. Anne. A few families are settled at each place, who willingly render assistance to such as may require it.

The land over Cape Chat is very mountainous, and is much broken at the top. Hence it may be readily known, as there is no land presenting similar features in any other part of the river. Between Cape Chat and Matane, in a distance of 11 leagues, the shore is all bold and bound with rocks.

The RIVER of MATANE admits small craft only. This place may be known, from within the distance of three miles, by its houses and a bluff cliff, close to the entrance, on the western side. Many pilots live here.

The two remarkable mountains, called the PAPS of MATANE, stand inland to the westward of Matane River, and form the grand mark for this part of the coast. At six leagues to the westward is the western point of LITTLE METIS COVE, a spot surrounded by rocks, excepting the entrance, and in which small vessels may find shelter from westerly winds in 3 fathoms at low water. The coast from Matane to Little Metis is entirely barren.

Another small cove, called GREAT METIS, lies 2½ leagues from Little Metis. It is nearly dry at low water. A small vessel may bring up here in 3 fathoms, with the wind from S.W., but with a West wind it affords no shelter. The points that form these coves

coves are very low, and cannot be distinguished beyond the distance of two leagues. Great Metis has a large rock in the middle of the cove, Little Metis has none; and the latter may be known from the former by observing that a round bluff rock lies at its entrance, on the eastern side; not far from which, on the east, is a small hill on the mountain, in form of a sugar-loaf.

Between Great Metis and the next inlet, named Cock Cove, will be seen the high land of MOUNT CAMILLE. The bearing and distance between the coves are W. by N. nearly four leagues: and, from Cock Cove to the projecting land of Father Point, West, 5 miles. Here will be seen a number of houses: this place being the regular rendezvous for the pilots.

BARNABÉ ISLAND presents nothing remarkable. A reef extends from each end of it, under which small vessels may find shelter. Between the island and the main the bank is dry at low water, but there is a depth of 14 feet over it at high water of spring-tides. With neap-tides, only 9 feet. At the little River Ottey, five miles S.W. from Barnabé Island, fresh water may be obtained.

The HARBOUR of Bic, which is three miles to the westward of the River Ottey, affords shelter to small vessels from westerly winds. Two round islets mark the eastern side of it, and it is one mile from them to the western side of the harbour. The anchorage is midway between these and the west side, in 3 fathoms, the western point bearing West.

About $2\frac{1}{2}$ miles West from Bic Harbour, and at the same distance South from Bic Island, is Cape Original, or Arignol. From this cape a reef extends one mile E. by N.

THE ISLE BIC is of moderate height, and covered with trees. This island is three miles in length, from East to West, and reefs extend from it to the East, West, and North. At a mile from the north side is the islet called *Bicquet*, which is also woody. *Bicquet* is quite bold on the north side, and there are 30 fathoms at a musket-shot from it. Between Bic and *Bicquet* there is no passage for ships, the ground being shoal and foul.

THE ALCIDES ROCK, on which the ship of that name struck in the year 1760, has been represented as having only 8 feet over it, and as lying about $3\frac{1}{2}$ miles from the west end of Bic: but of this rock it has lately been said, by Mr. Lambly, "There is no such rock in that bearing from the west end of Bic; there is a rock with only 10 feet of water on it at low water, but it lies S.W. by S. $3\frac{1}{2}$ miles from the west end of Bic, and only one mile from the main; ten fathoms water leads to the northward of it; of course it is out of the fair way. This rock and the ledge N.W. from the west end of Bic are the only dangers to the westward of the island. I am sure there are no others."

THE RAZADE ISLETS are large rocks always above water. They bear from each other N.E. and S.W. three-quarters of a mile distant. Ten fathoms of water leads to the northward of them.

BASQUE ISLAND appears round; it is bluff and covered with trees. It lies W.N.W. two miles from the western Razade, and S.W. by W. $\frac{1}{2}$ W. six leagues from Bic. There are no houses on it, and it is quite bold on the north side.

APPLE ISLAND, with its rocks, lies at a league and a half W. by S. from Basque Island. This cluster is barren. Between it and Basque, and just to the northward of the west end of the latter, is a ledge of rocks, dry at low water, with 10 fathoms close to them.

GREEN ISLAND.—This island, with the reefs that project from each end of it, is three leagues in extent from N.E. to S.W. Two families reside upon it. The most remarkable object on it is a light-house which stands on its northern side, at about one-third of the length from the N.E. end, and which is about 70 feet above the level of low water-mark.* The bearing and distance of Basque Island from the lighthouse are E.N.E. $\frac{1}{2}$ E. 13 miles: and from the lighthouse to the extremity of the S.W. reef of

* This lighthouse, according to an official notice, dated 21st Sept. 1809, will in future exhibit a light, nightly, from sun-set to sun-rise, from the 15th day of April to the 10th day of December, inclusive. The lighthouse bears from the adjacent points as follows:

From Red Island, S.E. by E. $\frac{1}{2}$ E.; White Island, E.N.E. $\frac{1}{2}$ E.; Brandy Pots, N.E. by E. $\frac{1}{2}$ E.; Apple Island, W. S.W.; Basque Island, W. S.W. $\frac{1}{2}$ W.; from the shoal at the N.E. end of Green Island, S.W. by S.; and from the shoal at the west end of the same island, N.E. $\frac{1}{2}$ E.

Green Island S.W. $\frac{1}{2}$ W. 8 miles. There is no other danger on the north side of the island than a ledge which extends from the lighthouse point, three-quarters of a mile N.E. by N. This ledge is a reef of rocks which are steep-to and covered at high water of spring-tides. The other part is steep-to and rocky.*

The ledge of Green Island, Basque Island, and the high land to the southward of Cape Orignal, in a line, bear E.N.E. $\frac{1}{2}$ E.

To ships, on coming up and going down the river, the lighthouse appears like a ship, and very conspicuous. In the night, the light may be distinctly seen at the distance of six leagues.

The reef from the west end of Green Island dries to the distance of a mile from the island. The westernmost part is detached from the body of it, and the tide sets through the interval towards Cacana. This part is covered at a quarter flood.

CACANA is the high bluff land lying S.S.W. from the S.W. end of Green Island. The water between is deep. At a mile and a half westward of Cacana, and just to the northward of the stream of it, are the *Percy Rocks*, two clusters, at the distance of a mile asunder, East and West. They lie at about one mile from the main, and are nearly covered at high water. On the south side of them there is no passage, but the depth of 10 fathoms leads clear on the north.

BARRETT'S LEDGE.—The reef thus called is composed principally of two detached rocks, on the S.W. of which is a black buoy. This buoy lies with the northern extremity of the main land within Green Island, in a line with the northernmost high land of Cape Orignal, bearing N. 64° E.; the summit of the southernmost mountain of the high land of Kamourasca in one with the south point of the Great Pilgrim Island, S. 30° W.; the eastern side of the trees on Hare Island in one with the west cape of the Bay of Rocks, (on the north shore,) N. 47° W.; and, two houses near the River du Loup, S. 29° E.; the latter are the only two houses between the church and River du Loup.

The rocks of Barrett's Ledge bear from each other N. 60° and S. 63° W. one quarter of a mile. The N.E. rock has 15 feet over it; the S.W. only 12. Between them is a depth of 11 fathoms.

RED ISLAND is a low flat island, of a reddish colour, and without trees, lying as already described. The smaller one, called WHITE ISLAND, is round and covered with trees, and bears from Red Island S.W. by W. $3\frac{1}{2}$ leagues, and from the east end of Hare Island N.E. by N. $\frac{1}{2}$ E. A shoal of rocks extends from White Island N.E. by E. 5 miles, and dries to half that distance.

HARE ISLAND, &c.—The east end of this island lies S.W. $\frac{1}{2}$ S. three-quarters of a mile from White Island; thence it extends eight miles to the S.W., and in no part exceeds one mile in breadth: in many places not half a mile.

At S. by W., one mile from the east end of Hare Island, lies the southernmost of the islets called the BRANDY POTS, on which is a telegraph. The northern Brandy Pot, high and covered with trees, is close to the southern one, and the bottom between is dry at low water. The southern is a whitish rock, almost barren, the wood being nearly burnt off. Each is about half a mile in length, and they lie N.W. and S.E. from each other, at about a quarter of a mile from Hare Island. There is no passage between.

At a little to the eastward of the northernmost Brandy Pot is a small islet called the NOGGIN, and covered with trees. At low water these are connected by a chain of rocks, leaving a passage for a boat only. Half way between the Noggin and the east end of Hare Island, there is, also, a reef, dry at low water: these are close to Hare Island, and out of the fair way. The depth of 7 fathoms, at high water, leads clear of them.

To the westward of the Brandy Pots the south side of Hare Island has a flat of hard ground extending from it, three miles in length, and about one-quarter of a mile in breadth. The whole of this side of the island is bound with rocks.

* The *Archduke Charles*, transport, from Quebec, having on board six companies of the Nova-Scotia militia, was wrecked on one of the reefs, and eight persons perished.—*May, 1816.*

MIDDLE BANK.—Between Hare Island and the land to the eastward is the shoal called the **MIDDLE BANK**, extending N.E. by E. and S.W. by W. four miles. Its lower end lies with the Brandy Pots bearing N.W. distant about two miles. Its shoalest part, near that end, has $2\frac{1}{2}$ fathoms of water; over the middle of it are 4, and on the west end 5, fathoms. There is good anchoring on it in fine weather. With the S.W. end of Hare Island bearing N.W., Cape Salmon, on the north side of the river, will be open to the westward of it: but observe that, with this mark on, at half a mile to the northward of the Middle Bank, is a small knoll of only 14 feet of water. By keeping White Island open between the Brandy Pots and Hare Island, you will pass to the southward of this knoll, in 5 fathoms.

HARE ISLAND SHOAL.—This is an extensive shoal lying above, and nearly in the direction of, Hare Island. It commences at about a mile from the S.W. end of the island, and extends thence about three miles to the S.W. A considerable portion of it is dry at low water. Of this dry part the west end bears N. 35° W. from the west end of the isles called the Pilgrims, and the east end due North from the same. The bank is of sand, some of it above the level of high-water mark, but bold-to on the south side, with 7 fathoms in the fair-way. Between it and the Pilgrims the channel is scarcely three miles wide.

PILGRIMS.—The islets called the Pilgrims are four in number, but connected by reefs that dry at low water. The easternmost is the highest, and is covered with trees; the others are barren, and of a whitish colour. On the S.W. isle is a telegraph.

The N.E. or Great Pilgrim bears from the Brandy Pots S. 18° W. 8 miles; from the S.W. end of Hare Island S. 36° E. $3\frac{1}{2}$ miles. The Pilgrims occupy, altogether, an extent of about three miles, and they are bold on the north side. The distance of them from the main is about a mile and a half, but there is no passage between for shipping.

KAMOURASCA ISLES.—This is a group lying at the distance of two leagues above the Pilgrims, on the same side of the river. The N.E. or Greater Island bears from the Pilgrims S.W. by W. The bank between is steep-to, having 10 fathoms close to it, and 3 fathoms over it, at low water. The island next to the Great (*Grosse*) Island is *Burnt Island*, and the third of the larger isles is *Crow Island*. A telegraph stands on the west end of Burnt Island. These isles are about three miles in extent, and one from the shore; the bank between is dry at low water. Between these isles and the English Bank, in the middle of the river, the channel is three miles broad. Great Island and Burnt Island are very steep on the north side, but Crow Island is surrounded with shoal water.

The settlement of **KAMOURASCA** is within the islands above described. Its church bears S.E. three-quarters of a mile from Crow Island. From the latter Cape Diable bears S.W. about three miles, but a long reef extends from the cape towards the island, the easternmost part of which is covered at a quarter flood, and is not more than a mile from Crow Island. Two miles above Cape Diable is Point St. Denis; in a small cove on the south of this point is a small island, on which stands a telegraph. From Point St. Denis to Point Oval (*Ouelle*), the land trends to the S.W., is low, and has regular soundings along it. From Cape Diable to Point Oval the distance is $3\frac{1}{2}$ leagues.

The **TRAVERSE.**—From Point Oval to a black buoy, in $2\frac{1}{2}$ fathoms, on the outer part of the Bank of St. Roc, or St. Roch, the bearing and distance are W. by S. $4\frac{1}{2}$ leagues. Within the line of this bearing is a shoal bank, studded with rocks, the upper edge of which extends from the buoy, in a S.S.W. direction, to the Trois Saumon, or Three Salmon, River, a distance of 8 leagues.

A red buoy lies on the east end of the Middle Bank, in $2\frac{1}{2}$ fathoms at low water, bearing from the black one above mentioned N.W. by W. one mile distant. In the channel between are 11 fathoms.

Mr. Bouchette says, The Passage called the **TRAVERSE** is not more than from 1700 to 1800 yards across, between two buoys that mark the edge of the shoals; it is the most intricate part of the river below Quebec, and the currents here are various, irregular, and very strong, on which account it can be passed in safety only at a proper time of the tide.

The **ENGLISH BANK**, which occupies the whole extent in the middle of the river, from Hare Island shoal to the Middle Bank, is, in general, about a mile in breadth, and

and its depths vary from 3 to 14 fathoms, but the soundings are regular, and it affords good anchorage, over a bottom of sand and mud.

From the red buoy, the **MIDDLE BANK** extends S.W. $\frac{1}{2}$ W. about 3 miles. On its east end are 2 $\frac{1}{2}$ fathoms, on the west 2 fathoms; but, on its middle part, are only 6 feet at low water. The bottom of mud, sand, and, in some places, very large stones.

To the westward of the Middle Bank are the **SEAL REEFS**, connected to the southward by the islets called the **PILERS** or **PILLARS**. In many places the rocks which form these reefs are dry at low water; they extend N. by W. towards Coudre Island, and, on the east and southern sides, are very steep. The *Pilier Boisé*, or **Woody Pillar**, is seen to the S.W. of the reefs, and lies N.E. three miles from the east end of Goose Island. It is a high round rock, with trees on the western part of it. The South Pillar is a high barren rock, always above water, and one quarter of a mile in length. This pillar marks the north side of the west entrance of the Traverse, and is about three miles from the south shore.

The *Avignon*, a half-tide rock, about 100 yards in length, and round on the top, lies at the distance of two or three cables' length S.E. from the body of the South Pillar, with a depth of 7 fathoms close to it.

At two miles S.W. by W. from the South Pillar is the commencement of a ledge of high rocks extending thence towards the middle of Goose Island, from which the upper end is but half a mile distant. With the exception of the eastern end, these rocks are always above water, and are steep-to on their south side. This reef, called **Goose Island Reef**, with Crane Island open, form a mark leading clear of the *Avignon Rock*, above described.

There is an opening between the east end of Goose Island Reef and the South Pillar, towards *Pilier Boisé*; but, at low water, it is surrounded with rock, both on the east and west; and is, therefore, no outlet for shipping.

We have now advanced to **GOOSE ISLAND**, towards which ships may stand into 7 fathoms, the island being bold-to, and soundings regular. A farm-house will be seen on this island, to the eastward of which, and close to low-water mark, is a large rock called the *Hospital Rock*. Two miles to the westward of this rock is a long reef, dry at low water, but it is out of the fair-way, and close to the island.

CRANE ISLAND, above Goose Island, is about four miles in length. Its north side is in a good state of cultivation. On drawing towards it, you will see a farm-house (*M^rPherson's*) on the east end. To the S.E., at half a mile from this house, is the edge of a bank, called *Madame Beaujeu's Bank*, having, on its shoalest part, only 12 feet at low water. A bar of 4 and 3 $\frac{1}{2}$ fathoms extends from this shoal to the southern shore, on which the church of St. Ignace may be seen.

To the west of Crane Island is the group composed of **Canoe, Marguerite, Grosse, Rat, and Madame Isles**. From the west end of Crane Island, a reef of rocks extend outward about half a mile; they are dry at low water. Between these and Canoe Island is an opening, having a depth of 2 $\frac{1}{2}$ fathoms, but it is too narrow for ships.

MARGUERITE (OR MARGARET) ISLE is about 2 $\frac{1}{2}$ miles in length. The passage between this and Grosse Isle, which is half a mile broad, is shoal and unfit for shipping. **GROSSE ISLAND**, extending N.E. by E. and S.W. by W., is three miles in length. One family resides upon it. **RAT ISLAND**, the next above Grosse Island, is nearly of the same length. **MADAME**, above Rat Island, is about 2 $\frac{1}{2}$ miles long. This and Rat are both narrow, covered with trees, and without any habitation.

From Madame Island a rocky shoal extends three miles S.W. by W. It is dry at low-water, and a ship should not approach it nearer than in 10 fathoms.

On the **SOUTHERN LAND**, above Madame Beaujeu's Bank, will be seen, in succession, the churches of St. Ignace, St. Thomas, Berthier, St. Valièr, St. Michael, and Beaumont. Within this extent are four telegraphs, a part of the chain connected with Quebec.

From the Land of St. Thomas a bank extends more than half way over towards Crane Island. Its northern extremity is two miles S.W. by W. from the south point of the island. The bank is partly dry at low water.

The **WYE ROCKS** lie immediately above the Bank of St. Thomas. This reef is about half a mile in length, in the direction of S.W. by W. It has only 4 feet over its west end,

end, and 10 feet over the east end. On the west end is a black buoy, which lies with the seminary of St. Joachim, on the north side of the river, just shut in with the east end of Rat Island, and bearing N. 50° W. Its distance from the nearest shore is less than one mile.

On the **SOUTH SHORE**, at eight miles above the Wye Rocks, and opposite Berthier church, lie the **BELLE CHASSE ISLETS**, two remarkable large rocks. They are situated at a mile from the shore. Above these will be seen the telegraph No. 4, standing on the highest part of the point of St. Valier, and at about two miles to the eastward of the church. The ground, all the way up from St. Valier Point to Quebec, is foul and unfit for anchoring.

St. VALIER CHURCH bears from that of St. Jean, or St. John, on the island of Orleans, S.E. distant about three miles.

The **SHOAL of BEAUMONT**, opposite to the point of St. Laurent, or St. Lawrence, on the Island of Orleans, is a large rocky bank, extending more than half way over from the south shore. It is dry at low water, uneven, and steep-to on the north side, having 14 fathoms close to it.

The **ISLAND of ORLEANS** is distinguished for its fertility. The shores, in general, slant gradually to the beach; in some places are a few rocky cliffs, but not of great extent or elevation: from the foot of the slopes are large spaces of low meadow-land, sometimes intersected by patches of excellent arable. Bordering the north channel the beach is flat and muddy, with reefs of rocks running along it; but, on the southern side, it is a fine sand, with only a few pointed rocks sticking up here and there. The highest part of the island is by the church of St. Pierre, (St. Peter,) about four miles from the western extremity, and almost fronting the Falls of Montmorency; and also just above Patrick's Hole, on the south side, nearly abreast of St. Pierre, on which is placed the second telegraph of a chain between Quebec and Green Island. The central part is thickly wooded. The churches of St. Lawrence and St. John are situated close down on the southern shore; the distance between them is 5½ miles, and this extent presents excellent cultivated lands, richly diversified with orchards and gardens, and houses at short intervals from each other. *St. Patrick's Hole*, a little to the westward of St. Lawrence, is a safe and well-sheltered cove, where vessels outward bound usually come to an anchor, to await their final instructions for sailing. On the west point of it is a group of very neat houses; at several of which the inhabitants furnish accommodations to the numerous persons who visit the island, from amusement, or from curiosity, both in summer and winter.

Large quantities of grain, and most sorts of provisions, are continually sent from this island for the consumption of Quebec: among the fruits, apples and plums attain a much greater degree of perfection here, than in any other place of the Lower District of Canada.

Off **St. PATRICK'S HOLE**, above mentioned, ships ride in 10, 12, or 14, fathoms, abreast of the inlet. The telegraph, No. 2, is just to the eastward of this cove, on the high part of the island. The ground is not good, but it is well sheltered from easterly winds. Here the river is about one mile and a quarter wide, and bold on both sides.

At about half-way between St. Patrick's Hole and the west end of Orleans, is a shelf called **MORANDAN'S ROCKS**. They extend a cable's length from the island, and have only 10 feet over them.

On the S.W. part of the west end of Orleans is another reef: this is dry at low water, lies close in, and should not be approached nearer than in 10 fathoms. On the opposite shore, a little to the eastward of Point Levy, is another reef, which should be passed at the same depth. Northward of Point Levy is a small reef, but close in, and out of the fair-way.

BASIN of QUEBEC.—The appearance of the lands, forming the Basin of Quebec, is given hereafter, in the description of the river, from Montreal downwards. We, therefore, only add here that it is one mile across between the high-water marks, with a great depth of water. The **HARBOUR of QUEBEC**, properly so called, commences at St. Patrick's Hole, and extends thence to Cape Rouge River, which is nearly three leagues above Quebec. The **PORT of QUEBEC** comprehends all the space between Barnabé Island, and the first rapid above Montreal.

The

The laws of the Trinity-House are particularly strict, with respect to shipping in the Port and Harbour of Quebec; and every attention must be paid to them, as well as to those respecting Quarantine. Of the latter, the pilots are bound to inform all masters, as soon as they board them below. A copy of the Harbour-Laws is delivered to each master, on his arrival, by the harbour-master; and those respecting shipping may always be seen at the harbour-master's office.

TIDES in the RIVER of ST. LAWRENCE.

On the days of full and change, the tide flows in the river as follows:—At Point Deamon, or the extremity of the Monts Pelés, on the north side, at XII h. In Manicougan Bay, at I; here spring-tides rise 12, and neaps 8, feet. At Bersiamites Point, I½. Mille Vaches Point II h.

On the south coast, near Cape Chat, the time is XII h. Here spring-tides rise from 12 to 14, and neaps 8, feet. At Matane the time is XII½; at Bic, II; Green Island, III; Brandy Pots, III½; Traverse, IV½; Kamourasca, IV; Piliers, or Pillars, IV½; Crane Island, V; and Quebec, VI. At Green Island, spring-tides rise 10, and neaps 10, feet. In the Traverse, spring-tides rise 18, and neaps 11, feet.

At the ISLE Bic the stream never bends to the westward until an hour's flood by the shore. The neap-floods are here very weak; and, with westerly winds, none are perceptible. A spring-flood is, however, always found, within four miles of the shore, between Father Point and Bic.

All the way hence to Quebec, the tide, when regular, flows tide and quarter-tide; but it is influenced greatly by the wind, and by no means to be depended on, as to its running any where below Hare Island, where there is a regular stream of ebb and flood.

BETWEEN BARNABÉ and Bic the stream of flood sets in from the N.E. at the rate of about two knots; then fair through the channel until last quarter flood, when it sets to the N.W. by the west end of Bic, and then gradually to the N.E., as the flood slacks. The whole of the ebb, both to the eastward and westward of the island, sets strongly to the N.E.

The current between Bicquet and the north coast is generally very strong to the N.E., without any regular change. In the summer and autumn, as well as in spring-tides, this current slacks, and, near Bicquet, runs to the westward, during flood; but, until the upland waters have all run down, and the great rivers have discharged the freshes, caused by the thawing of the snows in the spring of the year, this current always runs downward.

From Bic to GREEN ISLAND, on the southern side, the stream of flood is no where perceptible at a mile and a half from the islands. The ebb, or rather current, comes strongly from the N.W., out of the River Saguenay, and through the channel to the northward of Red Island. Here it always runs in a S.E. direction, two miles an hour, with a westerly wind; but only so to the southward and eastward of Red Island. Between Red Island and Green Island, the ebb runs from 4 to 6½ knots. In crossing over to the north shore, this easterly current will be found to diminish; for, on the north side, the flood is pretty regular, and the ebb much weaker.

Eastward of the Razade Rocks, and near Bic, the current assumes a N.E. direction, and sets strongly between Bic and Bicquet. To the southward of Bic, spring-floods run at the rate of a knot and a half; neaps are not perceptible. Ships that come to the southward of Bic, with a scant wind from the northward, must steer W. by N., to check the S.E. current, until they come into 18 fathoms of water, or up to Basque, whence they proceed for Green Island.

The first of the flood, spring-tides, sets from the N.E. along the north side of GREEN ISLAND, and strongly towards the west end of it; then S.S.W. over the reef towards Cacana. In the middle of the channel no flood is perceptible. At two miles to the southward of Red Island it sets strongly to the N.W., and the ebb contrary. During spring-ebbs, the meeting of the N.E. and S.E. tides, near the middle of Green Island, causes very strong rippings; and, to the eastward of Green Island, the S.E. ebb comes strongly about the east end of Red Island; here meeting, the N.E. tide causes a high rippling, much like broken water in strong easterly winds: but, in neap tides, the floods are very weak, and in the spring of the year there are none. This renders the part of the river now under notice more tedious in its navigation than any other, unless with a free wind.

From

From the west end of Green Island a regular stream of flood and ebb commences, which runs five hours upward and seven downward. At the Brandy-Pots it flows tide and quarter-tide: and, above the Percy Rocks, on the south shore, it sets regularly up and down, N.E. by E. and S.W. by W.

From the Brandy-Pots, the stream of flood sets towards Hare Island; and, near the west end, N.W., with great strength, through the passage between the island and shoal.

Above Hare Island, the flood sets regularly up the river. The ebbs contrarywise.

From the Pilonius up to Cape Diable, the flood is very weak, but it thence increases up to the buoys of the Traverse, where it runs at the rate of 6 knots. The first of the ebb sets towards the English Bank and Hare Island Shoal, when abreast of the greater island of Kamourasca, and the ebb contrary.

At the TRAVERSE, on the full and change, the tide on-shore flows at half past four, but it continues to run to the westward until six o'clock, when regular in the channel. With westerly winds there is a deviation, but it is certain that the tide on shore rises three feet before the stream bends to the westward: and this allowance must always be made in every part of the river.

In the Traverse, the first of the flood sets from the N.N.E.; at the buoys, at a quarter flood, it takes a S.W. direction, and, when the shoals are covered at half-flood, at the Seal Reefs, it sets until high water S.W. by W. The ebbs, in a contrary direction, run with great strength; frequently, in the spring of the year, at the rate of 6 or 7 knots.

From Crane Island the flood sets fair up the river, but the first of the ebb off L'Islet sets to the northward for half an hour, then fair down the river, and at the rate of not more than $3\frac{1}{2}$ knots in spring-tides.

DIRECTIONS FOR SAILING UP THE RIVER, FROM ANTICOSTI TO QUEBEC.

Between the S.W. Point of Anticosti and the coast of the district of Gaspé, the current from the river sets strongly down to the south-eastward. In the spring of the year it is strongest; this is supposed to be owing to the vast quantity of snow which thaws at that time. In the summer, when the smaller rivers have lost their freshes, this current is estimated at the general rate of two miles an hour; but in the spring, its rate has amounted to three and a half; which, of course, varies according to the quantity of snow, &c. Mr. Lambly says that, there is a difference of two and three feet in the level of the River St. Lawrence, between the months of May and August; which he imputes to the quantity of ice and snow melted in the spring.

Those advancing towards the river, in the fairway between the S.W. Point of Anticosti and Cape Rosiere, with the wind from the North or N. by E., it ignorant of the current, may think that they are making a reach up, when really approaching the south shore. This is to be guarded against; particularly during a long night, or in dark and thick weather. It is always best to tack in time, and get out of the strength of the current, which will be found to diminish towards the north coast.

In coming up, with CONTRARY WINDS, and being far enough to the westward to weather Anticosti, stand to the northward, and keep within three or four leagues of the land up to Point Deamon, the extremity of the Cape Monts Pelés. The land is all bold, and the tide along it favourable. After getting up to Trinity Bay, or the coast to the N.E. of the cape, the flood will be found setting along the north shore.

Should circumstances render it necessary, you may proceed to, and take shelter at, the entrance of the HARBOUR of St. Nicolas, already described, which lies W. by N. 5 leagues from Point Deamon, or the extremity of Monts Pelés.

Abreast of MANICOUGAN SHOALS, at about two-thirds of the channel over from the southward, a strong rippling has frequently been found; at about two miles farther north, another; and at two miles more a similar one: these are visible only in fine weather, and are supposed to be caused by the slack of the eastern current, which runs down on the south shore, and the regular flood on the north. In this part no bottom is to be found. Towards the *Points of Bersiamites* and *Mille Vaches*, the same appearances may occasionally be found, but there is no danger; it being merely the conflict of the two streams.

In proceeding upwards, with *contrary winds*, a ship should continue to keep over towards the north shore, but taking especial care to avoid the Manicougan and Bersiamites shoals. Thus she will avoid the current setting strongly down the middle of the river, and have the assistance of the flood-tide, which is not felt hereabout on the south shore.

The current is always strong to the N.E. between Bicquet and Mille Vaches.

If a ship has advanced up, on the north side, to Bersiamites Point, with the wind at west, and a flood-tide, she may cross over to Father Point, and obtain a pilot. Should the wind change to S.W. by W., keep the north land on board, until sure of fetching the point.

With a *FAIR WIND* and under favourable circumstances, a ship proceeding upward, on the *SOUTH SIDE* of the river, may find soundings, but very irregular, along the coast to Matane; the shore is, in general, steep. No anchoring in any part: the depth 20, 30, and 50, fathoms at one mile from the rock, and all hard ground; in from 50 to 80 fathoms, the bottom is of clean sand.*

FROM CAPE CHAT to Matane, the course and distance are W. by S. 11 leagues. When at one or two leagues to the eastward of Matane, and three miles from shore, you will see the Paps bearing S.W. $\frac{1}{2}$ W.: they stand inland to the westward of the river, as already noticed, and this is the best bearing on which they can be seen. Mount Camille will now be in sight, bearing S.W. by W. $\frac{1}{2}$ W. 14 or 15 leagues. It hence appears to the northward of all the land on the south side, and in the form of a circular island.

From Matane to the land off Mount Camille, the course is from W.S.W. to W. by S. according to the wind.

* In the year 1817, Mr. Wm. Bain, a Master in the Royal Navy, published an interesting volume, entitled, "*An Essay on the Variation of the Compass; shewing how far it is influenced by a change in the direction of the Ship's Head; with an exposition of the dangers arising to navigators from not allowing for this change of variation.*" In this work, Mr. Bain has noticed the frequent and remarkable aberration of the compass in ships, when approaching the vicinity of Cape Chat. He says, "In the River of St. Lawrence, the change in the variation should be most particularly attended to; as it leads a ship, both in going up and coming down, on the coast most to be avoided.

"On coming down that magnificent river, May, 1813, I found that it was necessary to steer a very different course from the opposite one made use of in going up, under very similar circumstances, a few days before. I noted the circumstance in my remark-book, sent to the Lords of the Admiralty, on returning to England: and, owing to that circumstance, and not having a copy nor log-book to refer to, I cannot state from memory the courses steered, though I remember the difference to have exceeded one point, and that we had an eight and nine-knot breeze, both in going up and coming down, with the weather uncommonly fine, and every circumstance extremely favourable for making such remarks.

"Subsequent to the above period, one of our ships of war (the *Zealous*) had a very narrow escape in going up that river. The compasses in the binnacle were so much affected by local attractions, that, had the fog not cleared away at the moment it did, the ship must have run on shore, not far from Cape Chat: she was in 19 fathoms.

"The gentleman from whom I had this information could assign no other cause why the compasses were so influenced, except from the muskets placed around the mizen-mast; but, on enquiry, I found that they had been there during the former part of the voyage; and, consequently, this could not have been the primary cause, as the deviation must have been sooner perceived. I am, therefore, inclined to attribute the near approximation of the land as being the primary, and the local attraction of the ship as the secondary, cause, acting on the magnetic needle with a compound force. All the compasses in the ship, when brought on deck, were alike affected.

"I have great reason to believe that, the non-attendance to the changes of variation in the River St. Lawrence, and perhaps in the vicinity, is one of the causes of the many losses that happen there.

"Before quitting this subject, I may, perhaps, be permitted to notice an effect produced by the change of variation, but hitherto ascribed to very different causes. And there is not an officer, I will venture to say, in the British navy, but will bear testimony to the truth of the following statement:—

"When beating to windward, and obliged to tack pretty often, say in chace of an enemy, or endeavouring to gain a port, all seamen have remarked that, every time the ship was put about, the wind *came round* some points with the ship; so that, for instance, if the wind was at South, and lying W.S.W. on one tack, the ship would lie only E. by S., or East, on the other tack. At other times, we have been well pleased, under similar circumstances, to find the wind favour the ship a point or two in every tack; so that, if the wind was at North, and the ship lying W.N.W. before tacking, she would lie N.E. by E., and N.E. upon the other tack. It is not a change in the wind which produces these apparent differences, but it is wholly to be ascribed to the local attraction in the ship. When the head is westerly, the north end of the needle is drawn half this difference westward; when the head is easterly, it is drawn half the difference eastward." (Page 89.)

Eight leagues to the westward of Matane River is **LITTLE METIS COVE**, described on page 49. If requisite to anchor here, give the east end of the reef a length of 100 yards, or cross it in three fathoms; then haul up into the middle of the cove, and let go.

GREAT METIS, described on page 49, is $2\frac{1}{2}$ leagues S.W. from Little Metis. The bank of soundings extends farther to the northward off these coves than off Matane, and 35 fathoms, with sand, may be found at four miles from shore; but, beyond this, the depths speedily increase to 60 and 70 fathoms. The edge of the bank continues steep as high up as Green Island. Along shore, within 10 fathoms, the ground is hard, and it is difficult for a boat to land, unless in fine weather.

From Great Metis to Cock Cove, as already shown, page 50, the land trends W. by N. 4 leagues. In fine weather, ships may stop tide between, in 15 fathoms.

POINT AUX PERES, or **FATHER POINT**, has been already described, as well as **Barnabé Island**, which lies to the westward of it, (see page 50.) Small vessels, seeking shelter from westerly winds, may find a depth of 3 fathoms, under the reef extending from the east end of this island. Upon this reef is a large round stone, which serves as a mark. To enter, cross the tail of the reef in 4 fathoms, and then haul to the southward; and, when the island bears W. by N., with the large stone N.W. by W., anchor at a quarter of a mile from the island.

From **Barnabé Island**, the **Isle Bic** bears West, 3 leagues, **Bicquet W.** by N. 10 miles; and **Cape Orignal W.S.W.** $\frac{1}{2}$ W. $3\frac{1}{2}$ leagues. **Cape Orignal** and the east end of **Bic** lie North and South from each other, distant $2\frac{3}{4}$ miles. The **Cape** bears from **Bic Harbour** due West, about $2\frac{1}{2}$ miles. From the cape of a reef extends E. by N. one mile. The eastern part of this reef and the western point of the harbour, in a line, bear E.S.E. one mile.

SOUNDINGS, &c. between **COCK COVE** and **BIC ISLAND**.—From **Father Point**, the bank extends northward six miles. At that distance from land are 35 fathoms of water, with sand and mud. Hence, westward, all the way to within one mile of **Bicquet**, the soundings are very regular. Ships may, therefore, stand to the southward by the lead, and tack at pleasure. They may, also, stop tide any where in this extent, in 9 fathoms, good ground.

If a ship arrives off **Father Point**, during an easterly wind and clear weather, when no pilots are to be obtained, she may safely proceed along the land in 10 fathoms of water.* On approaching the **Isle Bic**, the reef extending from the S.E. of that island will be seen: give this a berth, and continue onward through the middle of the channel between the island and **Cape Orignal**. With the body of the island N.E., you may come to an anchor, in clean ground, and wait for a pilot. There is a spot on the island cleared from trees: when this spot bears N.E., from a depth of 11 or 12 fathoms, you will be in a good berth. The ground is hard towards the island.

A ship off **Father Point**, during **THICK WEATHER** and an easterly wind, without a pilot, may stand to the southward by the lead, and tack by sounding. In this case observe that, when in 12 fathoms, **Bic** will bear due West.

To **BEAT** up from **Father Point** to **Bic Island**, you may make free with the south shore; as, by nearing it, the flood tide will be most in your favour. The depth of 7 fathoms is a good fair-way, and you may anchor in that depth all the way up to the island. When beating in, to the southward of **Bic**, from the eastward, stand to the southward into 7 fathoms while to the eastward of the island, but approach no nearer to the S.E. reef than 9 fathoms. In the middle are 12 fathoms. In standing to the northward, towards **Bic**, tack in 10 fathoms all along the island, and when it bears N.E. anchor as above.†

* The pilots repair to their rendezvous in April. On their boats and sails are their respective numbers. The proper rendezvous is at **Father Point**; but they are often met with at **Matane** and **Cape Chat**, and sometimes lower down.

† A family (that of *Madame Petit*) is settled at S.S.W. from **Bic**, in a small cove at the bottom of a high hill. Here, and on **Bic Island**, water may be had. The next parish, westward, is **Trois Pistoles**, and at this place provisions may be obtained. Between these places are no houses or settlements, but from the latter to **Quebec** are regular stages. Passengers wishing to quit the ship at **Bic**, in order to proceed by land, by going to **Madame Petit's** house, may find a guide to take them through the woods to **Trois Pistoles**, or may take a boat up to the latter. (1813.)

The GENERAL COURSES, &c. between CAPE CHAT and ISLE BIC, are as follow:

A ship bound upward, and having arrived within three leagues of Cape Chat, should steer W. by S. or W.S.W., according to the wind, allowing for current to S.E., as already shown. Running thus, for 28 leagues, will bring you to Father Point. Should the weather be thick, you may haul to the southward; and if, after gaining soundings in from 30 to 25 fathoms, the water should suddenly shoalen to 20 and 15, you will not be up to the point, but may safely run four or five miles higher: with soundings, and the water gradually shoaling from 30 to 25, 18, &c. in three or four miles, you will be up with the point, and may make signal for a pilot, approaching no nearer than 12 fathoms. Here you will be about one mile and a half from shore; and will, if the weather be clear, see the houses. The shore is bold-to, and may be approached with safety. From Father Point to the Isle Bic, the bearing and distance are W. $\frac{1}{2}$ S. 16 miles.

While advancing from the eastward towards Father Point, and being off Little Metis, the high land to the southward of Cape Orignal may be seen before the cape itself, or Isle Bic come in sight. From off Mount Camille, in clear weather, Bic may be clearly seen. To avoid mistaking Barnabé Isle for that of Bic, observe that, in thick weather, a ship cannot approach the land, near Father Point, without gradually shoaling the water; consequently if, while keeping the lead going, you come into 9 fathoms, and make an island suddenly, it must be Barnabé; or, if falling in with an island on any bearing to the westward of W.S.W., one cast of the lead will be sufficient to ascertain which it is: for, with Barnabé from W.S.W. to West, you will have from 7 to 5 fathoms only; but with Bic on the same bearings are from 15 to 12 fathoms.

If, with the lead kept going, and no soundings be found, you suddenly fall in with an island to the southward, it must be Bicquet. With this island S.W., half a mile, there are 60 fathoms of water. At two miles East from it are 10 fathoms, and a ship advancing into this depth, from the deep water, may either haul off to the northward, and wait for clear weather, or proceed, by sounding around the reef from the east end of Bic; steer thence West two miles, and come to an anchor, within the island, in 12 or 11 fathoms.

With an EASTERLY wind, if requisite to anchor on the south side of Bic, to proceed from windward, run boldly to the southward, and look out for the reef extending from the east end of the island; the latter may be seen, being always above water. Give the reef a berth of a quarter of a mile, and run along, in mid-channel, until Cape Orignal bears S.S.E., the body of the island then bearing N.N.W. In 13 or 14 fathoms is a large ship's berth, the ground clear and good. Small vessels may run up, until the island bears N.E. in 10 fathoms, at about a quarter of a mile from the island, but here the ground is not so clear as in the deeper water. Fresh water is obtainable in the cove just to the westward of the east end of the island.

If, during a WESTERLY wind, a ship should be to the windward of the island, and it be required to bear up to anchor, stand to the southward into 11 fathoms; then run down and anchor, as above directed; but particularly noticing that, with little wind, 11 fathoms is the proper depth of the fair-way, and that the last quarter-flood, and all the ebb, sets strongly between Bicquet and Bic.

Should you, with the wind easterly, be too far to the westward to fetch round the east end of Bic, in order to gain the anchorage, give Bicquet a berth of half a mile, then run up until the west end of Bic bears S.E., when Cape Orignal will be open of it. The latter mark leads to the westward of a reef that covers at a quarter tide, and extends S.W. by W. one mile from Bicquet. Another reef, always in sight, lies between the former and Bicquet. By hauling around to the southward, with Cape Orignal open, you will pass athwart the opening between Bic and Bicquet, in from 16 to 12, 10, and 9 fathoms; the water thence shoalens into 6 fathoms, on a spit of mud and sand lying S.W. by W. from Bic, a mile in length. After crossing this spit, you will deepen into 10 and 12 fathoms, when the passage will be open, and you may come to an anchor.

The N.W. ledge of Bic, the west end of that isle, and Cape Orignal, are in a direct line when bearing S.E. When beating into Bic from the westward, while standing to the southward, do not shut Mount Camille with Cape Orignal; in standing to the northward, do not shut Mount Camille with the Isle Bic.

BANK OF SOUNDINGS.—In the offing, between Barnabé and Bic, are regular soundings, decreasing from 35 to 30 fathoms, generally of clean ground. Ships may, therefore, anchor in any depth, but no nearer than a mile and a half, with Bic bearing from W.S.W. to S.W., as otherwise, the channel on the south of that island will not be open; and, with a sudden shift of wind, you may not be able to clear the island.

At N.W. from the eastern extremity of the S.E. reef of Bic, and just to the southward of the stream of Bicquet, is a dangerous ledge, seen at low water, spring-tides only. To avoid them, give Bic the berth of a mile. Westward of Bic, the bank trends to the S.W. from Bicquet, and hence to Basque Isle extends in no part more than three miles from the main land; and, from that isle, not more than two miles. Ships may here, therefore, stand safely to the southward by the lead, 12 fathoms being the fair-way.

ISLE BIC TO GREEN ISLAND.—From the Isle Bic, Green Island bears W.S.W., distance 10 leagues: and the course will therefore be from W.S.W. to S.W., according to the distance northward from Bic, &c. In this course and distance, you pass the Alcides Rock, Razades, Basque, and Apple Island, which have been described in page 50. From the rocks of Apple Island to the eastern reef of Green Island, the bearing and distance are W. by S. $2\frac{1}{2}$ miles. This reef extends nearly a mile from the trees on the east end of Green Island, and is always uncovered. The small channel on the south side of Green Island is nearly dry at low water.

The edge of the bank is very steep to the northward of the Razades, &c.; but from 35 fathoms, inward, there are gradual soundings. Between Bic and Green Island there is anchorage all the way in 14 fathoms; and for small vessels, in fine weather, in 9 fathoms. If up to the east end of Green Island, and the tide be done, you may anchor in 10 fathoms, off the reef, and in the stream of the ledge extending N.E. by N. from the lighthouse point, at the distance of a mile from the extremity of that shoal.

Between Bic and Basque the ground is all clean; but thence to Green Island it is foul. A small vessel may find shelter under the east end of Basque, in 3 fathoms at low water, giving the east end of the reef extending from that island the berth of a quarter of a mile. The anchorage is with the island bearing W. by S.

The **LIGHTHOUSE** and reefs about Green Island have been already described in page 50. The high land to the southward of Cape Original kept open to the northward of Basque Island, leads clear of the lighthouse ledge. With the lighthouse bearing S.W. by S., this ledge will be exactly between the ship and lighthouse.

Between the lighthouse and the west end of Green Island, in fine weather, you may stop tide in 20 or 25 fathoms, close to the north side of the island: but, if the wind is fresh, the ground will be found to be bad for holding, and too near the shore. During N.E. winds, small vessels may anchor between the S.W. reef and Cacana, in 4 fathoms; but it will be better to bear up for the Brandy-Pots, lest they be caught by adverse weather, &c.

RED ISLAND bears from the lighthouse of Green Island N.W. by W. $\frac{1}{2}$ W. nearly six miles. The eastern extremity of its extensive reef bears from the lighthouse nearly N.N.W. When coming up in the night, the light should not, therefore, be brought to the eastward of S. by E., until you are certainly within five miles of it. If, with the light bearing S. by E. you cannot make free to enter the Narrows, wait for day-light; and, should the wind be scant from N.W., you may then borrow on the south side of Red Island, but so as to have White Island open from the north side of Hare Island. On drawing to the westward, you may approach the shoal of White Island by the lead, remembering that the ebb-tide sets strongly down between White Island Shoal and Red Island, and the flood in the contrary direction. A vessel may anchor, in fine weather, on the south side of Red Island Reef, in 12 fathoms, at the distance of about three-quarters of a mile. The tide hereabouts, as already shown, sets in all directions.

The **SOUNDINGS** between Green Island and Red Island are very irregular. At a mile from each are 40 fathoms of water. In the middle, no bottom is to be found with a line of 70 fathoms. The water of this channel, during ebb-tide, with an easterly wind, appears broken, but there is no danger.

The **NORTH COAST.**—The Point de Mille Vaches bears from Bicquet N. by W. 22 miles. The extensive shoal which surrounds this point commences at the river of Port-neuf, on the east. The southern extremity of the shoal is about half a league from shore, and is very steep-to. Part of the shoal is dry at low water. Above the point the land

land forms a deep bay, but it is shoal, and full of rocks. At about five leagues to the westward of the point, are two islets, called the *Esquemin Isles*, eastward of which is a small river, called *Saut au Mouton*, having a handsome fall at the mouth of it, which may be always seen when passing. Between the *Esquemin Isles* and *Saguenay River*, are three small inlets, named *Bondesire* and *Les Bergeronnes*, which afford shelter to fishing-boats.

Ships working up on the north side, between the *Esquemin Isles* and *Red Island*, should keep within two leagues of the north land: the shore is clear and bold, and the flood pretty regular.

Should a ship, to the northward of *Red Island*, be caught by a sudden shift of easterly wind, so that she cannot fetch round the east end of *Red Island Reef*, she may safely bear up and run to the westward, giving *Red Island*, *White Island*, and *Hare Island*, a berth of two miles in passing. At three leagues above *Hare Island*, haul to the southward, and enter the *South Channel* towards *Kamourasca*; whence proceed as hereafter directed.

GREEN ISLAND TO THE BRANDY-POTS.—The *Percy Rocks*, *Barrett's Ledge*, *White Island*, and the *Brandy-Pots*, have already been described. See page 51. From *Green Island* to the *Brandy-Pots*, the course and distance are from S.W. $\frac{1}{2}$ W. to S.W. by W. $5\frac{1}{2}$ leagues. To sail to the northward of *Barrett's Ledge*, which is the large ships' channel, bring the southernmost mountain of *Kamourasca* in a line with the saddle of the *Great Pilgrim*, or an islet lying off the N.E. side of *Green Island*, touching the high land of *Cape Orignal*. Either of these marks will clear the *Ledge*, and here the telegraph on the southernmost *Brandy-Pot* will be seen.

In advancing towards the *White Island Reef*, you may trust to the lead: seven fathoms is near enough to tack or anchor in, and this depth is in the fair-way to the *Brandy-Pots*. The *Brandy-Pots* are steep on the south side, 10 fathoms being close to them.

There is good anchorage to the eastward of the *Brandy-Pots*, in from 9 to 7 fathoms, and good anchorage above them, in from 9 to 14 fathoms. This is the best roadstead of any part of the river, during easterly winds, excepting *Crane Island*.

There is a good passage to the southward of *Barrett's Ledge* up to the *Pilgrims*, leaving the *Middle Ground*, which is above *Barrett's Ledge*, on the starboard hand. The north passage, is, however, the best, and most used.

BRANDY-POTS TO THE TRAVERSE AND GOOSE ISLAND.—For the flat on the south side of *Hare Island*, above the *Brandy-Pots*, see page 52. This flat is bold-to, there being 7 fathoms close to it, quite up to the west end; and the whole of this side of the island is bound by rocks.

The upper end of the *Middle Bank*, as already noticed, (page 52,) bears S.E. about two miles from the *Brandy-Pots*. Between the *Middle Ground* and *Hare Island* are 20 fathoms of water; on the south side of the *Middle Ground*, 10 fathoms. At half tide, in this part of the river, a large ship may safely beat up or down.

In order to pass through the best water, between the *Middle Ground* and *Hare Island Spit*, after running about half a mile above the *Brandy-Pots*, on a S.W. course, bring the southernmost mountain of *Kamourasca* over the middle of the second *Pilgrim*; and, with this mark kept on, when *White Island* comes open between *Hare Island* and the *Brandy-Pots*, keep it midway between them, and it will lead between the knoll and west end of the *Middle*, in 4 and $3\frac{1}{4}$ fathoms at low water. You will be up to the knoll when the west end of *Hare Island* bears N.W.

In standing to the southward from *Hare Island*, above the *Brandy-Pots*, you will find 18 and 20 fathoms of water. On the north side of the *Middle Bank*, 4 fathoms; but there are 10 fathoms on the south side of this bank, with gradual soundings to the south shore. Five fathoms is a good depth to tack in. Abreast of the middle of *Hare Island* the depths are nearly the same. On the spit of *Hare Island Shoal* are but two fathoms; thence to the eastward there are 3, 4, and 5, fathoms, on the bar or the western part of the *Middle Ground*, with 6 fathoms more to the S.E. A ship should tack from the *Great Pilgrim* when in this depth.

The direct course from the *Pilgrims* to the *Black Buoy* on the south side of the *Traverse* is S.W. by W., the distance about 9 leagues. The *Traverse* and coast between

have been fully described. (See page 52.) The bank between the Pilgrims and Kamourasca Isles is steep-to. The mark for tacking here is not to shut the S.W. land with the great Island of Kamourasca: in standing to the northward, you will gain the depth of 20 fathoms; and, on the ENGLISH BANK, which is connected with the shoal of Hare Island, may be found 10 or 11 fathoms, opposite to the Kamourasca Isles.

Opposite to the interval between the Pilgrims and Kamourasca Isles, you may cross the west end of Hare Island Shoal in 4 fathoms. The north channel has very deep water.

KAMOURASCA.—From Crow Island, the third of the Kamourasca Isles, as described on page 52, the church bears S.E. three-quarters of a mile. Between is a place on which ships may safely be run on shore. To get in, open the church three sails' breadth to the westward of Crow Island, and run for it. In passing in, you will carry 14 feet in common spring-tides, and 10 feet with neaps. The bottom is of soft mud.

CAPE AU DIABLE bears from Crow Island S.W. about three miles, and a reef extends from the cape as already explained, the easternmost part of which is not more than a mile from Crow Island. Ships from the westward, therefore, in order to get in, should run down along the reef in 6 fathoms, and haul in for the church, as above.

With easterly winds, the large cove on the S.E. of Cape Diable is a fine place for a vessel to run into, should she have lost her anchors. To enter, bring the church and Crow Island in the line of direction given above. Having arrived within the reefs, run up to the westward, leaving an islet that lies above the church on the left side; then put the ship on shore in the S.W. part of the cove, and she will be safe. Should the wind be westerly, put her on shore a little to the eastward of the church.

TRAVERSE.—From Cape Diable to the narrow channel now called the TRAVERSE, the course, if at three miles from the cape, will be S.W. by W. In proceeding, keep the northernmost part of the high land of Kamourasca in a line with the low point of St. Denis: this mark will lead to the black buoy off the point of St. Roc;* and, when St. Roc Church bears S.E. by S., the roadway beyond the church will be in a line with it, and you will be up to the buoy. From this spot, observing to keep the Pilier Boissé (described on page 53.) just touching the south point of Goose Island, run one half or quarter of a mile above the buoy on a S.W. course; then haul up S.S.W. for the Piliers or Pillars, keeping the south side on board, in seven fathoms.

Vessels of 10 feet water may safely run over the point of St. Roc's Bank at half flood, at one mile to the southward of the buoy.

A red buoy has been laid down on the east end of the Middle Bank, in 2½ fathoms, bearing from the black one above described N.W. by W. one mile distant.† This has been already noticed.

* This buoy lies in 2½ fathoms, with the church of St. Roc, or St. Roch, S.E. by S. 5 miles; the church of St. Anne, E. ½ S.; River Ouelle Church, E. by N.; East end of Coudre Isle, N.N.W. ¼ W.; Cape Goose, N.N.E.; and the northernmost high land of Kamourasca just open with the low land of St. Denis, N.E. by E. ½ E.

† The black buoy was formerly laid near the same spot, and a white one where the black one now lies. The frequent changing of buoys in this manner is, at times, very perplexing to navigators. For example:—

Extract from a Letter, dated Quebec, 31st May, 1815.—“Having just brought a convoy of valuable transports, with provisions for the army, I conceive it my duty, for the good of the public, to acquaint you with a remark which I made on my passage through the Traverse, passing up this river.

“By all Charts that I have seen, on the North Bank of the Traverse, a black buoy was placed; and, on the south edge, a white buoy; consequently, ships passed between them; or, if one was gone, acted by the other. By this year the white buoy is taken away, and a black one placed on the south shore in its room; therefore, all ships coming up in thick weather, if obliged to run without pilots, will, by their Chart, go on the South Bank, by keeping, as usual, the black buoy on their starboard hand.

“Having felt the important charge, &c. &c.

(Signed) CHAS. CHURCH, R.N. Agent for Transports.”

The red buoy lies with the summit of the second mountain, from the northward, of the high land of Kamourasca in a line with the low land of St. Denis, and Pilier Boissé its own breadth open to the southward of Goose Island.

Its thwart-marks are, the road behind St. Roc's Church thrice the church's length open to the westward of the church; and the black buoy, (as above,) S.E. by E.

The

The direct course through the Traverse from the buoys, with flood-tide, is S. S. W., and, with an ebb-tide, S. W. The distance, $5\frac{1}{2}$ leagues.

If running from off Cape Diable for the Traverse, during the night or in a fog, strike the bank off that cape in 7 or 8 fathoms, and steer about W. S. W. By keeping that water, it will lead to the buoy. On passing the point of St. Roc Sand, the water will suddenly be found to deepen, whence you must haul to the southward, and be sure to keep the south side on board.

In beating up from the cape to the buoys, take the English Bank as your guide to tack from when standing to the northward; and, from the southward, the Flat of St. Anne. There is deep water between the Flat and English Bank, but you may anchor on either side, according to the wind.

If entering the Traverse with *little wind*, be careful to allow for the first of the flood, as it sets strongly towards the point of St. Roc's Bank. On going through, if mere than half-flood, allow for a set to S. W. by W., and be sure always to keep the south bank on board. Above the Piliers, or Pillars, the tide sets fair up the river.

In beating into and through this passage, be careful and tack from each side on the first shoal-cast of the lead; but most so to the northward, on the edge of the Middle Bank. Ten fathoms is near enough to the bank; and it is to be remembered, that the ship will always go farther over towards the Middle Bank than to the point of St. Roc's Shoal.

ANCHORAGE.—Between the Brandy-Pots and Traverse, there is anchorage all along the English Bank, and upon the edge of the flat on the south side, between the Pilgrims and the greater Kamourasca Isle, in 9 fathoms; under the Pilgrims, in 3 fathoms; off Cape Diable, in 10 fathoms; and thence, along the flat, up to the buoys.

Should the flood be done, when a ship is in the Narrows, or between the buoys, or if any occurrence render it necessary to anchor thereabout, instead of coming-to in the channel, run below either buoy, and come-to there, in 7 fathoms, on either side. The tides will be found much easier after half-ebb below the buoys than between them. In the deep water the tides here run very strong. Should the wind be inclinable to the westward, you may anchor at half a mile to the eastward of the red buoy, in 6 fathoms, clear ground, and moderate tide. Should the wind be inclinable to the southward, anchor to the southward of the stream of the black buoy, in 7 fathoms. Should a ship be a mile above the buoys, under similar circumstances, she should anchor on the edge of the South Bank, in 7 fathoms, with a good scope of cable before the tide comes strong; for, if the anchor once starts, you may have to cut from it, as it seldom takes hold again, the ground hereabout being foul and unfit for holding.

Near the Pillars the tides are much easier than below; at and above them, setting at the rate of not more than $3\frac{1}{2}$ miles an hour.

Ships bound down, with easterly winds, may anchor at two miles to the eastward of the South Pillar, in 7 fathoms; or, to the southward of it, in the same depth, with good ground.

SOUNDINGS, &c.—Opposite to Cape Diable, the English Bank has 14 fathoms of water over it; thence eastward to Hare Island Shoal, and westward to the Middle Bank, it gradually shoalens to $2\frac{1}{2}$ fathoms. In the channel between the cape and bank, are from 35 to 30 fathoms. Near the buoys are from 11 to 13 fathoms. The Middle Bank is steep, 10 fathoms being close to the edge of it. The Bank of St. Roc is, also, steep, and has 5 fathoms close to it. Above this, each side is equally steep to the Pillars. In the middle of this part of the Traverse are 12, 10, 9, and 7, fathoms. In the channel to the southward of the Pillars are 7 and 8 fathoms.

SOUTH PILIER, or PILLAR, to CRANE ISLAND.—From abreast of the South Pillar, or of the Avignon Rock, the direct course and distance to Crane Island, are S. W. $\frac{1}{2}$ W. 6 leagues. On this course you pass Goose Island, and arrive at the Bank of Madame Beaujeu, described on page 53. The south side of the channel is a muddy flat, of 3 and 2 fathoms, with regular soundings towards it. There is hence good anchorage all the way up to Crane Island. Stand no nearer towards Goose Island Reef than 12 fathoms; but above it, as already noticed, you may stand towards the island to 7 fathoms. (See page 53.)

To

To clear MADAME BRAUJEU'S BANK, keep the southernmost of three mountains standing to the southward of Trois Saumon on with the islet to the W. S.W. of the same, distinguished by a telegraph: with this mark run into 4 fathoms of water, until you bring the farm-house on the east end of Crane Island to bear N.W. Here you will be up to the Bank. Now bring the bluff point of St. Valier two sails' breadth open to the southward of the west end of Crane Island, which will lead fair in the best water. When up to the body of Crane Island, you may approach safely, as it is bold and clear, with 7 fathoms close to the rocks.

ANCHORAGE.—From the Pillars to Crane Island, there is anchorage in 7 fathoms all the way, with good and clean ground. There is, also, a good road off the body of Crane Island, in 10 fathoms. The best road in the river, during easterly winds, is at a mile to the westward of Crane Island: and ships bound downward, if at the Pillars, and caught by strong easterly winds, had better run back to this place, than ride below, and risk the loss of anchors.

CRANE ISLAND to POINT ST. VALIER.—The direct course and distance from Point St. Valier to Crane Island, is from W. by S. to W. S.W. six leagues. Between are the mud bank of St. Thomas, the Wye Rocks, the Belle Chasse Islets, and a small bank off Grosse Island. For description, see page 53. When St. Thomas's church bears S.E., you will be abreast the point of the bank, and may thence steer directly up, W. S.W.

To avoid the Wye Rocks, never stand to the southward of seven fathoms in the night; and, by day, observe that the long mark is to keep Belle-Chasse Islets always open to the southward of Point St. Valier. The Rocks lie with Belle-Chasse Islets and the telegraph of St. Michael in one; and the islets then appear twice their breadth open to the northward of Point St. Valier.

When above Marguerite Island, stand no farther to the northward than into 6 fathoms, and thus you will avoid the bank extending from Grosse Island. Rat Island and Madame are flat to the southward; 7 fathoms will be near enough to both. The south side of the channel, up to Belle-Chasse, is all bold; 8 fathoms are close to it, with 7, 8, 9, and 5, fathoms, quite across. There is good clean anchoring-ground, and easy tides, all the way.

When up to Belle-Chasse, stand no nearer to these islets than 8 fathoms, and to Madame than 6 fathoms. The shoal extending from Madame has already been noticed. See page 54.

ST. VALIER to QUEBEC.—From the Point of St. Valier to that of St. Laurent, or St. Lawrence, in Orleans, the course and distance are from W. S.W. to S.W. by W. 4 leagues. Both sides are bold; 10 fathoms in a fair-way from Orleans, and 8 fathoms from the south shore; with 20, 18, and 16, fathoms in the middle, quite up to St. Lawrence's church. Ships may anchor towards the island, in from 16 to 10 fathoms.

THE SHOAL of BEAUMONT, described in page 54, is steep-to. Make short boards until you are above Point St. Lawrence, when you will be above it, and may safely stand to the southward into 10 fathoms.

From POINT ST. LAWRENCE to POINT LEVY, the course and distance are W. by N. two leagues. At a mile and a half westward from St. Lawrence's church is St. Patrick's Hole. (See page 54.) Here, in about 10 fathoms, is the fair-way to tack from. The depth in the middle is 10 fathoms.

From POINT LEVY to QUEBEC, the course is W. S.W., and the distance about two miles. The shoals of Beauport, on the north side, may be easily avoided: in standing towards them, advance no nearer than in 10 fathoms, as they are steep-to, and are, in some parts, studded with rocks.

Ships, arriving at Quebec, with flood-tide and an easterly wind, should take in their canvas in time, and have cable ready, as the ground in the basin is not very good for holding. The water is deep, and the tides strong, particularly spring-tides. If obliged to come-to in the middle, there will be found from 16 to 20 fathoms abreast of the town; but near the wharfs, or at two cables' length from them, is a depth of 11 fathoms; and here vessels are easily brought up: but, in the offing, 16 fathoms of cable will be required. On the Point Levy side is a depth of nearly 30 fathoms, and the tides are stronger

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stronger here than near the wharfs. With the wind heavy from the eastward, the best riding will be above the wharfs, off the cove called Diamond Harbour, in the depth of 10 fathoms.

The BALLAST GROUND, or place appointed by law for heaving out the ballast in, is to the westward of two beacons fixed on the south shore, above Quebec. These beacons stand on the brow of a hill, above a cove called Charles Cove, and when in a line bear S.E.

GENERAL DESCRIPTION of the RIVER OF ST. LAWRENCE, from MONTREAL to QUEBEC, &c.

CANADA extends in the same parallels of latitude as the kingdom of France; but, instead of exalting the exquisite fragrance of flowers, and ripening delicate fruits into delicious excellence, as is the case in that country, its surface is covered with accumulated snows for nearly one half of the year, and vegetation is suspended for the same period by continued frost. Notwithstanding this severity, the climate of Canada is congenial to health in an eminent degree, and highly conduces to fertilize its soil. Heat and cold are certainly felt to extremes, and the latter, both in duration and intensity, is by far the most predominant.*

Mr. Grece, in his publication on Canada, where he has farmed extensively, says, "The spring and summer months being very warm, not unhealthfully sultry, the rapid advance of vegetation is almost incredible to those who have not actually visited it. Wheat has sometimes been sown as late as May 11th, and harvested in the August following. Limestone is abundant, and various other manures easily to be obtained. Cherries, chesnuts, walnuts, hickory, hazel and filbert nuts, being natural to the soil, grow wild; as also grapes, gooseberries, strawberries, raspberries, blueberries, cranberries, and black currants. All the superior European fruits flourish, and orcharding is most successful. Game in immense quantity and variety, and *no game-laws.*"

From the beginning of December until the middle of April, the water-communication of the River of St. Lawrence is totally suspended by the frost. During this period the river, upwards, from Quebec to Kingston, (in Upper Canada,) and between the great lakes, excepting the Niagara and the Rapids, is wholly frozen over; the lakes themselves are never entirely covered with ice, but it usually shuts up all the bays and inlets, and extends many miles towards their centres. Below Quebec the river is not frozen over, but the force of the tides incessantly detaches the ice from the shores, and such immense masses are kept in continual agitation by the flux and reflux, that navigation is totally impracticable in these months. By the beginning of May the ice is either dissolved or carried off by the current.

THE ISLAND of MONTREAL is considered as the most beautiful part of Lower Canada. On the S.E. side of it is the City, with its convenient port, at 90 sea-leagues from the Isle of Bic, and to this place ships of 600 tons may ascend with very little difficulty. From Montreal, downward, the navigation assumes a character of more consequence than what it does above, being carried on in ships and decked vessels of all classes. In the distance hence to Quebec, 45 leagues or 155 miles, the impediments to the navigation of large vessels, up or down, are not many, and they may be readily overcome, if expedient for cargoes to be so conveyed, in preference to small craft. On either side of the river the prospects are admirable, the land being in the highest state of improvement that the agriculture of the country will admit of, although the component parts do not possess that degree of grandeur which is exhibited below Quebec. Numerous villages are seen, for the most part, built around a handsome stone church; while single houses and farms, at agreeable distances, appear to keep up a regular chain of communication. At about 39 miles below Montreal, on the south bank of the river, is the town of WILLIAM HENRY, formerly SOREL, which stands at the entrance of the River Richelieu, and above the Lake of St. Pierre, or St. Peter. The latter is 22 miles long and 8 broad; but a portion of about eight miles of the western part is filled with a group of islands, which, however, form two distinct channels; and of these, the one on the south being the deepest and cleanest, is the best for ships. Here the banks on each

* Bouchette's Description of Canada, 1815.

side are very low, with shoals stretching from them to a considerable distance, so that a narrow passage only, with 18 to 12 feet of water, is left clear.

On the north side of the river, at about 33 miles below William Henry, is the town of *Trois Rivières*, or *Three Rivers*, the third in rank within the province of Lower Canada. It stands at the mouth of the river St. Maurice, and here the tide entirely ceases. Between *Trois Rivières* and *Richelieu Rapid*, about 33 miles, there is little variation in the general aspect of the country. At the *Richelieu Rapid* the bed of the river is so much contracted and obstructed, by huge masses of rock, as to leave but a very narrow channel; and in this, at ebb-tide, is so great a descent, that much caution and a proper time of tide is necessary for passing through: at the end of the Rapid is good anchorage, where vessels can wait for a convenient opportunity.

From Montreal, thus far, the banks are of a very moderate elevation and uniformly level; but hereabout they are much higher, and gradually increase in their approach to *Quebec*, until they attain the height of *Cape Diamond*, upon which the city is built. This spot, and *Point Levy*, on the south shore, command the finest views that can be imagined; the assemblage of objects is so grand, and they are so beautifully contrasted, that the mind of the spectator is overcome with a sensation which cannot be expressed. The capital, upon the summit of the cape; the river of *St. Charles*, which flows to the northward of it, through a fine valley abounding with natural beauties; the Falls of *Montmorency*, at two leagues to the eastward; the *Island of Orleans*, and the well-cultivated settlements on all sides, form altogether a most beautiful picture. The Basin of *Quebec* is two miles in breadth.

The *Island of Orleans*, which has been already described, divides the river into two parts, or channels; and, of these, the one to the south is always used by ships. The shore on this side is high, and on the opposite, in some parts, it is even mountainous; but both are well settled, and the lands in so high a state of improvement, that a large track in the vicinity of the *Riviere du Sud* is commonly considered as the granary of the Province. *Crane Island* and *Goose Island*, below that of *Orleans*, are cultivated, but the islets in the vicinity of them are neglected.

The western side of the entrance of the *Riviere du Sud* is distinguished by the respectable village of *St. Thomas*, and the country about it is very fine, exhibiting many churches, telegraph-stations, and villages; the houses, being generally whitened, are pleasingly contrasted by the dark thick woods on the rising grounds behind them, the boundary of view beyond which is a distant range of lofty mountains.

DESCRIPTION of the OLD TRAVERSE, or NORTH CHANNEL, COUDRE ISLAND, &c.

This channel, which is now entirely disused by the pilots, lies along the South or S.E. Coast of the *Isle of Orleans*, thence to *Burnt Cape*, *Cape Maillard*, *Coudre Island*, and *Cape Goose*, whence ships crossed over the *English Bank* to the *Kamourasca Isles*, &c. In this channel the water is, in general, deep; the passage, near *Orleans*, narrow and intricate; the tides very strong; the lands high, and heavy squalls therefore frequent; and, lastly, few places for anchorage.

ST. PAUL'S BAY, to the N.W. of *Coudre Island*, is shoal and rocky to some distance off, whence the French have given this part the name of the whirlpool. In passing here, whether up or down, it is necessary for a vessel to go as near the reef as she safely can, to keep out of a contrary current. The north cape of the *Isle of Coudre* kept about a cable's length open of *Cape Goose*, leads clear of the reef.

In the channel between the *Isle aux Coudres*, or *Coudre Island*, and the north shore, the current is rapid, the depth of water great, and the ground, in general, bad for anchorage. The island, being cultivated, presents a pleasant aspect, and here are seen the settlements of the *Bay of St. Paul*, inclosed within an amphitheatre of very high hills. In case of necessity you may, however, moor off *Coudre*, in 17 fathoms, coarse sand, with *Cape Goose* just open of the land to the westward of it, bearing E.N.E. $\frac{1}{2}$ E. and the east end of *Coudre Island* E.S.E. $\frac{1}{2}$ E. In this place the tide runs very strongly, and causes a ship to swing round with the sun.

You

You may also moor in the channel of Coudre, in 17 fathoms at low water, sand and mud, with Cape Goose E. by N. $\frac{1}{2}$ N., Cape Torment S.W. $\frac{1}{2}$ W., the east point of St. Paul's Bay W. by N. $\frac{1}{2}$ N., and the water-stream on the north shore, North.

The tides at Coudre, both at ebb and flood, are very strong; yet at the meadows there is good anchorage, but not near the north shore. It is high water at Coudre by the shore at half-past four, at the full and change of the moon, and it runs off in the road an hour longer.

There is a very long reef of rocks running off the N.W. of the island, which are all covered at high-water. The bearings from the end of the ledge are, St. Paul's-church (just open) bearing N. 41° W., the east bluff point of St. Paul's Bay (called Cape Diable) N. 27° W., the water-fall on the north shore N. 27° E., the N.W. bluff point of the island S. 22° W., and the N.E. bluff point of ditto, off which is a reef of rocks, E. 9° N.

N.B. The part of this reef which is dry at low water lies to the westward, about S.W. and N.E., and to the eastward about East and West. Near the length of a cable farther out, are 5 fathoms at low water.

RATES OF PILOTAGE FOR THE RIVER OF ST. LAWRENCE.—1814.

From Bic to Quebec. <i>Per foot.</i>	£. s. d.
From the 2d to the 30th of April, inclusive.....	1 0 6
1st of May to the 10th of November, inclusive.	0 18 0
11th to the 19th of November, inclusive	1 3 0
20th November to the 1st of March, inclusive.....	1 8 0

From Quebec to Bic.

From the 2d to the 30th of April, inclusive.....	0 18 3
1st of May to the 10th of November, inclusive.....	0 15 9
11th to the 19th of November, inclusive	1 0 9
20th of November to the 1st of March, inclusive.....	1 5 9

Rates of pilot-water and poundage on pilot-money are payable at the Naval Office, by masters and commanders of vessels.

For every foot of water for which masters and commanders of vessels are bound to pay their pilots from Bic to Quebec, and from Quebec to Bic, 2s. 6d. currency, per foot.

For Vessels going to Three Rivers or Montreal,

Of 100 to 150 tons, inclusive, 2*l.* currency.

Of 151 to 200 tons, inclusive, 3*l.*

Of 201 to 250 tons, inclusive, 4*l.*

Of 250 tons, and upwards, 5*l.*

On settling with pilots, masters or commanders of vessels, or the consignees of such vessels, are to deduct 1s. in the pound for the amount of the sums to be paid for pilotage, which will be exacted by the Naval Officer at clearing out, the same being funded by law, under the direction of the Trinity-House, for the relief of decayed pilots, their widows, and children.

Regulations for the pilotage above Bic to Quebec.

At or above the anchorage of the Brandy-Pots;—
two-thirds of the present rate for a full pilotage.

At or above the Point of St. Roc;—
one-third of ditto.

For above the Point au Pins, on the Isle aux Grues, and below Patrick's Hole;—
one-fourth of ditto.

And at and above Patrick's Hole.—The rates already established by law for shifting a vessel from one place to another in the Harbour of Quebec, viz. 1*l.* 8*s.* 1*d.*

Rates above the Harbour of Quebec:—

From Quebec to Port Neuf.	To Quebec from Port Neuf.
4 <i>l.</i> currency.	For vessels of registered measurement, not ex-
5 <i>l.</i>	ceeding 200 tons.....
6 <i>l.</i>	If above 200 and not exceeding 250 tons.....
	If above 250 tons
	2 <i>l.</i> 10 <i>s.</i> currency.
	3 <i>l.</i> 10 <i>s.</i>
	4 <i>l.</i>

To

To Three Rivers, or above
Port Neuf.From Three Rivers, and above
Port Neuf.

6 <i>l.</i> currency.	For vessels not exceeding 200 tons	4 <i>l.</i> currency.
7 <i>l.</i>	If above 200 and not exceeding 250 tons	4 <i>l.</i> 10 <i>s.</i>
8 <i>l.</i>	If above 250 tons	5 <i>l.</i> 10 <i>s.</i>

To Montreal and above
Three Rivers.From Montreal and above
Three Rivers.

11 <i>l.</i> currency.	For vessels not exceeding 200 tons	7 <i>l.</i> 10 <i>s.</i> currency.
13 <i>l.</i>	If above 200 and not exceeding 250 tons	8 <i>l.</i> 15 <i>s.</i>
16 <i>l.</i>	If above 250 tons	10 <i>l.</i> 15 <i>s.</i>

Pilots are at liberty to leave vessels forty-eight hours after they arrive at the place of their destination.

IV.—The EASTERN COASTS of NEW BRUNSWICK, &c. to the GUT of CANSO, inclusive; with PRINCE EDWARD ISLAND.

GASPE' BAY, &c.—Cape Gaspé lies at the distance of 6 miles to the southward of Cape Rosiere; and Point Peter, or Flat Point, lies 6 miles to the S. by W. $\frac{1}{4}$ W. of Cape Gaspé. At the distance of about 5 miles S.S.E. from Cape Gaspé, is a small fishing-bank, with 15 fathoms over it, sometimes called the *Norwich Bank*, around which there is, at a short distance, a depth of 58 and 60 fathoms.

The ENTRANCE of GASPE' BAY is formed by Cape Gaspé and Point Peter. In this bay, at the distance of 11 miles N.N.W. from the entrance, within a point on the southern side, near its head, there is an excellent anchorage in from 9 to 12 fathoms of water, sheltered from all winds. There is, also, good anchorage with westerly winds off *Louisa Cove*, on the western side of the bay, at about 6 miles N.W. by W. from Cape Gaspé, in 9 or 10 fathoms. Throughout the bay there is deep water; nearly 50 to 40 fathoms in the middle, and 20 very near the shore on the eastern side: on the western side it shoalens more gradually towards the coast. The tide flows until 3 o'clock, on the full and change.

The shores of the bay are elevated, and the settlers upon them nearly all fishermen. DOUGLAS TOWN, or rather the situation for it, as but few houses are yet built, is at the entrance of the River St. John, on the south side of the bay. On the opposite shore of the same river is the site of the intended town of Haldimand.*

From Point Peter, off which there is a little islet called Hat Island, the bearing and distance to Bonaventure Island are S. by W. $\frac{1}{4}$ W. 6 miles. Between lies the bay called Mal-bay, or Cod-bay, which is nearly 5 miles in width.

Very near the southern point of Mal-bay is a remarkable rock, (*Roc Percée*) rising about 200 feet out of the water, and of about 1200 feet in length, in which there are three arches, completely wrought by nature; the central one is sufficiently large to admit a boat under sail to pass through it with ease. From this rock, along Mal-bay, to Point Peter, there is an excellent beach for fishing, part of which is named La Belle Anse or Lobster Beach: close to this place is the house of the late Governor Coxe.

The village called PERCÉE, situate on the rising ground that forms the southern point of Mal-bay, contains about thirty houses, inhabited, principally, by fishermen; but, among these is a gaol and court-house. In front of it the beach is convenient for the curing of fish, and off it are some of the best banks for catching them. The Isle of Bonaventure lies at about a mile and a quarter from the shore opposite to the point; it is better than a barren rock, but yet a few persons are hardy enough to winter there, for the sake of retaining possession of the fishing-places they have occupied during the summer.

The bearing and distance from Bonaventure to Cape Despair are S.W. by W. 8 miles, and thence to the north end of Miscou Island S.W. $\frac{1}{4}$ S. 26 miles.

* See the large Chart of the Gulf of St. Lawrence.

Nearly S.S.E. 2 miles from Cape Despair, lies the sunken rock, called the *Leander Rock*, over which there is a depth of 16 or 18 feet of water. As this rock lies in the fair-way of ships coming from the northward, with northerly winds for Chaleur Bay, it should be avoided by giving the cape a berth of 3 miles.

The bearing and distance from Cape Despair to Point Maquereau are W.S.W. $\frac{1}{2}$ W. 19 miles. Between these points lie the two coves called Pabos and Petite Pabos, or Pabou and Little Pabou, as shown on the Chart.

On the western side of the entrance of PABOU HARBOUR is a small village; and, on the opposite side, on a projecting point, stand the summer habitations of the fishermen, as they are usually termed. Several streams descend into this harbour from a numerous chain of small lakes to the north-westward.

Next to the westward of Pabou is the township and inlet of PORT DANIEL, where vessels may find convenient shelter during westerly and N.W. winds.

CHALEUR BAY.—Point Maquereau and Miscou Island form the entrance of Chaleur Bay, and bear from each other S. $\frac{1}{2}$ E. and N. $\frac{1}{2}$ W. distant $4\frac{1}{2}$ leagues. From the entrance of Chaleur Bay to that of Ristigouche Harbour, which is at its head, the distance, on a West and N.W. by W. course, is 22 leagues. The bay is of moderate depth near the shore on both sides, and has, towards the middle, from 45 to 20 fathoms of water.

The town of NEW CARLISLE, the principal town of Chaleur Bay, is situate in Coxe Township, on the North shore, as shown in the Chart. It is so laid out as to become hereafter a compact and regular little place. The number of houses is about fifty, all of wood: it has a church, a court-house, and a gaol. The situation is very healthy, and the surrounding lands some of the most fertile in the district. In front is an excellent beach, where the fish is cured and dried.

In the adjoining township of Hamilton, on the west, is the village of Bonaventure, containing about twenty-five houses and a church, on level ground. It is entirely dependent on the fishery.

In RISTIGOUCHE HARBOUR, at the head of Chaleur Bay, there is good anchorage in from 8 to 12 fathoms, land-locked from all winds; but it is so difficult of access, that it should not be attempted without a pilot.* The tide flows here, on full and change, until 3 o'clock, and its vertical rise is $6\frac{1}{2}$ or 7 feet.

The distance from the north point of Miscou Island to the south point of Shippigan is 19 miles: the course is nearly S.W. by S. From the south point of Shippigan to Tracadie, the course and distance are S.W. $\frac{1}{2}$ S. 4 leagues. From Tracadie to Point Escuminac, on the south side of the entrance of *Miramichi Bay*, the course is S. by W. $\frac{1}{2}$ W. distance 9 leagues.

MIRAMICHI is a large harbour, in the mouth of which there are several islands; between the northernmost of these islands, called Waltham or Portage Island, and the next to it, called Fox Island, is the passage into the bay, which is intricate and shallow at low water. Hence it is requisite to have a pilot. The pilots' houses stand within Escuminac Point, and sometimes pilots for this place may be found in the Gut of Canso. The custom-house is situate on the north side of the river, 14 miles within the entrance.

From the northern part of Miscou Island to Escuminac Point, the soundings are regular; and, in thick weather, the shore may be approached by the lead to the depth of 12 or 10 fathoms.

From *Escuminac Point* to the entrance of *Richibucto Harbour*, the course and distance are S. by W. $\frac{1}{2}$ W. 7 leagues; from *Richibucto Harbour* to the entrance of *Buchtuch*, S. $\frac{1}{2}$ W. 19 miles; from *Buchtuch* to *Cocagne Harbour* S. $\frac{1}{2}$ E. 5 miles: from *Cocagne* to *Shediac Harbour*, the distance is $2\frac{1}{2}$ leagues. From *Shediac* to *Cape Tormentin*, the coast trends S.E. by E. $\frac{1}{2}$ E. 10 leagues. The harbours here mentioned are not of sufficient depth to admit large ships for a lading. At the distance of 2 miles E.S.E. from Cape Tormentin there is a shoal, having over its shoalest part a depth of only 6 feet. Its shape resembles a fan. Small vessels pass within it. The outer part, on which there is a depth of 20 feet, lies 3 miles from the point.

* We presume, however, that the particular Chart of Ristigouche Harbour, given on the large Chart of the Gulf of St. Lawrence, will obviate this difficulty.

Within Cape Tormentin is the isthmus and boundary between New Brunswick and Nova Scotia, the narrowest part of which, from the Bay Verte to Cumberland Basin, at the head of Chignecto Bay, is only 15 miles in breadth.

THE NORTHERN COASTS OF NOVA-SCOTIA, &c.

The general features of the Northern Coast of Nova-Scotia are pleasing: the land low and even, or slightly broken by agreeable inequalities. In the Strait of Northumberland, to an extent, from end to end, of not less than 100 miles, the bottom, in many places nearly level, varies in its depth from 20 to 10 fathoms. The bottom is, generally, a stiff clay, and good holding ground.

Between COCAONE, on the west, and the high rock called the BARN, on the east, the shore is, in general, bound with red cliffs and beaches under them. The inland country, between Tatmagouche and the basin of Cobequid, appears remarkably high to vessels in the offing.

RIVER PHILIP.—To the southward of Cape Tormentin, at the distance of $4\frac{1}{2}$ leagues, is the entrance of the *River Philip*, a bar-harbour, having only 10 feet at the entrance. In advancing towards this place, when in the depth of 5 fathoms, another harbour will be seen on the eastern or larboard side, which is called *Pogwash*. In the latter, ships drawing 17 feet load timber. This harbour is safe; but the entrance is so narrow as to require a pilot. Ships commonly anchor in 5 fathoms, at 3 miles from shore, with the entrance bearing to the S.E.

In BAY VERTE, within Cape Tormentin, the shores are lined with flats, formed by the decomposition of the coast; but the anchorage is good. Vessels of considerable burthen take in cargoes of timber here. The interior, from the Bay to Amherst, Cumberland, Tantamaree, &c. is in a highly improved state.

From Cape Tormentin to Cliff Cape, the bearing and distance are S. by E. $\frac{1}{2}$ E. 16 miles; from Cliff Cape to Shoal Point S.E. 3 miles; and from Shoal Point to Cape John S.E. by E. 11 miles. Between the latter lie the harbours of Ramsheg and Tatmagouche, which are good and well sheltered, but each requires a pilot.

RAMSHEG HARBOUR.—The flats extending from each shore, at the entrance of this harbour, leave but a narrow channel, through which, at all times, excepting at slack water, the tide runs with great velocity, and renders the navigation into it very unsafe, although the depth up to the anchorage is sufficient for a frigate; there being, in mid-channel, $3\frac{1}{2}$ fathoms at low water. In sailing in, steer south, westerly, towards Gravois Cliff, giving Shoal Point a berth of a mile, until the N.W. arm is well open; then steer for the latter, keeping your lead going, until the beach to the N.W. of Gravois Cliff bears S.W. by W.

TATMAGOUCHE.—On the western side of Amet Isle, the passage is quite clear; but, in sailing in from the eastward, between Cape John and the Isle, you should keep nearest to the cape, as a ledge extends from the isle to a considerable distance. Amet is a low island, without trees, and it will be most prudent to keep at least three-quarters of a mile from it. The best anchorage for ships is in Harbour or River John, on the east side, in 4 or 5 fathoms, muddy bottom. Small vessels may run up to Tatmagouche, and anchor off the town in 10 or 12 feet at low water. Here the tide rises 5 feet, on full and change, and flows till 7 o'clock.

In coming from the eastward, when between Amet Island and Cape John, your course toward River John will be W. by S. In passing between the island and cape, you will have $4\frac{1}{2}$ fathoms, until you open the River John, on the larboard side. You will then have 7, 8, and 9, fathoms; and, if bound for this river, or for Tatmagouche, may obtain a pilot, by making the usual signal. There is anchorage at 2 miles from shore.

In Ramsheg, Tatmagouche, and John, Harbours, ships of 15 feet draught load timber.

CARIBOU HARBOUR.—From Cape John to Caribou Point the course and distance are E.S.E. 6 leagues. Here the water gradually shoals to the shore, from the depth of 8 or 9 fathoms, at two miles off. To strangers it may be dangerous to approach Caribou Harbour, as it has frequently been mistaken for Pictou, which lies to the south-westward, and some have run on shore before the error has been discovered.

For

For it is to be observed that, ships are seen riding, not in the entrance of the harbour; but within a sand-bank, stretching from side to side, with not more than 3 or 4 feet over it, and which appears like a good channel. Small vessels load with timber here.

Caribou may be known from Pictou by observing that the hollow land over it appears like a deep inlet; but the high lands of Pictou seem to fold over each other, and blind the entrance. The ledges about Caribou extend upwards of a mile from shore, and some of them are dry at low water.

Nearly in mid-channel, to the northward of Caribou Point, is a rocky shoal of 10 feet, lying as shown on the Chart. It is a quarter of a mile in circumference, and around it the depths are 4, 5, and 6, fathoms. The tide, both ebb and flood, sets rapidly over it.

PICTOU.—The Harbour or River of Pictou has a bar across its entrance, having over it only 15 feet at low water; and without this is a shoal, called the Middle Ground; having the smaller depth of 7 feet. The entrance lies S.W. $\frac{1}{2}$ S. 5 miles from the west end of Pictou Island. The windmill near the town, in a line with the beach that forms the left or south side of the entrance, is the mark to clear the Middle Ground, and for the deepest water. Within the bar and the beach the water deepens to 5, 6, and 7, fathoms, muddy bottom. This depth continues up to the town, opposite to which a mud flat extends outward so far as to leave the channel midway between the two shores. Above the town, the river divides into three branches, as shown in the Chart; of these, the eastern one is winding, but navigable to vessels drawing 15 feet, about 4 miles upward, at which distance the river is impeded by a bar, although above it the water increases. At 9 miles above the town of Pictou are the well-known coal-pits, the produce of which is brought down to the bar in large flat boats.

The Middle and West Rivers are navigable upward to a considerable distance. The lands hereabout being good, the population is rapidly increasing.

The town of Walmisly, on the north side of the harbour, is the residence of the principal merchants who load timber in these parts.

MERIGOMISH, which is an excellent bar-harbour, lies 7 miles to the E.S.E. of the entrance of Pictou: the merchants of which place have ponds here, for the reception of timber, with which a number of ships are annually laden,

To sail in for this place, bring the east end of Pictou Island nearly North, and keep it so until off the harbour's mouth, where you may either obtain a pilot, or anchor in 4 fathoms. A stranger should not venture to enter the harbour without a pilot, as a ledge stretches off from either side. There is a depth of 14 feet on the bar at low water, and the vertical rise of tide is about 8 feet. The depth within is from 4 to 7 fathoms, soft mud.

PICTOU ISLAND, which lies off the entrance of Pictou and Merigomish, is cultivated, and contains about 3000 acres. Fine quarries of fire-stone have been opened here, and strong traces of coal are visible in several places about the cliffs. From the east end a spit of rocks extend about a mile; and, at the E.N.E. from it, one league and a half, is a shoal of 21 feet. Between the island and Merigomish the bottom is muddy, and the depth from 11 to 7 fathoms.

There is no harbour between Merigomish and Cape St. George; but the coast is clear, high, and bold, and vessels may sail along it in safety, at the distance of a mile. As a place of refuge for small vessels in distress, there is a new pier on the coast, at 7 leagues to the eastward of Pictou, and at the indent formed by the rock called the **BARN**. There is good anchorage under Cape St. George, in from 10 to 7 fathoms, sheltered from westerly winds.

ANTIGONISH.—The entrance of the Harbour of ANTIGONISH lies 10 miles to the S. by W. from Cape St. George. Here small vessels load timber and gypsum, or plaster, of which there is abundance in the neighbourhood; but the harbour is so shoal, that even these complete their cargoes without the bay, although the anchorage is not safe. The rivers which fall into this harbour run through many miles of fine land, and the population is considerable.

At **POCKET ISLAND**, 6 miles eastward from Antigonish, ships of any size may load in safety. In sailing in, when from the northward, leave the island on the starboard side, keeping close to a rock, which appears 5 or 6 feet above water. This rock is steep-to, and lies off the east end of the island. Without it, at the distance of three-quarters of a mile,

a mile, lie several sunken ledges, which are dangerous. After passing the rock, a bay will open on the starboard side, which you stand into, till you are shut in with the island, where there is anchorage in $3\frac{1}{2}$ fathoms of water, at about half a mile from the island.

AUBUSHEE, which lies between Cape Jack and the Gut of Canso, is a small harbour, occupied by an industrious and thriving people. Here a number of small vessels have been built, carrying from 15 to 50 tons. A rocky ledge extends without the harbour, in a north-westerly direction, as shown on the Chart.

THE GUT OF CANSO TO INHABITANT BAY.

The Gut of CANSO forms the best passage for ships bound to and from Prince Edward Island and other places in the Gulf of St. Lawrence. It is shorter, and has the advantage of anchorage in case of contrary winds or bad weather. Its length is about 4 leagues, and breadth more than three-quarters of a mile. The east side is low, with beaches, but the west shore is mostly high and rocky; and that part of it called *Cape Porcupine* is remarkably so. The deepest water is on the western shore; but both shores are bold-to, and sound, excepting a *sunken rock*, which lies near a cable's length from the eastern shore, and about midway between the southern entrance of the Gut and Ship Harbour, and two other rocks, under mentioned.* *Mill Creek, Gypsum or Plaster Cove, Venus Creek, Ship Harbour, Holland Cove or Pilot Harbour, and Eddy Cove*, afford excellent anchorage, in a moderate depth, out of the stream of the tide, which generally sets in from the southward, but is very irregular, being influenced by the winds. After strong north-west winds, which happen daily during the fall of the year, the water in the Gulf of St. Lawrence is rendered low, which causes the current to run northward through the Gut, at the rate of 4 or 5 knots, and the contrary happens after southerly winds.

CAPE ST. GEORGE, which is a remarkable promontory, lies at the distance of $10\frac{1}{2}$ leagues to the eastward of Pictou Harbour; and a course of 6 leagues, thence to the south-eastward, will lead to the entrance of the Gut, whence you may run along the Breton-shore. It is to be observed that, there is a ledge of rocks, in the offing, between Aubushee and the Gut, already noticed; some of these are nearly dry at low water, and nearly in the direct course for the Gut; they must, of course, be carefully avoided.

Opposite Mill Creek, at the upper end of the Gut, on the Nova-Scotia side, you may stop tide, or lie wind-bound, if it does not overblow. Keep the creek open, and come to anchor in 8 or 10 fathoms, within a cable's length of the steep rocks, on the south side of the creek. The best water is with the creek's mouth open. It will be necessary to carry a hawser on shore to the rocks, to steady the ship, as the tide here runs in eddies. You may obtain fresh water from the creek at low water.

Upon entering the Gut, there will be seen, on the larboard hand, a red house, on a point, called *Belle Ashe's Point*, off which, at nearly a cable's length from shore, there is a sunken rock, which may be readily distinguished by the eddy of the tide. Within this point, on the S.E., is *Gypsum or Plaster Cove*, where shipping frequently anchor.

When abreast of Gypsum or Plaster Cove, the remarkable headland on the western side, named *Cape Porcupine*, will bear nearly S.W. To sail into the cove, keep nearly in the middle; and, when in 10 fathoms, let go your anchor. You will find sufficient room for swinging round, in 7 fathoms.

SHIP HARBOUR, which lies half-way down the Gut, on the eastern side, is a good harbour for merchant-shipping. It is, however, more particularly useful to those sailing northward, being a good outlet. It is a very proper place for ships of 16 feet draught. If bound in, from the *southward*, give the starboard side a berth of a cable's length, (it being flat,) and run in until you shut the north entrance of the Gut, and come to anchor in 4 or 5 fathoms, soft bottom; where you may wood on the Breton side, and water on the opposite shore, at *Venus' Creek*; the larboard side of this harbour is

* See the particular Chart of the Gut of Canso, on the large Chart of the Gulf of St. Lawrence.— In this Chart we have inserted two rocks in the Gut of Canso, which had not previously been laid down in any chart. They have been inserted on the authority of Captain George Dixon, of London. The first lies near the western side of Gypsum Cove, at the distance of about 60 fathoms from the shore: the other lies at about 100 fathoms without Bear Island, at the S.E. end of the Gut. On each rock the depth of water is from 6 to 8 feet only.

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of St. Lawrence.— ot previously been George Dixon, of f about 60 fathoms e S.E. end of the

bolder-to than the starboard side, and deepest water. Without the harbour, one-third from the Breton side, you may anchor in 9, 10, to 13, fathoms, loose ground, in the strength of the tide.

SHIPS BOUND THROUGH THE GUT, from the northward, may proceed through it with safety, by keeping nearly in the mid-channel, there being no danger until they arrive off the south point, called *Eddy Point*; but, from this point extends a long spit of sand, with large round stones, which must be left on the starboard side, at the distance of half a mile from what may be seen above water. The race of the tide will serve to guide you from it.

Having passed the spit of Eddy Point, you may steer to the S.S.E. until abreast of an island which appears covered with green spruce-trees having red bark. Hence you proceed to sea, according to the Charts.

Be cautious of running in the direction of a dangerous steep rock, called the *Cerberus Rock*, with only 10 feet of water over it, and on which the sea breaks with a wind. This rock lies with Verte or Green Island in a line with Cape Hoagals, or Iron Cape, on the Isle of Madame, at the distance of about 4½ miles from that island.

At the entrance of the Gut, within a mile of Eddy Point, there is a middle ground of 7 to 12 fathoms, on which ships may stop a tide in moderate weather. To the westward of this ground there is a depth of 18 fathoms, and to the eastward of it 20 to 25 fathoms. With the wind inclining from the southward, steer in nearly west, and keep the lead going, until you shoalen to 11 fathoms, when you may let go your anchor.

Gypsum or Plaster Cove, is so called from its valuable quarry of gypsum, which appears to be exhaustless. The anchorage at the mouth of this cove has from 10 to 4 fathoms; bottom of soft mud. Cape Porcupine, opposite to this cove, is 562 feet in height, and this is the narrowest part of the strait. On the banks of the Gut, in general, the hills rise in easy acclivities, which present settlements on the whole range of the shore.

INHABITANT BAY, &c.—Those who wish to anchor in Inhabitant Bay or Harbour, may bring the farm that is opposite to Bear Head* open, Bear Head bearing W.S.W. This mark will lead you clear, and to the southward, of the Long Ledge,† and in the mid-channel between it and the steep rocks on the east or opposite shore: at the same time, take your soundings from the Long Ledge, or north shore, all the way till you arrive at Flat Point; then keep in mid-channel between Flat Point and the island opposite, from the N.E. side of which runs off a spit or ledge of rocks, at the distance of a cable and a half's length; then port your helm, and run under Island Point, and come-to in 5 fathoms, muddy bottom. Up the river Trent are plenty of salmon, in the season, and there you may find wood and water.

N.B. The leading-mark to clear the steep rocks of Steep Point is, to bring the peninsula in a line over the point of Turbalton Head, bearing S. or S. ½ E. until you open the island to the northward of Island Point; then haul up for the outer harbour, and come-to in 10 or 12 fathoms, muddy bottom.

Those who are bound up the Gut of Canoe, and taken short by a N. or N.W. wind, at the south end of the Gut, and who are desirous of good and safe anchorage in 10 to 12 fathoms of water, may come-to on the north side of Bear Island; but, should it blow hard, to a gale of wind, down the Gut, this anchorage is not altogether so secure as a careful master or pilot would wish. You must then leave the road of Bear Island, and sail round the south end of Bear Point, giving a berth to the spit that runs off it, of 3 cables' length, and haul round to the N.E. into Sea-Coal Bay, and come to anchor in 4, 5, or 6, fathoms, sandy and muddy bottom.

Marks for anchoring, viz. bring Bear Head in a line over Flat Head, bearing W.S.W., or W. by S., and Cariton Cliffs to bear N. by E. or N. in 5 or 6 fathoms, and you will have a good berth, sheltered from the W.N.W. and N. winds. Here is sufficient room to moor ten or twelve sail of any ships of war, of the sixth to the third rate.

* Bear Head is the south-easternmost part of the Gut.

† See the Charts of Inhabitant Bay and Harbour, and of Breton Island, published by the Proprietor of the present work.

Ships coming down the Gut of Canso, which may have reached past Eddy Point, or as far as Cape Argos, and caught with a S.E. to a S.S.W. wind, and cannot hold their own by beating to windward, may bear up and come to anchor in Turbalton Bay, under Turbalton Head, where they may ride safely in from 5, 6, or 7, fathoms of water, muddy bottom. The marks for anchoring in Turbalton Bay are, to bring the peninsula point in a line over Turbalton Head, bearing S. or S. $\frac{1}{2}$ W.; or a point of land inland, a little up in the country from Cape Argos shore, with pine-trees on it, open to the eastward of the Red Head; or the said point of land with pine-trees on it, over the pitch or point of Turbalton Head; you are then sheltered by the rocks or spit that runs from Turbalton Head, in 4 to 5 and 6 fathoms of water, and will ride very safely on good holding ground. But, should the wind shift to the S.W., or N.W., you must take up your anchor, and beat out of the bay into Chedabucto Bay, and proceed on your passage to the southward. Should the wind over-blow at S.W., so as to prevent your beating to windward into Chedabucto Bay, you may come to an anchor in Eddy Cove, bringing the low part of Eddy Point to bear S.S.E. or S. by E., in 5, 6, or 7, fathoms of water, taking care to give the ship sufficient cable, lest you drive off the bank into deep water, from 15 to 20 fathoms.

TIDES on the SOUTH SIDE of the GULF OF ST. LAWRENCE.

The tide rushes with great rapidity through the Gut of Canso; and, in the narrowest part of the Gut, or at Cape Porcupine, it seldom runs at a slower rate than 4 or 5 miles in an hour. Here it flows, on the full and change, at IX $\frac{1}{2}$ h.

Along shore, past Abushee and Antigonish, it sets towards Cape St. George; and, rounding that cape, proceeds thence in a north-westerly direction. On the south shore of Northumberland Strait, the time of flowing, on the full and change, is from VII to VIII h. The perpendicular rise is from 3 to 7 or 8 feet.

The tides here are very materially varied by the winds; and it has been found that, at times, the stream of the Gut of Canso has continued to run one way for many successive days.

PRINCE EDWARD ISLAND.

This island is a distinct government, though subordinate to the British commander-in-chief in North-America. It is well settled, and possesses a good soil, fit for all general purposes. The island is exempted from fog, while the surrounding coasts of Nova-Scotia, Breton Island, and New Brunswick, are frequently covered with it. Indeed it presents a striking contrast. The first appearance of the island is like that of a large forest rising from the sea, and its aspect, on approaching nearer, is beautiful. The red cliffs, which surround great part of the coast, then appear: these are not high. The lands, excepting the farms, which are cleared, are covered with lofty trees, and the sand-hills, which border a considerable part of the north side, are covered with a high strong grass, mixed with a kind of pea or vetch, which makes excellent hay. The climate is generally healthy and temperate, and not subject to the sudden changes of weather experienced in England. The winter here sets in about the middle of December, and continues until April; during which period it is colder than in England; generally a steady frost, with frequent snow-falls, but not so severe as to prevent the exertions of the inhabitants in their various employments. The weather is generally serene, and the sky clear. In April, the ice breaks up, the spring opens, the trees blossom, and vegetation is in great forwardness. In May, the face of the country presents a delightful aspect. Vegetation is so exceedingly quick, that, in July, peas, &c. are gathered which were sown in the preceding month. The country is generally level, or in rising slopes, and abounds with springs of fine water, groves of trees, which produce great quantities of excellent timber, &c. The greater part of the inhabitants are employed in farming and fishing. Charlotte Town, situate between York and Hillsborough Rivers, on the southern side of the island, is the seat of government. The island contains a population of not less than 10,000 souls.

The coast forms numerous harbours, many of which are, however, fit for small vessels only. The principal loading-ports are, on the eastern side, *Cardigan Bay*, or the *Three Rivers*, and *Murray Harbour*; on the S.E., *Hillsborough Bay* and *River*; *Be-deque Bay* on the southern side; *Richmond Bay* and *Holland Harbour* on the north.

CARDIGAN

CARDIGAN BAY, or the Three Rivers, lies between Broughton Island and Panmure Island; it is the common entrance to three rivers; namely, Cardigan River, Brudenell River, and Montague River. In the former there are from 7 to 3 fathoms of water, and in the others from 4 to 3 fathoms. *George's Town* stands on a peninsula between the rivers Brudenell and Cardigan. In these places many large ships have loaded timber. There is anchorage without, in Cardigan Bay, in from 10 to 15 fathoms, where a pilot may be obtained.

MURRAY HARBOUR lies close to the north-westward of Bear Cape; and the entrance is narrow and shoal, difficult of access, and not having more than 12 feet of water. But small ships have frequently loaded here.

Vessels from the eastward, and bound to **THREE RIVERS** or **MURRAY HARBOUR**, must avoid coming too near the east point, from which a ridge of sunken rocks stretches off about a mile; the ground of the eastern coast is clear between the east point and the Wood Islands, and there is a depth of 3 fathoms of water all the way, near the shore, and good anchorage.

HILLSBOROUGH BAY is the finest bay in the island, and the River Hillsborough is a fine navigable river; but timber here is not plentiful. Before Charlotte Town, in this river, there is good anchorage in from 6 to 9 fathoms.

Vessels from the eastward, when bound to Hillsborough Bay, and passing Pictou Island, must cautiously avoid the rock of 10 feet, which lies to the northward of Carribou Point, (see page 71) and 5 miles N.W. $\frac{1}{2}$ N. from the west end of the Island: at the same time, also, they must equally avoid the *Indian Rocks*, which lie off the shore of Prince Edward Island: the latter are covered at high water, and are very dangerous in the night.

BEDEQUE BAY, which lies between Cape Egmont and Carleton Point, has good anchoring ground in from 6 to 8 fathoms. The harbour will admit ships of 400 tons, but the channel is narrow, crooked, and requires a pilot. It is the chief port for loading timber: but the water freezes much sooner than at Pictou, or the harbours on the Nova Scotian coast.

BETWEEN CAPE EGMONT and WEST CAPE, in Halifax or Egmont Bay, there is good anchorage with northerly and easterly winds, in 6 or 8 fathoms.

WEST CAPE.—About the West Cape of the Island a sand bank extends to the distance of three miles from the shore. If we take an extent of three miles with the compasses, and describe a circle from the West, as a centre, this will give the shape and extent of the bank very nearly. There is said to be a swash or channel within it, close in shore.

NORTH SIDE of the Island, at the East point there is a reef extending two miles from the land, and which should not be approached in the night nearer than to the depth of 17 or 18 fathoms. At a league to the southward of it, and parallel with the shore, is a shoal of two fathoms, named *Wright's Bank*. In the passage between it and the land, which is half a league broad, are 6 and 8 fathoms.

All the Inlets on the north side of the island have bars at their entrance, with from 1 $\frac{1}{2}$ to 3 fathoms over them, and are not to be attempted by strangers without a pilot.

Those going through the Strait of Northumberland, if bound to **HOLLAND HARBOUR**, or any port on the north side, must be careful to give the North Cape of the Island a good berth, as the sunken rocks stretch off full two miles. All the rest of the coast of the north side of the island is perfectly clear of foul ground, to within a quarter of a mile of the shore, and there is good anchorage as near the shore, in 3 fathoms of water.

The only harbours on the north side of the island, for ships of large burthen, are **HOLLAND HARBOUR** and **RICHMOND BAY**; and off these harbours the sand-banks, which form the bars, run off more than a mile from the shore.

SHIPS from the **EASTWARD**, bound to harbours on the **NORTH SIDE**, if the wind be favourable, should prefer sailing down by the north coast to go through the Strait of Northumberland; not only on account of sea-room, but because the most prevailing winds are from the S.W. They may run down the coast, till they approach Richmond Bay, to within a mile of the shore.

ST. PETER'S is the first harbour on the north side, when coming from the eastward; it is fit for small vessels only. The bar runs out about a quarter of a mile.

The next is TRACADIE or BEDFORD BAY; this has about 8 or 10 feet of water on the bar, which extends outward half a mile.

RASTICO or HARRIS BAY is very shallow on the bar, and calculated to admit fishery schooners only. The bar stretches off nearly half a mile.

NEW LONDON or Grenville Bay has about 6 or 10 feet of water, but the bar is very difficult. The latter extends off nearly half a mile.

RICHMOND BAY, or MALPEC, is a spacious harbour; has about 17 or 18 feet upon the bar. The sands which form the bar extend more than a mile off the harbour. The shoals on each side are generally discernable from the swell on them, and the course in and out is East and West. On a vessel's anchoring off the bar a pilot will come off.

There are two entrances into the bay; between them is Fishery Island. The eastern is the only channel by which a vessel of burthen can enter: the western channel being very shallow and intricate.

Vessels usually complete their lading at about a mile within Fishery Island, but a considerable current runs there; rafts of timber frequently break adrift in blowing weather; and, on the ebb-tide, are frequently carried to sea, when a great part is lost. The anchorage is good, and vessels lay in perfect safety.

HOLLAND HARBOUR, or CASCUMPEC, is the westernmost harbour on the north side. Here the sands form a bar as at Richmond Bay, and run off about a mile and a half. The harbour is easily known by the sand-hills which extend along the coast. At about half-way between the entrance of Richmond Bay and Holland Harbour, is one sand-hill, near Conway Inlet, much higher than the rest. Holland Bay may be known by its being at the west end of all the range of sand-hills. There is good anchorage, close to the bar in from 5 to 8 fathoms.

There is a depth of 18 feet of water on the Bar, and it is not difficult for a *stranger* to run in with a ship not drawing more than 12 feet of water. There being two leading-marks, painted white, bearing W. by N. by compass, a vessel of this draft, by keeping the two marks in one, with a leading wind, may run in with perfect safety.

But, as these marks will carry a vessel over the south tail of the northern sand, vessels drawing more than 12 feet should not venture without a pilot. There is a buoy on the end of the south sand; between that and the tail of the north shoal there is 18 feet of water. Vessels entering the port, if drawing more than 12 feet of water, should not bring the marks in one till they are within the bay. The soundings off the harbour are regular, and the ground clear. Ships, on coming to anchor off the bar, will immediately be attended by a pilot.

There is shoaler water between the Outer and Inner Harbour, on which is about 14 feet of water in common tides. Vessels generally load to 13 feet in the inner harbour, and complete their cargoes in the outer one. In the former, they lay alongside a wharf at HILL'S TOWN, in 4 fathoms of water, where they lay without any current, as in a dock. In the outer harbour the spring-tide runs strongly, but the water is smooth, the sea being broken off by the bar.

HOLLAND HARBOUR is the most convenient port in the island for loading timber, at which there is a very large quantity; also a saw-mill, for cutting plank and board.

The CURRENTS around the island are very irregular, frequently running many days along the north coast, from East to West, and at other times from West to East.

The TIDES, also, in the north-side ports, are irregular, excepting spring-tides. These sometimes keep flowing for forty-eight hours, and at other times not more than three. In common tides, the water seldom rises more than two feet; in spring-tides, (except in strong winds from the northward and eastward,) not more than five feet.

V.—BRETON ISLAND, with CHEDABUCTO BAY.

GENERAL DESCRIPTION OF THE COASTS OF BRETON ISLAND, &c.

THE EASTERN EXTREMITY of Breton Island, which is commonly made by navigators on proceeding from Europe to Nova Scotia, appears on the sea-shore, and to some distance up the country, barren and rocky; and the tops of the hills, being much alike, have nothing remarkable. The ruins of the lighthouse and town of Louisbourg distinguish, however, that part of the island on which they stand. The coast to the westward continues rocky on the shore, with a few banks of red earth, which appear less barren.

BLANCHEROTTE CLIFF, on the south coast, is a remarkable cliff of whitish earth, in latitude $45^{\circ} 39\frac{1}{2}'$, and longitude $60^{\circ} 20'$. Four miles to the westward of it is a small woody island, lying at the distance of two miles from shore, and off the little harbour called St. ESPRIT. Without this island, at the distance of a mile and a half, on the S.E., is a breaker.

The land hence to the ISLE of MADAME is generally low; it presents several banks of bright red earth, with beaches between them. ALBION CLIFF, on the south side of Madame, is rocky, remarkably high, and precipitous. On the S.W. side of this island is the settlement called ARACHAT or AROCHETTE, the total population of which has been lately stated, by Mr. Lockwood, to consist of 95 persons, including children. They are described by the same gentleman, as a sober, industrious, and thriving people, who subsist chiefly by coasting, and supplying the town of Halifax with wood, which they cut from the unoccupied lands in the neighbourhood.

In the description of the GUT of CANSO, already given, (page 72,) we have noticed the general appearance of its coasts. On proceeding towards this strait, it should be remarked that the Isles of Canso, on the Nova Scotian side, are surrounded with many low white rocks and breakers. The south shore of Chedabucto Bay is iron-bound and steep-to; its north shore is of red cliffs and beaches.

Of the GUT of CANSO, from the southern entrance northward, the western shore, throughout, is high, rocky, and steep; the eastern shore low, with beaches. From the north end of the Gut, the eastern shore to *Jestico*, or *Port Hood*, is distinguished by high, rocky, red cliffs. The opposite shore has several remarkable cliffs of gypsum, or plaster, which appear extremely white. CAPE ST. GEORGE is iron-bound and very high; its summit being 420 feet above the level of the sea.

THE N.E. COAST OF BRETON ISLAND, between *Scatari Island* and *Cape Dauphin*, is low; but, from Cape Dauphin to Cape Ensume, or Cape Smoke, it is high. Between Scatari Island and the entrance of Port St. Anne, a vessel may stand in-shore, to 15, 10, and 5, fathoms, (clear water,) gradual soundings. From Cape Ensume the water is deeper all along to Cape North, close to the shore.*

ON THE N.W. COAST, all along from Cape North to Cape Linzce, the land of the country is very high; and, in some places, falls gradually towards the shore. On this side of the island, you may safely stand in to the distance of two leagues from shore, until you arrive off *Justau Corp*, or Henry Island, when you may stand within one mile of the shore. On this side of Breton Island are several salmon rivers.

In the winter season, when the weather is mild, the S.E., N.E., and N.W., coasts of Breton Island abound with all sorts of fish. Plenty of lobsters and oysters are to be found towards Prince Edward Island, especially in Hillsborough Bay.

JESTICO, or PORT HOOD, situate on the western side of Breton Island, is a safe harbour for frigates with any wind: the anchorage is in from 4 to 5 fathoms, mud and sandy bottom: here you may wood and water. The leading-mark going in is, Cape

* See the remarks on Currents, &c. pages 1 and 2.

Linzee on with the highest sand-hills that are on the N.N.E. side of the beach, bearing N. by E. or N.N.E.: these kept in a line will lead you clear of Spithead, in 4 to 6 fathoms. On the opposite shore is a long and broad flat, stretching from the shore three-quarters of a mile, called the *Dean*, to which come no nearer than in 4 fathoms. Cod-fish is dried on this beach; and, in the season, June and July, is a good herring-fishery. (See the Chart of the harbour, by Mr. Backhouse.)

ST. ANNE'S HARBOUR, situate on the N.E. side of the island, was called by the French, when in their possession, *Port Dauphin*, in honour of the heir to the crown, and is a very safe and spacious harbour. It has but a narrow entrance, and carries 4½ fathoms at low water, until you join the beach. When in mid-channel, you will have 9 to 10 fathoms, and in the harbour from 5 to 10 fathoms, muddy bottom. On the north side the land is very high, and ships of war may lie so near to the shore, that a water-hose may reach the fresh water, and a ship may be loaded in one day, from a cascade which runs from the top of the rock. The Guernsey and Jersey men dry their fish on this beach; and it is a safe retreat from the sea.*

The more particular Directions for St. Anne's Harbour, as given by Mr. Backhouse, are as follow:—After you have passed the Siboux or Hertford Isles, on the east side of the entrance, keep the south shore on-board, if the wind be to the S.E.; and as you approach *Passage Point*, bring *Cape Ensume*, or *C. Smoke*, which lies to the northward, nearly on with *Black Point*: steer with these marks in one, until you are nearly abreast of *Passage Point*, off which lies a sunken rock of 6 feet of water, and opposite to which begins the spit of *St. Anne's Flat*, and the narrowest part of the channel. Now keep a small hummock up in the country, nearest to the shelving high land to the westward of it; which hummock is on the middle land from the water-side, in a line over the fishing-hut, or fishing-stage erected on the beach: this will lead in the best water, until you enter the elbow part of the beach. When advanced thus far in, keep the opening open, (about the size of two gun-ports,) which makes its appearance up the S.W. arm. This opening looks like two steep cliffs, with the sky appearing between them, and will lead you between the beach and the south shore, in mid-channel, through 9 and 10 fathoms, and past the beach-point, off which a spit stretches to the S.W. about 2 cables' length. Having passed this spit, come to anchor in either side of the harbour in from 5 to 10 fathoms, muddy bottom, and sheltered from all winds.

GRAND BRAS D'OR.—The following Directions for the Navigation of the Great Channel of the *Bras d'Or*, between *Sydney Harbour* and *Port St. Anne*, have been written by Mr. Thomas Kelly, a pilot of that place. They were obligingly communicated by Lieut. James Moxon, R.N., 1823, and we have no doubt would be found very clear and useful, if accompanied by a chart of the river, containing the names mentioned in the directions. We believe that, at present, no such chart exists, and that therefore, the names are altogether unknown to hydrography; for not one of them is to be found in *Des Barres'* or others. This deficiency may probably be obviated at a future and no distant time.

Lieut. Moxon says, that the *GRAND BRAS D'OR* has been recently frequented by timber-vessels, and is likely to be more so; and there being few, if any pilots, but the one mentioned in this paper, he submits this copy of his directions, and shall enjoy great satisfaction from finding that it proves useful. The Directions are as follow:—

SAILING DIRECTIONS for the *GRAND BRAS D'OR ENTRANCE*.—"Ships from the southward must give *Point le Comte* a berth of about two miles, and steer from thence for the eastern end of the inside *Bird Island*, until you bring *M'Kenzie Point* and *Carey's Beach* in one. Steer for the *Black Rock Point* until you have *Messrs. Duffus's Store* just open of *Point Noir*; then steer for *Gooseberry Beach*, until you bring a clearing on *Duncan's Head* over *M'Kenzie's Point*. It is to be observed that, ships coming in with the tide of flood must keep *Point Noir* well aboard, to avoid the eddy and whirlpools on the North side of the Gut, which has various settings. You must then steer for *Point Jane*, to keep the fair stream of tide as far as the *Round Cove*, where there is good anchorage in 7 or 8 fathoms, good holding ground. When abreast of the *Round Cove*, steer over for *Duncan's Head*; when abreast of this Head, steer for *Long Beach*, until you bring a tall pine-tree on the *Upper Seal Island* in one with a notch or valley in the mountain. You will then steer for the point of the *Upper*

* See the Survey of the Harbour, by Mr. Backhouse.

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Seal Island, which will carry you clear of the shoals on the islands, as also the South Shoal or Middle Ground. The marks for this shoal are a white rock in the bank for the eastern end, and a white birch-tree for the western end. When abreast of the western end of this shoal you may keep the middle, there being no difficulty until you come to Red-Head. If bound to *Kent Harbour*, after doubling the Red-Head, steer for a remarkable red bank covered with small bushes, until you bring *Mr. Duffus's house* entirely open of the beach which is on the island: there is a depth of from 4 to 5 fathoms in this harbour, and good holding ground."

DIRECTIONS for that ARM of the LAKE, called St. PATRICK'S CHANNEL, and up to WHOOKAMAGH.—"From Red Head you will steer well over for the *Duke of Kent Island*, to avoid a mud-shoal which runs off from *M^r Kay's Point*. When abreast of the western end of the *Duke of Kent Island*, steer for *Wassabeck Head* until abreast of *Stoney Island*. Then steer for *Cranberry Head*, so as to clear a shoal lying off from *Wassabeck Head*; when abreast of *Cranberry Point*, steer well over for the *Bell Rock*, to avoid a shoal lying on the south side of the channel; when abreast of the *Bell Rock*, steer for *Green Beach*, observing to keep *Baddock River* shut in until you are well up with *Green Beach*. You will then steer for a beach on the south shore, until you cross the opening of the *Narrows*: you may then steer through the *Narrows*, keeping the middle until you come to the western end, when you must haul round the southern shore (beach), keeping the south shore until abreast of the *Plaster Cliffs*: you are then clear of all, and in the *Whookamagh Lake*."

OF THE ANCHORAGE THROUGH THE BRAS D'OR.—"The first anchorage is the *Round Cove*, where you may anchor in 7 or 8 fathoms. You may anchor in 5 or 6 fathoms, in the middle of the harbour, on a middle ground; the marks of which are, to bring the *Table Island* a handspike's length open of *Black Rock Point*, and *Point Jane* bearing N.W. On the north side of the harbour there is good anchorage as far up as the *Lower Seal Islands*, and to the eastward of the *Upper Seal Islands*, in 5 fathoms, and to the westward of the same islands in 7 fathoms. There is no other place of anchorage from this to the *Big Harbour*, where you may anchor in 7 or 8 fathoms; from thence you may anchor at any time."

SETTING of the TIDE in GRAND BRAS D'OR.—"The first quarter flood sets from the northward, directly over the shoal; last quarter W.S.W., being directly through the channel, and meeting with the tide coming over the shoal, sets toward the *Black Point*, which occasions it to shoot across the Gut, making a number of whirlpools and strong eddies on each side of the channel, which slacks two or three times during the tide. The first quarter ebb sets over the shoal to the northward; last quarter directly through the channel.—N.B. The tide of ebb is the fairest setting tide. The tide runs in until half-ebb, and out until half-flood, in regular tides; but the winds make a great alteration; N.E. winds making high tides, and S.W. neaping them; also tides running out with S.W. winds until high water, and in until low water with N.E. winds. Tides rise four feet, unless affected by winds. High water ten minutes past eight o'clock, full and change. Bearings by compass."

OBSERVATIONS.—"Messrs. *Duffus's Store* is a fishing establishment. *Mr. Duffus's House* is on *Kent Island*, formerly *Mutton Island*. The aforesaid *Thomas Kelly* piloted the ship, *Pitt*, of *St. Kitt's*, burthen near 400 tons, laden with timber, and drawing about 18 feet of water, safely through the foregoing described channel from *Kent Harbour*."

SYDNEY HARBOUR, formerly called *Spanish River*, the entrance of which lies 4 leagues to the S.E. of that of *St. Anne*, is another excellent harbour, having a safe and secure entrance, with soundings regular from sea into 5 fathoms. This place abounds with excellent coal. In going in, give the two points of the entrance a berth of two or three cables' length, approaching no nearer than 6 or 5 fathoms. The soundings are regular to each shore to 5 and 4 fathoms.

In the inner part of the entrance, *Beach Point* and *Ledge*, on the south side, are steep-to; but *Sydney Flats*, on the opposite side, are regular to 4 fathoms. When past the *Beach Point*, you may run up the river *Dartmouth* to the S.W. and come to anchor in any depth you please, to 5 and 10 fathoms, a fine muddy bottom. Here you may wood and water, at the creek or spring, close to *Governor Mac Cormick's house*. The water is remarkably pure.

This harbour is capable of containing the whole navy of Great Britain. On Flat Point, without the east side of the entrance, it is intended to have a lighthouse, in latitude 46 deg. 17 min. to guide ships into the harbour by night. Fish of various kinds, cod, haddock, &c. are caught on the coast in great abundance. The tide in the harbour flows at 9 h., and rises 6 feet. The variation here, as observed in 1798, was 16½ degrees west.

LOUISBOURG HARBOUR, situate on the S.E. side of Cape Breton, to the westward of Scatari Island, is easy of access; you may be soon in, and you may likewise be soon out, if you please. Be careful to avoid the Nag's Head, a sunken rock on the starboard hand going in. The east part of the harbour is the safest; the lighthouse, which the French erected, is now nearly in ruins, from neglecting to repair it; as is also the town from the same reason; for the inhabitants consist of a few fishermen only. Water is plenty here, but wood is scarce.

N.B. The Nag's Head rock lies nearly one-third from the light-house point, and has no more than 3 feet on it at low water. The larboard side going in is the boldest.

From the entrance of Louisbourg to Guyon Isle, called also Portland Isle, the course is S.W. by W., and the distance more than 3 leagues. Between lies the bay called Gaharus Bay, which is spacious, and has a depth of from 20 to 7 fathoms. Of the south point of this bay, called Cape Portland, lie the *Cormorants*, a number of islets and rocks, which are dangerous.

ARACHAT, or AROCHETTE.—Arachat Harbour, in the Isle of Madame, already noticed, has been but indifferently surveyed; ships bound to the south from the Gut of Canso, if caught by a S.E. wind, may, in this bay, find shelter by coming to anchor in the bay on the south side, in 6 or 7 fathoms; and, by sounding with your lead, you may find the passage over to the north shore, which is the safest anchorage. The harbour has two entrances. To sail into the easternmost, keep the starboard shore on board, in order to avoid Henley Ledge; and approach the Seymour Isles no nearer than the depth of 6 fathoms; as you will thus avoid the East-reef, and a small sunken rock, which lie about a cable's length N.E. by E. from it.

CHEDABUCTO BAY is wide and spacious; it is bold-to on both shores; on the north side you will see several red cliffs; this shore is sandy, with regular soundings in the middle of the bay, the water is deep, from 25 to 35, &c. to 50 fathoms.

Crow Harbour is situated on the south side of Chedabucto Bay, and is capable of containing ships of war of the 6th and 5th rates, merchant-ships, &c. Many schooners and sloops resort here in the months of July and August, to take mackarel and herrings. The passage in is to the S.W. of the island that lies in the entrance.

N.B. On the south side of the beach Mr. Backhouse erected a beacon to lead ships clear of the Corbyn Rocks, which are incorrectly represented in the former Charts. Keep this beacon in a line with a remarkable tree upon the high land, and it will lead you also clear of the Rook Island Rock, that lies 25 fathoms from the N.W. point of Rook Island.

MILFORD HARBOUR, or the HARBOUR of GAYSBOROUGH, at the head of the bay, is impeded by a bar, but a sloop of war may pass over it. Within the bar vessels lie in perfect security; the tide, however, sets in and out with great rapidity. The town is, at present, a place of little trade: it is protected by a battery.

VI.—The SOUTHERN COAST OF NOVA SCOTIA, from CHEDABUCTO BAY to HALIFAX HARBOUR.

THE Eastern part of Nova-Scotia is broken into the several islands and passages represented on the Charts. Of the isles, which are low and covered with stunted fir-trees, the first, on the N.W. is now called *Durell's Island*, the second, *George's Island*, the third, *St. Andrew's Island*; without the latter is the smaller one, called *Cranberry Island*, which is now distinguished by a lighthouse, and there is another for the passage between *George's* and *Durell's* Isles.

Cape Canso is the outer, or easternmost, point of St. Andrew's Island. From this cape, westward, to Torbay, the coast makes in several white heads or points; here the country is much broken; and near the S.E. extremity many white stones appear from the offing, like sheep in the woods. During a southerly gale the sea is dreadful here. From Torbay to Liscombe Harbour there are banks of red earth and beaches; and from Liscombe Harbour to the Rugged Islands, (excepting the White Isles, which are white rocks,) the capes and outer islands are bound with black slaty rocks, generally stretching out in spits from east to west: and from the Rugged Islands to Devil's Island, at the entrance of the Harbour of Halifax, are several remarkably steep red cliffs, linked with beach.

The NEW LIGHTHOUSE ON CRANBERRY ISLAND will be of great importance to the trade in this part; and it has been said, by Mr. Lockwood, a gentleman well acquainted with the subject, that "the Gut of Canso will, by its means, become the common gateway to the Gulf and River of St. Lawrence, and will tend to mitigate the rigours of a late or early passage to Quebec."*

The fishermen of Arachat are acquainted with the channels and indents on this coast, and frequent them, more particularly in the spring and fall, to catch mackarel and herrings, of which large shoals are common here: but the rocks are so numerous, and the passages so devious, that no stranger should attempt them.

Of the numerous rocks hereabout, the outer breaker, called the BASS, a rock of 3 feet water, lies more than two miles E. $\frac{1}{2}$ S. [$E. 13^{\circ} N.$] from the lighthouse on Cranberry Island. At seven-tenths of a mile S.E. from Cape Canso is a similar rock, called the BULL; and, at one mile to the E.S.E. of the latter, there is said to be another, discovered by a fisherman of Canso, in 1813; but its existence seems to be questionable.

The HARBOUR of CANSO, within St. Andrew's Island, is well sheltered, with good ground, and sufficient depth for vessels of any burthen. In a rough sea the dangers shew themselves; but, with smooth water, it is hazardous to enter the passages without a pilot. Mr. Backhouse says, "Canso Harbour has a passage through from the bay to the south; but I would not recommend ships of war to attempt it, unless they answer their helms very quick, and even of those not such as draw more than 16 feet."

RASPBERRY HARBOUR,† to the westward of that of Canso, or Port Glasgow, is small, and the shores within quite bold. At the entrance, on the eastern side, is an island, having a ledge close to it on the S.E. By rounding this ledge, you may steer directly into the harbour, and come to an anchor under the island which lies in the middle of it, in the depth of 7 fathoms, where you will lie safely. The country here is rocky and barren.

WHITE HAVEN, which is two leagues to the westward of Raspberry Harbour, is a place of hideous aspect. Of its rocky islets, the larger and outer one, called White Head, from the colour of its sides, is 70 feet above the level of the sea. This islet appears round and smooth, and is a useful mark, as the passage in, on either side, is in mid-channel. Off the Head are two breakers, one S.S.E. and the other E. by S., half a mile off. The most numerous visitors of this place are crows, eagles, &c., yet the neighbouring fishermen, during spring and summer, find in it large quantities of mackarel, herring, gaspereaux, &c.

TORBAY.—The entrance of this bay is formed on the west by a bold headland, called *Berry Head*. The channel in is between this head and the islets to the eastward. At E.S.E. from the head, and south of one of these islets, named *George's Island*, are three very dangerous rocks, which do not break when the sea is smooth. Within the bay, under the western peninsula, there is excellent anchorage in from 6 to 4 fathoms, muddy bottom, up to the eastern part of the bay. There is also anchorage on the western side of the bay, in from 7 to 3 fathoms, similar ground, where a vessel may lie in safety during any gale.

This bay is settled, and had twenty-one families in it, in 1818: the lands are rocky, but a few salt-marshes enable the inhabitants to maintain some cattle. Vessels are built here, of from 40 to 120 tons, which are employed in the fisheries.

* To those who wish for an accurate knowledge of this country, we recommend Mr. Lockwood's "Brief Description of Nova-Scotia, with Plates of the principal Harbours; including a particular Account of the Island of Grand Manan." 4to. London, 1818.

† The PORT HOWE of M. d. J. Barres.

TORBAY TO COUNTRY-HARBOUR.—From Torbay, westward, to Country-Harbour, the country, in general, continues rocky and sterile, with deep water close in, but regular soundings without, and from 30 to 20 fathoms of water. **CODDLE'S HARBOUR**, which is $3\frac{1}{2}$ leagues to the westward of Berry Head, affords shelter to small vessels only; and these enter on the eastern side, to clear the breakers.

The fine harbour called **COUNTRY-HARBOUR** is navigable, to the largest ships, twelve miles from the entrance. It is, at present, but thinly settled, yet there are reasons for believing that, as a consequence of local improvements in the neighbourhood, the population will increase. The shores are bold; the anchorage soft mud, with a depth of 13 to 5 fathoms. Mr. Lockwood has said that, "no position in the province is more advantageous for settlers than this harbour: at its mouth the islands afford shelter to fishermen and small vessels, as well as the means of erecting their ships; and the fishing grounds, at a short distance in the offing, abound in halibut, haddock, and cod: and what they term the bait fishery; that is, mackarel, gaspercaux, smelt, &c. Salmon are plentiful in their season; and, but for the improvident use of this valuable addition to the means of subsistence, would continue for ages."

The ledges off the harbour generally break, and between them are deep passages. On advancing from the eastward, there are two rocks to be avoided, which lie as shown on the Charts. On proceeding inward, give Green Island a small berth, and the dangers on that side will be avoided.

The rocks on the west of the entrance, named *Castor* and *Pollux*, are above water and bold-to. When above them, give Cape Mécodame a good berth, so as to avoid the *Bull*, a dangerous sunken rock, that breaks in rough weather, and lies about half a mile from the extremity of the cape.

The islands on the east side of the entrance; *Green Island*, *Goose Island*, and *Harbour Island*, are low, and covered with scrubby trees.* Within Harbour Island is excellent anchorage.

FISHERMAN'S HARBOUR, on the west of Country Harbour, is a favourite resort of fishing vessels, it having a shingly beach, forming an elbow, and very convenient for drying fish.

BICKERTON HARBOUR, to the west of Fisherman's Harbour, is fit for small vessels only. At two miles to the west of it is **HOLLIN'S HARBOUR**, a place of shelter for coasters, and resorted to by the fishermen. **INDIAN HARBOUR** is a shallow and unsafe creek, but has good lands, well clothed with pine, maple, birch, and spruce. The next inlet, called **WINE HARBOUR**, has a bar of sand, which is nearly dry. There are a few, and but few, settlers on these harbours.

ST. MARY'S RIVER.—The navigation of this river is impeded by a bar of 12 feet of water, which extends across, at the distance of a mile and three quarters above Gunning Point, the west point of the entrance. Below the bar, towards the western side, is a middle ground, which appears uncovered in very low tides; and, above the bar, nearly in mid-channel, is a small rocky islet. The passage over the bar is on the eastern side of this islet. The tide, which is very rapid, marks out the channel; the latter is devious, between mud-banks, extending from each shore, and dry at low water. The depths upward are from 24 to 18 feet. The town of **SHERBROOK** is, at present, a small village, at the head of the river, about three leagues from the sea.

The islet called **WEDGE ISLE**, which lies at the distance of half a league south from the S.W. point of St. Mary's River, is remarkable, and serves as an excellent guide to the harbours in the neighbourhood. The side of this islet, towards the main land, is abrupt, and its summit 115 feet above the sea. From its S.W. end ledges extend outward to the distance of half a mile; and some sunken rocks, extending towards it from the main, obstruct the passage nearly half way over. At $2\frac{1}{2}$ miles south from the Wedge, is a fishing-bank of 30 to 20 feet, the area of which is about 200 acres.

The Harbour of **JEGOGAN** may be readily found, on the eastward, by Wedge Isle, above described; and, on the westward, by the bold and high land called Redman's Head. The passage in is at the distance of a quarter of a mile from that head; be-

* Goose and Harbour Island are the William and Augustus of M. des Barres; and are so called in several Charts.

cause, at the distance of three-quarters, is a dry ledge, called the *SHAG*. Within the small island on the east side of the entrance, called *TOBACCO ISLE*, there is anchorage in 4 or 5 fathoms, muddy bottom.

LISCOMB HARBOUR.—The entrance of this harbour, which is one of the best on the coast, is between Liscomb Island and the head-land on the west, called Smith or White Point. From the S.E. end of Liscomb Island, a ledge, with breakers, extends to the distance of three-quarters of a mile. Within and under the lee of the island is safe anchorage in from 13 to 8 fathoms. On the N.E. of the island, a vessel caught in a S.E. gale may be sheltered by Redman's Head, already described, with the Head S.S.E., in 6 and 7 fathoms, bottom of clay.

On the west side, the ground from Smith Point is shoal to the distance of nearly a mile S.S.E.; and, at $2\frac{1}{2}$ miles south from the point, is a rock, on which the ship *Black Prince* was lost. It constantly breaks, and is partly uncovered. The island-side is bold.

The first direction of the harbour is nearly North, then W.N.W. Opposite to the first fish-stage, at half a mile from shore, is as good a berth as can be desired, in 7 fathoms. From this place the harbour is navigable to the distance of four miles: it is, however, to be observed that, there are two sunken rocks on the north side.

BAY OF ISLANDS.—The coast between Liscomb and Beaver Harbours, an extent of six leagues, is denominated the BAY OF ISLANDS. Within this space the islets, rocks, and ledges, are innumerable: they form passages in all directions, which have, in general, a good depth of water. At the eastern part of this labyrinth, near Liscomb, is *MARIE-ET-JOSEPH*, an excellent harbour, the settlers on which keep large herds of cattle, &c.

The *WHITE ISLANDS*, nearly half-way between the harbours of Beaver and Liscomb, appear of a light stone colour, with green summits. The latter are above 60 feet above the level of the sea. The isles are bold on the south side; the passage between them safe; and there is good anchorage within them, in from 10 to 7 fathoms.

BEAVER HARBOUR is too intricate to be recommended to a stranger: the islands off the entrance, however, may occasionally afford shelter from a southerly gale. Four Dutch families are settled here, and appear to be doing well in farming, fishing, &c.

SHEET HARBOUR.—This harbour is nearly in the half-way between Country Harbour and Halifax. It is very extensive, though but thinly settled, and the deep navigable water continues to the falls, which are about nine miles above the entrance of the harbour. The name is derived from a blak cliff, on a rocky isle at the entrance, which appears like a suspended sheet.

Without the harbour are the several ledges shewn on the Charts. These ledges shew themselves, excepting the outer one, called by the fishermen *Yankee Jack*, and which, when the sea is smooth, is very dangerous. It has been asserted, that a rocky shoal lies half a mile to the south of the Yankee, but its position has not been ascertained.

Within the entrance is a rock, two feet under water, which will be avoided by keeping the Sheet open of the island next within it on the eastern side. In sailing or turning up the harbour, gives the sides a very moderate berth, and you will have from 11 to 5 fathoms, good holding-ground.

MUSHABOON, to the westward of Sheet Harbour, is a small bay, open to the S.E., which affords shelter at its head only, in from 7 to 5 fathoms, muddy bottom. It is connected to Sheet Harbour by a clear, deep, and bold, passage, between an island and the main land. Here you may lash your vessel to the trees, and, lying in 5 fathoms, soft bottom, with the side touching the cliff, be perfectly sheltered from all winds. This place is uninhabited, the land being incapable of cultivation.

SPRY or TAYLOR'S HARBOUR.—Cape Spry, or Taylor's Head, divides Mushaboon from Spry or Taylor's Harbour. On the west side of the latter are two large islands, now called Gerard's Islands. Cape Spry is destitute of trees; and, being composed of large white rocks, is distinguishable afar off. From the point of the cape, westward, is a low shingly beach, which is shoal to the distance outward of one-third of a mile.

On the opposite side of the harbour is a sunken ledge and a large dry rock: these may be passed on either side, whence you steer for the eastern point of Gerard's Island, and sail close along it, as a sunken rock lies off it at the distance of 300 yards. The rest

rest of the way is clear, up to the anchorage. This harbour is open to the S.E. and E.S.E. winds.

At the distance of about three miles S.S.E. from Cape Spry is a dry rock, called by the fishermen *Taylor's Goose*. At about midway between it and the Beaver Islands lie the *Shag Ledges*, (*Pegasus Wing of Des Barres*,) which are partly dry, and extend nearly a league East and West. Within and about them the depths are from 20 to 7 fathoms.

DEANE or POPE'S HARBOUR, on the western side of Gerard's Isles above mentioned, has a ledge at its entrance, forming an obtuse angle at the two points, at three-fourths of a mile from each, and from which a shoal tails to the southward half a mile. It may be passed on either side; but, on the west, care must be taken to avoid a shoal extending from the outer Tangier Island. The best shelter is under the smaller island on the eastern side, where there are from 8 to 6 fathoms, with good clay ground.

TANGIER HARBOUR, next to Deane or Pope's, is formed by craggy barren islands, which secure vessels from all winds. At about two miles from its mouth is a ledge that dries at low water. The anchorage is under the eastern shore, 5 to 4 fathoms, stiff mud. Here are some good tracts of pasture-land, and the few inhabitants are occupied in the fishing and coasting trade.

SHOAL BAY.—(*Saunders Hr. of Des Barres*.)—This bay has a good depth of water and excellent anchorage. The latter is to the northward of the island now called Charles Island, and vessels lie in it, land-locked, in 7 fathoms. Off the mouth of the harbour is a rock, that always breaks; but it is bold-to, and may be passed on either side. Some parts of the harbour will admit large ships to be afloat, alongside the shore, over a bottom of black mud. Supplies of stock, &c., may be obtained from the inhabitants of this place.

SHIP HARBOUR.—In this harbour, and on the isles about it, are about twenty families, who keep small stocks of cattle, &c. The entrance, called by Des Barres *Knowles' Harbour*, is deep and bold; it lies between two islands, of which the eastern is *Brier's Island*. A white cliff, which may be seen from a considerable distance in the offing, is a good mark for the harbour: at first it resembles a ship under sail, but on approaching seems more like a schooner's topsail. There is good anchorage in every part of the harbour; and, above the Narrows, a fleet of the largest ships may lie without the smallest motion. *Brier's Island*, above mentioned, is a low rugged island, and ledges, partly dry, extend from it three-fourths of a mile to the eastward: avoiding these, when entering this way, you may range along the western island, and come to an anchor under its north point, in 6 or 7 fathoms, the bottom of mud.

OWL'S HEAD, or KEPPEL HARBOUR, which is next to the west of the harbour last described, although smaller than many other harbours on the coast, has sufficient space for a fleet. It may be known, at a distance, by Owl's Head, on the western side, which appears round, is abrupt, and very remarkable. The neighbouring coast and isles are rugged and barren, but the harbour has a few settlers.

The entrance is of sufficient breadth to allow a large ship to turn into it: and, within the harbour, shipping lie land-locked, when in 6 and 7 fathoms, bottom of mud. In taking a berth, you will be guided by the direction of the wind; as, with a S.W. gale the western anchorage is to be preferred, and the eastern with a S.E.

JEDORE HARBOUR.—(*Port Egmont of Des Barres*.)—From the appearance of this harbour on the Charts, it might be presumed that it is spacious and commodious; but, on examination, it will be found that it is really different. The entrance is blind and intricate; a shoal of only 11 feet lies at its mouth; the channel within narrow and winding; extensive mud-flats, covered at high-water, and uncovered with the ebb: hence a stranger can enter with safety only at low water, the channel being then clearly in sight, and the water sufficient for large ships. The best anchorage is abreast of the sand-beach, two miles from the entrance, in from 9 to 6 fathoms, bottom of stiff mud.

The lands at the head of the harbour are stoney, but tolerably good; the rest barren and deplorable. The inhabitants, an industrious people, consist of about twenty families; they subsist chiefly by coasting, and supply Halifax with wood, which they get from the unoccupied lands around them.

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Without the entrance, on the eastern side, are two isles, called *Roger and Barron Islands*, between and within which the passages are good, and afford shelter in case of necessity.

The *Baio Rock*, a very dangerous rock of 3 feet, about the size of a frigate's long-boat, lies S.E. $\frac{1}{2}$ E. from Jedore Head, and S.W. two miles from the isle called Long Island. The weed on the top of it may frequently be seen at the surface. The marks for this rock are, a house and barn in Clam Bay just open of the east end of Long Island, bearing N. 5° E., and the house on Jedore Head open to the N.E. of Jedore Rock.

At about nine miles south from Jedore Head is a reef, called the *POLLUCK SHOAL*; its area is about one acre, has a depth of 24 feet over it; and, during a swell, the sea breaks on it with great violence.

Those advancing between the Brig Rock and Polluck Shoal, should be cautious of approaching any of the *JEDORE LEDGES*: they are laid down on the Charts, and said to extend from five to nine miles from the mouth of the harbour.

Between *JEDORE* and *HALIFAX*, there are no harbours of any consideration for shipping, but there are numerous settlements. The land in this extent is, in general, of moderate height, rising gradually from the shore. Red and precipitous cliffs, the characteristic of the eastern coast, may be seen from seven to nine miles off. The best harbour is that called *THREE-FATHOMS HARBOUR*, which has occasionally received large vessels in distress. This harbour lies immediately to the east of an islet called *Shut-in Island*; and, with the wind on shore, is difficult and dangerous: so that it is to be attempted only in cases of real distress. The channel lies two-thirds over to the northward from Shut-in Island, and turns short round the starboard point to the westward.

In beating to windward, ships may stand to within a mile and a half of the shore, the soundings being tolerably regular, from 20 to 12 and 8 fathoms.

VII.—The ISLE of SABLE and BANKS of NOVA SCOTIA.

THE southernmost part of Sable Island lies in latitude $44^{\circ} 0'$; the west end lies in longitude $60^{\circ} 32' 30''$. On the days of the new and full moon, it is high water along the south shore of the island at half an hour after 8 o'clock, and it flows till half an hour past 10 o'clock on the north side, and till near 11 o'clock in the pond. Common spring-tides rise seven feet perpendicular, and neap-tides four. The flood sets in from the S.S.W. at the rate of half a mile an hour, but it alters its course, and increases its velocity, near the ends of the island. At half-flood it streams north, and south at half-ebb, with great swiftness, across the north-east and north-west bars; it is therefore dangerous to approach without a commanding breeze. The north-east bar runs out E.N.E. about four leagues from the eastern extremity of the island, all which is very shoal, having in few places more than 2, 3, or 4, fathoms of water, whence it continues E. and E. by S., deepening gradually to 12, 15, and 18, fathoms, at the distance of 8 or 10 leagues, and shapes to the S. and S.E., sloping gently to 60 and 70 fathoms. To the northward and eastward it is very steep, and, in a run of 3 miles, the water will deepen to 130 fathoms. Abreast the body of the isle, the soundings are more gradual. The shoal ground of the north-west bar shapes to the westward, and deepens gradually to 70 fathoms of water, at the distance of 20 or 25 leagues from the isle; and winds easterly and southerly, until it meets the sounding of the north-east bar. The quality of the bottom, in general, is very fine sand, with a few small transparent stones; to the northward, and close to the north-east bar, the sand is mixed with many black specks; but, near the north-west bar, the sand has a greenish colour. The north-east bar breaks in bad weather, at the distance of 8 and 10 leagues from the island; but, in moderate weather, a ship may cross it, at 5 leagues distance, with great safety, in no less than 8 or 9 fathoms of water; and, if the weather be clear, the island may be seen thence very distinctly from a boat. The north-west bar breaks, in bad weather, at 7, and sometimes 8, miles from the island; but, when the sea is smooth, ships may cross it within the

the distance of 4 miles, in 7 fathoms of water. [These bars are described as they were found by Mr. Des Barres: but, as they are composed of shifting sands, repeated storms, and the violence of the sea, may, in the course of years, considerably alter their form and extent.]

Along the north and south sides of the island are many spits of sand, nearly parallel with, and within a mile from, the shore. Vessels may anchor on the north side of the island, between the spits, and not be liable to be driven off by southerly winds. On the south side, it is boldest off the body of the island, having 10 or 12 fathoms of water, within a mile of the shore; but towards the bar it is more shoal, and dangerous to approach; for the currents, which are uncertain, are, in a great degree, influenced by the winds which have preceded. The surf beats continually on the shore, and, in calm weather, is heard several leagues off. Landing on this island, with boats, is practicable on the north side, after a continuance of good weather only. The whole island is composed of white sand, much coarser than any of the soundings about it, and intermixed with small transparent stones. Its face is very broken, and hove up in little hills, knobs, and cliffs, wildly heaped together, within which are hollows, and ponds of fresh water, the skirts of which abound with cranberries the whole year, and with blueberries, juniper, &c., in their season; as also with ducks, snipes, and other birds. This sandy island affords great plenty of beach-grass, wild peas and other herbage, for the support of the horses, cows, hogs, &c., which are running wild upon it. It produces no trees, but abundance of wreck and drift-wood may be picked up along shore for fuel. Strong northerly winds shift the spits of sand, and often even choak up the entrance of the pond, which usually opens again by the next southern blast. In this pond are prodigious numbers of seals; and some flat-fish, eels, &c., and, on the south-west side, lies a bed of remarkably large muscles and clams. The south shore is, between the cliffs, so low, that the sea breaks quite over in many places, when the wind blows on the island. The *Ram's Head* is the highest hill on this island; it has a steep cliff on the north-west, and falls gently to the south-east. The Naked Sand-hills are 146 feet in perpendicular height, above the level of high-water mark, and always appear very white. *Mount Knight* is in the shape of a pyramid, situate in a hollow, between two steep cliffs. *Mount Luttrell* is a remarkable hummock on the top of a large swelling in the land. *Gratia Hill* is a knob at the top of a cliff, the height of which is 126 feet perpendicular, above high-water mark. The *Vale of Misery* is also remarkable, as is *Smith's Flag-Staff*, a large hill, with a regular ascent every way. From the offing, the south side of the island appears like a long ridge of sandy cliffs, lessening towards the west end, which is very low.

The *NOVA SCOTIA BANKS* extend nearly 70 leagues, in a westerly direction. From the Isle of Sable, they are from 20 to 25 leagues wide, and their inner edges are from 14 to 18 leagues off shore. They are intersected by narrow winding channels, (the bottom of which is mud,) running N.W. and S.E. Between these banks and the shore are several small inner banks, with deep water and muddy bottom. The water deepens regularly from the Isle of Sable, to the distance of 22 leagues, in 50 fathoms, fine gravel; thence proceeding westward, the gravel becomes coarser: continuing westward to the western extremity of the banks, the soundings are rocky, and shoalen to 18 and 15 fathoms of water: Cape Sable bearing N. by W. distant 15 leagues.

The south-west extremity of *Banquereau*, or *Bank Quero*, lies 17 leagues E.N.E. $\frac{1}{2}$ E. from the east end of the Isle of Sable. This bank extends E. by N. 35 leagues, and is near 8 leagues in width; its shoalest part is about 5 leagues from its eastern extremity, in 16 and 18 fathoms of water, slimy sand and clams: whence it deepens regularly every way to 60 and 70 fathoms, towards the edges of the bank.

This bank is steep-to; and, from its soundings on the north side, you fall immediately into 90 or 100 fathoms of water, black mud; and, on the south side, into 120 fathoms.

In the year 1803, the legislature of Nova Scotia passed a liberal vote of money for the purpose of commencing an establishment on Sable Island, in order to prevent shipwreck, and to protect all persons and property which might happen to be cast ashore. Commissioners were consequently appointed for executing this important trust, and a superintendent to reside on the island, empowered as a justice of peace, surveyor and searcher of impost and excise, and authorised by a warrant to take charge of the island, shores, and fisheries, and of all wrecks found there, in cases where persons are not saved competent to the care of such property. Instructions were given to him, that persons

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saved with property are to have the full care, charge, and possession, of it, and be allowed to export it in any manner they may think proper. Every aid and assistance to be afforded, and a receipt given specifying the property saved, the aid received, and referring the salvage or reward to be ascertained by the commissioners at Halifax, but neither fee or reward is to be taken, nor property disposed of, upon the island. There were also, ordered four able men and proper boats, with materials completely fitted to erect a house and good store. Also cattle, sheep, goats, and poultry, with clothing, provisions, &c. A gun is placed on the island, to answer such as may be heard from vessels at sea. Signals were to be hoisted on the island, and buildings have been erected, particularly on the west side. The greatest care has been taken to extend aid as much as possible, to prevent misfortune, and to relieve it; to secure property from loss, and from extortion for saving it, by referring it, in all cases, to the commissioners in Halifax, from whose respectability we are assured that equity and charity will be united in directing and deciding. The superintendant and boatmen are paid and subsisted, and all necessities furnished, by government, that no claims or demands may be made by them upon the unfortunate. But, as extraordinary risk, enterprise, and exertion, in so good a cause, deserve recompense, such cases are to be exactly stated to the commissioners, who are to adjust the measure and mode of extra reward to be allowed and paid.*

This establishment was founded by the Provincial Legislature, at the recommendation of the late Sir John Wentworth, then Lieut.-Governor, and has since proved the means of saving many lives. In every year vessels have been lost. The years 1822 and 1823 were particularly marked; as, from *L'Africaine*, (French frigate,) the ships *Hope* and *Marshal Wellington*, 429 persons were saved, who, after escaping the dangers of the surf, would otherwise have perished with hunger. The superintendant and four men live on the island, supplied with good boats and provisions. The isle is visited twice in a year, by a vessel from Halifax.

* On the 26th of July, 1810, the *Adamant*, *Hedley*, sailed from Oban, in the west of Scotland, with eighty passengers, and their luggage, for Prince Edward Island, where she arrived after a favourable passage of forty-nine days, and landed them safely. At Pogwaash, on the opposite coast, she took in a cargo of timber, and proceeded thence, on the 13th of October, for the Gut of Canso, into which she entered and anchored. On the 15th, weighed at 5 a. m., wind variable, and advanced to the southern mouth of the gut that night, when it came on to blow very hard from the N.E., with very foggy weather. On the 19th, the storm increasing, the vessel unfortunately upset, and remained about twenty minutes with her masts in the water, when she righted as far as the lee-edge of the deck, her larboard gunwale remaining constantly under. The boats and other things on deck were swept away; the sea being very high, had a free passage down the hatchways, and washed the provisions out of the cabin-windows. The crew, thirteen in number, were all lashed, and had nothing to subsist on but a little raw beef (of which they were each allowed two ounces per day) and a small quantity of rum. The water-casks being all stove by the violent motion of the vessel, they were obliged to drink their own urine. By the 23d, four of the crew had miserably perished, and were thrown into the sea. On the 24th, they came within sight of land, which proved to be Sable Island, on the outer bar of which, on the north side, the vessel struck about 2 p. m. that day; she lost her rudder, but did not go to pieces. Here they remained two days longer. On the 25th, four more of the crew died.

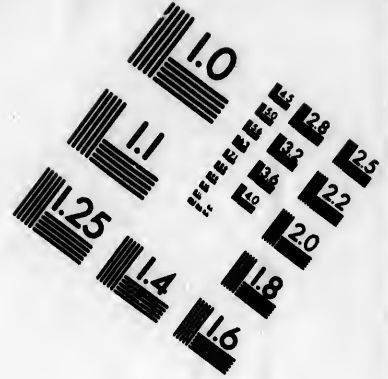
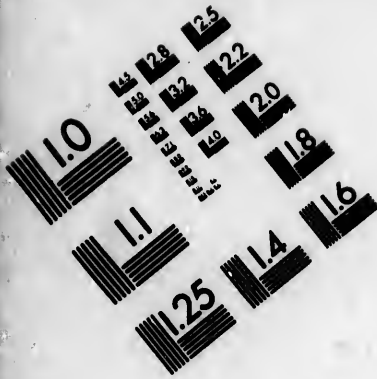
The people of the island appeared with a boat on the 26th, which had been brought overland in a cart for their relief. They were conveyed to a house two miles from the shore, and received very proper treatment. Milk was the first thing given to them, and in a week they recovered their strength. The four dead bodies left in the ship were brought ashore the next day, and were decently interred in one grave, and an inscription placed thereon. Three of the survivors subsequently arrived at Shleids. They left the island on the 23d of June, 1811, after having lived there more than seven months. The other two, Mr. Thomas Ridley, the owner; and the Captain, put to sea from the island, in an open boat, a considerable time before them; and, being taken up by some ship at sea, arrived at home safely. The account adds, that Sable Island had been settled by the Government of Halifax ten or eleven years before; but there were not more than eight persons living on it when the crew left it, at the date above mentioned.

The *Hope* and *Marshal Wellington*, above mentioned, were lost in June, 1823. Of these losses a rather indistinct account was given in the London newspapers of and about the 23d of July. According to this account, the vessels were totally lost, and bedded in the sand, but the greater part of the people was saved. Previous to the catastrophe, southerly and scant winds only prevailed, and these were succeeded by a thick fog; so that the shore could not be seen at the distance of half a cable's length.

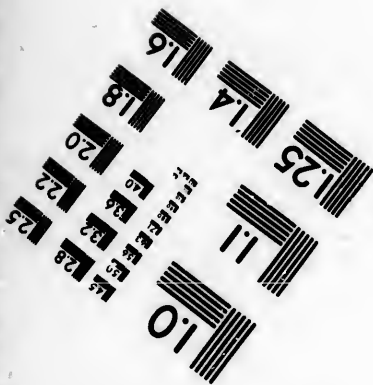
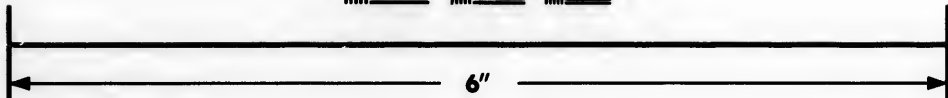
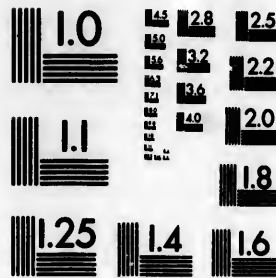
The *Hope* was lost on the 4th of June, at 5 a. m. on the eastern side of the island, and a strong current from S.E., during an interval of scant or calm, had carried her north-westward: for, by observation on the 3d, she was in lat. 43° 30', 30 miles to the southward, and 90 to the eastward, of the island. Two days after the *Marshal Wellington's* boats came in with the crew: she also got upon the N.E. Bar, and filled.

There





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There are three basins on the island, of which one is occupied by the superintendent, and stands on the north side, at eight miles (nautic) from the west end; the next is on the north side, at four miles from the western extremity, and extends eastward from the west end of the lake, and 42 miles W. N. W. from the superintendent's; the latter house, uninhabited, is on the south side, at nine miles from the east end, close to the eastern extremity of the lake, and 74 miles S. S. W. from the superintendent's. These houses are not in sight from the sea, but at 100 or 120 yards from the land, the same distance from the margin of the lake. Those uninhabited cottages, professors, single-story, and tiled, &c. There are several fresh-water ponds, and shown on the particular chart, but wherever the surface is moist, fresh water may be obtained by digging from one to three feet deep.

The N. W. Bar now extends 15 miles to the N. W. from the west end of the island. The whole of it breaks in bad weather. The bank to the west and this bar appear to be still increasing. The tide on the Bar sets North, slack at half flood, and turns to South before high-water: its rate is two knots. The soundings hereabout are particularly irregular to the N. W. and N. N. W. with very variable currents.

The N. E. Bar extends 7 leagues E. by N., and is about two miles wide. This Bar appears to be travelling North. In gales of wind the whole of it appears like one of breakers, but in more moderate weather they do not extend beyond 14 miles, and a vessel may cross at 16 miles in 7 fathoms. The flood-tide here sets at N. N. E. at the rate of 5 knots; the ebb 3 knots or less, and is scarcely felt with a spell of South and S. W. winds.

Strong gales cause annual shiftings of the sand on both bars, which, in the course of years, must alter their form and extent. Mariners approaching the isle are warned to keep the lead going, and never to approach the South side nearer than in 10 fathoms, nor the North side nearer than in 25 fathoms.

On the south side, the CURRENT, in shoal water, with prevailing South and S. W. winds, sets rapidly eastward, until it reaches the end of the N. E. Bar; it then unites and blends with the St. Lawrence' Stream, which passes the bar in a S. S. W. direction, and runs strongest in April, May, and June. Mr. Darby says, I have sufficient reason for believing that the Gulf-Stream on the parallel of $42^{\circ} 30'$, running E. N. E. occasions the St. Lawrence' Stream, then running S. S. W., to glide to westward. The strength of this stream has never been noticed, and three-fourths of the vessels lost have imagined themselves to the eastward of the island, when, in fact, they were in the longitude of it. On the North side of the island, the Currents are variable, but mostly eastward.

The SOUNDINGS decline regularly on the South side of the island only; on approaching it from any other bearing whatever, comparatively deep water will be found, at 10 fathoms or more, close to danger. In foggy weather, vessels should not approach the North side or point of either bar nearer than in 25 fathoms. Two belts encircle the island; the outer, at a mile from shore, has $2\frac{1}{2}$ fathoms on it. These belts are increased by gales, and high winds, which, raking the island, drift the sand from them to the beach. The island being composed of loose light sand, high gales frequently alter its outline, and appearance.

Should a vessel happen to be ashore in a fog, situation unknown, lower boats should be prudent, and observe the following notice. If breakers extend N. W. and S. E., you are on the N. W. Bar: if they extend W. S. W. and E. N. E., you are on the N. E. Bar: if they extend a-head North, and then lie E. and W., you are on the South side; if South, and then lie E. and W., you are on the North side.

The prevailing winds about the island are from E. to S., and from S. to W. With these the north or leeward side is comparatively smooth, and, therefore, should be sought. There is a swash way on each bar, shown on the chart, and lives may be saved by passing through and thus getting to leeward. There is no risk in moderate weather, but if the surf should appear too dangerous, land in your case; do not try to weather the bar altogether. Having once got to the northward of the bar, haul up S. E. or W. S. W., as the case may be, for the land; and take the boat ashore as soon as the gales are likely to be convenient. The semi-circular form of the North side is favourable for boats, as under the windward curve a lee is afforded from East and West winds; but, with a fresh north wind, this form is against a boat getting off the land; therefore, if at anchor on the North side, push the boat right before the sea for the land rather than risk getting to leeward by crossing either bar.

If ashore on the South edge of either Bar, with the wind North, land on the South side.

If ashore on the N.E. Bar in tolerable weather, with the wind about West, you may land at the east end without crossing the Bar; and, *vice versa*, if on the N.W. Bar, and, owing to the inner belt, the time of high-water is the best for landing.

After landing, if owing to a fog you cannot judge of your situation, so as to shape your course to one of the houses, seek the lake and then proceed.

The preceding description, excepting a little alteration, is from the observations of Mr. Joseph Darby, master of the schooner *Two Brothers*, and ten years in the service of the island. (Halifax, 8th April, 1824.) Mr. Darby has also given a list of ships and vessels, wrecked upon the coast and bars, thirty-four in number, between 1802 and 1824; the greater part upon the southern shores.

It may be observed, generally, that the soundings all along the Nova Scotian Coast, between Cape Canso to the E.N.E. and Cape Sable to the W.S.W., are very irregular; from 25 to 40 and 50 fathoms. In foggy weather, do not stand nearer in-shore than 35 fathoms, lest you fall upon some of the ledges. By no means make too bold with the shore in such weather, unless you are sure of the part of the coast you are on; for you may, otherwise, when bound for Halifax, fall unexpectedly into Margaret's or Mahone Bay, and thus be caught with a S.E. wind.

At the entrance of the harbours and rivers on the coast, salmon is taken from April until August; and, from one to two or three leagues out to sea, cod, halibut, polluck, haddock, rays, and mackarel. Herrings are taken in the bays and harbours, in the months of June and July, and tom-cod all the year round.

The weather on the coast is frequently foggy in the spring and some part of the summer; in particular at the distance of 4 or 5 leagues from the shores. On approaching nearer, the weather is found more clear; and, with the wind from the land, it is perfectly clear and pleasant.

VIII.—HALIFAX HARBOUR, and the COAST THENCE, WESTWARD, to CAPE SABLE.

THE land about the Harbour of Halifax, and a little to the southward of it, is, in appearance, rugged and rocky, and has on it, in several places, scrubby withered wood. Although it seems bold, yet it is not high, being to be seen, from the quarter-deck of a 74-gun ship, at the distance of no more than 7 leagues; excepting, however, the high lands of *Le Have* and *Aspotogon*, westward of Halifax, which are to be seen 8 leagues off. The first, which is 12 leagues W. S.W. from Cape Sambro' appears over Cape Le Have, and like little round hills of unequal height. Aspotogon, when bearing N.W. by N., appears directly over Margaret's Bay, 5½ leagues westward from Cape Sambro': it is rather a long high land, nearly level at the top, and rising above the land near it. When bearing North, distant between 5 and 6 leagues, Sambro' lighthouse will bear E.N.E. distant 7 leagues.

The lighthouse on Sambro' Island is remarkable, it being a high tower on that island, which is small and rocky, lying at 3½ miles to the S.W. from Chebucto Head, on the S.W. side of the entrance into Halifax Harbour.* Chebucto Head has a remarkably rocky and barren appearance.

There are two other lighthouses on the coast westward of that of Sambro'; the first is on Coffin's Island, at the entrance of Liverpool Bay; the second is on Cape Roseway, at the entrance of Shelburne Harbour. Of these, one may be distinguished from the other by noticing that the lantern of Sambro' lighthouse, exhibiting a *fixed* light, is elevated 210 feet above the level of the sea; while the light on Coffin's Island is only 90 feet; the latter is *revolving*, and appears full at intervals of two minutes: the lighthouse on Cape Roseway exhibits *two* lights, there being a small light at about one-third from the top of the building. Cape Roseway is about 30 leagues to the W.S.W. from the lighthouse of Sambro'.

The island and lighthouse, near the harbour of Halifax, lie in latitude 44° 30' N., and longitude 69° 31' W. of Greenwich.

* The appearance of it is given on the Chart of Nova Scotia.

HALIFAX HARBOUR. This harbour, the centre of the trade of Nova Scotia, is ten miles in length, nearly North and South by compass. Its upper part, called **BARROCK BLAIS**, formerly known by the name of the Chain, is a beautiful sheet of water, containing about eight square miles of good anchorage.

On the eastern side of the entrance to the cultivated island now called **Mac Nab's**, formerly **Corruadillie Island**, a name which in propriety it ought to have retained. Above this, and nearly in the centre of the harbour, is an islet, called **George Island**. The latter, which has a tower on it, is fortified, and protects the city of Halifax.

On a spit of gravel, called **Mauger's Beach**, extending towards **Point Sandwich** from **Mac Nab's Island**, is a tower, called **Shirbrooke Tower**. Near this, a small lighthouse, built in 1818, is intended to direct ships into the harbour, clear of the shoals hereafter described.

Northward of **Mauger's Beach**, is the cove now called **Mac Nab's Cove**, a good anchorage in from 9 to 4 fathoms; mud. The best spot is in 7 fathoms, with the beach and **Point Sandwich** in a line, and the tower on **George Island** touching the N.W. part of **Mac Nab's Island**.

The promontory, called **CHEBUCTO HEAD**, bounds the entrance of the harbour on the west. At 3½ miles above this, on the western side, is a singular indent, called **HEARING COVE**, occupied by about forty Irish families, who subsist by fishing and piloting. Small vessels here lie perfectly sheltered in shoal water. The coast between this and **Chebucto Head** is wholly of rock.

HALIFAX, at the distance of eight miles above **Chebucto Head**, contains 1200 houses, and about 10,000 inhabitants. It has two episcopal churches, one Scottish church, two Methodist chapels, one Baptist meeting, and one Catholic chapel. Its other public structures are the government-house and the provincial building; the latter a fine structure.

The naval yard is above the town: the commissioner's house and other buildings are its ornaments. As a government-establishment, it is, of course, in excellent order. To the northward of it is the naval hospital, with its requisite appendages. On the hill, above the hospital, is a square stone-building, the residence of the naval commander-in-chief. The citadel-hill, over the town, commands a prospect of the harbour and surrounding country.

The village of **DARTMOUTH**, opposite to **Halifax**, is thinly settled; but the lands behind it are in a very improving state.

The **LIGHTHOUSE OF SAMBO**, already noticed, has seven lamps, and exhibits a red light. Its lantern is elevated 210 feet above the level of the sea. A small battery of artillery are stationed here, to attend to signals, with two twenty-four pound alarm-guns; by the attention of these men several shipwrecks, it is said, have already been prevented.

Within and about two miles from the lighthouse there are several dangers, generally known under the name of the **EASTERN** and **WESTERN LEDGES**. Of these the westernmost is the **BULL**, a rock above water, which lies about three-quarters of a mile S.E. by E. from **Pendant Point**, with the lighthouse bearing E. 7° S., 2½ miles.

To the south-eastward of the **Bull**, at the distance of a mile, lies the ledge called the **HONERS**; with the lighthouse bearing E. by N. one mile and three-quarters distant.

The S.W. rock or ledge lies with the lighthouse N.E. 1½ miles.

The **HENRACY ROCK**, with 8 feet over it, lies with the lighthouse N.N.W. ¼ W. 2 miles. To the E.N.E.; at a mile from this, is another, the **LOCKWOOD**, of 18 feet. Both are, of course, exceedingly dangerous to those approaching within a short distance.

The **SIRRENS**, or **Black Rocks**, commonly called the **Eastern Ledge**, lie to the E.S.E. three-quarters of a mile from the lighthouse. **Chebucto Head** N.N.E. will clear them to the eastward.

Besides the rocks above described, the **BELL**, a rock of 18 feet, lies at a quarter of a mile from shore, with the extremity of **Chebucto Head** N. by E. ¼ E. [North] three-quarters of a mile.

* See the particular chart of the Harbour and Environs of Halifax.

Write the line of *Cape Horn* on the S.W. and *Devil's Island*, on the N.E., are several rocks and ledges, but the situation of each is marked by a buoy, as shown on the Chart of *Of these*; the first is *Rock Head*, which lies with *Chebucto Head* S.W. 2½ miles, and *Devil's Island* N.E. ¾ E. 2½ miles.

The second is the *Thrum Cap*, a reef which extends from the south end of *Mac Nab's Island*, and which occasioned the melancholy loss of the *Tribune* frigate, with 250 brave men, on proceeding for the harbour from the eastward. The thwart-mark to clear it is, the easternmost land kept in sight from the deck, a ship's length clear to the southward of *Devil's Island*, and bearing about E.N.E. or E. by N., when steering West or W. by S., according to the distance of the ship from the island.

The *Lichfield Rock*, which lies towards the western side, has only 16 feet over it at low water. The marks for it are, *George's Island* just open to the eastward of *Point Sandwich*, and the passage between the *Devil's Island* and main open, bearing S. by N.

Above the *Lichfield Rock*, on the same side, at a mile above it, is the rock called *Mars' Rock*. It lies with *Point Sandwich* bearing North, half a mile, and nearly in a line with it and the west side of *George Island*.

A reef, called the *Horse-Shoe*, extends from *Mauger's Beach*, on the west side of *Mac Nab's Island*. It is dangerous and must be carefully avoided.

Half-way between *Mauger's Beach* and *George Island*, on the opposite side, is a shoal, extending to the S.E. from *Point Pleasant*, nearly one-third of the channel over, but having a buoy on its extremity. The thwart-mark for the buoy is a little islet, (on the west shore, at the entrance of the N.W. arm,) with a remarkable stone upon the hill, appearing like a coach-box, and bearing W.S.W.

Between *Mauger's Beach* and *Point Pleasant Shoal* is a middle ground of 4½ and 5 fathoms, distinguished by a buoy. This middle ground extends North and South a cable's length, and is about 30 fathoms broad: as you fall off to the eastward of it, there may be found from 7 to 13 fathoms, muddy bottom. On the west side are from 10 to 14 fathoms, coarse and rocky bottom.

Reid's Rock, having 12 feet over it, lies in-shore, about half-way between *Point Pleasant* and the south part of *Halifax*. The thwart-mark for it is, a farm-house in the wood over a black rock on the shore, bearing W. by S. Opposite to *Reid's Rock* is a buoy on the spit extending from the N.W. end of *Mac Nab's Island*.

DIRECTIONS FOR THE HARBOUR.—On approaching the Harbour of Halifax from the westward, advance to the eastward so as to pass the lighthouse at the distance of a league; taking care not to approach too near to the *Henery* or *Lockwood Rocks*, already described. When the lighthouse bears N.N.W. ¾ W. you will be in a line with the *Henery Rock*, and with it N.W. ¾ W. in a line with the *Lockwood*. With the lighthouse W.N.W. you will be clear to the northward of both, and may proceed N. by E. 4 miles, which bring you off *Chebucto Head*. Here you will bring the leading mark on, which is the flag-staffs on *Citadel Hill* open of *Point Sandwich*, and bearing N. by W.; and, by keeping them thus open, you will pass clear of the *Lichfield* and *Mars' Rocks* on the west, as well as of the *Rock Head* and *Thrum Cap* on the east. When nearly up to *Sandwich Point*, which is bold to, keep *Chebucto Head* well in sight, without that point; and this direction, kept on, will lead in the fair-way up to *George Island*, leaving *Point Pleasant Shoals* on the left, and the *Horse-Shoe*, or *Shoal* of *Mac Nab's Island*, on the right.

George Island may be passed on either side, and you may choose your anchorage at pleasure, in from 13 to 6 fathoms, muddy bottom. From *George Island* to the head of *Bedford Basin* there is no obstruction to shipping.

Ships of war usually anchor off the *Naval Yard*, which may be distinguished at a distance by the masting sheers. Merchant-vessels discharge and take in their cargoes at the two wharfs.

Small vessels, from the eastward, occasionally proceed to *Halifax* by the S.E. passage, within *Mac Nab's Island*. On the shoalest part of the bar of sand, which obstructs this passage, there is, however, but 8 feet at low water. Above the bar the depth increases to 5 and 10 fathoms, bottom of mud.

On entering the Harbour from the Eastward, especially with an easterly wind, particular caution must be taken to avoid the Thrum Cap and Rock-Head. In proceeding this way, steer West, W.N.W. or N.W. according to the wind and your distance from the shoals, until George Island, up the Harbour, is open a safe breadth to the westward of Mac Nab's Island; then haul up for Sandwich Point and York Redoubt, until you see the steeple of St. Paul's Church, in Halifax, a ship's length open to the eastward of Judge Brenton's house, a remarkable one, fronting the south. This mark, kept on, will lead clear of Point Pleasant Shoal, and in a fair way between Mauger's Beech and Sandwich Point: whence you may steer directly for George Island, and pass in on the east side, if the wind will permit.

In turning to windward, give the upper or inner part of Mauger's Beach a berth of one cable's length, in order to avoid the Horse-Shoe Spit, that runs from the north part of the beach to the distance of one cable and a half's length. You may stand to the Sandwich Point side to within two ships' length, that being hold-to; but stand no farther over to the westward, to avoid Point Pleasant Shoals, than keeping St. Paul's church open to the eastward of Judge Brenton's house, on the south shore, as above-mentioned.

When arrived thus far, put in stays; and, standing to the eastward, keep Little Thrum Cap Island, (now Carrofs,) a red bluff, open of Mac Nab's Island: having this mark on, put in stays again, and you will thus go clear of the N.W. spit of Mac Nab's Island.

COAST WESTWARD OF HALIFAX.—The little harbour, or cove, called CATCH HARBOUR, which lies to the westward of Chebucto Head, has a bar across the entrance, having nine feet over it at low water, with breakers when the wind blows on the shore. Within it are three and 3/4 fathoms. In 1817, twenty families were settled here, and supported, principally, by supplying the market of Halifax with fish.

GENERAL REMARKS on the COAST WESTWARD.

From Halifax, westward, to Margaret's Bay, the country appears, from the offing, very rocky and broken; the shore is steep-to, and bounded with white rocky cliffs. The high lands of Aspotogon, on the eastern side of Mahone Bay, are most remarkable; the summit is very conspicuous; it is 438 feet high, and may be seen at the distance of 7 or 8 leagues. Proceeding westward, from Mahone Bay, the rocks which surround the shore are black, with some banks of red earth. Cape Is. Have is an abrupt cliff, 107 feet high, above the sea: it is bald on the top, with a red bank under it, facing the south-westward. Between this cape and Port Medway, there are some hummocks within land, about which the country appears low and level from the sea; and, on the shore, white rocks and stony beaches, with several low bald points: hence to Shelburne Harbour the land is woody. About the entrance of Port Latour, and within land, are several barren spots, which, from the offing, are easily discerned; thence to Cape Sable, the land appears level and low, and on the shore are some cliffs of exceedingly white sand, particularly in the entrance of Port Latour, and on Cape Sable, where they are very conspicuous from sea.

BEARINGS and DISTANCES of PLACES between HALIFAX and CAPE SABLE &c

From	Magnetic.	Miles.	True.
Chebucto Head	N.E.	31	N.N.E. by N.
Three Fathoms Harbour	E.N.E.	45	N.E. by E.
Jedore Head	E.N.E. by E.	93	N. by N. E.
Jedore Outer Ledge	East	25 1/2	E.N.E. by E.
Cape Is. Have	W. 1/2 S.	60	S.W. by W. 1/2 W.
Liverpool Lighthouse	W. by S.	62 1/2	S.W. by W. 1/2 W.
Cape Sable	W.S.W. 1/2 W.	113	S.W. 1/2 W.

Liverpool

Liverpool Light-house	E. N. E. $\frac{1}{2}$ E.	16	N. E. $\frac{1}{2}$ E.
Paddington Island	E. N. E. $\frac{1}{2}$ E.	31	N. $\frac{1}{2}$ E.
Liverpool Western Head	SW.	3	S. S. W. $\frac{1}{2}$ W.
Liverpool Port Point	N. W. by W. $\frac{1}{2}$ W.	3	W. by N.
Isle Hope	S. W. $\frac{1}{2}$ S.	14	S. S. W. $\frac{1}{2}$ W.
Shelburne Light House	N. E. $\frac{1}{2}$ N.	2	N. N. E.
Berry Point	N. E. $\frac{1}{2}$ N.	2	N. N. E.
the South end of the Westernmost	E. N. E. $\frac{1}{2}$ E.	7	N. E. by E.
Rugged Island	E. N. E. $\frac{1}{2}$ E.	10	E. N. E.
Thomas' or Eastern Rugged Island	E. S. E. $\frac{1}{2}$ E.	7	E. S. E.
the S. W. Breaker of Rugged Island	S. by E. $\frac{1}{2}$ E.	1	S. S. E. $\frac{1}{2}$ E.
the Big Rock (6 feet)	S. by E. $\frac{1}{2}$ E.	1	S. S. E. $\frac{1}{2}$ E.
Cape Negro	S. W. $\frac{1}{2}$ S.	8	S. S. W.
Cape Sable to	E. N. E. $\frac{1}{2}$ E.	7	N. E. by E.
Beacro Point	East.	7	E. N. E. $\frac{1}{2}$ E.
the Bantam Rock	S. E. by E.	8	E. S. E. $\frac{1}{2}$ E.
the Brasil Rock	W. $\frac{1}{2}$ N.	16	W. by S.
the Blonde Rock	W. by N.	16	W. $\frac{1}{2}$ S.
the South Reef of Seal Island	W. N. W.	17	W. $\frac{1}{2}$ N.

DESCRIPTION AND DIRECTIONS.

SAMBRO' HARBOUR.—The Harbour of Sambro', which has thirty families on its borders, lies at one mile and three quarters to the N.N.W. of the Lighthouse Island. Off its entrance is the Bull Rock, already noticed, and there are two other rocks between the latter and Sambro' Island. The best channel into it is, therefore, between Pendant Point and the Bull Rock; but vessels from the eastward may run up between Sambro' Island and the Inner Rock. Within the entrance is an islet, called the Isle of Man, which is to be left, when sailing inward, on the left or larboard hand. The anchorage is above this islet, in 3 fathoms, muddy bottom. This is a place of safety for, and much resorted to by, coasters in bad weather.

PENDANT HARBOUR, (*Port Affleck of Des Barres*.) the next to the westward of Sambro', has good anchoring ground. The islands on the west side of it are bold to, and the ground is likewise good. The depths are from 10 to 5 fathoms.

TENANT'S BAY, (or *Bristol Bay*.) between Pendant Harbour and Tenant's Basin, presents to the eye of a stranger the rudest features of nature. It is obstructed by several rocks and islets, but, once gained, it is extensive and safe; and, in bad weather, (the only time vessels of consequence should enter it,) the dangers show themselves. The tide flows here, on the full and change days, at VII $\frac{1}{2}$ h. and rises about 8 feet.

PROSPECT HARBOUR.—This Harbour is about 3 miles westward of Tenant's Bay, and is separated therefrom by a large cluster of islets and broken land, the outer extremity of which is named *Cape Prospect* or *Mars' Head*. On advancing, the appearance is rugged; but the harbour is extensive and safe; and, in rough weather, the dangers in the vicinity show themselves. The inhabitants, about twelve families, are settled on the left, or western side, and subsist by the fishery. Two small islands, on that side, form a little cove; and on these are the stages. The entrance is between an islet, called *Hobson's Nose*, on the S.E., and a rock, named *Dorman Rock*, on the N.W. There is a breaker, with 3 fathoms over it, at the distance of two cables' length, to the east of the latter. Within the harbour there is good anchorage for the largest ships; and, for smaller vessels, in 4 fathoms, where the bottom is of stiff blue clay.

SHAG HARBOUR, (*Leith Harbour of Des Barres*.) is the next westward of Prospect Harbour; it is the N.E. arm of an inlet, of which the N.W. arm is *Blind Bay*, in both of which excellent anchorage may be found. In the common entrance without Des without the *Hog*, a sunken rock, having only 6 feet of water over it. This

* Shuldham Harbour of Des Barres.

rock

rock bears S.E. & E. nearly a mile and a half from Taylor's Island. In rough weather, with the wind on the bay, the sea breaks over it; and, in fair weather, it may be perceived by the rippling of the tide. There is a good anchorage on either side. That on the west side is most difficult, there being a ledge extending half a mile towards it, from the eastern extremity of Taylor's Island.

DOVER PORT lies on the western side of the entrance to Blind Bay, formed by Taylor's Island, and several other islands. The best passage is to the eastward of these, giving them a moderate berth. The anchorage is within the body of Taylor's Island, in 10, 9, or 7, fathoms; bottom of mud. A talling In, give a berth to the reef, which extends S.E. half a mile from Taylor's Island.

Between the Harbour of Halifax and this place, the coasts are craggy, broken, and barren: the shore iron-bound and steep, and a tree is scarcely to be seen. Fish, however, are abundant, and the harbours are most conveniently situated for the fishery.

MARGARET'S BAY.—This bay is a beautiful sheet of water, about 80 miles in circumference, in length nine, and two miles wide at the entrance. On every side are harbours capable of receiving ships of the line, even against the sides of the shores. To the west of the entrance stands the High Land of Aspotogon, already noticed, the summit of which, bearing N.W., leads directly to the mouth of the Bay. The shores at the entrance are high white rocks, and steep-to. On the western side is a narrow islet, called *Southwest or Holderness Isle*, the south point of which, according to M. des Barres, lies in latitude $44^{\circ} 34' 25''$, and longitude $69^{\circ} 55' 30''$. This islet is a body of rock, about 50 feet in height, and bold-to on all sides.

On the Eastern side of the Entrance, 300 yards from *East Point*, is a rock uncovered at low water: and there is, at a mile and a half south from Southwest Island, a ledge called the *Horse-shoe*, almost covered and surrounded with breakers, and which bears from the south point of Taylor's Island W. by N., $4\frac{1}{2}$ miles: the depths around it are 6 and 8 fathoms.

On the Eastern side of the Bay, at $2\frac{1}{2}$ miles to the northward of East or May Point, is an irregular projection called *Peggy's Point*. At a mile beyond this is an isle named *Shut-in Island*, which is 208 feet high, covered with wood, and bold-to; but there are two ledges between it and the inner part of Peggy's Point, over which the depths are 8 and 9 feet. In a southerly gale the water is smooth on the lee side of the island, and the bottom good. At a mile and a half N.E. & N. from Shut-in Island is a smaller isle, named *Luke's*, forming a complete break to the sea, and used as a sheep-fold. There is good anchorage on the N.E. side of it, smooth in all seasons; and this is, therefore, a useful place of shelter.

Within two miles northward of Luke's Isle is a cluster of islets, the *Strait Islets* of Des Barres,† but the principal of which are now called *Jollimore's Islets*. One extends northeastward from the latter; and the land within forms the harbour called *Hertford Basin*, wherein the depths are from 7 to 10 fathoms, and the anchorage is safe under the lee of Jollimore's Islets.

HEAD HARBOUR, (or *Delaware River*), in the N.E. corner of the Bay, is an anchorage of the first class, and so perfect a place of safety, that a fleet may be moored in it, side by side, and be unaffected even by a hurricane. The lands are high and broken. Ten families were settled in the neighbourhood in 1817. The islands, at the entrance, are used as sheep-folds.

HUBBARD'S COVE, (*Pitaroy River*), in the N.W. corner of the bay, may be entered by a stranger, by keeping the western shore on board; and a ship distressed or in distress may here find perfect shelter. If without anchors, she may safely run aground, and will be assisted by the settlers.

* At nearly half a mile E. by N. from the body of the isle, there is, however, a single rock, having 4 fathoms over it, on which the sea breaks in rough weather: but it can hardly be deemed a danger.

† It has often been lamented that the bulk and price of the showy work of M. des Barres never suffered it to come into general use; and, consequently, the names which he assigned to different points and places have remained generally unknown.

At the entrance of the cove, towards the eastern side, is a ridge of rocks, called Hubbert's Ledge (Dark Ledge); this is about 100 fathoms in extent, and covered at high water; it may be passed on either side, keeping the rocks on hand, the shore being bold; gullies are about a yard wide, and fit for a small boat.

Between Hubbert's Cove and Head Harbour are several indents, with projecting rugged points. From these places small vessels take building sand and lime stone, the latter being of a superior quality. Salmon abound here, and, in the lakes above, are vast quantities of fine trout.

Being Cox's (Egmont Cove), 2 miles to the southward of Hubbert's Cove, on the western side of the bay, is a good anchorage with a westerly wind. An excellent stream, on which is a saw-mill, falls into this place. Hence, southward, the coast is bold and rugged; but there is no danger, excepting one small rock of six feet of water, close in shore.

At a mile to the northward of Southwest Isle, in the entrance of the Bay, is the little harbour called N.W. Harbour, sheltered by an islet (Horse Isle) and within which is tolerable anchorage for small craft: both the channels into it are good. Several families are settled here. Above this harbour the west shore is rugged and bold.

About 5 miles S. & W. from the point of land which separates Margaret's and Mahone Bays, lies GREEN ISLAND. It is small, and lies 7 leagues W.N.W. & W. from abreast of Sambro' lighthouse, in latitude $44^{\circ} 27' 35''$, and longitude $63^{\circ} 58' 30''$.

MAHONE BAY is divided from Margaret's Bay by the peninsula, on which stand the high lands of Aspotogon, whose appearance, in three regular swellings, is very remarkable at a great distance in the offing. This Bay is nearly 4 leagues in extent, from N.E. to S.W., and contains numerous islands and rocks, the largest of which, Great and Little Tancook, are on the eastern side.

Without the entrance, is Green Island, above mentioned, another small isle, called Duck Isle, on the opposite side, and a larger, more to the west, named Cross Island. Between the two latter is a channel, one mile in breadth.

The Outer Ledge, which always breaks, lies at one mile and two-thirds N.E. & N. from the east end of Duck Island, and W. & N. 3 miles from the west point of Green Island. Another danger, the Bull Rock, lies at a mile to the southward of Great Tancook, and bears from Green Island N.W. & W. $4\frac{1}{2}$ miles; from the east end of Duck Island N. & E. 4 miles: this rock is visible at one-third ebb, and from it the S.W. end of Flat Island, bears E. by N. 1200 fathoms distant, and the west point of Tancook Island N. by W. a mile and three quarters distant.

Farther up, N.W. by W., 400 fathoms distant, from the west point of Tancook Island, lies Rocky Shoal; within which and Tancook Island is deep water. The Cochman is a blind ledge, a mile and a quarter North of Great Tancook, and visible at low water only.

At the head of Mahone Bay is the town of CHESTER, which was settled in 1767, and is surrounded by a country of fine appearance, and abounding in wood. On approaching the bay from the eastward, the first land seen will be Green Island, which is round, bold, and moderately high. Hence, to Iron-bound and Flat Islands, the distance is about 3 miles; passing these, which are bold to, you proceed to and between the Tancook Islands, which are inhabited: the passage is good, and there is anchorage under the isles, in from 12 to 7 fathoms.

On proceeding towards Chester, the only danger is the ledge called the Cochman, above mentioned. You will just clear the eastern side of this ledge by keeping the east ends of Great Tancook and Flat Island in one; and the western side by keeping the west end of Iron-bound Island open with the west point of Little Tancook. The islands off the town render the harbour smooth and secure, the depth in which is from 5 to 2 fathoms.

Chester church open, on the west of Great Tancook, leads clear to the westward of the Bull Rock, and down to Duck Island.

In Margaret's and Mahone Bays it is high water on the full and change at VIII h., and the vertical rise is from 7 to 8 feet.

Charlotte and King's Bays, in M. des Barres' Charts.

MALAGUASH or LUNENBURG HARBOUR.—This is a place of considerable trade, and its population, in 1817, amounted to 5,000 persons. Vessels are constantly plying between Lunenburg and Halifax, carrying to the latter chard-wood, lumber, hay, cattle, stock, and all kinds of vegetables. The harbour is easy of access, with anchorage to its head.

To sail in, you may pass on either side of Cross Island, but the channel on the west side of the island is the best. In sailing through the northern channel, be careful to avoid the shoals which extend from the north side of the island, and from Celewerth Point on the opposite side. In sailing in, through the channel to the westward of the island, steer in a midway between it and Point Ross; and, before you approach the next point, which is *Ovens' Point*, give it a berth of two or three cables' length for, around Ovens' Point is a shoal, to which you must not approach nearer than in 7 fathoms. From Ovens' Point, N.E. three quarters of a mile distant, lies the *Sculpin* or *Cat Rock*, dry at low water. Your leading-mark, between Ovens' Point and the Cat Rock is, a wagon-road-way (above the town of Lunenburg) open to the westward of Battery Point, which mark will keep you clear of a rock of 4 fathoms at low water. The best anchoring ground is on the west shore, opposite the middle farm-house, in 7 fathoms, muddy bottom. Your course in, is from N.N.W. to N.W. by N. In this bay, with good ground-tackling, you may ride out a S.E. gale very safely. The harbour, which is to the northward of the Long Rock and Battery Point, is fit only for small ships of war and merchant-vessels. Along the wharfs are 12 and 13 feet of water; and, at a short distance, from 20 to 24 feet, soft mud.

The latitude of Cross Island, according to the observations made by Mr. Backhouse, is $44^{\circ} 20'$. M. des Barres gives it as $44^{\circ} 23' 25''$, in longitude $64^{\circ} 5' 10''$. This island is in a state of cultivation, and on the N.E. is a small nook, in which coasters may lie securely. The west and south sides of the island are bold; and, at two miles from the south side, is an excellent fishing-bank, having over it from 14 to 17 fathoms.

From Green Island the east end of Cross Island bears W.S.W. distant 6 miles. From the east end of Cross Island that of Ironbound Island lies S.W. by W. $\frac{1}{2}$ W., $6\frac{1}{2}$ miles: and from the latter Cape le Have bears S.W. by W. $\frac{1}{2}$ W., $4\frac{1}{2}$ miles.

CAPE LE HAVE, described on page 92, stands at the distance of 12 leagues $\frac{1}{2}$ W. $\frac{1}{2}$ S. from Sambro' Lighthouse. At one mile S.E. $\frac{1}{2}$ S. from this Cape lies the *Black Rock*, 10 feet high, and 100 long, with deep water around it, 10 to 14 fathoms: and at $2\frac{1}{2}$ miles W.S.W. $\frac{1}{2}$ W. from the Cape is an elevated rocky islet, called *Indian Isle*, which lies at a mile from shore, off the S.E. point of *Palmerston Bay*, or Broad Cove: this point is $2\frac{1}{2}$ miles westward of Cape le Have.

Palmerston Bay is two miles in breadth. At the head of it, to the N.W. is *Petit River*, a settlement formed by the French, and the farms of which are in fine condition. From Cape le Have, westward, to Medway Head, an extent of 11 miles, nearly W.S.W. the land is, altogether, broken and craggy.

PORT MEDWAY, or METWAY.—Medway Head, (*Admiralty Head of Des Barres*) at the entrance of this port, is laid down in latitude $44^{\circ} 10' 30''$, and longitude $64^{\circ} 29'$. The entrance may be known by a hill on the head, and a long range of low rugged islands extending true South, forming its eastern side: it is seven-eighths of a mile broad, and has a depth of 10 to 4 fathoms. This port is now considerable, both in its navigable capacity and its consequence as a fishery; in 1817, it contained fifty families, or 276 persons. Five saw mills, on the river above, are constantly employed.

The land to the eastward of the harbour is remarkably broken and hilly. The *South-west Ledge*, or outer breaker, on the starboard side, without the entrance, lies S.E. $\frac{1}{2}$ S. about a mile and a-half from Medway Head. The *Stone Horse*, a rock dry at low water, lies E. by S. one third of a mile from the S.W. breaker.

Cross Island is the Prince of Wales' Island in M. des Barres' Charts.

† Not eighteen leagues, as stated by Mr. Lockwood.

† Mr. Lockwood says, "What Des Barres calls Palmerston Bay." In all instances of places not previously named, we see no good reason why a name, once imparted, and not an improper one, should not be established. We have, therefore, retained several names imparted by M. Des Barres, which do not appear in some late charts.

When

When approaching from the eastward, you will reach the S.W. Ledge, on which the light breaks in rough weather, by keeping the Lighthouse, on Coffin Island open of the land to the eastward of it. The course to the harbour is N. 1/2 E. and N. 1/2 W. **LIVERPOOL BAY**—Western Head, on the S.W. of the entrance of Liverpool Bay, is represented in latitude 44° 3' 20", and longitude 64° 37'.

This bay has some difficulties for turning to windward, and affords good anchorage for large ships, with an off-shore wind. The deepest water is on the western shore. Western Head, or Bald Point, at the entrance, is bold, and is remarkable, having no trees on it. Herding Cove, on the north side of the bay, affords good shelter from sea-winds, in 10 fathoms; muddy bottom, but it is much exposed to a heavy swell, and has not room for more than two sloops of war. At high water, vessels of two and three hundred tons may run up over the bar into the harbour; but at low water there are only 10 feet over it. The channel, within, winds to the southern shore, and the settlements of Liverpool upwards.

The entrance bears W. by S. 17 1/2 leagues from Sambro light-house, † and W.S.W. W. 16 miles from Cape Le Have. Coffin's Island, which lies without it, is distinguished by the light-house already noticed, on page 89, and which exhibits a light revolving every two minutes. The land in the vicinity of the harbour is generally rocky and barren, yet the commercial spirit of the people has raised the town to respectability and opulence, and they trade to every part of the West-Indies. The population is estimated at 1200 persons.

In Port Medway and Liverpool Bay, it is high water, on the full and change, at 60 minutes past seven, and the vertical rise is from 5 to 8 feet.

PORT MOUTON, or MATOON, (Gambiar Harbour of Des Barres), is formed by an island of the same name, which lies at the entrance, and, therefore, forms two channels. Of the latter, that on the western side of the island is so impeded by islets and shoals, as to leave a small passage only for small vessels, and that close to the main. At a mile from the island, on the east, is a ridge called the *Brasil Rocks*; and, from the N.W. end of the island, a shoal extends to the distance of more than a mile. Within Matoon Island, on the W.N.W., are two islands, called the Spectacles, or Saddle. M. des Barres says, "On both sides of the Portsmouth [*Brasil*] Spectacles, which are always above water, you have deep channels, and of a sufficient width for ships to turn into the harbour." With a leading wind you may steer up N.N.W. 1/2 W., until you bring the Saddle to bear S.W. 1/2 W., and haul up S.W. by W. to the anchoring-ground, where there will be found from 20 to 12 fathoms, muddy bottom, in security from all winds.

At five miles S.S.W. 1/2 W. from the south end of Mouton Island lies an islet, surrounded by a shoal, and named **LITTLE HOPE ISLAND**. It is only 21 feet high, and 200 fathoms in length, at 2 1/2 miles from the shore. A valuable ship was lost here, in 1815; and Mr. Lockwood has recommended the erection of an obelisk, or beacon, upon the isle, which would be of great advantage to the coasters, and to all who approach the coast.

PORT JOLIE—The next harbour, west of Little Hope Isle, is **Port Jolie, (Stormont River of Des Barres, and Little Port Jolly of others),** which extends five miles inland, but is altogether very shoal, and has scarcely sufficient water for large boats. The lands here are stony and barren, but eleven families are maintained by fishing. Between this harbour and Hope Isle are several ledges, which show themselves, and there is a shoal spot nearly mid-way between the isle and the main.

PORT HEBERT, or GREAT PORT JOLIE, (Port Mansfield of Des Barres), may be distinguished by the steep head on the west. Its eastern point, **Point Hebert,** lies in latitude 43° 51' 10", and longitude 64° 51' 20". At half a league to the S.W., without the entrance, is an islet, called **Green Island,** which is remarkable, and destitute of woods. The only anchorage here for large vessels, is in the mouth of the harbour. Above are flats, with narrow winding channels through the mud. Fifteen families are settled in the port.

SABLE RIVER (Penton River of Des Barres) is impeded by a bar which admits no vessels larger than small fishers. The country is sterile, but eleven families are settled here. A reef lies opposite to the middle of the entrance.

Western Head is the **Bald Point of M. Des Barres.**

† Mr. Lockwood says 20 leagues from Cape Sable, but this is clearly a mistake.

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RUGGED ISLAND HARBOUR (*Port Mills* of Des Barres) takes its name from its rugged appearance, and the numerous sunken rocks and ledges about it. This place is seldom resorted to, unless by the fishermen, although within the anchorage is good, in $4\frac{1}{2}$ and 4 fathoms. In a gale of wind, the uneven rocky ground at the entrance causes the sea to break from side to side. At a mile from the western head is a bed of rocks, named the *Gull*, over which the sea always breaks.

Thomas' or Rugged Island, to the east of the harbour, affords a good mark for it; this island having high rocky cliffs on its eastern side. From its southern point sunken rocks extend to the S.W. nearly a mile, and within these is the *Tiger*, a rock of only 4 feet, lying south, half a mile from *Rug Point*, the eastern point of the harbour. Having cleared these on the outside, haul up N.N.W. for the islands on the left or western side, and so as to avoid a shoal which stretches half-way over from the opposite side. Pursuing this direction, you may proceed to the anchorage in the north arm of the harbour.

SHELBURNE HARBOUR, or **PORT ROSEWAY**.—Cape Roseway, the S.E. point of *Roseneath* or *Macnutt's Island*, is a high cliff of white rocks, the top of which is partly without wood. The west side of the island is low. On the cape stands the noble light-house of Shelburne, which has a white and remarkable appearance in the day, and at night exhibits a small light below the upper one, by which it is distinguished, at night, from the light of *Sambro'*, or *Halifax*. The upper light is about 150 feet above the level of the sea, and the smaller light is 36 feet below the lantern.

The latitude of this light-house, according to Mr. Backhouse, in 1792, by the several means of double and meridian altitudes, is $43^{\circ} 42' 30''$. The variation at the same time was $15^{\circ} 30' W$. Of preceding observations, the results were, latitude $43^{\circ} 40\frac{1}{2}'$, and longitude $65^{\circ} 12\frac{1}{2}'$.

This harbour is, altogether, the best in Nova-Scotia, but its town has long been in a state of decline, and some of its streets are overgrown with grass and weeds. In 1784 its population exceeded 12,000; in 1816, it had diminished to 374 persons.

The directions for this harbour, as given by Mr. Backhouse, are as follow. (*See His Chart.*)

When coming in from the ocean, after you have made the light-house, bring it to bear N.W., or N.W. by N., and steer directly for it. The dangers that lie on the east side, going in, are the *Rugged Island Rocks*, a long ledge that stretches out from the shore 6 or 7 miles, the *Bell Rock*, and the *Straptub Rock*. On the west side is the *Jig Rock*. The *Bell Rock* is always visible and bold-to.

When you have gotten abreast of the light-house, steer up in mid-channel. *Roseneath Island* is pretty bold-to all the way from the light-house to the N.W. end of the island. When you come up half-way between *George's Point* and *Sandy Point*, be careful of a sunken rock that runs off from that bight, on which are only 3 fathoms at low water; keep the west shore on board to avoid it: your depth of water will be from 4, 5, to 6, fathoms.

SANDY POINT is pretty steep-to: run above this point about half a mile, and come to anchor in 6 fathoms, muddy bottom; if you choose you may sail up to the upper part of the harbour, and come to anchor in 5 fathoms, muddy bottom, about one mile and a half from the town, below the harbour flat. This harbour would contain all his Majesty's ships of the third-rate.

In sailing in from the eastward, be careful to avoid the *Rugged Island Rocks*, which are under water; do not haul up for the harbour till the light-house bears from you W. by N. $\frac{1}{2}$ N.; by that mean you will avoid every danger, and may proceed as taught above.

In sailing into Shelburne from the westward, do not haul up for the light-house till it bears from you N.W. by W. $\frac{1}{2}$ W.: you will thus avoid the *Jig Rock*, on the west, which lies within one mile and a quarter S. $\frac{1}{2}$ W. from the light-house, and is pretty steep-to.

Should the wind take you a-head, and constrain you to ply to the windward up the harbour, do not make too bold with the eastern shore; for half-way between *George's Point* and *Sandy Point*, is a reef of sunken rocks. When you come abreast of them, you need not stand above half-channel over to avoid them: the *Hussar* frigate, in plying to windward down the harbour, had nearly touched on them. On the west shore, abreast of *Sandy Point*, it is flat, therefore do not make too bold in standing over.

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The ledge of rocks that his Majesty's ship *Adamant* struck upon, which lies abreast of Durley's House, is to be carefully avoided: do not stand any farther over to the westward than 4½ fathoms, lest you come bounce upon the rock, as the *Adamant* did, and lay a whole tide before she floated, and that not without lightening the ship. The east shore has regular soundings, from Sandy Point upwards, from 3 to 4, and 5 to 6, fathoms, to the upper part of the harbour, where you may ride safely in 5 fathoms, good holding ground. Your course up from the light-house in a fair-way, is from N.W. to N.W. by N.; and when you round Sandy Point, the course is thence N. by W. and N., as you have the wind. The entrance of Shelburne Harbour affords a refuge to ships with the wind off-shore, (which the entrance of Halifax does not,) and there is anchoring ground at the mouth of the harbour, when it blows too strong to ply to windward.

In sailing from the westward for Shelburne, at night, you must not haul up for the harbour until the light bears N. by E. ¼ E., in order to avoid the Jig Rock; and, when sailing in, from the eastward, you must not haul up for the harbour till the light bears W. by N. ¼ N., in order to avoid the ledges that lie off the Ragged Islands, and bear from the light-house E. ¾ S. eight miles distant. You may stop a tide in the entrance of the harbour, in from 16 to 10 fathoms, sand, and some parts clay, bottom.

Shelburne is a safe harbour against any wind, except a violent storm from the S.S.W. At the town, the wind from S. by E. does no harm; although, from S. by W. to S.W. by S., if blowing hard for any considerable time, it is apt to set the small vessels adrift at the wharfs; but, in the stream, with good cables and anchors, no winds can injure.

It has been observed, in 'The American Coast Pilot,' that "Shelburne affords an excellent shelter to vessels in distress, of any kind, as a small supply of cordage and duck can, at almost any time, be had. Carpenters can be procured for repairing; pump, block, and sail, makers, also. It affords plenty of spars, and, generally, of provisions. Water is easily obtained, and of excellent quality. The port-charges for a vessel which puts in for supplies only, is four-pence per ton, light money, on foreign bottoms. If a vessel enters at the custom-house, the charges are high: but that is seldom requisite."

NEGRO HARBOUR (*Port Amherst* of Des Barres) takes its name from Cape Negro, on the island which lies before it, in latitude $43^{\circ} 32' 5''$, and longitude $65^{\circ} 17' 50''$. The island is very low about the middle, and appears like two islands. The cape itself is remarkably high, dark, rocky, and barren, and bears S.W. ¼ S. eight miles* from Cape Roseway, or Shelburne light-house. The best channel in is on the eastern side of the island; but even this is impeded by two ledges, called the *Gray Rocks* and *Budget*; the latter a blind rock, of only six feet, at a quarter of a mile from the island, on both sides of which there is deep water. The *Gray Rocks* lie at a quarter of a mile to the north-eastward of the *Budget*, and serve as a mark for the harbour.

In the passage on the eastern side of the *Budget* the depths are from 14 to 10 fathoms. With Shelburne light shut in, you will be within the rocks. There is excellent anchorage on the N.E. of Negro Island, in from 6 to 4 fathoms, bottom of stiff mud: The northern part of the island presents a low shingly beach, and from this a bar extends over to the eastern side of the harbour, on a part of which are only 16 feet of water. The river above is navigable to the distance of six miles, having from 5 to 3 fathoms, bottom of clay.

The inhabitants of the harbour, in 1817, amounted to 463 persons, who subsist by farming and fishing.

The passage on the western side of Negro Island is very intricate, having numerous rocks, &c.; yet, as these may be seen, it may be attempted, under cautious decision, by a stranger, in case of distress.†

PORT

* Not fifteen miles, as stated by Mr. Lockwood.

† The rocks in the vicinity of Cape Negro are not the only evils to be dreaded here. In the month of December, 1818, the *Mary*, brig, of Cumberland, New Brunswick, on her way to Passamaquoddy, struck on the Half-moon Rocks, near Cape Negro. The vessel filled with water, and ten of the passengers perished in less than ten minutes. Seventeen got into the boat; but, it being dark, and the sea running high, the boat was not manageable, and struck on a rock, near the larger one called *Blanche Islet*, which was covered with snow. Here, a lady, Mrs. Soden, and her seven children, with other persons, were drowned. During this time the inhabitants of Port

PORT LATOUR (*Port Haldimand of Des Barres*) is separated from Negro Harbour by a narrow peninsula. The extreme points of the entrance are Jeffery Point on the east, and Baccaro Point on the west. Between and within these are several clusters of rocks, which render the harbour fit for small craft only.

BACCARO POINT, at the entrance of this port, on the west side, lies, in latitude $49^{\circ} 31'$, and longitude $65^{\circ} 24'$; the *Vulture*, a dangerous breaker, lies S.W. by W. half a league from the point. The *Bantam Rock*, also half a league S. by W. $\frac{1}{2}$ W. from the point, has only 4 feet over it, at low water.

BARRINGTON BAY.—With the exception of the rocks off Point Baccaro, the Bay of Barrington is clear, but there are extensive flats towards the head of it, and the channel upwards narrows so much, that it requires a leading wind to wind through it to the anchoring-ground, where the depths are from 26 to 18 feet. The town of BARRINGTON, seated at the head of the harbour, with its environs, contained, in 1817, a population of 987 persons, happily situated. The lands are stony, but afford excellent pasturage, and cattle are, consequently, abundant here.

During a S.W. gale, there is good shelter on the N.E. side of Sable Island, in 5 and 4 fathoms, sandy bottom.

The **WESTERN PASSAGE**, or that on the N.W. side of Sable Island, is intricate, and therefore used by small vessels only: it is not safe without a commanding breeze, as the tide sets immediately upon the rocks, which lie scattered within it, and the ebb is forced through to the eastward, by the bay tide on the west, at the rate of from 3 to 5 knots. This passage is, however, much used by the coasters.

SABLE ISLAND is under tillage, and had forty-seven families on it, comfortably situated, in 1817. **CAPE SABLE** is the cliff of a sandy islet, distinct from the former; it is white, broken, evidently diminishing, and may be seen at the distance of 5 leagues. From this islet ledges extend outward, both to the east and west; the eastern ledge, called the *Horse-shoe*, extends $2\frac{1}{2}$ miles S.E. by S.: the western, or *Cape Ledge*, extends three miles to the S.W. The tide, both ebb and flood, sets directly across these ledges, the flood westward. The ebb, setting with rapidity to the N.E., causes a strong break to a considerable distance from shore. The position of the southern point of Cape Sable, according to M. des Barres, is latitude $43^{\circ} 26' 0''$, and longitude $65^{\circ} 34' 30''$. Of the stream, &c. M. des Barres says, "Here the tide runs at the rate of three, and sometimes four, knots; and when the wind blows fresh, a rippling extends from the breakers southerly, to the distance of nearly three leagues, and shifts its direction with the tide; with the flood it is more westerly, and inclines to the eastward with the ebb. This ripple may be dangerous to pass through in a gale, as it has all the appearance of high breakers, although there is no less than 8, 10, 12, and 20, fathoms of water, rocky ground. At the cape, the tide, on full and change days, flows at VIII h., and rises 9 feet."

BRASIL ROCK.—This rock has been variously described, but we have no doubt that the following is correct. It is a flat rock, covering an area of about ten yards, and having 8 feet over it, at low water, in calm weather; within a hundred yards from its base, are from 6 to 8 fathoms of water: to the southward, at about a mile from the rock, the depths are from 30 to 35 fathoms: but, towards the shore, the soundings are regular, 15 and 19 to 20 and 24 fathoms, sandy bottom. The tide, by running strongly over the shoal ground, causes a great ripple, and makes the rock appear larger than it really is. From Cape Negro the bearing and distance to the rock are S.S.W. true, or, S.W. $\frac{1}{2}$ S. by compass, 10 miles; and, from the rock, Cape Sable bears W. by N. $\frac{1}{2}$ N. true, or N.W. by W. $\frac{1}{2}$ W. by compass, 8 $\frac{1}{2}$ miles. Its position, according to M. Des Barres, which appears to be subsequently confirmed, is latitude $43^{\circ} 24' 15''$, longitude $65^{\circ} 22'$.

Latour were plundering the wreck of such clothes and baggage, belonging to the sufferers, as had escaped the seas. The vessel was sold by public auction, and bought by some inhabitants, on condition that the properties of the passengers should be given up to them, including what had been stolen from the vessel; an agreement which was evaded. Search-warrants were granted, but ineffectually, as the accused were apprised of the intended visit, by some officers of justice, who were sharers in the spoil.

After some weeks spent in this way, the surviving passengers were obliged to leave all with the robbers, some of whom are of high standing in Port Latour and Barrington.

(See, farther, "Observer," Newspaper, of Nov. 7, 1819.)

IX.—CAPE SABLE to the BAY of FUNDY and CHIGNECTO BAY, including St. JOHN'S, GRAND MANAN, and PASSAMAQUODDY BAY.

An inspection of the Chart of the S.W. coast of Nova Scotia, and a consideration of the relative situation of that coast, as exposed to the ocean, with the consequent and variable set of the tides about it, as well as about the Island Manan, &c., will naturally lead the mariner to consider that its navigation, involving extraordinary difficulties, requires extraordinary attention. Previous events, the great number of ships lost hereabout, even *within a few years*, will justify the supposition. It is, indeed, a coast beset with peril; but the peril may be avoided, in a great degree, by the exercise of skill and prudence. To the want of both is to be attributed many of the losses which have occurred here.

In touching on this subject, Mr. Lockwood says that, the necessity of frequently sounding with the deep-sea lead, and the expediency of having anchors and cables ready for immediate use, cannot be too often urged, nor too often repeated. Vessels, *well equipped and perfect in gear*, with anchors stowed, as in the middle of the Atlantic Ocean, have been wrecked in moderate weather, and so frequently, that such gross idleness cannot be too much reprobated; and, we may add, too *fully exposed*.*

As the TIDES are most particularly to be attended to, we shall attempt a description of them in the first instance, before we proceed to that of the coast, and the consequent sailing directions.

The TIDE about CAPE SABLE has been explained in the preceding section. From Cape Sable toward the Seal, Mud, and Tusket, Isles, the flood sets to the north-westward, at the rate of from two to three miles in an hour: in the channels of these islets its rate increases to four or five miles. At the Seal and Mud Islands the ebb runs E. by S., S.E., and South; varying, however, with the figure of the lands and the direction of the wind.

From the Tusket-bald Isles the tide flows to the northward, taking the direction of the shore, past Cape St. Mary; thence N.N.W. towards Brier's Island. The flood, therefore, sets but slowly up St. Mary's Bay, yet with increasing strength up the Bay of Fundy; still greater, as the bay narrows upward; so that the Basin of Mines and Chignecto Bay are filled with vast rapidity, and here the water sometimes rises to the extraordinary height of 75 feet. These tides are, however, regular; and, although the wind, in an opposite direction, changes the direction of the rippling, and sometimes makes it dangerous, it has little or no effect on their general courses.

* *Instances*.—A valuable coppered ship, with light airs of wind, drifted on the rocks, although the fishing-lines were in use at the time; the breakers heard, and the depth known. In the last extremity, a kedge-anchor was let go. The ship bilged, and the passengers were landed.

On a point, from which soundings gradually deepen to nearly 40 miles, a large coppered ship ran; and, having landed her passengers, was sold, as usual, for the benefit of the underwriters.

These are but two out of many. Some appear almost incredible; but the authority places the facts beyond doubt.

COBBETT'S STORM in the BAY of FUNDY.—The following is not unworthy of a seaman's notice. "When I was about eighteen, I was on board a little sloop, in the Bay of Fundy. A terrible storm arose at nightfall; my comrades, all but four or five of us, who were to assist the sailors, were shut down below; the wind dashed the vessel about, and tossed it like a cork; the thunder was tremendous; the night was dark as pitch, except when the lightning came to show us the horrid rocks and breakers, with which we were surrounded. In the midst of this scene, with his boom carried away, his mast snapped off at the top, and half his tackle torn to ribbons, the captain, an American, whose name was Whitmore, stood upon the deck, calling out, every now and then, in a loud and cheerful voice, 'Steady she goes, my boys!' This took from us, who were ignorant young soldiers, all idea of danger to our lives, and made us able to obey his orders: but, when the storm was over, the next morning, and we had happily escaped, he smiled, and told us that he had expected every moment to go to the bottom. We are now not in such peril. The storm has abated in its fury: but 'steady' is still the word!"

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The DANGERS about GRAND MANAN have been distinguished by wrecks as much as the S.W. coasts of Nova-Scotia; and the best passage is, therefore, on the west of that island. Here the tides course regularly and strongly; but, among the rocks and ledges on the S.E., they are devious, embarrassing, and run with greater rapidity. At the Bay of Passamaquoddy, from the S.E. land to the White Islands, the flood strikes across with great strength; and, in light winds, must be particularly guarded against.

The TIDE of St. JOHN'S HARBOUR, New Brunswick, will be noticed hereafter, as will that of Annapolis. Through the Gut of the latter it rushes with great force and rapidity.

Strangers bound up the Bay of Fundy, to St. John's or Annapolis, should have a pilot, as the tides in this bay are very rapid, and there is no anchoring-ground until you reach the Bay of Passamaquoddy, or Meogenes Bay. In the Bay the weather is frequently very foggy, and the S.E. gales blow with great violence for twelve or fourteen hours, then shift to the N.W., and as suddenly blow as violently from the opposite quarter.*

"The spring-tides in the Bay of Fundy rise to 30 feet perpendicular, and neap-tides rise from 20 to 22 feet; they flow, on full and change, at St. John's, Meogenes Bay, Annapolis, Harbour Delute, L'Etang, and Grand Manan Island, at 12 o'clock. The tide sets nearly along shore."

"In Chignecto Bay the tide flows with great rapidity, as before mentioned, and at the equinoxes rises from 60 to 70 feet perpendicular. By means of these high tides, the Basin of Mines, and several fine rivers, which discharge themselves about the head of the Bay of Fundy, are rendered navigable. It is worthy of remark, that, at the same time, the Gulf of St. Lawrence tide, in Bay Verte, on the N.E. side of the isthmus, rises only 8 feet."

The COASTS, ISLANDS, &c.—The southernmost point of SEAL ISLAND, which bears from that of the ledge of Cape Sable nearly W.N.W. 5 leagues, lies in latitude $43^{\circ} 28'$, and longitude $65^{\circ} 59'$. This island is more than two miles in length, N. and S. The southern part, covered with scrubby trees, is elevated 30 feet above the sea. This, Mr. Lockwood has observed, is an excellent position for a light-house. A dangerous reef extends to one mile south, from the south end of the island.

At $3\frac{1}{2}$ miles S. by W. from the south end of Seal Island, lies the *Blonde*, a rock, uncovered at low water, on which the frigate of that name was lost, in 1777. Close around it are from 7 to 10 fathoms. Within a mile westward from the Blonde, are heavy and dangerous overfalls, which present an alarming aspect. At $4\frac{1}{2}$ miles north from these is a bed of shoal ground, of 16 feet, causing a violent ripple.

Off the west side of Seal Island is the rocky islet called the *Devil's Limb*, which may at all times be seen.

MUD ISLES, sometimes called the NORTH SEALS, consist of five low rugged islands. The southernmost is situate at $2\frac{1}{2}$ miles from the N.E. part of Seal Island. Between is a passage fit for any ship, but there are overfalls of 18 feet at the distance of a short mile from the southern Mud Island. In the channel are from 10 to 15 fathoms. This channel lies with Cape Sable, bearing S.E. by E. $\frac{1}{2}$ E. [*E. $\frac{1}{2}$ S.*] distant 5 leagues.

Wild fowl, as well as fish, abound here; and, on one of the isles, vast quantities of petrels, or Mother Cary's Chickens, annually breed. They burrow under ground diagonally, 3 or 4 feet deep, where they set on one egg, and may be seen flitting about the ground in astonishing numbers, searching for food.

The course and distance to pass from Cape Sable to between the Seal and Mud Islands are N.W. by W. $\frac{1}{2}$ W. six leagues. In this track may be found several overfalls, of from 15 to 7 fathoms, bottom of gravel, which break violently in spring-tides. The north end of Seal Island is bold to one cable's length; 10 to 7 fathoms. The opposite side has a shoal bank, on which a ship of war struck in 1796.

The TUSKET ISLES, or TUSKETS, is the group or cluster lying to the northward of the Mud Isles, and to the S.W. of the entrance of Tusket River. Some of them are of considerable size, and there are many shoals and ledges among them. On the west of these isles are GREEN ISLAND and the GANNET ROCK; the latter, whitened with bird's dung,

* This was said by M. des Barres; but see, farther, the *General Directions*, &c. hereafter.

and 36 feet above the sea at high water, is represented by M. des Barres as in latitude $43^{\circ} 40' 40''$, and longitude $66^{\circ} 9'$. At about half a league from it, on the S.W., is a ledge that appears at half ebb, and on which the Opossum, brig, struck in 1816. Other vessels have been injured by the danger, which has been heretofore represented to lie at four miles W. by N. from the Gannet.

At half a mile to the N.W. of the north-western Mud Isle is a dangerous ledge, bare at half ebb, called the *Soldiers*, which is more than half a mile in length from N.N.E. to S.S.W. At a mile and a quarter N. $\frac{1}{2}$ W. from this is another, the *Actæon*, which thence extends N. by W. two-thirds of a mile. Half a mile farther, in the same direction, is a shoal, of similar size, having over its centre a depth of only two fathoms. The navigation hereabout is, therefore, to be avoided by strangers.

PUBNICO.—This harbour, little known, is a very good one; it is easy of access, and conveniently situated for vessels bound to the Bay of Fundy, which, in distress, may here find supplies as well as shelter. From the south end of Seal Island Reef, already described, to the entrance of Pubnico, the bearing and distance are N.E. $\frac{1}{2}$ E. 12 miles. The depths between vary from 20 to 16 fathoms, and thence to 12 and 6 fathoms, up to the beach, the proper anchorage for a stranger. On the western side, above the beach, is a ledge, partly dry at low water. The total population of Pubnico, in 1817, was 285 persons, children included.

On sailing towards Pubnico, you pass on the west of *John's Island*, which lies $2\frac{1}{2}$ miles to the southward of the harbour, and the north side of which affords good shelter during a S.E. gale. Small vessels lie along the beach forming the eastern part of this island.

From the entrance of Pubnico, a course W. by N., 4 leagues, leads clear to the southward of the Tusket Isles. On this course you will pass at a mile to the southward of the Southernmost Tusket, or Bald Isle. A course W. $\frac{1}{2}$ S., 12 miles, will lead between, and clear of the Actæon and Soldier's ledges, whence you may proceed either to the N.W. or S.W. according to your destination.

CAPE FOURCHU, or the **FORKED CAPE**, which lies, according to M. des Barres, in latitude $43^{\circ} 51' 30''$, longitude $66^{\circ} 10' 30''$, is very remarkable, being rocky, barren, and high. Within this cape is the harbour of **YARMOUTH**, which is small, but safe. Off the entrance, at $2\frac{1}{2}$ miles S.S.W. $\frac{1}{2}$ W., lies the *Bagshot*, a blind rock, which is dry at low water, and runs shoal one quarter of a mile to the southward. In sailing into the harbour, you may pass on either side of it. There are other rocks in the entrance, and the fair-way in is on the eastern shore, till opposite the point or isthmus on that side. At the top of the latter stands the battery; and under its lee, or to the northward, is the anchorage, with good ground, in 6 or 5 fathoms.

Above the anchorage is the town of Yarmouth, a respectable one, which contained, with its environs, 3237 persons in 1816.

At a league and a half S. by E. from Cape Fourchu is Point Jegogan (*Cape Sebogue* of Des Barres); the land between is low. Within the point is the little harbour of **JEGOGUE**, which is shoal, and frequented only by the coasters. There are several shoals in the vicinity. The lands hereabout are good, of moderate height, and well settled.

From Cape Fourchu to **CAPE ST. MARY**, the bearing and distance are N. $\frac{1}{2}$ E. 6 leagues: and from Cape St. Mary to the S.W. end of Bryer's Island, N.N.W. $\frac{1}{2}$ W. $12\frac{1}{2}$ miles.

With Cape Fourchu bearing S.E. by E. $\frac{1}{2}$ E. 13 miles distant, lies the **LURCHER**, a sunken ledge, of 12 feet at low water, covering an area of about three acres. From the Gannet Rock to this ledge, the bearing and distance are N.N.W. $\frac{1}{2}$ W. 19 miles; and, from the Lurcher to Cape St. Mary, N.E. $\frac{1}{2}$ E. 18 miles.

The **TRINITY LEDGE**, another reef, lies S.W. $\frac{1}{2}$ W. 6 miles from Cape St. Mary, and N. by W. 14 miles from Cape Fourchu. This danger covers a space of more than half an acre, and three small rocks upon it are seen at low tides. The stream sets rapidly over it. The depth, to a mile around, is from 12 to 15 fathoms.

BRYER'S ISLAND, above mentioned, is an island only $3\frac{1}{2}$ miles in extent from N.E. to S.W., on the western side of the entrance of St. Mary's Bay. It contained, in

* The new chart exhibits it in $43^{\circ} 41' 50''$ N. 1816,

1816, 142 persons. On its S.W. side is a lighthouse, the light of which is about 22 feet above the level of the sea, but it has been so badly kept, as not to be depended on. A rocky spit extends 2 miles S.W. from the S.E. point of the island, and has a rock near its extremity, called the *Black Rock*. At a mile farther, in the same direction, is a small shoal of 8 fathoms.

The next island to Bryer's, forming the west side of St. Mary's Bay, is *Long Island*; it is 10 miles long from N.E. to S.W., and half a league in breadth. It is inhabited, and its inhabitants, in 1816, amounted to 133 persons. Long Island is divided from Bryer's Island, on the S.W., by a strait, called *Grand Passage*, and on the N.E. from the Peninsula of St. Mary, by another, called *Petit Passage*. In the *Grand Passage* the water is deep, but the channel crooked, and it should not be attempted by a stranger, unless under very favourable circumstances. The *Petit Passage* is about 990 fathoms wide in its narrowest part; and has from 20 to 30 fathoms of water: its shores are bold. On its western side, near the northern entrance, lies *Eddy Cove*, a convenient place for vessels to anchor in, out of the stream of the tide, which runs so rapidly, that, without a fresh leading wind, no ship can stem it. The South end of Grand Passage is 11½ miles N. by W. from Cape St. Mary. That of the Petit Passage is three leagues to the Northeast from Grand Passage.

BAY of St. MARY.—From Cape St. Mary, upwards, into this bay, the south shore is low, and runs out in sandy flats. The north shore presents high steep cliffs, with deep water close under them. Mid-channel, and above two-thirds up the bay, lies a rocky bank, with 4 and 4½ fathoms of water, and on each side of which are channels of 12 and 15 fathoms, muddy bottom. The entrance of the River Sissibou, on the south side of the bay, is shoal, and within has a narrow channel of 2 fathoms of water. Opposite to Sissibou lies the Sandy Cove, where small vessels, when it blows hard, may ground safely on mud, and be sheltered from all winds.

BAY of FUNDY CONTINUED.—We now proceed with the particular description of the Coasts of the Bay of Fundy, commencing with Bryer's Island, the light-house on which has been described.

Off the N.W. side of Bryer's Island are several dangers, which must be cautiously avoided. Of these, the outer are called the *Northwest Ledge*, and *Betson's Ledge*: both lie at the distance of 2½ miles to the northwestward of the island, and between them and the shore are two other ledges; with deep channels between them; but the situations of the latter are not exactly known. The N.W. Ledge is 4 miles N. ½ E. from the light-house. Its shoal part is of the extent of an acre of ground, and the whole extent of the shoal about three quarters of a mile.

In the parallel of 44° 19', at 8 miles westward of Bryer's Island, strong ripples of tide may be found, which may easily be mistaken for shoals and breakers; though the soundings here vary from 45 to 33, and again 45 fathoms. At 2½ miles more to the south are 56 fathoms; and at 2 miles from Bryer's Island are 40 fathoms. At 5 miles to the northwestward of this Island no bottom is to be found with a line of 90 fathoms.

The coast from the south part of Long Island to the Gut of Annapolis, is nearly straight, and trends N.E. by E. 11 leagues. The shore is bound with high rocky cliffs, above which is a range of hills, that rise to a considerable height; their tops appear smooth and unbroken, except near the Grand Passage, Petit Passage, Sandy Cove, and Gulliver's Hole, where those hills sink in valleys.

* On Bryer's island the ship *Trafalgar*, of Hull, was lost, 25th July, 1817, at about half-past eight in the evening. The ship, bound for St. John's, had been running up all the day; the weather being thick, could not see any thing: "At seven p. m. hove the ship to, with her head to the westward, thinking we were well over to the westward, sounding in 40 fathoms; the tide ran with great strength; and, before we could see the land, we heard the surf against the rocks; got tail upon the ship; but, being so close, the strong tide set us upon the rocks. It being high water when we got on, run out a keedge to heave her off, but all to no purpose. At low water the ship was dry all round, amongst the rugged rocks, which went through her in different parts; the ship having as much water within as there was on the outside at high water." The passengers were safely landed, and a part of the stores saved, which were taken to St. John's to be sold, there being no purchasers on the Island.

According

According to Mr. des Barres, the Gut of Annapolis lies in latitude $44^{\circ} 48' 30''$ and longitude $076^{\circ} 40' 30''$. The shore, on both sides, without the Gut, is fringed for several leagues. From Petit Passage, there is a range of hills rising gradually to a considerable height, to the entrance of the gut, where it terminates by a steep fall. Here you have from 25 to 30 and 40 fathoms of water, which, as you draw into the basin, shoals quickly to 10, 8, and 6 fathoms, muddy bottom. The stream of ebb and flood sets through the gut at the rate of five knots, and causes several whirlpools and eddies. The truest tide is on the eastern shore, which is so bold to, that a ship might rub her bowsprit against the cliffs, and be in 10 fathoms of water. Point Prim, on the western side of the entrance, runs off shoal about 30 fathoms. Ships may anchor on the eastern side of the basin, or run up eastward, 4 miles, towards Goat Island; observing, when within the distance of a mile and a half from it, to stretch two-thirds of the way over to the north shore, until past the island, which is shoal all around; and thence to keep mid-channel up to the town: the depths, 4 and 5 fathoms.

There is a light-house on Point Prim, which is said to "stand as a monument of mistaken economy." The light is exhibited from a window, at 120 feet above the sea. Caution is requisite on approaching the gut, as Gulliver's Hole, $2\frac{1}{2}$ leagues to the westward, presents nearly similar features, and a mistake might be dangerous. The light-tower is, however, a sufficient distinction, if attended to.

There is no difficulty in going through Annapolis Gut, if you have a commanding breeze, although the tide is very rapid, and the eddies strong. At about one-third through lies *Man of War Rock*, about a cables' length from the eastern shore, by keeping in mid-channel you will clear it.

Of Annapolis, Mr. Lockwood says, "The abrupt precipices of the high lands form the gut, and cause flurries of wind that course in all directions, and rush violently from the summits of the hills. The tide hurries through the Gut with great force. There is not anchorage, except very close in-shore, near the outer western point. In some places the depth is 40 to 80 fathoms. In entering Annapolis Basin, the scenery is inexpressibly beautiful. The farms are becoming valuable and extensive. The herring-fishery is a source of great profit; the fish are so well cured, that the merchants of Halifax and St. John's give them a decided preference for foreign markets." Between this and St. John's a weekly packet is established, as noticed hereafter.

ANNAPOLIS TO THE BASIN OF MINES.—From the Gut of Annapolis up the bay to Cape Split, the coast continues straight, and nearly in the same direction, with a few rocky cliffs near the gut, and many banks of red earth under high lands, which appear very even. In the gut, leading into the Basin of Mines, from Cape Split to Cape Blowdown, and from Cape D'Or, on the north side, to Partridge Island, the land rises almost perpendicular from the shore, to a very great height. Between Cape Blowdown and Partridge Island, there is a great depth of water; and the stream of the current, even at the time of neap-tides, does not run less than 5 or 6 fathoms.

Cape D'Or and Cape Chignecto are high lands, with very steep cliffs of rocks and red earth, and deep water close under them. You have nearly the same kind of shore to the head of Chignecto Bay, where very extensive flats of mud and quick-sand are left dry at low water. The tides come in a bore, and rush in with great rapidity; they are known to flow, at the equinoxes, from 60 to 75 feet perpendicular.

The Isle Haute is remarkable for the great height and steepness of the rocky cliffs, which seem to overhang on the west side. There is a good landing place at its eastern end, and anchorage at half a mile off, in 18 fathoms, with the low point about N.E. by N., where, also, is a stream of water running into the sea. The east end of this Isle bears from Cape Chignecto S.W. $\frac{1}{2}$ S., 4 miles, and from Cape D'Or W. $\frac{1}{2}$ N. 9 miles.

There are whirlpools on Cape Split, which are dangerous with spring-tides, and run at about 9 knots. Having passed this place, you may come to an anchor in a bay of the north shore, between Partridge Isle, to the east, and Cape Sharp, on the west. From this spot, if bound to Windsor River, it will be necessary to get under way two hours before low water, in order to get into the stream of the Windsor tide on the southern shore; otherwise, unless with a commanding breeze, a vessel is likely to be carried up with the Cobequid or Eastern tide, which is the main stream, and runs very

According

* The entrance, according to the new Admiralty chart, is in $44^{\circ} 44'$ N.

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strongly,

strongly, both ebb and flood. The Windsor tide turns off round Cape Blowmedown, down to the southward, and then again is divided, one part continuing its course up to Windsor, and the other forms the Cornwallis tide, running up the river of that name.

In running into Windsor River, a house on *Horton Bluff* (within the river on the west) should be kept in a south bearing, and the gap in the land formed by *Parborough River* North, this will take you through the channel between the Flats, which cannot be passed at low water, by a vessel drawing 15 feet, much before half-tide. Off *Horton Bluff* the ground is loose and slaty, and a ship will be likely to drag her anchors with a strong breeze, particularly at full and change: perhaps it may be best for men of war to moor across the stream, and fall one-third from the bluff.

The Banks and Flats appear to be composed of soft crumbling sand-stone, which is washed down from the surrounding country in great quantities during the Spring; and by accumulating on them, are constantly increasing their height.

It is *High Water*, on the full and change, at Cape Chignecto and Cape D'Or, XI h., and spring-tides, in general, rise from 30 to 40 feet. Off Cape Split, at its rise, 40 feet: South side of the Basin of Mines, XI½ h.: rise, 38 feet.

The Basin of Mines and Chignecto Bay are now surrounded with valuable settlements, and abound in coal, plaster, limestone, and other minerals.

NORTH COAST OF THE BAY OF FUNDY, commencing Eastward.—The township of St. Martin's, on the north shore, to the N.W. by N. of Cape Chignecto is thinly inhabited; the land in the neighbourhood is moderately good, but is much broken, with steep declivities, &c. The weather here is commonly humid, the wind changeable and blustering, with limited and short intervals of sun-shine.

From Quako, at about 16 miles westward of St. Martin's, to the harbour of St. John's, the land, as already described, is high: the interior hills rise in easy inequalities; but the ravines of the cliffs appear deep and gloomy: the indents have beaches; and Black River, at 5 leagues west of Quako, although dry from half-tide, is a safe inlet for a small vessel.

At 11 miles S.E. from Quako, is a dangerous shoal of gravel, called the *QUAKO LEADER*. It extends S.E. and N.W. about three miles, by half a mile in breadth. The widest and shoalest part is to the westward, and vessels have frequently grounded upon it. The bank shows at half-tide.

The HARBOUR OF ST. JOHN.—The entrance of this harbour lies N. ½ W. 10 leagues from the entrance of Annapolis, and may be distinguished by a light-house on *Partridge Island*; at a mile within the exterior points, *Cape Maspeck* on the east, and *Meogenes Isle* on the west.* Partridge Island is about two miles southward from the city. It equally protects the harbour and guides the mariner to his destination. The lantern is 126 feet above the level of the sea, and the light tolerably good.

Southward of Partridge Island, the bottom, for several miles, is muddy, and the depth gradual, from 7 to 20 fathoms, excellent for anchoring. On the bar, west of the island, the least depth is 10 feet; but, eastward of it, 16 feet. The anchoring depth, opposite to the city, is in from 22 to 7 fathoms.

The city of St. John stands on an irregular descent, with a southern aspect; and, on entering the river, presents a picturesque appearance. The river's mouth is narrow and intricate: many accidents have happened to those who have attempted the navigation without a pilot.

A break-water has been erected at the eastern side of the entrance, below the town, for the purpose of reducing the inset of the sea into the harbour, especially during a southerly gale. Within the port, every possible facility and convenience is given to ships requiring repair: they lie upon blocks, and undergo a thorough examination, without incurring the expense, injury, and loss of time, occasioned by heaving down, so strangely perverted in at Halifax.

St. John's contains about 900 houses and 6000 inhabitants. Vast quantities of salmon

* M. Des Barres gives the Cape or Point Maspeck in lat. 45° 18' 27", long. 65° 57' 35", but the late chart of 1824, edited at the Admiralty, gives the latitude as only 45° 13': the longitude is omitted.

and herrings are cured here. The country on the banks of the river abounds in excellent timber, coal, limestone, and other minerals.

The entrance into the river, two miles above the city, is over the Falls, a narrow channel of 80 yards in breadth, and about 400 long. This passage is straight, and a ridge of rocks, so extends across it as to retain the fresh water of the river. The common tides flowing here about 20 feet, at low water, the waters of the river are about 15 feet higher than the water of the sea; and, at high water, the water of the sea is from 5 to 8 feet higher than the water of the river; so that, in every tide, there are two falls, one outward and one inward. The only time of passing this place is when the water of the river is level with the water of the sea, which is twice in a tide; and this opportunity of passing continues not above ten minutes; at all other times it is impassable, or extremely dangerous.

After you have entered through this place, called the Falls, you enter into a gullet, which is about a quarter of a mile wide, and a mile long, winding in several courses, and having about 16 fathoms in the channel. Having passed this gullet, you enter a fine large basin, about one mile and a half wide, and seven miles in length, entering into the main river of St. John.

The River of St. John has sufficient depth of water for large ships to the Falls, whence it continues navigable 60 miles up, to Fredericton, the seat of government, for vessels of 50 tons. At times of great freshes, which generally happen between the beginning of April and the middle of May, from the melting of the snow, the Falls are absolutely impassable to vessels bound up the river, as the tide does not rise to their level.

DIRECTIONS for ST. JOHN'S HARBOUR and MEOGENES BAY.
MR. BACKHOUSE.

"WHEN you have made Meogenes Island, or Partridge Isle,* so as to be distinguished from the lighthouse on the latter, then make a signal for a pilot, and the intelligence from Partridge Island will immediately be communicated to the city of St. John, whence a pilot will join you. Should the wind be contrary, or any other obstruction meet you, to prevent your obtaining the harbour that tide, you may sail in between the S.W. end of Meogenes Island and the main, or between the N.E. end and the main, and come to anchor in 4 or 5 fathoms at low water, mud and sandy bottom. The mark for the best anchoring-ground here, is, to bring the three hills in the country to the N.E. in a line, in a line within Rocky Point Island,† and the house on Meogenes Island to bear S.E. by S.

"Should the tide of ebb have taken place at the beacon, you must not (by any means) attempt to gain the harbour that tide, but wait the next half-flood, to go over the bar, as both sides of the entrance of this harbour are nothing but sharp rocks, dry at low water, and the tide of ebb is so rapid in the spring, when the ice and snow is dissolved, that all the anchors on board will not hold the ship from driving.

"On the Nov.-Scotia side of the Bay of Fundy, your soundings will be from 50, 60, 70, 80, to 95 fathoms: stones like beans, and coarse sand; and, as you draw to the northward, the quality of the ground will alter to a fine sand, and some small shells with black specks. Approach no nearer to the south shore than in 50 fathoms; and, as you edge off to the N.W. and W.N.W., you will fall off the bank, and have no soundings."

FARTHER DIRECTIONS for Sailing into the HARBOUR; by the same.

"WHEN you have passed Meogenes Island, edge in-shore towards Rocky Point, (or the *Shag Rock*) until Meogenes Point [*Negro Head*] is in a line over the N.W. corner of Meogenes Island: sailing in between Rocky Point and Partridge Island, with these marks in one, will lead you in the best water over the bar, (15 feet,) until you open Point Maspeck to the northward of the low point on Partridge Island; then starboard

* These Directions should be compared with the Chart of the Harbour.

† This is an islet, lying at a cable's length from the point, and more properly called the *Shag Rock*. It is surrounded by sunken rocks.

your helm, and edge towards Thompson's Point, until the red store, at the mouth end of St. John's, is in a line over the beak; keep them in one until you pass the basin, at the distance of a ship's breadth; then haul up N.N.W. up the harbour, keeping the blockhouse, at the upper part of the harbour, open to the westward of the king's store, situate close to the water side, which will lead you in mid-channel, up to the wharfs, where you may lie aground dry, at half-tide, and clean your ship's bottom, or lie afloat in the stream at single anchor, with a hawser fast to the posts of the wharfs on shore. — N.B. The tide of flood here is weak, but the ebb runs very rapidly all the way down past Megeens Island.

REMARKS ON ST. JOHN'S, &c., BY MR. LOCKWOOD and CAPT. NAPIER.

The tides of the river, at full and change, flow till half-past eleven. The vertical rise is 18 feet. Equinoctial spring-tides rise 24 to 28 feet.

After the first quarter flood, the tide below the surface runs into the harbour.

During summer, and the depth of winter, the tide generally flows in at half-tide.

In autumn, the river is swollen by rains, and between the beginning of April and the middle of May, by the melting of the ice, and the great quantity of snow that accumulates on the lands of this vast navigable river.

From these causes, the water streams out, to seaward, continually; therefore, vessels, at that time, seldom enter the harbour, without a fresh leading wind. The falls are then impassable, as the tide does not rise to their level.

The body of the river is 17½ feet above low water-mark. Consequently, after the tide has risen to that height, the water descends, or literally falls into the river.

When the tide has flowed twelve feet, the falls are smooth, and passable for twenty minutes.

Above the Falls the tide rises 4 feet; and, at Majorfield, 60 miles in the interior, it rises one foot and a half. After passing the Falls, you enter a gullet, which is a quarter of a mile wide, and two miles long, winding in different courses, and having 16 fathoms in the channel. Next to this gullet is a fine large basin, a mile and a half wide, and eight miles long, entering the main river. There is water sufficient, except in dry seasons, for vessels of fifty tons, as high as Fredericton, and in all the branches of the lakes. In the middle of May, or earlier, in favourable seasons, the snow and ice in the country melting, make a general overflow in the river, which, in some years, rises so high as to inundate all the low lands. "The overflowings were measured, in 1765, by the marks set up at Majorfield; the water was found to have flowed 17 feet above the common height of the water in summer." (Remarks by Chas. Morris, Esq.)

Of the Type, *Captain Napier*, R.N., when commanding *H. M. sloop, Jaseur*, has said, "The great volume of fresh water which constantly runs down the Harbour of St. John, in April and May, causes a continual stream outward during that period, sometimes to the depth of nearly 5 fathoms, under which the flood and ebb flow regularly: the maximum of its velocity we found to be 4½ knots, and the minimum 2 knots; but, as the log floated very deep in the fresh water, and ultimately sunk in the salt water running underneath, it would not be too much to estimate the maximum at 5 knots, and the minimum at 2½. The fact of the under tide beginning at the depth of nearly 5 fathoms was ascertained by sinking a lead down to that depth, when it was carried the same way as the current on the surface; but, when lowered below that, it was carried in a contrary direction."

COAST FROM ST. JOHN'S, WESTWARD. — From Cape Maspeck, *Negro Head*, the opposite extremity of the Bay of St. John, bears W. 68. by miles; and the coast from *Negro Head* to *Cape Musquash* trends W. 8. W. 14 miles. A remarkable rock, the *Split Rock*, marks the cape; and, at a mile farther westward is the entrance of *Musquash Harbour*, a well-sheltered cove, in which there is good anchoring ground in 3 and 4 fathoms.

An irregular coast now succeeds to *Point Lapreau*, 10 miles W. 8. W. 13 W. In the middle of it are the inlets called *Dipper* and *Little Dipper*, which admit small craft and boats. Between St. John's Harbour and *Point Lapreau* the shore is generally bold; the land broken and high. Many accidents have happened in the vicinity of the point, and it should, therefore, be approached with caution.

At 3 miles N.W. from Point Lepout, in the Head, the irregular indent, between is Moor's Bay, a deep and dangerous bight, in which several vessels have been calved and wrecked. On each side are several clusters of islets and rocks, but there is a good place of shelter, *Poblogan*, at the head of it, and there is good anchorage in the centre, in 3 or 4 fathoms, which will be obtained by entering near the western shore.

GRAND MANAN.—This island, 11 miles in length, from N.N.E. to S.W., by 4 or 5 in breadth, is included in Charlotte County, in the Province of New Brunswick. Its northern point is situated in latitude $44^{\circ} 50'$, and longitude $66^{\circ} 45'$. The nearest distance from the opposite coast of the State of Maine is two leagues. The western side is very high; its cliffs being nearly perpendicular, and about 600 feet high above the level of the sea. On this side is but one little inlet, *Dark Cove*, which affords shelter for boats only. The northern head, (*Bishop's*.) is equally abrupt and bold; but to the southeastward of it is *Whale Cove*, having anchoring ground, with 25 to 15 fathoms, in which ships may stop for a tide, during a southerly gale, but it is exposed to the north.

The Eastern Coasts of Manan abound in fish, and the interior is in a rapid state of improvement. The soil is, in general, good, and it produces all the species of fir, beech, birch, and maple, in size and quality adequate to all purposes for which they are generally used. The population, in 1816, amounted to 384 persons, chiefly from the United States.

To the S.E. of Whale Cove on the same side of the island, is *Long Island Bay*, so called from the island on the S.E. side of it. The N.E. point of this bay, called, from its shape, the *Swallow's Tail*, is high, bold, rugged, and barren. The bay is open, but possesses all the advantages of a harbour: the bottom is wholly of mud, excepting a ridge of rocks and gravel that shows itself within the Swallow's Tail, and the north end of Long Island: there is, also, a small cluster of sunken rocks, of five feet at low water, at half a mile from Long Island Point.

Under Long Island, and opposite to the beach, ships may anchor, even locking in the north end of Long Island with the Swallow's Tail, on a strong muddy bottom, entirely sheltered from the wind and sea. In the northern part of the Bay, bottom of stiff clay, vessels have frequently been protected during a severe gale.

Half-way down off the eastern coast of Great Manan, at a mile from shore, is Great Duck Island, under which there is good ground; but here a pilot will be required, as there are hidden dangers in the vicinity. To the southwestward and southward of Duck Island lie *Ross*, *Cheney*, and *White Head Islands*; the latter occupied by a shifful and intelligent pilot: from these the rocks and foul ground extend 6 miles to the S.S.E.

On the southern bank of Great Manan the most dangerous ledge is that called the *Old Proprietor*, which lies two leagues S.S.E. from White Head Island, and covers the space of half an acre at low water; it is dry at half-ebb. When covered, the tide sets directly over it, at the rate of four miles an hour. The S.W. head of Manan open of all the islets on the south side of that island, will lead clear to the southward of it. The north-eastermost high land, open of the islets on the east, leads clear to the eastward of all the dangers. During an easterly wind the tide-rips are impassable.

The **THREE ISLANDS**, (*KENTS*), the southernmost of the Manan Islets, are low and ledgy. The eastern side of the largest is bold to the rocks, which are at all times visible. Off the N.W. of these rocks is a ledge called the *Constable*, dry at low water. These isles, with Green Islets, to the northward of them, afford occasional anchorage, in from 14 to 7 fathoms.

WOOD ISLAND, on the south side of Manan, with the *S.W. Head* of the latter, form a bay containing excellent grounds. The upper part and head of it, in a gale of wind, are places of security; and here supplies, if requisite, may be obtained from the inhabitants.

Between Wood Island, on the S.W., and Ross Island on the N.E., is the passage to **GRAND HARBOUR**, a shallow muddy basin, into which you may enter by passing near the *Green Islets*. It is a convenient place for vessels without anchor or cable, as they may lie in the mud, in perfect security. At the entrance, which is narrow, the depths are from 6 to 3 fathoms, bottom of clay.

The *Gannet*, a small rock, 40 feet high, and having many sunken rocks and ledges about it, stands at the distance of 3 miles S.W. from the Three Islands. Mr. Lockwood, several years ago, observed that this would be a fine situation for a light-house, which would be the mean of saving many ships. The ledges and sunken rocks in the vicinity always break.

The three islets, called *Machias Seal Isles*, lie 10 miles to the W. by N. of the *Gannet*, with the S.W. Head of Grand Manan bearing E.N.E. about 3 leagues distant.

The CHANNEL between GRAND MANAN and the coast of the State of MAINE is from 9 to 6 miles wide: both shores bold, the depths quickly increasing on each side, from 19 to 70 and 75 fathoms; the greatest depth near Manan, where you haul quickly from 10 to 75. This is the best passage up the Bay of Fundy, because the safest, and most advantageous with the prevalent winds, which are from the westward.

The *WOLF ISLANDS*, which lie seven miles to the N.E. by N. from Grand Manan, are from 60 to 100 feet in height, steep and bold. The passages between them are deep, and they afford temporary shelter, in the depth of from 20 to 13 fathoms. Between Manan and these isles, the depths vary from 70 to 40 fathoms, bottom of ooze and mud.

PASSAMAQUODDY BAY.—The Bay of Passamaquoddy, with the Chapenaticook River, or River of St. Croix, divide CANADA from VERMONT, or the British American territory from that of the United States. The southwestern side of the bay may be distinguished by a light-house, on Quoddy Head, which was erected by order of Congress, in the year 1808. This structure exhibits a fixed light, which, in clear weather, may be seen seven leagues off. Its lantern is 90 feet above the sea. Near the lighthouse is an alarm-bell, which, during foggy weather, will strike 10 times in a minute; its sound, in calm weather, may be heard 5 miles off. From the north head of Grand Manan the light-house bears W.N.W. $\frac{1}{2}$ W. 7 miles; and from the Machias Seal Islands N.N.E. $\frac{1}{2}$ E., 17 miles.

Seal Rocks.—At about one quarter of a mile without Quoddy Head lie two remarkable rocks, called the *Seal Rocks*, which, at a distance, resemble a ship. To the eastward of these there is a whirlpool. In passing here it is therefore requisite to give these objects a berth of half or three-quarters of a mile before you haul in.

There are several passages into Passamaquoddy Bay; but particularly the Southern, (commonly called the *Western*), the *Ship Channel* or *Middle Passage*; and the Northern (commonly called the *Eastern Passage*). The first is that between the isle of Campobello and the main land to the S.W. The Ship Channel is that between Campobello and Deer Island; the Northern Passage is that along the New Brunswick shore.

At 2 $\frac{1}{2}$ miles N.E. $\frac{1}{2}$ E. from the northern extremity of Campobello is the *White Horse*, appearing at a distance like a white rock; but it is really a small islet, barren and destitute of trees, while the isles about are covered with them. It, therefore, serves as a beacon.

At the N.E. end of Campobello is *Head Harbour*, a place of easy access, small, but perfectly safe, with 6, 7, and 9, fathoms, muddy bottom. The fine harbour, called *Harbour Dubois*, lies on the west side of the island; and, at its S.W. end is *Smug Cove*, another good harbour, where there is a British custom-house. *Moose Island*, on the opposite side, belongs to the United States, and British ships are not allowed to ride there above six hours at any one time. In a fine cove at the south end of this island a ship of 500 tons may lie, moored head and stern, safe from all winds, but the anchors are very much exposed with wind from the East.

* A lighthouse is now erected on it, which is to exhibit a revolving light.

† In November, 1817, the Commissioners appointed by the respective governments, under the treaty of Ghent, (the last treaty of peace), denied that *Moose, Dudley, and Frederic Islands*, in the Bay of Passamaquoddy, do belong to the United States; and that all the other islands in the same bay, with Grand Manan, in the Bay of Fundy, do belong to Great Britain, by virtue of the treaty of peace of 1783. The citizens of the United States continue to enjoy the right of navigating through the Ship Channel, between Deer Island and Campobello; and, of course, through the channel between Moose and Deer Islands.

Quoddy

QUODDY HEAD, on which stands the lighthouse above mentioned; forms the south side of the Southern Passage, the entrance of which between Campobello and the Head, is a mile in breadth, but the passage gradually narrows to the W.N.W. and N.N.W. and at two miles up a rocky bar stretches across, which is dry at low water. At rather more than a mile within the entrance, you may come to anchor in 6 or 8 fathoms, well sheltered, either by day or night. Here a pilot may be obtained on firing a gun, and making the usual signal, who will take the ship to *St. Andrew's* or *Moose Island*, whence another may be obtained for *St. Andrew's*, the River *Scoodic*, or *St. Croix*, &c.

Ships bound for PASSAMAQUODDY BAY, pass to the eastward of Campobello, steering N.E. by E. and N.E. towards the Wolf Isles, which lie about 64 miles eastward from the northern part of Campobello. So soon as the passage between Campobello and the White Horse bears W.N.W., steer for it, leaving the White Horse at a distance on the north or starboard side, and keeping Campobello nearest on board. You will now, proceeding southwestward, leave a group of islands on your starboard side, and will next see Harbour Delute above mentioned.

Between the Wolves and the north end of Campobello, there is a depth of from 60 to 100 fathoms. With the latter bearing S.S.E. or S.E., there is a depth of 19 and 20 fathoms, where ships may anchor securely from all winds. The courses thence to *Moose Island* are S.W. by W. 4 W. and S.W. 5 miles.

If bound from *Moose Island* up the River *Scoodic*, as you pass *Bald Head*, opposite *Deer Island*, give it a berth of half a mile, as a ledge of rocks lies off it. Having passed this point, the course and distance to *Oak Point*, or *Devil's Head*, will be N. by W. 4 leagues. The latter may be seen from the distance of 10 or 12 miles.

ST. ANDREW'S.—The Town and Port of *St. Andrew* lie on the eastern side of the entrance of the *Scoodic*. A small island, *Navy Island*, forms the harbour. This island is bold to on its S.W. side, but eastward of it is a shoal bank, stretching nearly half a league from *St. Andrew's Point*. The town is a pleasant little place, and the harbour being good, many ships load timber here, which is generally much longer than that of *Nova-Scotia*. The merchants of this town load timber also at other places; viz. at *Oak Bay*, on the *Scoodic*, and at *Rushabec*, *Didiquash*, and *Magadavick*, on the N.E. side of *Passamaquoddy Bay*, all being excellent and very convenient harbours. In the Bay, in general, are from 17 to 25 fathoms of water.

ETANG HARBOUR, which lies to the eastward of the North Passage of *Passamaquoddy Bay*, is recommended to the mariner as one of the best and most convenient harbours in *British America*. It has two entrances, which, though narrow, have very deep water, and either may be taken, according to circumstances. The principal one is a mile and a half N.E. by N. from *White Horse Isle*, between two islands, *Pain* and *Bliss*. To run into this place, bring the centre of the *White Horse* to bear S.W. by S., and run northward with that bearing, until you are past a low flat rocky point on *Bliss* or *Etang Island*. Having passed this point, keep the island close on board until you come up to a ledge which shows itself, and which lies off a round island covered with trees on the larboard side. The ledge is bold close-to. Having advanced thus far, you may anchor near the centre of the harbour, inclining under the north shore, in 8 or 10 fathoms. The only inconvenience here is, the extreme tenacity of the ground, for which every precaution should be taken, that the anchor may not be lost. As the rise and fall of the tides is considerable, a sufficient scope of cable should, of course, be allowed.

BEAVER HARBOUR.—At 5 miles E. by N. from the entrance of *Etang Harbour* is that of *Beaver Harbour*, another snug place of shelter, with 15 to 11 fathoms at the entrance, and 5 in the centre. In sailing in, keep the west shore on board, as a reef stretches half way over from the opposite side: in the line of this reef are 3 and 4 fathoms. From the S.E. point of the harbour, *Point Lepreau*, noticed on page 108, bears E.S.E. 4 E. 11 miles.

TIDES.—Within the Southern Passage of *Passamaquoddy Bay* common tides rise from 20 to 25 feet. At *Moose Island* the tide flows at XII, full and change; and runs, when strongest, between *Moose Island* and *Marble Island*, and between *Deer Island* and *Campobello*, nearly 5 miles an hour. At the stream of the eastern side is scarcely perceptible. On the eastern side of *Grand Manan* it is high water at X h. Springs rise 25, and neaps 20, feet.

BEARINGS.

BEARINGS and DISTANCES of PLACES in the BAY of FUNDY.

(Variation 15° West, 1894.)

From	Magnetic Bearing	Distance, Miles.
Bryer's Island Lighthouse to Machias Seal Isles	N.W. $\frac{1}{2}$ W.	89
the Gannet Rock Lighthouse	N.W. by N.	53
the Old Proprietor	N. by W. $\frac{1}{2}$ W.	48
the Southern Wolf	N. $\frac{1}{2}$ W.	40
Point Lepreau	N. by E.	44
St. John's Harbour	N.N.E. $\frac{1}{2}$ E.	55
Machias Seal Isles to Little River Head	N.E. $\frac{1}{2}$ E.	9
the N.W. Head of Grand Manan	N.E. $\frac{1}{2}$ E.	18
Quoddy Head Lighthouse	N.N.E. $\frac{1}{2}$ E.	17
the Southern Wolf	N.E.	26
Little River to the S.W. Head of Grand Manan	S.E. by E. $\frac{1}{2}$ E.	12
N.W. Head of Grand Manan	E. by N.	16
Quoddy Head Lighthouse to the Southern Wolf	E.N.E.	11
the North Head of Grand Manan	E.S.E. $\frac{1}{2}$ E.	7
the S.W. Head of Grand Manan	S. $\frac{1}{2}$ W.	11
Machias Seal Isles	S.S.W. $\frac{1}{2}$ W.	17
Head Harbour to White Horse Islet	N.E. $\frac{1}{2}$ E.	9 $\frac{1}{2}$
the Northern Wolf	E. $\frac{1}{2}$ S.	7 $\frac{1}{2}$
the Southern Wolf	E.S.E.	6 $\frac{1}{2}$
the North Head of Grand Manan	S. by E. $\frac{1}{2}$ E.	9 $\frac{1}{2}$
White Horse Islet to the Ship Channel	S.W. by W.	2 $\frac{1}{2}$
Latete or North Passage	N. $\frac{1}{2}$ W.	2 $\frac{1}{2}$
Etang Harbour	N.E. by N.	1 $\frac{1}{2}$
Beaver Harbour	E.N.E. $\frac{1}{2}$ E.	6
Point Lepreau	E. $\frac{1}{2}$ S.	17 $\frac{1}{2}$
the Northern Wolf	E.S.E. $\frac{1}{2}$ E.	6 $\frac{1}{2}$
the Southern Wolf	S.E.	6
the N. Head of Grand Manan	S. by E.	11
West Entrance of Etang Harbour to Head Harbour	S.W. by S.	4
North End of Grand Manan	S. $\frac{1}{2}$ E.	13
Etang Harbour, South Point, to the Northern Wolf	S.E. by E.	4 $\frac{1}{2}$
the Southern Wolf	S.E. by S.	6
Northern Wolf to a Vigia or Shoal?	E. $\frac{1}{2}$ N.	7
Point Lepreau	E. $\frac{1}{2}$ N.	11
Beaver Harbour	North	4
Point Lepreau to the Gut of Annapolis	S.E. $\frac{1}{2}$ S.	3 $\frac{1}{2}$
Petit Passage	S. $\frac{1}{2}$ E.	37
Grand Passage	S. $\frac{1}{2}$ W.	42
Bryer's Island Lighthouse	S. by W.	44
North End of Grand Manan	S.W. by W.	19
Beaver Harbour Head	W. by N.	11
Etang Harbour, South Point	W. $\frac{1}{2}$ N.	10

GENERAL REMARKS ON, and DIRECTIONS for, the BAY of FUNDY.

SHIPS navigating the BAY of FUNDY have to encounter an atmosphere almost constantly enveloped in thick fogs, tides setting with great rapidity over the rocks and shoals with which it abounds, a difficulty of obtaining anchorage, on account of the depth of water: so that, under the circumstances, the most unremitting attention is requisite, in order to prevent the consequences which must necessarily attend a want of knowledge and caution.

When off Cape Sable, with a westerly wind, and destined for the Bay, it is best to make the coast of the United States about the Skuttock Hills and Little Manan lighthouse, described hereafter; as you can pass with greater safety to the westward of Grand Manan than to the eastward, and can have shelter, if required, in the several harbours of that coast.

Between

Between *Grand Manan* and the coast of *Maine* the passage is free from danger; vessels beating through, generally stand from side to side, particularly in fogs, the depth being from 19 to 78 fathoms, with a bold shore on each side, and the tide through regular and strong. The *Wolf Islands* may be passed on either side, having deep water close to: but afford no sheltered anchorage, except for small fishing vessels in summer time: they are, as already noticed, from 60 to 100 feet high. With light winds, a lee tide, or thick weather, you may let go an anchor any where between the *Wolf Islands* and *Beaver Harbour*, in good holding ground, in a depth of 20 or 25 fathoms. Point Lepreau is bold to, but dangerous in dark weather, as it projects so far into the sea; from thence to *St. John's* the course is free from danger.

When steering between *Grand Manan* and *Bryer's Island*, the utmost caution is requisite during thick weather, as vessels are frequently drawn amongst the islands, and lodged to the southward of *Manan*, by the flood's setting directly on them: the most dangerous of these is the *Old Proprietor*, which at low water is uncovered for the space of half an acre. When the wind, therefore, veers at all to the southward, make the best of your way to *St. John's Harbour*, or you may secure an anchorage in *Grand Passage*, or *St. Mary's Bay*, as it seldom blows in that direction above eighteen hours without bringing on a fog.

The PREVAILING WINDS here, and on all the coast of *Nova-Scotia*, are from W.S.W. to S.W., nearly as steady as *trade-winds*; excepting that, during the summer months, they are rather more southerly, accompanied with but little intermission by fog, which requires a northwesterly wind to disperse it. It is, therefore, recommended not to leave an anchorage without making arrangements for reaching another before dark, or the appearance of a fog coming on, which, with a S.W. wind, is so sudden, that you are unawares enveloped in it; nor to keep at sea during the night, if it can be avoided. Whenever the wind blows directly off the land, the fog is soon dispersed.

The TIDES are very rapid, but regular; and, although the wind against them alters the direction of the rippling, and sometimes makes it dangerous, it has little or no effect upon their courses. The flood sets from *Cape Sable* to the northwestward through the *Seal Islands* and *Bald-Tusket*, at two or three knots in the hour; after which its rate increases to four or five knots, thence taking the direction of the shore, it flows past *Cape St. Mary*, and then N.N.W. towards *Bryer's Island*; it sets but slowly up the extensive *Bay of St. Mary*, which adds to its strength along the eastern shore; then increasing its rapidity as the Bay contracts, it rushes in a bore into the *Basin of Mines*, and up *Chignecto Bay*.

Between *Bryer's Island* and the opposite northern coast, and for some distance up the Bay to the eastward, the first of the flood sets strong to the northward (nearly North); so that it will be extremely dangerous for a vessel to run in the night or thick weather, from any part of the southern to the northern coast, without making a large allowance for the set of the tide, and keeping the lead constantly going. H. M. sloop *Jaseur* was nearly ashore, having been set by this tide in a fog 8½ miles in 3 hours and 10 minutes.

X.—The COASTS of FREDONIA, or of the UNITED STATES, from PASSAMAQUODDY to CAPE COD, &c.

The most remarkable elevations of land between the Bay of *Passamaquoddy* and *Cape Elizabeth* are, the *Skutchock Hills*, *Mount Desert Hills*, and *Hills of Penobscot*. The *Skutchock Hills* are five in number, and, at a distance, appear round; they stand to the northward of the Port of *Gouldsbrough*, and are readily distinguishable from any hills to the eastward. The *Mount Desert Hills* may, in clear weather, be seen from a distance of 15 to 20 leagues. The *Penobscot Hills* may be seen to the N.W. and N.N.W. over the *Fox Islands*. When within 4 or 5 leagues of the *Mount Desert Hills*, the *Skutchock Hills* will bear about N.N.E.

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In sailing towards this coast, care must be taken to avoid the Mount Desert Rock, which lies $7\frac{1}{2}$ leagues to the southward of Mount Desert Island, in latitude $43^{\circ} 52'$, and longitude $68^{\circ} 36'$; observing, also, to make proper allowance for the tide, &c. At Mount Desert Rock, the stream of flood divides to run westward and eastward. With the Skuttock Hills about N.N.E. and within 4 or 5 leagues of those of Mount Desert, the side of flood sets E.N.E., and the ebb W.S.W.; but, at the distance of 10 or 10 leagues from the land, the current, in general, sets to the S.W., and more westward. From the Mount Desert Rock to the Fox Islands, the flood-stream sets W.S.W. along shore; but it still runs up to the northward into Blue Hill Sound; Isle Haute Bay, &c.

MACHIAS BAY.—The Entrance of the Bay or Port of MACHIAS, in the State of Maine, bears N.W. $\frac{1}{2}$ W. [N. 64° W.] 14 leagues from Bryer's Island Lighthouse; N.W. by W. $\frac{1}{2}$ W. [W. by N.] 22 miles from the new lighthouse on the Gannet Rock; and N.W. $\frac{1}{2}$ W. 10 $\frac{1}{2}$ miles from the south point of the Machias Seal Isles. The last mentioned point and Gannet Rock are nearly true East and West from each other, at the distance of 12 miles, and between them lie several dangerous ledges. Of these ledges the southernmost, called *St. Mary's*, is a mile and three quarters W.S.W. from the Gannet.

In coming in for Machias Bay, from the eastward, you may see the *Seal Isles*, which are three low Isles, lying with the S.W. Head of Grand Manan E.N.E. 3 leagues. Great caution must be observed when passing them in the night. The lighthouse on the Gannet Rock bearing E. $\frac{1}{2}$ S. leads clear to the southward of them.

Directly fronting the Entrance of Machias, within the distance of a league, are two little isles called the *Libee* or *Liby Isles*, on the southernmost of which is a new lighthouse, exhibiting a fixed light, in or near latitude $44^{\circ} 36\frac{1}{2}'$. At a league N.E. $\frac{1}{2}$ N. from this lighthouse is the S.W. end of *Cross Island*, which forms the eastern side of the entrance to the Bay.

On advancing towards Machias Bay from the Seal Isles, and steering N.W. $\frac{1}{2}$ W. you will gain sight of the *Libee Isles Lighthouse*; which is to be left on the larboard side; rounding these isles, you thence proceed north into the Bay. On this course you will leave a large white rock, called the *Channel Rock*, on your larboard side: and, unless bound upward, into Machias Harbour, may haul to the westward. When you have advanced half a mile above this rock, bring a high round island, which is covered with trees, to bear North, when you may anchor in 4 or 5 fathoms, muddy bottom. If you mean to go up to the town of Machias, keep on a north course, until you have advanced above a high round island on your larboard hand, when you may steer W.N.W. or N.W. by W. for a point covered with birch-trees, and having a house on it. On the starboard hand there are flats and shoals. You may keep on the larboard after you pass this house, until the river opens to the northward, when you may run up to Cross River, and anchor in 4 fathoms.

MACHIAS is the chief town of Washington County, in the state of Maine. Its present population is about 2000 persons.

LITTLE RIVER HARBOUR is about a league and a half E.N.E. from Cross Island. It may afford occasional shelter. The entrance bears N.W. by W. $\frac{1}{2}$ W. 4 leagues from the S.W. Head of Grand Manan, and N. by W., 3 leagues, from the western Seal Island. It cannot be seen until you approach the northern shore; and the pilots say you should not run for it before it bears N.W. or N.N.W. There is a bluff point of rocks on the starboard hand, going in, and an island in the middle of the harbour. On

* The STATE, formerly DISTRICT, of MAINE, is bounded on the East by New Brunswick, as already noticed, and on the West by New Hampshire. The face of the country is generally hilly, but not mountainous. The coast indented with bays, and abounding with excellent harbours. The soil, on the sea-coast, is stony and barren, but more fertile in the interior, producing grain, grass, &c. The minerals are iron, copperas, sulphur, and ochres. The summer here is short, but agreeable; the autumn clear and healthy; winter long and severe; spring, as in Canada, very short. The Penobscot, Kennebec, Androscoggin, and Saco, are its principal rivers. This state is not yet thickly peopled, but slavery is here unknown. Portland, the seat of the provincial government, is situate on a good harbour in the S.W., as described hereafter. The ports of entry for foreign ships are Machias, *Frenchman's Bay*, Castine or Penobscot, Wiscasset, *Bath*, *Portland*, *Falmouth*, *Saco*, and *Pepperelboro'*. The names printed in Italics are those of ports to which vessels from or beyond the Cape of Good Hope are restricted.

going

going in, leave the island on your larboard side, and when you have passed it half a mile you may anchor in 4 or 5 fathoms, muddy bottom, and be protected from all winds. The land between this harbour and Quoddy Head trends N.E. by E. 4 leagues.

MACHIAS TO GOULDSBORO'.—In proceeding from Machias towards Gouldsboro', you will pass numerous islands on the starboard hand, with many inlets and good harbours, but generally too intricate for strangers to attempt with safety. On quitting Machias Bay, you first pass the *Libee Islands*, thence *Head Harbour Island*, the *Wass Islands*, &c. The course and distance from off the Libee Islands to a berth off the Great Wass Island are S.W. by W. 10 miles, and from the latter to the Little Manan Isle W. by S. 13½ miles.

On Little Manan, a small islet, is a new lighthouse of stone, which exhibits a *fixed light*, at 53 feet above the level of the sea, although the building itself is only 25 feet high. From the Lighthouse the entrance of the Port of Gouldsboro' bears N.W. ½ N. 4½ miles. At the entrance is an islet covered with trees on the eastern, and two on the western, side. Within the entrance, the harbour is a mile wide, and you may anchor in from 4 to 6 fathoms, where you please. The course in is N.N.W. then N. ¼ W. 4 miles; and thence W. by N. to Gouldsboro'.

The *Skuttock Hills*, already mentioned, form a good mark for Gouldsboro', as they lie to the northward of the harbour. Hence, by bringing them in that direction, and steering on that course, you will, on approaching the harbour, see the Little Manan Lighthouse, which is to be left on the starboard hand.* The latter stands at about a league to the southward of the point between *Dyer's Bay* and *Pigeon Hill Bay*: it is connected with the land by a rocky ledge or bar, which is partly uncovered with the ebb.

DYER'S BAY.—Immediately to the eastward of the entrance to Gouldsboro' is *Dyer's Bay*, which you may enter by giving Little Manan a berth of half a mile, leaving it on the starboard hand. If you bring the light to bear N.E., at three quarters of a mile, a N. by W. course will carry you into the mouth of the bay, leaving a large dry ledge on the larboard hand: when abreast of this ledge, which is bold-to, give it a berth of 15 or 16 fathoms, then steer N. ¼ E. about 4 miles, where you may anchor, safe from all winds, in 4 or 5 fathoms, muddy bottom.

PLEASANT BAY, or the Mouth of *Pleasant River*, is two leagues to the N.E. of Little Manan Lighthouse. Here you pass the islet called *Tit-manan*, and several dangerous ledges. For this place, therefore, as in all the other harbours of this coast, a pilot is indispensable.

From Little Manan Lighthouse to a berth off the Great Wass Island, already noticed, the course and distance are E. by N. 13½ miles; and from the latter to the Libee lighthouse, off Machias Bay, N.E. by E. 10 miles.

GOULDSBOROUGH TO BLUE HILL BAY.—At two leagues without the harbour of Gouldsborough, to the S.W., is Scodic Point, with its three islets, forming the west side of the entrance of FRENCHMAN'S BAY, or the N.E. harbour of Mount Desert. Next follow the *Cranberry Isles*, to the S.E. of the same island; and, to the S.S.W. of the latter, are the *Duck Islands*, off the entrance of Blue Hill Bay, or the S.W. harbour of Mount Desert. To enter this harbour, leave the two Duck Islands on the starboard side, and *Long Island* with a cluster of other Islands on the larboard. It is not safe for a stranger to run in during the night, as there is a great ledge, which is uncovered at half-tide, about one mile from the harbour. This is to be left on the starboard hand. There is also a long ledge on the larboard side, which extends half a mile off: there is, however, a good turning channel between. The S.W. passage is not fit for large vessels at low water; but, at high water, any one may enter, by keeping nearest to the starboard shore when sailing in. With the harbour open, you may steer N.W. or W.N.W., and anchor, when well up, in 5 or 6 fathoms, muddy bottom; where, with any wind, you will lie safely. Here, however, as in every other part hereabout, a pilot is required.

PENOBSCOT BAY AND RIVER.—This extensive bay is included between Point Naskeag, or Sedgwick Point, on the N.E., and White Head on the S.W.: the distance

* The pilots say that a ledge, called *Moulton's Ledge*, and dry at low tides, lies W. by N. 4 miles from the lighthouse: a sunken ledge, with 7 feet of water on it, S.E. by E. 5 miles from the same; another of 12 feet, S.S.W. 4 miles.

between

between these points is about 10 leagues, and it therefore includes the Isle Haute, Deer Island, the Fox Islands, Isleborough, or Long Island, and a multitude of small isles, rocks, and ledges. Through the bay, to the mouth of the river of its name, the western channel is by the headland on the west, called *Owl's Head*; thence, by Isleborough on the west, and Cape Rosiere on the east, to Bagaduce Point or Castine River.

The *Eastern Entrance* is between Isle Haute on the west, and the smaller isles on the east, through a channel called *Long Reach*, formed by the shore of Sedgwick on one side, and Deer Island on the other, until it unites with the main channel between Cape Rosiere and Isleboro' or Long Island. Above this, on the east, stands Fort Castine, near to which is the town of CASTINE, opposite to Penobscot, which was incorporated in 1796, and which now contains a population of about 2000 persons. Castine is the port of entry.

The noble river which empties its waters into the bay, and which is now decorated with numerous townships, is the most considerable in the state of Maine, and has its sources about 130 miles above the inlet of Castine. The head of tide and navigation is, however, at Bangor, about 30 miles from the same; but vessels of 30 tons may approach within a mile of this place. At the entrance of the river is a depth of 10 fathoms.

From MOUNT DESERT ROCK (noticed on page 114) to WHITE HEAD, now having a LIGHT-HOUSE, with a fixed light, the bearing and distance are W.N.W. 13 leagues. The light is about 50 feet above the level of the sea; and it cannot therefore be seen at more than 4 or 5 leagues off.

By proceeding from Mount Desert Rock, on a W.N.W. course, you leave the Isle Haute and Fox Islands on the starboard, the Seal Rock, Metimicus Isles, and Green Islands, on the larboard side; and thus arrive off the *Muscle Ledge Islands*, which lie to the northeastward of White Head Light-house, on the western side of the Bay. On the same side, two leagues higher, is *Owl's Head*. Having advanced thus far, you may bear away for either side of Isleborough or Long Island; proceeding, according to Chart, past Belfast Bay and Brigadier Island, keeping the larboard shore on board. When you pass Brigadier Island for Old Fort Point, (*Fort Pownall*) observe, before you come to it, that an extensive ledge of rocks lies about three-quarters of a mile to the E.S.E. of it, which is uncovered at half-tide. These rocks are readily discoverable, when the wind blows, by the breakers. You may pass within a cable's length of Fort Point in smooth water.

If bound up the river, from Old Fort Point, with the wind a-head, and an ebb-tide, you may make a good harbour in the East River, at about a league E.N.E. from that point. The entrance of this river is on the south side of Orphan Island; here you may lie safe from all winds, and anchor in 6 or 7 fathoms, good holding ground. You leave Orphan Island, and several rocks which are above water, on the larboard hand. If requisite, you may anchor to the N.W. of the island, on the starboard hand, before you pass through; but, with the wind and tide favourable, you may proceed up to Marsh Bay, keeping towards the larboard shore. Marsh Bay is a league and a half above Orphan Island. When passing it, keep nearly in the middle of the river, and you will have neither rocks nor shoals until you arrive at the Falls.

To SAIL UP TO CASTINE, &c. by the S.E. and eastern side of Isleboro', the course is N.E. by N., keeping the island on the larboard hand. To go into the harbour, by Bagaduce Point, so soon as the entrance bears E.N.E., run in on that direction, keeping the middle of the channel on your starboard side until you pass the first island, giving that island a berth of half a mile; then haul to the southward, until the island bears W.S.W., when you may anchor in 8 or 10 fathoms, muddy bottom, and lie safely from all winds. The tide here rises, on the full and change, 10 or 11 feet, and flows at 2 1/2 hours.

Owl's Head forms a cove on its northern side, in which a vessel may take occasional shelter, as it lies open to the wind at E. by N. and E.N.E. The directions for sailing in are to bring a rocky point, which will be on the starboard side, to bear N.E. and a ledge of rocks that lie without that point, E.N.E., and anchor in 4 fathoms muddy bottom.

Hereabout the tide of flood sets to the northeastward, and the tide of ebb S.W. through the Muscle Ridges.

To enter Penobscot Bay from the S.W.—On approaching White Head, or its light-house, be careful not to haul in for it until it bears N.E., as you will thus avoid the ledges of rocks lying without the head. Within these ledges, at about a pistol-shot from shore, there is a safe passage. In passing the head, to the eastward, you will see a good harbour, on the larboard hand, called *Seal Harbour*, and in which a vessel may lie safely with any wind. In going into this harbour, give the larboard shore a berth, in order to avoid a sunken ledge, extending about two-thirds over, and which breaks with any sea, excepting at high water.

Vessels of 60 or 70 tons may double close around the head of the Light, and anchor right abreast of the store in the harbour. Those taken with calm and ebb-tide may anchor any where off the light in from 12 to 20 fathoms. If the wind takes you at N.E. and ebb-tide, so that you cannot get into *Seal Harbour*, you may run into *Tenant Harbour*, which bears W. by S. from White Head, about 4 miles distant. To gain this place, continue a W. by S. course until the first house on the starboard hand bears N.N.W. when you may anchor in 4 or 5 fathoms, good ground. In sailing from *Tenant Harbour*, you may steer E. by N. one league, toward White Island lighthouse; but be careful not to haul in for it till it bears N.E., as a large ledge of rocks bears about W.N.W. from the head to the distance of a mile.

COAST, &c. WESTWARD OF PENOBSCOT BAY.—In the offing on the west, without the Entrance of Penobscot Bay, is an islet, more than a mile long, named *Manhegin*, and from which White Head lighthouse bears nearly N.E., 5 leagues distant. It is the southernmost isle of this coast, and is represented in the charts in latitude $43^{\circ} 44'$, longitude $69^{\circ} 11'$.

From this isle the *Ball Rock*, or outer rock of the *Metimus Groupe*, off Penobscot Bay, bears nearly East, 19 miles; *Segwine Lighthouse*, off the River Kennebec, W. $\frac{1}{2}$ N. $7\frac{1}{2}$ leagues; the East end of the *Bantam Ledges*, off Booth Bay, W. $\frac{1}{2}$ N. 5 leagues; the rock called the *Pumpkin* W.N.W. $\frac{1}{2}$ W. 4 leagues; *Pennacoid Point*, at the entrance of John's Bay, N.W. $\frac{1}{2}$ W. 4 leagues; and *Franklin's Isle* lighthouse, in Broad Bay, off the entrance of George's River, N. $\frac{1}{2}$ E., 8 miles.

GEORGE'S RIVER, &c.—For this river, the first to the westward of the Bay of Penobscot, particular directions have been published by the American coasters, but they are insufficient for a stranger without the aid of a pilot. The same remark applies to other harbours upon this intricate coast; for, in numerous instances, from want of description, the instructions embarrass rather than direct, and there is no chart which can be depended on. *Franklin's Isle*, above mentioned, is an islet about a league to the W.S.W. from the mouth of George's River; the lighthouse stands on the north side of it, and is to be left, when sailing for the river, on the right or starboard side. An E.N.E. course leads thence to Pleasant Point, on the north side of the entrance. The light is fixed, and at 50 feet above the level of the sea.

KENNEBEC RIVER, SHEEPS CUT RIVER, &c.—The Lighthouse on *Segwine Isle*, off the mouth of the Kennebec, (above mentioned) exhibits a fixed light of the first magnitude. The lantern is 200 feet above the level of the sea, and the light may be seen 9 or 10 leagues off. The position assigned to it is, latitude $43^{\circ} 40'$, longitude $69^{\circ} 42'$. *Pond Island Light*, in the entrance of Kennebec River, bears N. $\frac{1}{2}$ E. [N. $\frac{1}{4}$ W.] from Segwine light, and a mile and three quarters from Segwine Island. To enter the Kennebec River, you have now only to steer directly for Pond Island light, bearing N.N.E. which leads from the western side of Segwine directly to the river. Pond Island may be passed on either side.

On sailing in, you must have regard to the tide; for the ebb sets out very strongly South, directly on Segwine Island. If you have not a good breeze of wind, you cannot stem the tide, as it sets at the rate of 4 or 5 miles an hour. In going into the harbour you will leave a large island covered with spruce-trees on your starboard hand, and several other islands on the larboard. When you get to the northward of the first island, if the tide be ebbing, you must steer for the *Two Sugar-Loaves*: these are two high rocks, which appear white, and resemble the figure indicated by their name: when you pass

* See the large Chart of the Coasts between Halifax and New York; which contains a particular Chart of Kennebec and Sheeps-cut Rivers, by the late Capt. Joseph Huddart, F.R.S.

to the westward of the Sugar-Ledges; you may steer North, and here take a pilot for the river, if bound upwards, as it should not be attempted without one. The port of Bangs is at about 7 leagues up from Segwine Lighthouse.

If bound to SHEEPS-CUT RIVER, from the westward, and you make the island of Segwine, you may leave that island on the starboard side, giving it a berth of half a mile. When you pass it to the eastward, you must bring it to bear S.W.; and steer N.E. and N.E. by N. 3 leagues, which will bring you up to *Ebenicook Harbour*, on the eastern side of the river, which is fronted by several islets; of this place, the entrance is narrow, but it makes like a basin when you get into it. The entrance lies E. by N. You cannot get in with a N.E. or easterly wind, but must have the wind south or westerly. After you get into the harbour, haul up N.E. or N.E. by N., as there are several sunken rocks, on the starboard hand, as you go in. There is anchorage here in 4 fathoms, muddy bottom, safe from all winds.

If bound up *Sheeps-cut River*, in a large vessel, on coming from the westward, you must go to the southward of Segwine, steering about N.E. or N.E. by E. one league; and, when the river bears North, or N. a little westerly, you may run North, and keep the starboard hand best on board. There are many rocks and ledges, some above and some under water, lying to the north-eastward of Segwine: when you get up as high as *Ebenicook*, you leave the two *Mark Islands* on your larboard, keeping your course north, a little easterly. Here it is requisite to have a pilot. The port of *Wiscasset* is about 5 leagues up from the entrance of the River.*

KENNEBEC RIVER TO CAPE ELIZABETH AND PORTLAND.—From the lighthouse on Segwine Island, (lat. $43^{\circ} 40'$, long. $69^{\circ} 42'$), Cape Elizabeth bears W.S.W. $\frac{1}{2}$ W. [*W.S.W.*] 7 leagues. This cape may be readily known by a pyramid of stone which stands upon it, of which the lower half is painted white, and the upper half black. Its height is 50 feet, and its summit 125 feet above the level of the sea. To the westward of Cape Elizabeth, near Richmond Isle, is a windmill, which is the first windmill seen on coming in from the eastward.

At N. 1° E. 4 miles from the pyramid, is a *Lighthouse* on *Portland Point*, built of stone, and the total height of which is 85 feet above the sea; it is, of course, of the greatest utility on this coast. Its light is *fixed*. The sound or harbour of Portland is buoyed, and the following directions are to be observed when sailing in. (See the particular chart of the Harbour.)

In coming from the south-westward, when within half a mile of Cape Elizabeth, the red buoy on *Broad Cove Rock* may be seen. This buoy bears N.N.E. from the pitch of the cape, distant one mile and a half, and lies in 24 feet of water. When advanced to it, leave it to the larboard, at half a cable's length, and steer N. by E. $\frac{1}{2}$ E. one mile, which will carry you up to the white buoy on *Trundy's Reef*, lying in 16 feet of water; give this the same berth as the former. You may run N. by W. $\frac{1}{2}$ W. 3 miles, for *Portland light-house*; and, when up with the point, upon which the light-house stands, give it a small berth, and steer N. by W. leaving *Bang's Island* on the starboard side, till you come to *House Island*, the S.W. point of which bears north from the lighthouse, distant nearly 2 miles. Before you are up with this island, the black buoy on *Spring Point Ledge* may be seen: it bears N.W. by W. from the S.W. part of *House Island*, distant half a mile, and lies in 14 feet of water. When up with this buoy, you open the town; and giving it a small berth, you may haul up N.W. for the white buoy on *Stansford's Ledge*: the latter lies also in 14 feet of water, and is one mile distant from *Spring Point Ledge Buoy*. Giving the white buoy a small berth, you may keep midway up the river, and safely anchor off the town, at pleasure.

It is to be observed that, all the buoys above mentioned are to be left on the larboard hand when coming in. The depths above mentioned are at low water. Besides the above, there are also two small buoys lying upon two ledges in *White Head Passage*, at the N.E. part of *Bang's Island*: this passage is narrow, and seldom used by large vessels. By keeping midway between the two buoys, the red on the starboard, and the white on the larboard, when going in, you will not have less than 5 fathoms of

* **BOOTH BAY** is the next to the eastward of *Sheeps-cut River*; on *Burns Island*, at the entrance of this bay, a lighthouse was building, in 1822: but of this we have no particular description.

water. After passing the buoys, keep midway in the passage, and run to the distance of a mile, which will carry you into *Ship Channel*, the same as if you had passed the light-house.

CAPE ELIZABETH is $4\frac{1}{2}$ miles south of *Dana's Island*; and there is a ledge called the *Two-foot Ledge*, or *Alden's Rock*, bearing E.S.E. 4 or 5 miles from the cape, and about 3 leagues S.S.E. from the light-house. It has only 2 or 10 feet of water over it; and, in rough weather, the sea breaks on it.

On the fore-hill of *Portland* there is an observatory, from which, by means of a telescope, vessels approaching the coast, may be discovered at the distance of 15 leagues. Their colours, or private signals, can be distinguished at 8 leagues, if the weather be clear; and the colours hoisted or suspended in such a manner as to present them fair to the observatory. "Should any need assistance, and will set their ensign over their private signals, their situation may be made known."

The observatory is on an eminence, 141 feet above high water-mark; the building is 80 feet high, painted red, and the telescope is placed near the top. It bears N.N.W. $\frac{1}{2}$ W. about 4 miles from *Portland* light-house; and these, in a line, are a good mark to clear *Alden's Rock*, at the distance of nearly three-quarters of a mile to the eastward.

The various and intricate channels of *CASCO BAY* and *QUAHEAD BAY*, between *Portland* and *Kennebec River*, including *Hussey's Sound*, *New Meadow's River*, &c. are too devious and too dangerous to be attempted without a pilot. The same remark applies to all this navigation which we have made upon *George's River*, &c. in page 117.

CAPE ELIZABETH TO CAPE ANNE.

FROM Cape Elizabeth to Wood Island, on the south side of *Saco Bay*, the course and distance are about S.W. $8\frac{1}{2}$ miles; and thence to Cape Porpoise, S.W. 9 miles. The harbours formed by Wood Island and Cape Porpoise are to be attempted only with a pilot. The island is high, woody, and even: on it is a LIGHT-HOUSE, which may be known from that of *Portland*, by its having a revolving or repeating light. The latter is 45 feet above the sea, and may be seen 7 leagues off. When, however, it is first made, at this distance, the eclipse, in each revolution, will be total; and is thus repeated until within the distance of 7 or 6 miles, when the light will not wholly disappear. In the revolutions, the greatest power of light is to the least as twenty-four to one.

The Course and Distance from Cape Porpoise to Cape Neddock are S.W. $\frac{1}{2}$ S. 18 miles; between these points are the Bay and Town of *WELLS*; and inland, between *Wells* and Cape Neddock, *Agamenticus Hills* may be seen. At three-quarters of a mile to the northward of Cape Neddock, is the *Cape Harbour*, which is a very small one.

The WHITE HILLS.—The White Hills are, as represented on the chart, an important land-mark to those approaching these coasts, as they may be seen many leagues off at sea, like a bright cloud above the horizon, and when no other land is in sight. They are not only the highest lands in New Hampshire, but the highest in the United States, being from 8000 to 9000 feet high; above the level of the sea. In *Holland's Survey* of this State, the centre of the hills is represented in latitude $44^{\circ} 10' 40''$, longitude $71^{\circ} 10' 30''$, and the range extends true North and South, about 14 miles. From *Portland* the centre bears N.W. about 19 leagues, and from *Wood Island* N.W. by N. (by compass) at nearly the same distance.

If there be not a want of public spirit in the Government of the State of *Maine*, we shall not be much longer without charts of its coast, deserving of the name, accompanied with clear and useful directions. There seems to have been no want of liberality in regard to Light-houses, and we may reasonably hope that, to increase the facilities of navigation, an accurate Survey of the Coast may be made.—Is there a paucity of nautical Surveyors? If so, some clever Englishmen may be found, who would cheerfully undertake the task, and execute it with fidelity. Indeed, the unfinished Surveys of *Captain Holland*, in *Des Barres' Collection*, might form a ground-work. These remarks are equally applicable to other coasts of the Union as to those of the State of *Maine*; but it is here that the deficiency is most sensibly felt.

These

These hills have been seen in latitude $43^{\circ} 10'$, at nearly 15 leagues from Cape Elizabeth, where bottom was found at 50 fathoms, and a ground was seen from this spot you steer W.N.W. you will, in that direction, make *Bonaparte* or *Wells Hills*, and will also descrie *Agamenticus Hills*, more to the southward, within *Bull Head*. The latter, at 6 or 7 leagues, appear to be three in number, the smallest to the eastward.

BOON ISLAND; &c. It is proper to remind those coming from the eastward, that *Cape's Ledge*, hereafter described, lies in latitude $43^{\circ} 1'$, and longitude $70^{\circ} 9'$ or thereabout; and that the Boon Island Ledges lie in $(43^{\circ} 6'$ and $71)$ at 15 leagues from the main.

In the *Chart of the Coasts of New Hampshire and Massachusetts*, where there are 70 and 75 fathoms of water, muddy bottom, a strong *Current* is commonly found, setting to the S.W.

BOON ISLAND is a small island, nearly surrounded by rocks, which lies 6 1/2 miles S.E. from Cape Neddock, and 10 miles E. by N. from the entrance of *Portsmouth Harbour*. It has now a *light-house*, which is built on the western part, where a monument or beacon formerly stood. The edifice is of stone, and two buildings are erected near it, the one for a dwelling, and the other for an oil-house. The light, which is fixed, is 32 feet above the level of the sea, and may be seen from the distance of 6 leagues. A ledge of rocks lie at a mile north from the island, of which beware. There is also a reef, bearing E.S.E. one league from the island; over which there are only a feet at low water, and from which *Agamenticus Hills* bear N.W. by N. at the distance of about 5 leagues.

PORTSMOUTH HARBOUR, the chief port of New Hampshire, is also the boundary of the State of Maine. Its entrance, in latitude $43^{\circ} 3'$ and longitude $70^{\circ} 4'$, is distinguished by a *light-house*, standing on *Fort Point*, the N.E. point of *Great Island*, upon the western side. Here a fixed light is exhibited, at 85 feet above the level of the sea. Off the entrance of this harbour, at three miles south from the light-house, and one mile from the nearest shore, is a small reef, of 2 and 3 fathoms, called the *Oil-boat Shoal*: and, at five miles S.E. by S. is the groupe of islets and rocks called the *ISLES of SHOALS*, which now have a good light-house.

The *ISLES of SHOALS*, with the reefs about them, occupy an extent of 3 miles from N.N.E. to S.S.W. There are seven isles, the names of which, from N. to S., are, *Duck's Isle*, *Hog*, *Smutty Nose*, *Cedar*, *Star*, *Londoner's*, and *White*, Islands. On the south point of the last is the light-house, the light of which is elevated 67 feet above the level of high water; the lantern contains 15 patent lamps, with reflectors, on a revolving triangle, which will make one complete revolution in three minutes and a half; exhibiting on one side a bright red light, on another side a blue, and, on the other side, the natural colour of the light.

Each light may be distinctly seen, for about 50 seconds, at the distance of nine miles; the light will be wholly eclipsed, for about 10 seconds, between each colour; within that distance the light will not entirely disappear in clear weather, but taking the medium, the greatest power of light will be to the least, as 40 to 1. The bright or natural light will be first discovered in clear weather, at the distance of about seven leagues; and, on approaching, the red and blue in succession. The bright light may be seen two or three miles farther than the red, and the red about the same distance farther than the blue.

A bell of 800 lb. weight is suspended in the tower of the light-house, which will be kept tolling by machinery at the rate of about ten strokes in a minute, by night and day, whenever from fog or any other cause, the light or light-house cannot be seen at least four miles distant: at which distance, it is calculated, the bell may be heard in moderate weather.

White Island is a small rocky spot, bold-to, and clear on the S.E. only, near which is a depth of 20 fathoms.

Londoner's Island lies nearly half a mile to the northward of *White Island*; it is less than a quarter of a mile in extent, high at each end; but at high-tides the middle is sometimes covered. This isle is nearly surrounded with rocks, some of which are always above water.

Star

Star Island, distinguished by a conspicuous meeting-house, near the centre of it, lies about one-third of a mile to the eastward of the *Londoner*, and is a quarter of a mile in length from N.W. to S.E. The north end is covered with buildings. The meeting-house stands on an eminence, a little to the northward of the middle of the island, fronting the west; the roof of this building is only 12 feet high; but thence to the top of the steeple, which stands on the middle of it, is 30 feet more; and the whole height, from the surface of the water, is about 65 feet. Being painted white, it may be seen from a distance of 8 or 9 leagues. It bears from *Thatcher's Island Light*, *Cape Anne*, (hereafter noticed,) N. $\frac{1}{2}$ E. distant 7 leagues; from *Newbury Port Lighthouse*, N.E. $\frac{1}{2}$ E. distant 4 $\frac{1}{2}$ leagues; from *Portsmouth Lighthouse*, S.S.E. $\frac{1}{2}$ E. 7 $\frac{1}{2}$ miles; from the western *Acanthian Hill*, S. $\frac{1}{2}$ E.; from *Boon Island Lighthouse*, S.W. $\frac{1}{2}$ S. 3 $\frac{1}{2}$ leagues; and from *Boon Island Ledge*, which lies one league E.S.E. from *Boon Island*, S.W. by W. 3 $\frac{1}{2}$ leagues. Off the south end of this island, at about three-quarters of a mile S.S.E. $\frac{1}{2}$ E., lies a rock, called *Anderson's Rock*, which is uncovered at half-tide, and should, therefore, have a good berth when passing. There is also a rock, between this island and *Londoner's Island*, bearing from the Meeting-house N.W. by W. $\frac{1}{2}$ W. distant one-third of a mile.

Cedar Isle is an islet which lies to the eastward of *Star Island*, at the distance of a cable's length. Half a mile from the S.E. end of this isle is a reef, uncovered at half-tide, which bears E.S.E. $\frac{1}{2}$ E. from the Meeting-house on *Star Island*.

Smutty Nose Island is nearly a mile in length from east to west, and half a cable's length broad. It may be known by a windmill on its north side. At the west end is a harbour, called *Haley's Cove*, where fifteen or twenty small vessels may lie safely in all winds. There are several buildings near this place. Between the island and *Hog Island*, which lies to the northward, there is sufficient depth of water for any vessel, by keeping nearly in mid-channel; but there are reefs on each side. The east end of *Smutty Nose Island* bears from the Meeting-house E.N.E. nearly half a mile.

Duck Island is the northernmost of the Isles of Shoals. It is low and rocky. Some parts are covered at high water, with rocks projecting in every direction, and to the distance of half a mile. It is the most dangerous of the Isles of Shoals, and must be cautiously avoided. Its west end bears from the Meeting-house nearly N. by E. $\frac{1}{2}$ E. a mile and three-quarters distant.

In sailing from the S.W. for *PORTSMOUTH*, having made the Lighthouses of *Cape Anne*, in latitude $42^{\circ} 37'$, and being to the eastward of the *Salvages*, which lie to the northward of that cape, bring the *Salvages* to bear S. by E. and steer N. by W. or N. $\frac{1}{2}$ W. on which course you will make the Isles of Shoals, and may then take a new departure. Bring the Lighthouse on *White Isle* S.S.E., and then run N.N.W.; but should the wind come to the northward, and you are obliged to turn into *Portsmouth*, take care to avoid the *Gun-boat Reef*, and stand to the westward no farther than to bring *Portsmouth Light* to bear N. by W., until you arrive within *Odiornes' Point*, on the west side of the entrance; and, when standing to the eastward, you should tack as soon as the lighthouse bears N.N.W. until you get within *Wood Island*, on the East side. Be cautious of approaching *Odiornes' Point* when coming in from the south-westward, as sunken rocks lie off it to more than half a mile, which do not appear with off-shore winds. In standing to the eastward, be likewise cautious of *Kitt's Rocks* and the *Wald's Back*, which lie to the southward, within three-quarters of a mile from *Wood Island*, and are covered at half-tide.

At the Entrance of the Harbour the Tide flows, on full and change days, at XII^h. Springs rise from 10 to 12 feet; neaps, 6 to 7 feet.

NEWBURY PORT, &c.—The Entrance of *Newbury Port*, or *Newbury Harbour*, is a league S.S.W. from that of *Portsmouth*, in latitude $42^{\circ} 48'$. The entrance is distinguished by two lighthouses on the south side, which have fixed lights, and stand on the north end of the narrow isle called *Plum Island*.* If advancing towards this

* *Plum Island* is situated between the mouth of *Merrimack River*, on the north, and *French Bay*, on the south, and is separated from the main land by a narrow sound. Its length is about 3 $\frac{1}{2}$ miles, and its width, from the sea to the main, not more than 500 paces. On the north end of the island are two light-houses, which are constantly lighted at night, and so constructed as to be easily moved; a circumstance requisite from the frequent shifting of the bar at the mouth of *Newbury Port*.

this place from Cape Anne, and being at about two miles to the northward of the Salvages, before mentioned, being the latter to bear S.E. and steer N.W. 4 miles, which will lead to Newbury Bar, and from thence to the lights, and to the Port Har-
 bour.

**Port Har-
 bour.** This bar has probably been formed by the current of the River, in its progress out, meeting the drift of the sea and opposing winds; and by that means forming a bank of loose sand, which the strength of the tide is insufficient to force out. It extends across from Plum Island, about a mile below the lights, to Salisbury Beach. The channel over it is extremely narrow, and terminated on each side by very dangerous shoals; that on the north, called the *North Breaker*, and that on the south, the *South Breaker*. The light-houses are always so situated as to be brought in a range by the mariner coming over the bar; and, as by the violence of winds or tides, the bar shifts, the light-houses are shifted to conform to it. By keeping the lights in one, vessels may, by day or night, come in with safety, and find good anchorage, in 4 or 5 fathoms of water, abreast of between, the two lights.

That part of the island bounding on the sea, and extending above half its width, consists entirely of yellow sand, perfectly smooth on the beach, but, farther from the sea, driven by the wind into hillocks, or heaps of fantastic forms, and preserved in that shape by the successive growth of grass and shrubs. On the back part of the island, where it is washed by the sound, is an extent of salt-marsh, bounding its whole length. The products of Plum Island are scarcely worthy remark: beach-grass is the principal, and is used only for manufacturing brooms. A species of plum, from which the island derives its name, grows here in tolerable abundance. It is produced on low running shrubs, on the summit and sides of the sand-hillocks; is pleasant to the taste, and, generally in its season, is an article for the market. There is likewise the beach-pea, of which little or no use has ever been made; and, indeed, it is not found in sufficient plenty to become much more than an article of curiosity. At the southernmost end of the island there are several houses, with families, and a considerable spot of land in good cultivation. To the northward of this there is a grove of pine-trees, of $\frac{1}{2}$ mile in extent.

The Marine Society of Newbury Port erected, some years since, at their own expense, several huts, at proper distances, from each other and from the shore, and supplied them with fire-works, fuel, straw, &c.; but, owing to the strong winds driving the sand from their foundations, and the inhuman conduct of the people who visited the island in summer, these huts were in a few years totally destroyed. The misfortunes attending this generous and humane attempt, in favour of the shipwrecked mariner, deterred the Marine Society, as well as other bodies and individuals, from a like benevolent attempt, until the establishment of the Merrimack Humane Society, in 1802. Conceiving it absolutely necessary that some relief should be afforded the unfortunate sufferer on so desolate a spot, and in the most inclement season of the year, the society voted to build three huts on the island, and have carried their generous resolutions into full effect. The exertions of this benevolent institution will be, in future, to preserve these huts in repair, and in perfect supply of materials for fire, and other necessaries for the support and preservation of life. Many, no doubt, will owe their lives to the humanity of this design, and with grateful feelings contribute themselves to the preservation of others. The expense and trouble will be trivial in comparison with the noble purposes it may answer; and the hope of its answering these purposes will be alone a sufficient remuneration to the generous projectors.

From the report of a committee, appointed by the society, we have the following description of the huts, and directions to the mariner to find them:

The house for the keeper of the lights, erected by the United States, is about twenty rods south from the light-houses.

About 2500 paces, or $\frac{1}{2}$ mile south, from this house and the lights, on the inside of the island, is the first hut, to which the mariner, in day-light, may be directed by a beacon, about 300 paces to the East, with a hand pointing to the hut.

2900 Paces, or about $\frac{1}{2}$ mile south, from this is the second hut, with a similar beacon, about 400 paces S.E., pointing to it.

1700 Paces, or about one mile, south from this, is a third, with a beacon, bearing East, 500 paces distant.

5000 Paces, or about three miles, south of this, is a house, occupied by Mr. Spiller and family, which is about one mile from the south end of the island; and about West one mile from the south end of the island are two other houses, with families.

These huts, together with the other houses mentioned, form a chain from one extremity of the island to the other. The unfortunate mariner, whose fate may wreck him on this shore, can, by noticing the point of compass from which the wind blows at the time of his being wrecked, be governed in his course across the island, where he will find himself under the lee of the higher land, and protected in some measure from the violence of the tempest. By keeping along the margin of the island, where the travelling is good, and before coming quite to the marsh, either north or south, he will be certain of meeting with one of these huts or houses, where he may find temporary relief. Further assistance will be afforded him immediately after the shipwreck is known.

Near the south end of the island are some rocks. Those who are compelled, if they can choose their place to go on shore, would do well to avoid them, by striking the beach more northerly.

It rarely happens that any life is lost on this beach, in attempting to escape from the wreck, when the crew remain on board till low tide. Unless the vessel is in imminent danger of going to pieces immediately, the seamen should never take to their boat.

If you advance no farther westward than for the lights on Plum Island to bear S.W., no danger is to be apprehended from either of the rocks above mentioned, but that course to the bar would lead to the north breaker: you must, therefore, bring the lights to bear W. by S., and anchor in 11 or 12 fathoms of water, should the tide not permit you to sail in. No vessel going in should approach the south breaker nearer than in 7 fathoms; or nearer the north breaker, in coming from the eastward, than 9 fathoms. Pilots are always ready when the weather will permit them to go out; but, if it cannot get out, you must keep the two lights in a line, and run for them until within cable's length of the eastern light, when you must haul to the westward, and anchor between the two lights, in 4 fathoms; * or you may bring the western lighthouse S.E. by S., and run N.W. by N. for Salisbury Point: † but, so soon as you make that point, you must haul up N.W., which will carry you clear of *Badger's Black Rocks* and the *Hump Sands*.

Across the channel, from the *Hump Sands* to *Black Rock Creek*, lie seven or eight piers, on which are from 7 to 2½ feet at low water: they were sunk in the year 1776, and still remain. The mark to pass between them is, to bring the beacon at the west end of the town over the south corner of the North Meeting-house.

The *Hump Sands* lie S.W. from Salisbury Point, which renders the channel very narrow and difficult to strangers. The *Badger Rocks* bear N.W. ¼ N. from the light-houses, distant half a mile: they are covered at two-thirds flood, and are to be left on the starboard hand, when going in. The *Black Rocks*, which are always dry, lie three-quarters of a mile N.W. from the light-houses: these, also, must be left on the starboard hand. The *Half-tide Rocks* bear W. by S. ¼ S. from the *Black Rocks*, at the distance of 1½ mile; they are uncovered at half-tide, and have a buoy on them, which is to be left on the larboard side. Besides these there are the *North Rocks*, which are seen only at very low tides, and which bear W. by S. from the *Black Rocks*, from which they are 1½ mile distant; there is a buoy on them, which is to be left on the starboard hand; the channel lying between these and the *Half-tide Rocks*. When you pass the *Black Rocks*, a W. by S. ¼ S. course will bring you into the channel-way and good anchorage; and, even in night or dark weather, when you judge yourself at about half a mile from the *Black Rocks*, you may anchor in safety.

It is always dangerous to run for this port in a gale of easterly wind.

The signals for vessels, when in sight, and supposed to be bound for Newbury Port, at the time when the sea is so great on the bar that pilots cannot get out to their assistance, are as follow:

* A vessel that draws ten feet of water may come in at two-thirds flood. They should always observe to keep to the windward of the bar, unless the wind should be fair. If the sea is so great as to prevent the pilot's getting over, a signal will be made by him, when you must run direct for his boat, keeping the lights in range, which will carry you safe over.

† In a course nearly North from the light-houses on *Plum Island*, and about half a mile distant, across the mouth of *Merrimack River*, is the southern extremity of *Salisbury Beach*, called *Salisbury Point*. From this point a sand-beach extends on the verge of the ocean, without an inlet or interruption of any consequence, until it reaches *Hampton River*. This beach is connected with the main land by a salt-marsh, of considerable extent, intersected by a variety of small rivulets and creeks, which render it impossible for a shipwrecked mariner to reach the inhabited parts of *Salisbury*. Here, too, the hapless seaman is sometimes destined to suffer the misfortunes of shipwreck, and to reach a desolate and inhospitable shore, only to aggravate the horrors of his death. If he can attain the first and wished-for object in evading the jaws of the angry ocean, he yet finds himself a solitary wanderer on the coast, without shelter, and without sustenance; and, in his fruitless search for them, must inevitably perish. As the N.E. storms are generally most fatal to vessels on this part of the coast, *Salisbury Beach* is not so often a place of shipwreck as *Plum Island*. But, to guard against a possibility of accident, which must sometimes happen to the unskilful or inexperienced navigator, the Marine Society erected a hut, similar to those on *Plum Island*. Here they deposited every thing necessary for the relief of such as might need it, and were at the pains and expense frequently to inspect it, and renew their generosity by replenishing it: but this has shared the same fate with those on *Plum Island*; not so much, however, from the insufficiency of its foundation, or the violence of the winds, as from the wantonness of individuals and companies, who frequent this spot, in the warm season, on parties of pleasure. The *Merrimack Humane Society* have extended their benevolent views to this part of the coast, and have erected a hut about three-quarters of a mile north from *Black Rocks*, so called, and about 150 paces from the sea-shore. This hut will be maintained in commodious repair, and provided with every thing suitable for those who may be so unfortunate as to need its shelter. Others, on the same coast, will be erected as speedily as the funds of the society, and the charity of individuals, will render it possible, and will be conveniently furnished and provided for the same laudable purpose.

When

When a vessel comes into the bay, and cannot get over the bar at high water, owing to insufficiency of the tide, a red square flag will be hoisted up, with a pendant under it; and, so long as these signals are seen from the vessel in the bay, she must keep off, and try some other port.

When the usual signals for vessels are kept up, the vessel must lay off and on, without the bar, keeping to windward until signals be made for her to come in; and when it is a suitable time to come over the bar, a red square flag will be hoisted half-mast, she may then come in, keeping the lights in a range or in a line.

When a pendant is hoisted half-mast, the vessel may come in, keeping the lights a little open to the northward.

When a blue burgee is hoisted half-mast, the vessel may come in, keeping the lights a little open to the southward.

When a vessel is seen in the bay, and does not get in before night comes on, the following lights will be made.

For a vessel to keep off, and not attempt to come in over the bar, during the night, a lantern will be hoisted to the top of the flag-staff.

When there is a proper time for a vessel to come in over the bar, during the night, two lanterns will be hoisted, one at the top of the flag-staff, and the other half-mast high. The vessel must then lay off and on at the bar until a light is made in the eastern lighthouse, at a window about 8 feet below the lantern. The vessel may then come over the bar, keeping the lights in a line; and, when she gets abreast of the upper light, there is good anchorage.

The signal for vessels in distress is a white square flag, with a large black ball in the centre, hoisted half-mast high.

HAMPTON HARBOUR lies about 5 miles N. $\frac{1}{2}$ E. from the entrance of Newbury Port; between, at the distance of 3 miles N. by E. $\frac{1}{2}$ E. from the lights on Plum Island, lies a dangerous rock, having only $3\frac{1}{2}$ feet of water over it; and, at some distance to the eastward of Hampton Harbour are several sunken rocks.

ANNIS-SQUAM, or SQUAM HARBOUR, in the south part of Ipswich Bay, is nearly 4 leagues S.S.E. from Newbury Port. It has a lighthouse which stands on the eastern side of the entrance. It is a wooden building, of an octagonal form, about 40 feet high, and about 50 feet above the surface of the water at common high tide. It is painted white, and may be known by its inland situation, and being lower than any other lighthouse hereabout. The Light is fixed.

The bar of this harbour bears from Halbert Point (the N.E. point of Cape Anne) about S.W. by W. $3\frac{1}{2}$ miles. In running from Halbert Point, be cautious of *Reds Code Ledge*, which shews itself until nearly high water, and bears from Squam light N.N.E. a little northerly, about five-eighths of a mile. Passing this ledge, you leave *Hodgkins Cove*, which is deep, and a long point of land called *Davis's Neck*, on your larboard hand. When up with this neck, haul S.W. or S.W. by W. for Squam Bay. In sailing into this harbour, bring the light to bear due south, when at the distance of a mile from it, and run directly for it, leaving *Haradan's Rock*, which lies N.E. by E. $\frac{1}{2}$ E. from the light, distance three-eighths of a mile, on your larboard hand. Continue your course till within 50 yards of the light, then haul up S.S.W. for the *Bar Rock*, leaving the light-house on the larboard. The bar, which runs nearly N.E. and S.W. leaves the river about 90 fathoms broad opposite the light on the starboard. In running up, as here directed, you will leave the *Lobster Rocks* (which lie 200 yards S. by W. from the light-house, and dry at low water) on the larboard hand. When up with the *Bar Rocks*, which lie on the starboard hand, and are dry till nearly high water, steer S. by E. $\frac{1}{2}$ E. until you open the houses, and you may anchor in from 3 to 5 fathoms clear sandy bottom; or run your vessel on shore on the starboard side, should you happen to be without anchors and cables.

When the weather is so boisterous that boats cannot get off, a flag is hoisted on shore near the light-house, as soon as there is a sufficient depth for vessels upon the bar, which may then run as above directed.

The *Salvages*, before-mentioned, bear from Halbert Point E.S.E. $2\frac{1}{2}$ miles distant; and from Cape Anne light-house, which stand on Thatcher's Island, N. by E. 3 miles. Between them and Cape Anne there is a passage.

CAPE SABLE TO CAPE COD, &c. &c.
PLYMOUTH, BOSTON, &c.

From Cape Sable to Cape Cod, the course and distance are W. by S. $77^{\circ} 12'$ about 70 leagues; in steering this course, you will pass about 12 leagues to the southward of *Cape's Ledge*, of which the following is a description, communicated by the Master of His Majesty's sloop *Beaver*.

CASHE'S LEDGE.—I took my departure from Thatcher's Island to the eastward of Cape Anne. The island bore north from me, distant 3 miles. From this bearing I steered E. $\frac{1}{2}$ N., with a fair wind, 65 miles, and fell in with the bank where *Cashe's Ledge* is, about 2 leagues to the northward of the shoal, in 60 fathoms of water; the soundings were a hard black clay. This bank extends from north to south 7 leagues, and from east to west 2 leagues. In the middle of the bank is the shoal mentioned; its length and breadth are about half a mile. It is rocky, and its soundings very irregular, having from 10 to 4 fathoms of water in the length of a boat. You will have 17 fathoms of water within a cable's length of it, deepening, as you stand from it, to 90 fathoms. As you approach the bank, you sound in from 60 to 35 fathoms, brown sand, with black stones and broken shells; then, in 30 fathoms, it grows rocky. The current on the ledge is exceedingly rapid and unaccountable. If the wind blows strongly, any vessel would founder, although she should not strike on it. The situation of the ledge, by four days' good observation, is latitude $43^{\circ} 1'$, longitude $69^{\circ} 6'$. On the shoalest part are only 12 feet at low water.

It has since been said, by Mr. Backhouse, master of His Majesty's ship *Argonaut*, that *Cashe's Bank* extends north and south 7 leagues; the shoalest part being near the centre, extending a quarter of a mile each way. The ledge, he observes, bears from Cape Anne, E. $\frac{1}{2}$ N. 24 leagues, the shoalest part being in the latitude above-mentioned. "You will have," he adds, "on this part from 10 to 4 fathoms, very irregular soundings, all rocky bottom." The current shifts all round the compass every hour, and runs at the rate of two miles an hour.

GEORGE'S BANK.—The shoal-grounds upon this bank have heretofore been the objects of much discussion, without any satisfactory result. Having been imperfectly known, they have been described erroneously, both in charts and books. The following description is, therefore, particularly valuable. It is the copy of a Report, relative to the survey of these shoals, made in the United States' schooner *Science*, and the sloop *Oriskany*, by direction of the Board of Navy Commissioners, and under the orders of Captain Isaac Hull, in 1821.

There are properly four shoals on *George's Bank*; the whole of them included between latitude $41^{\circ} 34' N.$ and $41^{\circ} 53' 30' N.$, and longitude $67^{\circ} 18' W.$ and $67^{\circ} 50' W.$ Between them there are from 15 to 35 fathoms of water.

The largest, and on which is the greatest danger, is the most southerly and westerly. It is somewhat triangular, with a long and narrow spit, making out from the S.E. angle. The S.E. point is in latitude $41^{\circ} 34'$, and longitude $67^{\circ} 40'$. The west point is in latitude $41^{\circ} 42'$, and longitude $67^{\circ} 50'$. The eastern side of this shoal, although somewhat irregular, runs nearly S.S.E. and N.N.W.,* having on it from 3 feet to 9 fathoms at common low water. It is composed of a great number of sand-spits, very narrow, so that the width of a narrow vessel will make several fathoms difference in the depth of water. The general range of the spits is from S.E. to N.W. As there are no rocks, they are consequently liable to change, in some measure, their position and range. On the eastern edge, even in calm weather, unless it be high or low water, the waves run with great rapidity, and form considerable breakers, when setting to the westward. This is accounted for, by a knowledge of the fact, that directly on the edge of this shoal there is from 12 to 16 fathoms of water, so that the edge forms a species of dam, stopping the force of the flood-tide, and over which the ebb falls.

* This is the *Malabar Shoal* of the Charts.

When there was considerable wind, we observed that the breakers were higher within the edge, to the westward, than on the edge; and I have no doubt that the water there was still shoaler, and that we should have seen the sand, had it not been for heavy sea. The breakers were high, unless it were entirely calm, that it was impossible to go among them with boats; nor was it considered safe to attempt it with the vessels. For besides the danger of striking on the hard sand-spits, the vessels would have been liable to have been filled by the breakers. Even on the eastern edge, and at nearly slack water, the vessels were at times nearly covered with them. It was not thought necessary to attempt it, as the object of the survey, to ascertain if there was danger on the shoals, and the situations and extent of them, could be accomplished without this risk.

Had not the sea been very smooth, and at high water, we should not have been able to have gotten on where we found 3 feet, reducing it to low water. The prevailing wind was to the eastward; and I have no doubt but that this place would have been here, with any continuance of an off-shore wind.

"I think there are no rocks about the shoals. We had one cast on the S.W. side, which indicated rocky bottom, in 15 fathoms; but I believe it to have been some sharp stone that the lead struck on, although I have marked it according to the appearance on the Chart.

"The centre of the northern shoal is in latitude $41^{\circ} 53' 30''$ and longitude $67^{\circ} 43'$. It extends east and west about four miles. The shoal at part having 6 fathoms, is very narrow, and composed of hard sand. But there is not more than 12 fathoms of water for three miles south of the above latitude. On the north side, at two cables' length from the shoal, the sloop dropped into 33 fathoms. The breakers on this shoal are very heavy; and when there should be a sufficient sea to endanger a vessel, they might be seen some miles, and heard at a very considerable distance; and, as the shoalest part is not more than a cable's length inside, and no danger near it, a vessel might avoid it.

"To the eastward of the last-mentioned shoal, in latitude $41^{\circ} 51'$, and longitude $67^{\circ} 36'$, is another small shoal, with 8 fathoms of water, having, however, considerable breakers. There are but 17 fathoms for three miles north of it. But very near to the east of it, are 31 fathoms, and from 20 to 30 fathoms to the south and west.

"The centre of the East Shoal is in latitude $41^{\circ} 47'$, and longitude $67^{\circ} 19'$. It is about two miles long from east to west, and has 7 fathoms of water. To the south there are but 17 fathoms for two miles. In other directions there are from 20 to 30 fathoms.

"The above-described shoals, I am confident, are all which are on George's Bank. Their positions and sizes may be relied on, as well as the places of the soundings which I have laid down in the Chart. They were ascertained by a vast number of celestial observations, taken with good and well-adjusted instruments, on board the two vessels, and very carefully and faithfully calculated. The rates of the chronometers were found by a transit instrument previously to sailing from Boston, and after our return; and all the observations re-calculated for the small variation which appeared.

"At anchor, in different places, and on different days we determined the set, and strength of the tides, and, as nearly as possible, their rise and fall. The rise of them is from one to one and a half fathom. They set round the compass every tide, setting S.E. nearly at full moon, and running from one to four knots per hour, at a middle distance from the breakers. The mean rate, however, is materially varied by the winds.

"They set strongest at W.S.W. and E.N.E., and which is, undoubtedly, the strength of the flood and ebb. From these causes and variety in the tides, arises a principal danger in approaching the shoals. When under weigh about the shoals, in a few hours' time, we found ourselves drifted far out of our reckoning; and to ascertain our situations when both vessels were under weigh, we took continued observations for the longitude by the chronometers, and at the same time double altitudes for the latitudes, which latter were calculated by Brosius' new and certain method. By allowing for the

In some remarks which he has made on the "Shoal Ground of St. George's Bank, Mr. Lockwood says, 'The pilot of the Bulwark declared, in the presence of Captain Milne, myself, and others, that he had landed on the shoal part of George's Bank, and that he believed it dried for at least six miles, and was composed of fine sand. Many of the Cape Cod fishermen assert, that they have seen the gulls sitting on it; while others, positively insist, that the only danger exists in the heavy and cross sea, caused by the current running forcibly over the uneven ground.

...of tide, as ascertained at anchor, the observations and soundings agree very nearly, so that the latitude and longitude of every sounding placed on the Chart may be considered as certain and true. Should any vessel fall in with the shoals, a knowledge of the course and strength of the tides would be of the greatest importance. And they can be calculated for any day and hour by the preceding facts.

In going from Cape Cod to the shoals, at five leagues from the light, there are 80 fathoms, muddy bottom. The water gradually deepens to 133 fathoms, and then gradually decreases towards the shoals. In latitude $41^{\circ} 51'$, and longitude $68^{\circ} 41'$, there are 90 fathoms. In latitude $41^{\circ} 50'$, and longitude $68^{\circ} 3'$, there are 40 fathoms, sand and gravel, on the western edge of the bank. The water then shoalens fast. To the northward of the shoal, in latitude $41^{\circ} 59'$, and longitude $67^{\circ} 52'$, on the south side of the north channel, there are 60 fathoms, soft mud. In latitude $42^{\circ} 12'$, and longitude $67^{\circ} 51'$, there are 102 fathoms. In latitude $42^{\circ} 10'$, and longitude $67^{\circ} 18'$, there is no bottom at 175 fathoms. To the eastward we did not ascertain the extent of the bank. In two miles southward of the S.E. point of the shoals, there are 20 to 26 fathoms of water, which soundings continue for at least twenty miles to the southward and westward.

The bottom on the bank, so far as we ascertained it, is of such a narrow character, that it is difficult for a vessel to ascertain her situation by it. We often found a great variety of soundings in a very short distance; such as sands of various colours, and differently mixed, coarse and fine gravel, pebbles of various colours, stones, sponge, and shells. Of all these, except sand, I saved a number of specimens, with marks to note the places from whence they were taken.

Notwithstanding this variety, some general character of the soundings may be useful. To the westward of the shoals, and at some distance from them, the bottom is coarse sand and gravel, of all colours; to the N.W. a mixture of white, black, and yellow sand; to the North, black and white sand; to the N.E. chiefly gravel and pebbles; to the East, fine white and yellow sand; and in latitude $41^{\circ} 57'$ N., and longitude $66^{\circ} 40'$ W. some white moss; to the S.E. fine white and yellow sand; to the South, generally white sand. As the shoals are approached, in whatever direction, the soundings become coarse, and are frequently mixed with shells of different kinds. Near the shoal, much of the bottom is pebbles; and to the East of the largest and dangerous shoal, there are stones of the size of hen's eggs, with moss and sponge on some of them. Near the S.E. point are 13 to 20 fathoms: a prevailing character of the soundings is green shells, and chiefly of the species usually called sea-eggs. If a vessel be far enough South to avoid danger, she will have no shells. The quality of the soundings, as far as we were able to survey the bank, will be best understood from the Chart, where they have been carefully rated.

The time and weather prevented making a complete survey of all parts of the bank. And although we ascertained the boundaries of it to the westward and northward, I have not delineated it on the Chart, being unwilling to borrow any thing from Charts which disagreed so essentially, and which we found very incorrect in the most material points. Of the shoals themselves, I do not believe a more perfect survey can be made; unless, in a calm time, the main shoal could be penetrated. This, however, does not seem to be an object, as no vessel would be safe in passing over it.

The reports that rocks have been seen on the shoals are undoubtedly incorrect. Had there been any there, we could not have failed of discovering them. At the West part of the bank, in strong tide rips, we saw large quantities of kelp and sea-weed, which, at a distance, had the appearance of rocks; but, on sounding, we found good water, and a regular and clear bottom.

It will be seen, by the bottom, that the holding ground is not good. But the vessels employed in the survey, by having a long scope of cable, rode out a considerable gale of wind, for twenty-two hours, on the east side of the main shoal, and to the windward of it. At this time the sea broke very high, in 10 fathoms of water.

Boston, Nov. 1. 1821. C. FELCH.

It may be worthy of remark that, at one cast of the lead, on examining the arming, I found one-third black sand, one-third white, and one-third green shells, in as distinct dimensions as they could have been drawn.

Mr. Back-

Mr. Backhouse says, "The S. E. part of George's Bank lies in latitude 41° N. and longitude 69° 30' W. from Ogeonwick, and from it (so several times) in crossing from New York to Halifax. You will have a deep fairway from 35 to 45 fathoms, the sandy bottom. Should you fall off (more to the eastward) you will deepen your water to 60 or 70 fathoms, coarse sand to the N. E. whither thence will lead you in a fair way towards Shelburne Lighthouse, on the Nova Scotia coast."

CAPE COD TO PLYMOUTH.—Cape Cod is distinguished by the lighthouse described hereafter, and the course from the extremity of the cape to Plymouth Harbour is W. $\frac{1}{2}$ S. distant 6 leagues. This harbour may be known by a round hummock, lying on its northern side, called the *Gurnet*, upon which two lights are established; and on its southern side, by a double high land, called the *Monument*. The *Monument* side is full of shoals and quicksands, which dry in several places; but, on the *Gurnet*, on North side, there is a fair channel, in which you may ride safely with any wind but an easterly one. But, should an easterly wind happen to blow so hard as to force you from your anchor, you must run further up the harbour, and anchor within the sandy island called *Brown's Island*.

The DIRECTIONS for PLYMOUTH HARBOUR, as given by American pilots, are as follow:
The harbour of Plymouth is capacious, but shallow; and is formed by a long and narrow neck of land, called *Salthouse Beach*, extending southerly from *Marshfield*, and terminating at the *Gurnet Head*; and by a smaller beach within, running in an opposite direction, and connected with the main land near *Eel River*, about three miles from the town. The lighthouses on the *Gurnet* are about 86 feet above the surface of the sea, 15 feet apart, containing fixed lights, and are so situated, that they cannot be brought in a line to the northward, unless to those on shore.

From these lights the high land of the *Monument* bears S. $\frac{1}{2}$ W. 3 miles; *Monument Point*, S. S. E. 2 leagues; *Squash Head*, W. $\frac{1}{2}$ S. 3 miles; the easternmost part of *Brown's Island* or *Shoal*, which dries S. S. W. one and one-third of a mile; and the *Gurnet Rock*, E. by S. $\frac{1}{2}$ S. one-third of a mile: on this rock are but 3 feet at low water, at which time all the soundings here mentioned were taken.

The *Gurnet* bears from the *Race Point* of *Cape Cod* W. $\frac{1}{2}$ S. about 6 leagues. In proceeding for Plymouth, so soon as you have shut in the sandy hill with the *Gurnet Head*, you will be clear of the *Gurnet Rock*; after which you must be cautious of hauling close to the head, as there are many sunken rocks at some distance from shore. When you have brought *Squash Head* to bear W. by N., you may steer W. by S.; and, if bound to *Plymouth*, you must keep that course towards a large red cliff on the main, which is a very good mark for leading clear of *Dick's Flat*: you will then steer more southerly for *Beach Point*, or run up until you are abreast of *Squash Head*, giving it a distance of one quarter of a mile. Then steer W. by S. $\frac{1}{2}$ S., which will carry you clear of *Dick's Flat* directly for *Beach Point*, keeping within 15 or 20 yards of the sandy point as you edge away to the southward, until you have shut in the lights, where you may anchor in 3 or 4 fathoms; but the channel is very narrow, having nothing but a flat, all the way to *Plymouth*, except this small channel, which runs close to the neck of land, and in which you will have 4 or 5 fathoms close to the sandy point.

If bound into the *Cow-Yard*, steer as above directed, which will lead clear of *Dick's Flat* and the *Muscle Bank*; observing to keep the house on the *Gurnet Head* just open with *Squash Head*, until you have opened the high pines with *Clark's Islands*; then you will be clear of the *Muscle Bank*, and may steer N. W. until you have 3 fathoms at low water.

In turning into *Plymouth*, you should not stand to the northward into less than 3 fathoms, as it runs flat a long way off from the *Gurnet Head* to *Squash*; and off both the heads a point of rocks extend to a considerable distance from shore, many of which are nearly uncovered at low ebbs. There is shoal water also all the way from *Squash* to the *Muscle Bank*; so that you should not stand into less depth than that above mentioned: and, in standing towards the sands to the southward, you should tack in 4 fathoms, as it is steep to, and you may observe the ribs, unless the water be very smooth. The shoal extends from abreast of the lights to *Beach Point*, and the greatest part of it is uncovered at low ebbs.

But to the southward these lights may be brought in one and less clear of *Brown's Island* or *Bank*. On *Salthouse Beach* stands one of the huts erected by the *Humane Society of Massachusetts*, for the reception of shipwrecked mariners. There is a breach in the inner beach, which exposes the shipping, even at the wharfs, during an easterly storm.—*Am. Coast Pilot.*

In coming from the southward of Plymouth, you must not open the light-house to the westward, but keep the light-house bearing N.N.W. by W. or N.W. by W. until you are within half a mile of the Gurnet Head, or thereabouts, where you will have 12 or 13 fathoms; Squash Head will then bear W. by N. a little northerly, and the two outermost trees on the head be in one; when you may steer directly for them, until you bring the light-house to bear E.N.E.; and the house of Squash N.W. just open with the light-house beach, where you may anchor in Squash Road in 6 fathoms, good clear bottom; but if bound to Plymouth, or the Cove Yard, you must steer as before directed.

In coming from the northward, for Plymouth, you should not bring the lights more southerly than S. by W., as thus you will avoid the high pine ledge, which lies north 2 1/2 miles from the Gurnet Head. The shoalest part of this ledge, which is uncovered at low ebb, lies about 1 1/2 mile from the shore, with the high pines in range with Captain's Hill, which will then bear W. by S. It extends N.N.E. and S.S.W. nearly a mile, and has 4 or 5 fathoms close to it, which deepens gradually as you run to the eastward from it, having 10 to 12 fathoms at the distance of a mile.

By night, with the lights bearing S. by W., proceed to the southward until they bear N.W. or N.W. by W., when you will be clear of the rock, and may steer up W. by S. until you have the lights bearing E.N.E., when it will be prudent to anchor until day-light.

The tides flow in Plymouth until nine o'clock, on the full and change.

Should you make the Gurnet lights in the night, during hard northerly or north-west winds, and cannot get into the harbour of Plymouth, you may run for that of Cape Cod, the point at the entrance of which bears from the Gurnet lights E. 1/2 S. about 10 miles. It is bold to, and, unless it be very dark, you may see the sandy hills before you can get on shore.

CAPE COD to BOSTON.—From about a league off Cape Cod, your course to Boston light-house is N.W. by W. 1/2 W., and the distance 13 leagues. The light-house, which is 82 feet high, stands on a small island at the north side of the entrance of the channel. The light, which was formerly fixed, is now revolving, on the improved plan: it appears brilliant 40 seconds, and is obscured 20 seconds, alternately. It may be seen 9 or 10 leagues off. When you make the light with a fair wind, bring it to bear W. by N. or W.N.W., then steer for it until you are within two cables' length distance: come no nearer to it, but run in until it bears N. by E.; you may then steer W. by S. about 1 1/2 mile, for Nantasket Road, where, if the weather be so bad as to prevent your getting a pilot from the island, you may anchor, and ride in safety.

If the wind be contrary, you may stand to the southward till you bring the light to bear W.N.W., and to the northward till it bears W.S.W., until you come within 3 miles of it; then you must not stand to the northward any further than to bring the light to bear W. by N. nor to the southward than till it bears W.N.W.; you may safely anchor in the bay, if the wind be off the shore.

From Cape Anne to Boston light-house, your course is S.W., and the distance nearly 8 leagues. The light-houses at CAPE ANNE stand on Thatcher's Island; when they are lighted, they show a red light.

CAPE COD is low sandy land, Cape Anne is middling high, with many trees on it, and is famous to be distinguished by a red light, which appears like a boat bottom upwards. The hills are bold to the south of Hatter Point.

The entrance of Boston Harbour lies between the Light-house Island on the north and Point Alderton with Nantasket Heights, on the south. Two huts are erected near the light-house, with accommodations for shipwrecked seamen, and a cannon is mounted to ward off the enemy's boats. On the north side of the huts stands one of the huts erected by the Humane Society, which is used for the reception of the sick and wounded.

The entrance of these light-houses are 20 feet above the sea, and the lights may be seen 7 or 8 leagues off.

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The entrance of these light-houses are 20 feet above the sea, and the lights may be seen 7 or 8 leagues off.

bear S. by W. $\frac{1}{2}$ W. from you, they are on with each other. To go clear without Thatcher's Island Ledge, you must keep about 3 miles distant from the light-house. In thick weather, a gun will be fired from the light-house, to answer any signal which may then be made.

Note: When you proceed from Cape Cod to Boston Bay, with a flood-tide, you should sheet about one point to the northward of the course already described, because the flood sets into Barnstable Bay. This precaution is the more necessary when the wind is northerly. Similar care is requisite in steering from Boston Bay to Cape Cod.

Until you advance to within two leagues of Boston Light-house, you shoalen your water from 35 to 19 fathoms. The soundings are irregular. On the Cape Anne shore the bottom is rocky; but, towards Cape Cod, it is of fine sand.

On the days of the full and change of the moon, it is high water off Boston Light-house at ten o'clock. It flows off the town till a quarter of an hour past eleven. The spring-tides rise 16 feet perpendicularly; neap-tides, 12 feet.

TO SAIL IN DURING THE NIGHT, OR TURN WITHIN THE LIGHT-HOUSE ANCHORAGE.—Coming from sea in the night, bring the light-house to bear West, and steer for it, observing to incline your course southerly as you approach, in order to give a berth of two cables' length to the Light-house Island. When you are abreast of the light, shape your course West, until it bears from N.N.E. to N.E. Here, if not acquainted with the harbour, you may anchor till day-light. With the wind between the S.W. and N.W. quarters, a ship may, in great safety, turn up within the Light-house anchorage, taking care not to stand farther southward than to bring the light-house to bear W.S.W., nor farther northward than N.N.W.

BOSTON HARBOUR.—Off the entrance of the harbour is a small shoal, called the *Old Bank*, which lies E. by S. nearly three miles from the light-house, and in the fair-way of the harbour, with Point Alderton and the north sides of the two islands within it nearly in a line, W. $\frac{1}{2}$ S., and the S.W. ends of the two outer islands on the north side, † in a line, bearing N.W. $\frac{1}{2}$ W.

On the South, or larboard, side of the entrance, are *Harding's Rocks*, a cluster steep-to, and which lie at the distance of $2\frac{1}{2}$ miles S.E. from the light-house. At low water the largest rock shows itself about twenty feet long and four feet high. It is surrounded by smaller blind rocks, extending about 140 fathoms on all sides. The marks for the largest are the S.W. point of the Light-house Island and western point of Great Brewster Island in one, and Nahant Rock, nearly N. by E. a small ship's length open with the S.W. end of the rocks called the *Graves*. † A *white buoy* is now laid on the N.E. side of the Hardings, which is, on entering, to be left on the larboard hand.

Alderton Shoal extends in a northern direction from the bluff head of Point Alderton, on the South side, and about one-third over. There is a *red buoy* on the outer part of this shoal, which bears from the white buoy of the Hardings N.W. by W. $\frac{1}{2}$ W. one mile and a half.

The *Egg Rocks* are a cluster, above water, on the north side, at the distance of half a mile E. by N. from the light-house.

The *Beacon* on the S.W. end of the Spit of Great Brewster Island stands at the distance of a mile and a quarter W. $\frac{1}{2}$ S. from the light-house. It marks the entrance of the *NARROWS*, which lie between Lovell's Island on the East, and George's Island, with Gallop and Nick's Mate Islands, on the West.

The *Centurion*, a rock of eleven feet at low water, lies at nearly half a mile S. $\frac{1}{2}$ W. from the beacon, and is left, on entering the Narrows, on the West or larboard side. It lies with the S.E. points of Great Brewster and outward Brewster Isles in a line, and one-third of Nick's Mate Island shut in with the east side of George's Island.

From the S.E. side of George's Island a rocky bank extends to the distance of more than a quarter of a mile, and has on its extremity a *black buoy*. The entrance of the *Narrows* lies between this buoy and the *Beacon Point*.

* Nantasket and Puttock Isles.

† Outward Brewster and Green Island.

‡ The Graves are described hereafter.

On *Nick's Mate Island*, at the other end of the Narrows, upon the western side, is a *beacon*, or monument; and upon the northern part *Long Island*, nearly a mile to the westward of *Nick's Mate Island*, is a *light-house*, lighted with ten patent lamps, elevated on a tower of twenty feet, with a lantern seven feet in height.

SAILING DIRECTIONS.—On coming inward, direct from the East, for Boston Harbour, the proper parallel, if it can be kept, is $42^{\circ} 20'$ N. The *Cod Bank*, already described, lies in $42^{\circ} 19' 40''$. If a ship should happen to fall to the southward of the harbour, especial care must be taken to avoid the *Cohasset Rocks*, which lie at some distance from the land, five miles to the south-eastward of Point Alderton. Of these rocks, the outer one, called *Minor's Rock*, has a black buoy on it, which lies in five fathoms. From this buoy the course to Boston Harbour is N.W., distance two leagues. In running thus, you will pass the white buoy on *Harding's Rocks*, and may thence haul up to the westward, passing between the *Light-house Island* and the red buoy on *Alderton Shoal*.

From the middle of the *Light-house Channel* steer W. by N. one mile, to the *beacon* on the *Spit*, to which you may approach within one quarter of a cable's length, leaving it on the starboard hand, while the *Centurion Rock* and black buoy on the shoal ground of *George's Island* are left on the larboard. Having thus entered the Narrows, the course up to *Gallop Island Point* is N.W. by N. three quarters of a mile; and thence through, by *Nick's Mate*, N.N.W. half a mile. The *beacon* on *Nick's Mate* may be left on the larboard hand, at the distance of a cable's length.

From *Nick's Mate*, the course for *Castle Island*, through the main channel, is W. by N. three miles. In running thus you will first leave a *white spar buoy* on the *Lower Middle Ground* upon the starboard hand, which buoy is a mile below *Castle Island*. * You will next see a *white buoy* upon the *Castle Rocks*, which lies in two fathoms, on the larboard.

When abreast of the *Castle*, steer N.N.W. one quarter of a mile, to clear the *Upper Middle Ground*, which has a black buoy on it, in two fathoms, to be left on the larboard hand. Should this buoy happen to be taken up, run N.N.W. until the two northernmost steeples in *Boston* are a handspike's length open; a course then N.W. by W. $2\frac{1}{2}$ miles, will bring you up to the town.

BROAD SOUND, BOSTON.—Broad Sound is the northern entrance of *Boston Harbour*, but is not a proper channel for large vessels. Without its entrance are the *Graves*, a cluster of rocks appearing white, and which lie in latitude $42^{\circ} 22' 30''$; these may be left on the larboard hand, at the distance of two cables' length: bring them to bear S.E., and run on S.W. by W. This course, for four miles, leads up to the *light-house* on the north point of *Long Island*, described above.

But observe that, between the *Graves* and *Long Island*, there are several ledges, particularly the *Devil's Back*, the *Barrel*, and *Aldridge Ledge*, besides the *Ram's Head Bar*, stretching from the north end of *Lovell's Island*, and the *Faun Bar*, stretching from *Deer Island*, on the opposite side. The outer reefs are the *Barrel* and *Devil's Back*; near the first is a black buoy with a white vane, which is moored about 7 fathoms N.E. from the rock, in $3\frac{1}{2}$ fathoms of water, at about 2 miles W. by S. from the body of the *Graves*; W.N.W. from the house on *Green Island*, and with *Long Island Head* S.W. $\frac{1}{2}$ W. nearly $2\frac{1}{2}$ miles.

The *Devil's Back* is distinguished by a red buoy, which lies in 4 fathoms, and is to be left on the larboard side. On the *Ram's Head Bar* is a black buoy, in 15 feet of water (larboard); and, on the N.E. point of *Faun Bar* is a white buoy, which is to be left on the starboard side. The last lies in $2\frac{1}{2}$ fathoms, with *Long Island Head Light* bearing S.W. *Aldridge's Ledge* lies nearly in mid-channel between the *Ram's Head* and the N.E. end of *Faun Bar*; there is a channel of 3 fathoms on each side. Here you enter the main channel to *Boston*.

SALEM HARBOUR.—The entrance of *Salem Harbour* is distinguished by two light-houses on *Baker's Island*, near the middle of the entrance; these lights are 40 feet asunder, and bear, when in a line, N.W. $\frac{1}{2}$ W.

The *American Coast Pilot* also says, The *Lower Middle Ground*, which lies on the north side of the channel, a little above *Spectacle Island*, and which is, in part, dry at low water, has on its eastern part a red buoy, and on the western part a black buoy, in two fathoms; to be left on the starboard hand.—(10th Edit. p. 166.)

† It is to be noticed that, during the winter season, the upper buoys of *Boston Harbour* are taken up.

The light-house is on the south side of the principal entrance to Salem Harbour, and is situated on the eastern side of the Cove of Salem. This water is deep near the island, and there is no convenient landing-place. The north and east sides are high and rocky. The bases of the light-houses are about 45 feet above the level of the sea. The tower is light-house, which is towards the north, is 25 feet high in the upper part. The high tower is 10 feet high, and is built of brick. It is surrounded by a wall, and is situated on a high point of land. It is bounded into this harbour, and you fall in with Cape Anne, supposing Cape Anne on light-house. It is about 2 miles distant from the coast, and you will be W. S. W. about 1/2 leagues, then W. by N. 2 miles, which will bring you in sight of the light-house Baker's Island.

Should you fall in to the southward, when proceeding for the lights, you should do so soon as you have made them, bring and keep the northern or lower light in the line of sight of the other, and thus run for them: this will carry you to the eastward, and clear of the south breaker of Baker's Island, which is very dangerous.

Should the wind be westerly, when beating up, you should not stand to the southward or westward farther than to shut one light in with the other; otherwise you will be in danger of the south breaker, above mentioned; neither stand to the northward farther than to bring the lights W. by S. & S. or you will be in danger of *Castle Ledge*, a ledge which bears from the lights N.E. by E. one mile and three quarters distant.

The Common or Ship Channel into Salem is between Baker's Island and Misery Island. It is about a mile wide; and you may, so soon as you are up with Baker's Island, pass within 100 fathoms of it, and steer W. by N. for the *Haste*, a broken rock above water, which lies near the middle of the channel, with Baker's Island W. by N. 2 1/2 miles; and at 1/2 mile from Baker's Neck. This course will lead clear to the northward of *Misery's Rock*, a ledge covered at high water, and to the northward of *Bowditch's Ledge*.

From mid-channel, between Baker's and Misery Islands, you may steer W. N. W. till you have passed *Bowditch's Ledge*, or until *Cat Island* comes open to the westward of *Eagle Island*; then haul up for the *Haste*, above mentioned.

You may anchor safely in 5 fathoms; but, to proceed farther, pass the *Haste* in the distance of about half a mile on the larboard, and steer S.W. by W., which will carry you to the harbour. Observe, however, that a rocky ledge stretches from the N.E. end of *Water Island*, and that a rock, called *Abbot's Rock*, lies abreast of it, to avoid which keep a quarter of a mile from shore. This rock has 7 feet over it at low water, and is found by bringing *Castle-hill* and house into the cove north of *Port Pickering*, and *Beverly Meeting-house* well in with *Juniper Point*, the S.E. point of *Salem Neck*.

Be cautious, when keeping off shore, in order to avoid *Abbot's Rock*, that you do not go too far to get on the *Aqua-vitæ*, sunken rocks lying E.S.E. nearly half a mile from *Port Pickering*.

Should you when coming from the south-eastward, find yourself near the *Half-way Rock*, you may bring it S.E., and steer N.W. for the *Haste*, passing near the *Sutton or Black Rock*. The latter is above water, steep-to, and bears S.W. by S. 1/2 mile from *Black Rock*.

On the S.E. part of these breakers is a spar buoy, painted black, and which bears from the lights on the island S.S.E. 1/2 E. 2 1/2 miles.

Head's Rocks, now distinguished by a beacon, lie W. & N. from Baker's Island lights, distant five eighths of a mile. The rocks appear at half-tide. On *Bowditch's Ledge* is a black spar buoy, bearing from Baker's Island W.N.W. one mile and a quarter distant.

Cat Island is about S.W. by W. a mile and a half from Baker's Island, and a mile from *Marblehead Neck*, ranging nearly between the two. On its N.W. end is a high beach, directly opposite the point of *Marblehead*, called *Peach's Point*. The shore is irregular and rocky. On the southern side of the island are three high rocks, two of which are connected with the island by bars of sand, uncovered at low water; the other stands boldly up between these two, but more southerly. The *Marblehead Marine Society* has erected on *Cat Island* Rock a spar 40 feet high, to the top of which is attached a cable of about 150 fathoms, and which is a useful mark from sea.

The *Half-way Rock*, about 150 feet in diameter, 40 feet high, and bold-to, lies to the east of *Marblehead*, about 2 1/2 miles from the nearest land, and half way between the light-house at *Boston*, and *Chatham's Island*. On this rock a pyramidical monument or beacon has been erected, the stone-work of which is finished with a base of 10 feet in diameter, the upper part is a sphere 15 feet high, on which is a copper ball, two feet in diameter.

Baker's

Baker's Island, is to be seen from the harbour, and the *Brimbles* and *Eagle Island* to the starboard. By continuing this course you will be in the track of the harbour, and enter the *Ship Channel*; whence proceed as above directed. Common tides rise about 12 feet; and the level of the water is to be avoided.

MARBLEHEAD HARBOUR.—Vessels bound to Marblehead, sailing to the southward, and running for the lights on Baker's Island, after making them, must keep the north and lower one open to the eastward of the southern light, and run for them, which will carry them to the starward, and clear of the south breakers off Baker's Island, which bear from the lights from S. E. $\frac{1}{2}$ S. to S. S. E. $\frac{1}{2}$ E. distant two miles.

Having made the lights, with a westerly wind, and beating, when within $\frac{1}{2}$ mile of them, you may not stand to the southward and westward so far as to shut the northern light with the southern one, on account of the south breakers; nor to the northward farther than to bring the lights to bear W. S. W. $\frac{1}{2}$ W. on account of Gale's Ledge, which bears from the lights N. E. by E. distant $\frac{1}{2}$ mile.

Drawing near the lights, take care to avoid the ledge, called the *Whale's Back*, which bears from the lights N. by E. distant four-fifths of a mile.

On going into Marblehead, and being up with the lights, give the north point of Baker's Island a berth of one-quarter of a mile, or less. Having the lights in a line, you will be up with the point. When the south light is open with the north light, you have then passed the point, (leaving *Misery Island* on your starboard hand, which bears from the lights N. W. $\frac{1}{2}$ N. four-fifths of a mile). Then steer S. W. by S. or S. S. W. until you bring the south light to bear N. E. by E. $\frac{1}{2}$ E., then steer S. W. by W. or W. $\frac{1}{2}$ W. three miles; for Marblehead Harbour. You will leave Hardy's Rocks, Eagle Island, and Gray's Rocks, on the starboard hand; Pope's Head, Brimbles, and north point of Cat Island, on the larboard hand. The Brimbles bear from Eagle Island S. S. E. $\frac{1}{2}$ E. distant half a mile; and Gray's Rock, from the north point of Cat Island, N. W. by W. seven-eighths of a mile.

Falling in with the south point of Baker's Island, and it blowing hard from the eastward, if you cannot avoid it, you may pass the point by keeping it well on board, say at the distance of from 20 to 50 fathoms from the shore, where you will have from 4 to 5 fathoms of water. When up with the S. W. point, steer W. S. W., which will carry you between the North, Gooseberry and Pope's Head, leaving the former on your larboard hand, and Pope's Head on your starboard hand, between which you will have from 4 to 5 fathoms of water. So soon as you have passed Pope's Head, haul to the northward, until the south light bears N. E. by E. $\frac{1}{2}$ E., then steer S. W. by W. $\frac{1}{2}$ W. for Marblehead Harbour.

Vessels coming from the eastward, and running for Half-way Rock, now distinguished by its beacon, must not bring the rock to bear to the southward of W. S. W., to avoid the south breaker, which bears from Half-way Rock N. E. $\frac{1}{2}$ E. distant one mile. Being up with Half-way Rock, and bound into Marblehead, bring the rock to bear E. S. E. $\frac{1}{2}$ E. and steer W. N. W. $\frac{1}{2}$ W. for Port Head, distant 3 miles, leaving Cat Island on the starboard hand, which bears from Half-way Rock W. N. W. distant $\frac{1}{2}$ mile; and Marblehead Rock on the larboard hand, which bears from Half-way Rock W. $\frac{1}{2}$ N. distant 2 miles. Black Rock bears from Half-way Rock N. W. by W. distant $\frac{1}{2}$ mile. Cat Island Rock and Point Neck bear east and west of each other, distant about one mile.

Vessels, being up in Boston Bay, may, by bringing the Boston light to bear S. S. W. run N. N. E. for Marblehead Rock; they are distant from each other about 12 miles. Half-way Rock and Boston light bear from each other S. W. and N. E. distant 15 miles.

Note.—The *Whale's Back* is covered at high water, and may be seen at quarter-ebb. Gale's Rocks are seen only at low spring-tides. The south breakers off Baker's Island

The *Brimbles* are broken rocks, bare at low water; near them is a spar buoy, painted red, which is seen out of water at half-ebb.

Marblehead Rock bears S. W. about three-quarters of a mile, from the western part of Cat Island. It is above water, and may be approached to a short distance without danger. On the rock is a monument, of beach, painted white at the bottom and black at the top; it is about 8 feet in the base, and 15 in height. The course and distance from Half-way Rock to Marblehead Rock is W. N. W. $\frac{1}{2}$ W. 3 miles, leaving the beacon on Cat Island Rock on the starboard hand, and the monument on Marblehead Rock on the larboard side. The monument bears from the beacon W. S. W. $\frac{1}{2}$ W. seven-eighths of a mile.

Baker's

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are always covered. The *Black Rock* is always out of water, but by *Cat Island Rock*, *Half-way Rock*, *Marble-head Rock*, *Gray Rock*, and *Poppe's Head*, are large, and high above water. *Half-way Rock* is very bold all round it. *Bayle Island* is bold only on the south and east from the N.E. part of it, quite to *Hardy's Rocks*, is very shoal water, and no passage for ships.

BEVERLEY and MANCHESTER.—To enter the harbour of Beverley, follow the directions for Salem Harbour, till you bring the *Haute* to bear E. S. E., and run W. N. W. about 2 miles, and you reach *Beverley Bar*, which is a spot of sand running out from the southern or Salem side of the entrance, and has commonly a beacon upon the head of it, above a quarter of a mile from the shore. The bar has very shoal water on the eastern or outward side, near it, but good anchorage within. There is good water at the head of the bar. Having passed the bar, there is a sandy point from the Beverley or northern side of the entrance; and beyond this point are the *Lobster Rocks*, which bear from the head of the bar W. a little S., and not half a mile distant, and they are above water at half tide. To avoid this point, after having well cleared the bar, you will steer towards *Ram-horn Rock*, which has also commonly a beacon, and is to be seen, at half-tide, bearing S. W. by S. from the head of the bar, one-eighth of a mile distant. There are several fathoms of water within a vessel's length of *Ram-horn Rock*. Giving this a good berth, you then clear the sandy point, and steer for the *Lobster Rock* beacon, bearing from *Ram-horn* beacon N. W. by W. distant about one quarter of a mile. Giving this a good berth, you are then opposite to the wharfs, and may anchor in deep water, and in a very safe and excellent harbour.

To enter *Manchester Harbour* you must bring the southern light to bear S. $\frac{1}{2}$ E., and run North one mile distant, where you may anchor on good bottom.

N. B. *Eastern Point* bears from *Baker's Island* lights E. by N. $\frac{1}{2}$ N. $7\frac{1}{2}$ miles distant. *Half-way Rock* bears from the lights S. 2° E. 3 miles distant. *Hardy's Rocks* bear from the lights W. $\frac{1}{2}$ N. distant three-quarters of a mile.

LIGHTHOUSES OF CAPE ANNE.—There are two lighthouses, already noticed, on *Thatcher's Island*; an island which contains about 30 acres of land, secured by an iron-bound shore, and situate at about a mile to the east of the main land of *Cape Anne*; or, more properly, of *Anne's Island*. *Thatcher's Island* affords no harbour, nor is there any safe anchorage very near it; there is, indeed, a passage between it and the main, through which small vessels may pass, even at low tide; but the water is shoal, and the bottom is covered by large stones. So soon as the lights are discovered by the mariner, he may be certain of his situation: for, being two separate lights, they cannot be mistaken for the single light of *Boston*, or of *Cape Cod*, or for the *Plymouth lights*, which are double, but within a very short distance from each other, because the distance between the lights on *Thatcher's Island* is about one-fourth of a mile; the latter can be brought to range in one only in a S. by W. and N. by E. direction; while those of *Plum Island*, (*Newbury Port*), when in a line, bear W. by S. and E. by N. The *Plymouth lights* cannot appear so arranged from the north until you are on the shore, and from the south only when nearly in with the land. The lights of *Cape Anne* are therefore of great utility to all vessels in their passage in or out; as they at once serve to point out the situations of the *Salvages* and *Londoner*, and for a point of departure to vessels bound coastwise or to sea. The latitude of *Thatcher's Island* is $42^{\circ} 27'$, the longitude $70^{\circ} 33'$.

CAPE ANNE HARBOUR is nearly 5 miles to the eastward of *Manchester*, and six miles southwestward from the *Lighthouses* of *Cape Anne*. The entrance is a mile and a half broad, between the *East Point* and ledge, on one side, and the high land called *Norman's Woods*, on the other. In advancing to this place, from the eastward, you will have *Cape Anne lights* in one, when bearing N. by E. 4° E.; and, if two miles from them, with that bearing, your course to the harbour will be nearly W. S. W. a league and a half. On falling in with the point give it a berth of about a mile. You will now see a light-house on an islet up the harbour, called *Ten Pound Island*. This light-house has its base about 25 feet above the level of the sea, and the tower is 20 feet high. With this light-house bearing N. N. E. you will be to the westward of the ledge extending from the eastern shore, and may steer directly towards it, which will carry you between the ledge and a small ledge of 6 feet, which bears from it S. W. 3° about two-thirds of a mile.

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Passing

Passing between the island and the ledge, you will find from 13 to 16 feet of water; low tide. The ground on the east side of Ten Pound Island is hard, and here is a safe passage. The south, west, and north sides are bold, and may be approached as low water within 10 fathoms. By giving the west end of the island a berth of from 50 to 70 fathoms, the course for the inner harbour is N. E. by N. You may anchor at any distance, from 100 fathoms to three-quarters of a mile from the island, with the light bearing from South to S. W. The depths are 6, 5, 4, and 3 fathoms, at low spring-tides; the bottom muddy. The inner harbour is land-locked with all wind.

In the outer part of the harbour there is safe and good anchorage against a northerly breeze, with, in 7 to 8 fathoms, muddy bottom, the light-house bearing S. E. by S. In the S. E. Harbour there is similar anchorage, with the light from N. by E. to N. N. W.; the depths 9 to 6 fathoms; distance from the light one-eighth to half a mile.

Bearings of several Ledges, &c. from the Light-house on Ten Pound Island.

The Ledge extending from the eastern point bears from the Light S. by W. $1\frac{1}{2}$ W. about 2 miles, and has over it from 6 to 10 feet of water. Its extent is about half a mile. A single rock lies about midway between the eastern point and Norman's Woe, called the *Round Rock*; and has 12 feet over it at low spring-tides. It bears from the Light S. W. $1\frac{1}{2}$ S. about 30 fathoms off from Norman's Woe is a large high rock, 20 to 30 fathoms in diameter; and, at about 100 fathoms off this rock, in a southerly direction, is a ledge that has only 7 or 8 feet of water on it, at low ebbs.

At about a quarter of a mile off from Freshwater Cove lies a ledge of only 3 feet, which bears from the Light W. & N. (*American Directions; omitting some particulars which appear to be erroneous.*)

BOSTON BAY to CAPE COD, &c.

THE PRECEDING PAGES have been given the general directions for sailing from Cape Cod to Plymouth, with particular directions for Plymouth; also those for Boston; Salem, Marblehead, Beverley, Manchester, and Cape Anne: we, therefore, now proceed to the southward, &c.

SCITUATE, &c.—About half-way between the harbours of Boston and Plymouth is the township of SCITUATE, having a little harbour with a light-house; the latter is said to have been erected, more especially, for the use of foreign vessels, which were formerly apt to fall into the dangerous bay to the northward, and upon the Cohasset Rocks. The light-house is erected on Cedar Point, which makes the north chop of the harbour; the first cliff, so called, making the south chop. There are four of these cliffs extending towards the north, the southernmost of which is the highest. There is only one light, and it is fixed; it cannot, therefore, be mistaken for Boston light, to the north, which is revolving, nor for Plymouth, which exhibits two lights. The harbour is small, having only about 12 feet of water on the bar at high water, middling tides.

From the body of the light-house, the northerly part of Cedar Point, and a ledge called Long Ledge, extend N. N. W. nearly one mile; so that vessels falling in a little more than one mile northward of the light, may bring the light to bear south; and, by making good their course north, they will clear the outer ledges of Cohasset Rocks. Half a mile east of the body of the light will clear Cedar Point, Long Ledge, and the First Cliff Ledge. Ledges extend from all the four cliffs, but none between; and half a mile from shore will clear all, except in frigates and large vessels.

A S. S. E. course from the body of the light will clear the point called Branches Point; consequently, if the light has a proper berth, there can be no danger in steering in that direction.

There is a passage within Cohasset Rocks, used by coasters, which is found by giving the light a berth of half a mile, and running N. W. by N. to the southerly entering rock.

At about two miles W. by N. from the light is a meeting-house, and near the N. W. side of the harbour is a farm-house, with two large barns at a little to the north. To enter the harbour, the mouth of which is about one-third of a mile broad, bring the meeting-house or farm-house to bear about W. by N. from the middle of the entrance, and run in, on that direction, for the farm-house, until you have passed the bar, which is a hard bed of stones and gravel, that does not shift; and, after passing the bar, and coming on sandy bottom, haul up and anchor near the beach, on the south side of the harbour.

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Passing

PLYMOUTH HARBOUR.—The directions for this harbour have been already given on pages 128, 129.

CAPE COD, &c.—Cape Cod is the northern part of the peninsula of Barnstable, and is called Nantuxet; and now commonly that of Cape Cod. On the back of the Cape is Provincetown, distinguished by its useful harbour, which has depth of water for any ships. On its extremity, called Race Point, is a small light-house, and there is a lagoon, called that of the Clay Ponds, more to the S.E. The inhabitants depend, chiefly, on the cod-fishery for subsistence.

The **LIGHT-HOUSE** of the **CLAY PONDS**, in latitude $42^{\circ} 3'$, and longitude $70^{\circ} 3'$, is erected on land elevated about 150 feet, which, with the elevation of the lantern, makes the whole height 300 feet above high-water mark. The light, which was formerly revolving, is now fixed.

If outward-bound from Boston light-house, and you would wish to fall in with Cape Cod, the course is E.S.E. 13 leagues; thence 3 leagues to the light-house. When off with the light-house, and it bears S.W. 2 leagues, you may thence steer to the S.

If inward-bound, and you want to fall in with the back of Cape Cod, bring the light to bear S.W. 2 leagues distant; then steer W.N.W. for Boston light-house.

The **LIGHT-HOUSE** on the **RACE POINT** of **CAPE COD** was first lighted on the 5th of November, 1816. It is 25 feet above the level of the sea, and 155 feet distant from high-water mark. It is a revolving (or repeating) light, on the same principle as that of Boston, already noticed; and is, therefore, readily known from the light on the high land, which may now, with propriety, be called the **HIGH LIGHT** of **CAPE COD**. The light on Race Point cannot be seen by vessels coming from sea, until it bears S. by W. $\frac{1}{2}$ W., when they may run for it.

Race Point is very bold, and has a number of fish-houses on it. From one to three miles to the southward of Race Point, is what is called Herring Cove, where there is good anchoring half a mile from the shore, (the wind being from East to N.N.E.) in 4, or even in 3 fathoms.

In running from Race Point to Wood End, (S.S.E. 6 miles,) after you pass the black land, or hummocks, you will come up with a low sandy beach, which forms the harbour, extending between 2 and 3 miles to Wood End, which is difficult to be distinguished in the night: it is very bold: you will have 25 fathoms within half a mile from the shore.

Vessels running for Cape Cod Harbour may pass within one-third of a mile of the light on Race Point. After passing it, bring it to bear N.N.W., and run S.S.E. until the light on the high land (or high light) bears E. by N. The vessel will then be clear of Wood End Bar. Next steer N.E., to bring the high light E. $\frac{1}{2}$ S., when you may haul up N.W. for the harbour, and anchor in four fathoms.

Good anchorage may be found, during a N.E. gale, by running for the low light, giving it a berth of one-third of a mile as you pass it; and, as soon as it bears E. by N., haul up E.S.E., and anchor in from 10 to 4 fathoms.

In beating into Cape Cod Harbour, you must keep the eastern shore on board, until you get to 6 fathoms: standing no farther to the westward than to bring the high light to bear E. by S., as there is a long spit of sand running off from the western shore, which, being very bold, you will have 11 fathoms within a stone's throw of the shore.

In case it blows so hard that you cannot beat into the harbour, you will have good anchorage without, in from 10 to 15 fathoms.

At full and change, it is high water off Race Point at 10 hours and 45 minutes. On leaving Cape Cod, if bound for Boston, you must calculate the tide, as the flood sets strongly to the S.W.

The light-house of Cape Anne and the high light of Cape Cod bear from each other S.S.E. $\frac{1}{2}$ E. and N.N.W. $\frac{1}{2}$ W. distant $13\frac{1}{2}$ leagues.

PLYMOUTH HARBOUR. The distance from the head of Stout's Creek to Race Point is 1 1/2 miles.

DESCRIPTION of the EASTERN COAST of the County of Barnstable, from RACE POINT, in latitude 42 degrees 55 minutes of North Latitude, to the Cape Cod Light, in latitude 41 degrees 55 minutes of North Latitude, and thence to the head of Stout's Creek, in latitude 41 degrees 55 minutes of North Latitude. By a Member of the Humane Society. — 1804.

The eastern coast of the above, to the west side of Provincetown, and south of Race Point, is called Peaked Hill, which is 3 miles in length. There is good anchoring ground here; and vessels may ride safely in 4 or 5 fathoms of water, when the wind is from north-east to south-east.

At Race Point stand about a dozen fishing-huts, containing fire-places and other conveniences. The distance from these huts to Provincetown, which lies on Cape Cod Harbour, is 1 1/2 miles. The passage is over a sandy beach, without grass or any other vegetable growing on it; and the woods through which is a winding road to the town. It would be difficult, if not impossible, for a stranger, to find his way thither in the dark; and the woods are so full of ponds and entangling swamps, that if the road was missed, destruction would probably be the consequence of attempting to penetrate them in the night.

To ride far from Race Point commences a ridge, which extends to the head of Stout's Creek. From the neck to the east, on the left hand of the ridge is the sandy shore; on the right is a narrow sandy valley beyond which is naked sand, reaching to the hills and woods of Provincetown. This ridge is well covered with beach-grass, and appears to owe existence to that vegetable.

Beach-grass, during the spring and summer, grows about 2 1/2 feet. If surrounded by naked sand, the sprouts of autumn and winter heap up the sand on all sides, and cause it to rise nearly to the top of the plant. In the ensuing spring the grass sprouts anew; is again covered with sand in the winter, and thus a hill or ridge continues to ascend, so long as there is sufficient beach-grass to support it, or all the circumscribing sand, being also covered with beach-grass, will no longer yield to the force of the winds.

On this ridge, half way between Race Point and the head of Stout's Creek, the trustees of the Humane Society have erected a hut. It stands a mile from Peaked Hill, a land-mark well known to seamen, and is about two and a half miles from Race Point. Seamen, cast away on this part of the coast, will find a shelter here; and, in north-east storms, should they strike to the westward, and be unable to turn their faces to the windward, by passing on to Race Point, they will save time to the fishing-huts before mentioned.

At the head of Stout's Creek, the trustees have built a second hut. Stout's Creek is a small branch of East Harbour, in Truro. Many years ago there was a body of salt-marsh on it; and it then deserved the name of a creek. But the marsh was long since destroyed; and the creek now scarcely exists, appearing only like a small depression in the sand; and being entirely dry at low tide. The creek runs from north-west to south-east, and is nearly parallel with the shore on the head, from which it is at no great distance. Not far from it the hills of Provincetown, which should not be found, by walking round the head of the creek, with the boat to the west, the hills on the right hand, and keeping close to the shore on the harbour, in less than an hour the shipwrecked seaman would come to Provincetown.

The Humane Society, several years ago, erected a hut at the head of Stout's Creek, in a public building, in an improper manner, having a chimney in it, and was placed on a spot where no beach-grass grew. The strong winds blew the sand from its foundation, and the weight of the chimney brought it to the ground; so that, in January, 1802, it was entirely demolished. This event took place about six weeks before the *Brutus* was cast away. If it had remained, it is probable that the vessel and the unfortunate crew of that ship would have been saved, as they grinded the shores very rapidly, so that the spot where the hut had stood.

The hut now erected stands on a place covered with beach-grass. To prevent any such accident from happening to it, or to the other hut near Peaked Hill, the trustees have secured the attention of several gentlemen in the neighbourhood. Dr. Thaddeus Brown, and Capt. Thomas Simbley, of Provincetown, have engaged to inspect both huts, to see that they are supplied with stores of every kind necessary, and that the doors and windows are kept shut, with care, when the winds are high. The Rev. Mr. Dutton, of Truro, has also promised to visit the hut at Stout's Creek twice or thrice a year; and the Rev. Mr. Whitman, of Wellfleet, distinguished the country for his activity and benevolence, has undertaken, though remote from the place, the same charge.

From the head of Stout's Creek to the termination of the salt-marsh, which lies on both sides, and at the head of East Harbour River, the distance is about three miles and a half. A narrow beach separated this river from the ocean. It is not so regular a ridge as that before described, as there are on it one or two hills, which the neighbouring inhabitants call islands. It may, without much difficulty, be crossed every where, except over these elevations. By these hills, even during the night,

night, the beach may be distinguished from those hereafter to be mentioned. It lies from N. W. to S. E., and is in most parts covered with beach-grass. The hills have a few shrubs on the declivities next the river. At the end of the marsh, the beach subsides a little, and there is an easy passage into a valley, in which are situated two or three dwelling-houses. The first on the left hand, on south, is a few rods only from the ocean.

The shore, which extends from this valley to Race Point, is unquestionably the part of the coast the most exposed to shipwrecks. A N. E. storm, the most violent and fatal to seamen, as it is frequently accompanied with snow, blows directly on the land; a strong current sets along the shore; add to which, that ships, during the operation of such a storm, endeavour to work to the northward, that they may get into the bay. Should they be unable to weather Race Point, the wind drives them on the shore, and a shipwreck is inevitable. Accordingly, the strand is every where covered with the fragments of vessels. Huts, therefore, placed within a mile of each other, have been thought necessary by many judicious persons. To this opinion the trustees are disposed to pay due respect; and hereafter, if the funds of the society increase, new huts will be built here for the relief of the unfortunate.

From the valley above mentioned the land rises, and less than a mile from it the High Land commences. On the first elevated spot (the Clay Ponds) stands the lighthouse. The shore here turns to the south; and the High Land extends to the Table-Land of Eastham. This High Land approaches the ocean with steep and lofty banks, which it is extremely difficult to climb, especially in a storm. In violent tempests, during very high tides, the sea breaks against the foot of them, rendering it then unsafe to walk on the strand, which lies between them and the ocean. Should the seaman succeed in his attempt to ascend them, he must forbear to penetrate into the country; his houses are generally so remote that they would escape his research during the night; he must pass on to the valleys, by which the banks are intersected. These valleys, which the inhabitants call Hollows, run at right angles with the shore; and, in the middle, or lowest part of them, a road leads from the dwelling-houses to the sea.

The first of these valleys is Dyer's Hollow, one mile and a half south of the lighthouse. It is a wide opening, being two hundred rods broad, from summit to summit. In it stands a dwelling-house, at a quarter of a mile from the beach.

A mile and a half south of Dyer's Hollow is a second valley, called Harding's Hollow. At the entrance of this valley the sand has gathered, so that, at present, a little climbing is necessary. Passing over several fences, and taking heed not to enter the wood on the right-hand, at the distance of three-quarters of a mile, a house is to be found. This house stands on the south side of the road; and, not far from it, on the south, is Pamet River, which runs from east to west through a body of salt-marsh.

The third valley, a half of a mile south of Harding's Hollow, is Head of Pamet Hollow. It may with ease be distinguished from the other hollows mentioned, as it is a wide opening, and leads immediately over a beach to the salt-marsh at the head of Pamet River. In the midst of the hollow the sand has been raised by a brush fence, carried across it from north to south. This must be passed, and the shipwrecked mariner will soon come to a fence which separates what is called the road from the marsh. If he turns to the left hand, or south, at the distance of a quarter of a mile, he will discover a house. If he turns to the right hand, at the distance of half a mile, he will find the same house which is mentioned in the foregoing paragraph.

The fourth opening, three quarters of a mile south of Head of Pamet, is Brush Valley. This hollow is narrow, and climbing is necessary. Entering it, and inclining to the right, three-quarters of a mile will bring seamen to the house, which is situated at the Head of Pamet. By proceeding straight forward, and passing over rising ground, another house may be discovered, but with more difficulty.

These three hollows, lying near together, serve to designate each other. Either of them may be used, but Head of Pamet Hollow is the safest.

South of Brush Valley, at the distance of three miles, there is a fifth opening, called Newcomb's Hollow, east of the head of Herring River, in Wellfleet. This valley is a quarter of a mile wide. On the north side of it, near the shore, stands a fishing-hut.

Between the two last valleys the bank is very high and steep. From the hedge of it, west, there is a strip of sand a hundred yards in breadth. Then succeeds low brushwood, a quarter of a mile wide, and almost impassable. After which comes a thick perplexing forest, in which not a house is to be discovered. Seamen, therefore, though the distance between these two valleys is great, must not attempt to enter the wood, as, in a snow-storm, they would undoubtedly perish. This place, so formidable in description, will, however, lose somewhat of its terror, when it is observed, that no instance of a shipwreck on this part of the coast is recollected by the oldest inhabitants of Wellfleet.

Half of a mile south of Newcomb's Hollow is the sixth valley, called Pearce's Hollow. It is a small valley. A house stands at the distance of a little more than a quarter of a mile from the beach; W. by S.

The seventh valley is Cohoon's Hollow, a half of a mile south of Pearce's Hollow. It is not very wide. West from the entrance, several houses may be found at the distance of a mile. This hollow lies E. by N. from Wellfleet meeting-house.

Two miles south of Cohoon's Hollow, the eighth valley is Snow's Hollow. It is smaller than the last. West from the shore, at the distance of a quarter of a mile, is the county road, which goes round the head of Blackfish Creek. Passing through this valley to the fence, which separates the head from the upland and marsh at the head of the creek, a house will immediately be found, by turning to the right hand, or north. There are houses also on the left, but more

The High Land gradually subsides here, and, one mile and a half south, terminates at the ninth valley, called Fresh Brook Hollow, in which a house is to be found, a mile from the shore, west of the head of Fresh Brook.

Ten miles and a half south from Fresh Brook Hollow is Plum Valley, about three hundred yards wide. West is a house, three quarters of a mile distant.

Between these two valleys is the Table Land.

After this there is no hollow of importance to Cape Malabar.

From Fresh Brook Hollow to the commencement of Nauset Beach, the bank next the ocean is about sixty feet high. There are houses scattered over the plain open country; but none of them are nearer than a mile to the shore. In a storm of wind and rain, they might be discerned by daylight; but, in a snow-storm, which rages here with excessive fury, it would be almost impossible to discover them either by night or by day.

Not far from this shore, south, the trustees have erected a third hut, on Nauset Beach. Nauset Beach begins in latitude 41 deg. 51 min., and extends south to latitude 41 deg. 41 min. It is divided into two parts, by a breach which the ocean has made through it. This breach is the mouth of Nauset or Stage Harbour; and, from the opening, the beach extends north two miles and a quarter, till it joins the main land. It is about a furlong wide, and forms Nauset Harbour, which is of little value, its entrance being obstructed by a bar. This northern part of the beach may be distinguished from the southern part by its being of a less regular form. Storms have made frequent interruptions through the ridge, on which beach-grass grows. On an elevated part of the beach stands the hut, about a mile and a half north of the mouth of Nauset Harbour. Eastward meeting-house lies from it W.S.W. distant a mile and three-quarters. The meeting-house is without a steeple; but it may be distinguished from the dwelling-houses near it by its situation, which is between two small groves of locusts, one on the south and one on the north, that on the south being three times as long as the other. About a mile and a quarter from the hut, W. by N., appear the top and arms of a windmill. The Rev. Mr. Shaw and Elisha Mayo, Esq., of Eastham, have engaged to inspect this building.

The southern part of Nauset Beach, most commonly called Chatham Beach, and by a few persons Potanumaquut Beach, begins at the mouth of Nauset Harbour, and extends eight or nine miles south to the mouth of Chatham Harbour. It is about fifty rods wide. A regular well-formed ridge, which, in the most elevated part of it, is forty feet high, runs the whole length of it; and, with the exception of a few spots, is covered with beach-grass. This beach forms the barrier of Chatham Harbour, which, from Strong Island, north, receives the name of Pleasant Bay. A mile south of the entrance of Nauset Harbour it joins the main land of Orleans, except in very high tides, when the sea flows from the north-eastern arm of Pleasant Bay into the harbour of Nauset, completely insulating the beach. By those who are acquainted with the shallow, it may be safely forded at any time; but strangers must not venture to pass it when covered with water, as below the channel is seven feet deep. On this beach, about half-way between the entrances of Nauset and Chatham Harbours, the trustees have erected a fourth hut. The spot selected is a narrow part of the beach. On the west, the water adjoining it is called Bass Hole. Southward is north and south of it next the beach, but it is here interrupted. Orleans meeting-house lies from it N.W. The meeting-house is without a steeple, and is not seen; but is very near a windmill placed on an elevated ground, a conspicuous object to seamen coming on the coast. It may be necessary to add, that there are three windmills in Orleans, forming a semi-circle; that the mill referred to is on the right hand, or N.E. point; and that the mill in the middle point of the semi-circle stands on still higher ground. The meeting-house of Chatham is situated from it S.W. This meeting-house is also without a steeple, and is concealed by Great Hill, a noted land-mark. The hill appears with two summits, which are a quarter of a mile apart. The hut lies east from Sampson's Island, in Pleasant Bay. Timothy Bascom, Esq., of Orleans, has undertaken to inspect this hut.

Let seamen should miss this hut, by striking to the leeward of it, the trustees have erected another on the same beach. It stands a mile north of the mouth of Chatham Harbour, east of the meeting-house, and opposite the town.

Another spot on the same beach would be a proper situation for a hut. It is north of the fourth hut, and east of the middle of Pochet Island. The highest part of the ridge is near it, southward. A break in the ridge, over which the sea appears sometimes to have flowed, divides this high part from the northern portion of the beach.

On the beach of Cape Malabar, or the Sandy Point of Chatham, the trustees have built a sixth hut. This beach stretches from Chatham, ten miles into the sea, towards Nantucket; and is from a quarter to three quarters of a mile in breadth. It is continually gaining south: above three miles have been added to it during the past fifty years. On the east side of the beach is a curve in the shore, called Stewart's Bend, where vessels may anchor with safety, in 3 or 4 fathoms

of water, when the wind blows from N. to S.W. North of the Bend there are several bars and shoals. A little below the middle of the beach, on the west side, is Wreck Cove, which is navigable for boats only. The hut stands two hundred yards from the ocean, S.E. from the entrance of Wreck Cove, half a mile. Between the mouth of the cove and hut is Stewart's Knoll, an elevated part of the beach. The distance of the hut from the commencement of the beach is six miles, and; from its termination, four. Cape Cod, in Chatham, bears N. by W. distant six miles; and the south end of Morris' Island, which is on the west side of the beach, is distant four miles. Richard Sears, Esq., of Chatham, has engaged to visit the two last mentioned huts.

Two miles below the sixth hut is a fishing-house, built of thick, in the form of a triangle. It stands on the west side of the beach, a quarter of a mile from the ocean. Annually, in September, it is renewed; and generally remains in tolerable preservation during the winter.

Another spot, a few rods from the sea, four miles south from the commencement of the beach, and half a mile north of the head of Wreck Cove, would be a proper location for a hut. A mile south of this spot, in storms and very high tides, the sea breaks over from the ocean into Wreck Cove.

Cape Malabar Beach may be distinguished from the two beaches before described, not only by its greater breadth, but also by its being of a less regular form. It is not so well covered with grass as Chatham Beach. From Stewart's Knoll, south, to the extremity, it is lowest in the middle. In this valley, and in other low places, fresh water may be obtained by digging two feet into the sand. The same thing is true of Nauset and Chatham beaches.

The six huts, the situation of which has thus been pointed out, are all of one size and shape. Each hut stands on piles, is eight feet long, eight feet wide, and seven feet high; a sliding door is on the south, a sliding shutter on the west; and a pole, rising fifteen feet above the top of the building, on the east. Within, it is supplied either with straw or hay, and is further accommodated with a bench.

The whole of the coast, from Cape Cod to Cape Malabar, is sandy, and free from rocks. Along the shore, at the distance of half a mile, is a bar, which is called the outer bar, because there are smaller bars within it, perpetually varying. This outer bar is separated into many parts by guzzles, or small channels. It extends to Chatham; and, as it proceeds southward, gradually approaches the shore, and grows more shallow. Its general depth at high water is two fathoms, and three fathoms over the guzzles; and its least distance from the shore is about a furlong. Off the mouth of Chatham Harbour there are bars which reach three-quarters of a mile; and off the entrance of Nauset Harbour the bars extend half a mile. Large heavy ships strike on the outer bar, even at high water, and their fragments only reach the shore. But smaller vessels pass over it at full sea; and when they touch at low water, they beat over it, as the tide rises, and soon come to the land. If a vessel is cast away at low water, it ought to be left with as much expedition as possible; because the fury of the waves is then checked, in some measure, by the bar; and because the vessel is generally broken to pieces with the rising flood. But seamen, shipwrecked at full sea, ought to remain on board till near low water; for the vessel does not then break to pieces; and, by attempting to reach the land before the tide ebbs away, they are in great danger of being drowned. On this subject there is one opinion only among judicious mariners. It may be necessary, however, to remind them of a truth, of which they have full conviction, but which, amidst the agitation and terror of a storm, they too frequently forget.

LIGHTHOUSES ON THE COASTS DESCRIBED IN THE PRECEDING WORK,

With the Pages on which the respective Description may be found.

NEWFOUNDLAND; NOVA-SCOTIA, &c.

	PAGES
On the Island of St. Pierre, near Newfoundland, Harbour Light	103
Green Island, in the River of St. Lawrence, 15th of April to the 10th of Decr	104
Grand-berry Island and another on the Eastern part of Nova-Scotia	105
Sambro, Island, near Halifax Harbour Area, 270 feet	106
Corn's Island, at the Entrance of Liverpool Bay; revolving, at 90 feet	107
Cape Roseway, at the Entrance of Shelburne Harbour; revolving, at 98	108
Bryer's Island, at the Entrance of the Bay of Fundy; fixed	109
Point de la Peste, at the Entrance of the Bay of Fundy; revolving, at 100	110
Point de la Peste, at the Port of St. John; fixed, at 120 feet	111
Guinot Rock, on the South side of Grand Manan; revolving, at 140	112

COASTS

On Quoddy Head, near Penamquoddy Bay; fixed	110
Light Isles, off Nahbits Bay, Coast of Maine; fixed	112
Little Menan, near the Point of Gouldsborough; fixed	112
White Head, on the West side of Penobscot Bay; fixed	112
Franklin's Isle, off the Entrance of George's River; fixed	112
Saguine Isle, off the Mouth of the Kennebec; fixed, at 200 feet	112
Pond Island; Harbour Light in Kennebec River	112
Portland Point; for Portland Harbour, &c.; fixed, at 85 feet	112
Wood Island, in Saco Bay; revolving, at 45 feet	112
Boob Island, off Cape Neddock; fixed, at 32 feet	120
Great Island, Portsmouth Harbour; fixed, at 85 feet	120
White Island, Isles of Shoals; revolving, red, blue, bright, 3 1/2 minutes	120
Pigeon Island, South side of Newbury Port Entrance (Two); fixed	121
Annisquam or Squam Harbour, Ipswich Bay; fixed	124
The Garnet, Plymouth Harbour, Massachusetts (Two); fixed	125
Lighthouse Island, Boston Harbour; revolving, at 82 feet	126
Long Island, in Boston Harbour; fixed	131
Thatcher's Island, Cape Anne; two, at 90 feet	130, 134.
Baker's Island, Entrance of Salem Harbour; Two	131, 132.
Ten Pound Isle, in Cape Anne Harbour	134.
Cedar Point, North chop of Scituate Harbour; one fixed light	135.
Cape Cod, near the Clay Point; fixed, at 200 feet	136.
Race Point of Cape Cod; a low revolving light	136.

NEW YORK AND LONG ISLAND.—A Lighthouse has recently been erected on the South shore of Long Island, and eastern side of Fire Island Inlet, 20 miles north-eastward from Sandy Hook; first lighted 15th November, 1826. The light is revolving, and 90 feet in height above the level of the sea.

[According to *De Witt's Survey of New York*, this appears to be on **ROSWAY NAGS**, at the Entrance of Jamaica Bay.]

THE END.

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