

RARE BOOK

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THE *of the*
AMERICAN COAST PILOT;

1st ed.

1796

CONTAINING,

The Courses and Distance from *Boston* to all the principal Harbours, Capes and Headlands included between *Passamaquady* and the Capes of *Virginia*—WITH

D I R E C T I O N S

For Sailing into, and out of, all the principal Ports and Harbours, with the Sounding on the Coast—ALSO,

A T I D E T A B L E,

Shewing the time of High Water at Full and Change of the Moon, in all the above places—TOGETHER

With the Courses and Distance from *Cape-Cod* and *Cape-Ann*, to the shoal of *Georges*, and from said *Capes* out in the South and East Channel, and the setting of the current to the Eastward and Westward—

—A L S O—

The Latitude and Longitude of the principal Harbours, Capes and Headlands, &c. &c. &c.

BY CAPT. LAWRENCE FURLONG.

ALSO—Courses, Directions, Distances, &c. &c. from the *Capes of Virginia*, to the *River Mississippi*, from the latest Surveys and Observations.

(Approved by experienced Pilots and Coasters.)

THE FIRST EDITION.

PRINTED AT NEWBURYPORT, BY

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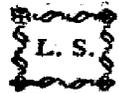
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District of Massachusetts.



BE it remembered, that on the second day of May, in the twentieth year of the independence of the United States of America, EDWARD MARCH BLUNT and ANGLIER MARCH, of the said District have deposited in this Office the Title of a Book, the Right whereof they claim as Proprietors, in the words following, to wit :—“ The American Coast Pilot, containing the Courses and distance from Boston to all the principal Harbours, Capes and Headlands, included between Passamaquady and the Capes of Virginia, with directions for sailing into, and out of the principal Ports and Harbours, with the soundings on the coast. Also, a Tide Table, shewing the time of High-Water at full and change of the moon, in all the above places, together with the Courses and Distance, from Cape-Cod and Cape-Ann, to the shoal of Georges, and from said Capes out in the South and East Channel and the setting of the current to the Eastward and Westward. Also, the Latitude and Longitude of all the principal Harbours, Capes and Headlands, &c. &c. By Capt. LAWRENCE FURLONG.” Also, “ Courses, Directions, Distances, &c. &c. from the Capes of Virginia to the river Mississippi, from the latest surveys and observations—(Approved by experienced Pilots and Coasters.”

In conformity to the act of Congress of the United States, entitled, “ An Act for the encouragement of learning, by securing the copies of Maps, Charts and Books, to the Author and Proprietors of such Copies, during the times therein mentioned.”

N. GOODALE, *Clerk of the
District Court of Massachusetts District.*

E R R A T A.

Page 4, 9th line from the top for "haul to the Eastward, until the said *George's Island* bears E. S. E." read, haul to the *Northward and Eastward* until the said *George's Island* bears E. S. E.

Page 14, line 24th, for "Northwest" read *Northeast*—line 25th, for "Northwest of the house," read *Southwest* of the house.

Page 15, 8th line from the top, for "steer N. b. E." read steer N. b. W.

Page 18, 6th line from the top, for "turn" read town.

Page 19, 12th line from the top, for "several Islands" read *Squirrel Islands*.

Page 21, 9th line from the bottom, for "*Bagaduce-Island*, on your starboard hand," read *Brigadeer's-Island* on your *larboard* hand"—last line, for "has not one bush on it," read *has but one bush* on it.

Page 22, 8th line from the top, for "at the E. S. E." read *to the E. S. E.*

Page 24, 1st line, for "S. E." read N. E.—5th line from the bottom, for "bear N. N. W. you may steer E. N. E. 5 leagues to *Long*." read bear W. N. W. you may steer, E. N. E. 7 leagues to *Long*.

Page 26, last line but one, for "from *Machias*" read, *to Machias*.

Page 27, 1st line, for "about 11 leagues," read about 17 leagues.

Page, 33, 2d. line from the top, for "*Rantain*" read *Duntain*.

Page 34, 7th line from the bottom, for "*Ipswich Bay*," read *Boston-Bay*.

Page 35, 10th line from the bottom for "Rocks bearing W. N. W." read rocks bearing S. W.—3d line from the top, for "20 miles from the Light-House," read 20 miles from *Boston Light-House*.

Page 39, 15th line from the top, at the end of the paragraph insert the following, "If you fall to the Southward of *Nantucket*, and make *Nomax's-Land*, bring said land to bear West and steer East for *Sancty-Head*. Continue said course till *Sancty-Head* bears N. N. W. then run for it, when you will leave the *Pollock-Rip* on your *larboard* hand."

THIS will certify that I have carefully examined the within
“American Coast Pilot,” and compared it with Charts
which I know from experience to be correct, and do recommend it
as a valuable work, and worthy the attention of all Navigators.

BENJAMIN LURVEY.

DEER ISLAND, OCT. 4, 1796.

THIS will certify, that I have proved, by experience, since
the within “American Coast Pilot,” was put to Press,
that the Directions for the Eastern Coast are correct, and recom-
mend it to Navigators of every kind as a valuable work.

ROBERT CAMPBELL.

THIS is to Certify, that we the Subscribers, at the request
of the Publishers of the “American Coast Pilot,” have
carefully examined the several ports we have sailed into, and from
experience declare the Directions given for sailing into Boston,
Marblehead, Salem, Beverly, Cape-Ann, Squam, Newbu-
ryport, Ipswich Bay, Portsmouth, from Cape-Neddock to
Cape-Porpoise, from thence to Wood-Island, Portland,
Husley’s Sound, &c. to the Eastward, to be correct, the work a
very useful publication, and deserving the encouragement of all con-
cerned in Navigation.

William Russell.

James Saunders.

Isaac Noyes.

Abraham Wheelwright.

John Somerby.

Enoch Lunt,

Enoch Lunt, jun.

William Milbery.

William Noyes.

Moses Brown.

Nathan Poor.

} Branch Pilots at Newburyport.

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SAILING DIRECTIONS.

Directions to sail into Boston.

WHEN you come into the south channel and are bound to *Boston*, and within a mile of *Race-Point* off *Cape-Cod*, with a fair wind and tide of flood, your course is N. W. b. W. distance 15 leagues; and as soon as you bring the Light House to bear W. N. W. you must stand for it; but if you have the wind a head, and are obliged to turn in, you must not stand to the southward after the lights bear W. N. W. as there is a large ledge called *Harden's Reck*, which lies due S. E. from the Light House distant one league, which is dry at half tide.

When you come from the eastward and make *Cape-Ann* Light Houses, keep one mile to the southward of them, for there is a large ledge of rocks called the *Londoner*, bearing E. S. E. distant half a mile, and when you bring the said Lights to bear N. E. your course is S. W. 10 leagues to *Boston*. Keeping the said course, if the wind will permit, till you make the Light of *Boston* bearing W. b. N.—or W. N. W. you may then run for it, but if you are obliged to turn in, you may stand to the Southward till the Light bears W. N. W. and to the Northward till the Light bears W. S. W. and when you come within one league of the Light, you must not stand any farther to the Northward than to have the Light bear W. by N. and to the Southward W. N. W.

There is a cannon at the Light House to answer any signal gun in thick weather. But if no pilot comes off and you

have the wind to the Westward you may anchor in 8 or 9 fathoms of water—good bottom.

In case you come into *Boston* in a gale of wind, and no pilot can come on board you, bring the lights to bear E. by N. or E. N. E. and steer W. b. S. with the tide of Ebb, and W. b. S. $\frac{1}{2}$ S. with the tide of flood, keeping the said course one mile and an half, which course will carry you safe into Nantasket rode; and when you pass *George's Island*, which you leave on your starboard hand you haul to the Eastward until the said *George's Island* bears E. S. E. then you may anchor in 5 or 6 fathoms water—muddy bottom.

If you are in a small vessel and do not want a pilot, and when the Lights bear N. or N. b. E. you steer W. b. N. leaving *George's Island* on your larboard hand; be careful of said Island and give it a good birth, for there are several rocks that lie to the S. E. of said Island; you may go within a ship's length of the Beacon on the spit of sands which you leave on your starboard hand. When you pass said Beacon, you steer N. W. or N. W. b. N. till you pass *Nick's-Mate*; then your course from *Long-Island-Head* to *Castle-Island* or *Fort Island*, is W. b. N. In steering said course you will bring the light to bear E. b. S. When you come abreast of the fort you steer Northerly to go clear of the upper middle ground which lies on your larboard hand about half a mile above the fort. To keep clear of *Bird-Island* flats, you must not shut in the Light-House with the *Governor's Island*, you may steer N. W. or N. W. b. W. which course will bring you off the head of the Long-Wharf where you may anchor in 6 or 7 fathoms water.

Directions to sail into Salem and Beverly.

WHEN you come from the Eastward and make *Cape Ann* Lights (there are two of them—when in one they bear N. N. E. $\frac{1}{2}$ North and S. S. W. $\frac{1}{2}$ South) you may give them a league distance, and when they bear E. N. E. you steer W. S. W. till you pass *Eastern Point*, then bring *Eastern Point* to bear E. b. N. and steer W. b. S.

3 leagues, which course will carry you between *Baker's-Island* and *Misery-Island*; when you pass the said Island, your course is W. N. W. to the *Heast-Island*; which you leave on your larboard hand, then steer S. W. b. S. for *Salem* harbour; but be careful of a large ledge of rocks called the *Augvites* that lie to the S. S. W. of the *Heast*; they are covered at high-water and are bare at low water; there is a buoy on the South part of them; you may go within a quarter of a mile of *Salem* fort, and then steer S. W. by S. for the harbour where you may lie safe from all winds, except an E. N. E. but *Beverly Harbour* is much safer.—When you pass between *Misery-Island*, and *Baker's-Island*, (*Baker's Island* is well known by a high wooden tower that stands on it) your course is W. N. W. about a league, which will carry you up to the bar—there is a Beacon on the larboard hand on a gravelly point; keep the said Beacon on the larboard hand, and you may go within two rods of it, and when you pass it about half a cable's length, you may haul up to the wharves which lie on your starboard hand.

N. B. There are two channels beside the above-mentioned to go into *Salem* and *Beverly*.—If you make half way rock, your course into *Marblehead* harbour is W. N. W. one league; but if you chuse to go either to *Salem* or *Beverly*, your course from *Black Rock* to *Salem* is W. N. W. You may leave said *Black Rock*, on your starboard hand. There is 10 fathoms water close to it; but if the wind is to the westward and you are obliged to turn up your best way is to leave the said *Black-Rock* on your larboard hand and steer North which course will bring you into the channel; then you follow the above direction from *Misery-Island*, and *Baker's-Island*.

Directions to go into Marblehead harbour.

WHEN you come from the Eastward and make *Cape-Ann* Lights, and are one league to the westward of said Lights, you may make *Eastern Point*. Bring said point to bear N. E. and then steer S. W. 3 leagues, which course will carry you to half-way Rock. Then leave said Rock on your starboard

hand, and bring it to bear E. S. E. and then steer W. N. W. one league, which course will carry you into the Harbour, till you pass *Cat-Island*, when your course is W. S. W.

N. B. In turning into the Cape in a dark night you must not haul within a quarter of a mile of *Eastern Point*, for the *Dog Bar* lies off the westward of the point.

When you bring *Eastern Point* to bear E. b. N. steer W. b. S. for *Baker's Island*; when *Baker's Island* bears N. E. Easterly, you must steer S. W. $\frac{1}{4}$ W. leaving *Eagle Island* on your starboard; which course will carry you safe in, but this channel is not to be trusted in a dark night.

Directions to go into Cape-Ann Harbour.

WHEN you come from the Eastward, and make *Cape-Ann* Lights, if it be in the night, bring them to bear S. W. of you, and run strait for them, which course will carry you within the *Londoner*, and when you pass the said rocks bring the two lights in one, at which time they will bear N. b. E. $\frac{1}{4}$ E. and S. b. W. $\frac{1}{4}$ W. and then steer S. S. W. $\frac{1}{4}$ W. keeping said course about one mile, which course will carry you clear of *Milk-Island*, which is very low, and cannot be seen in a dark night; when you judge yourself to the Westward of said *Island*, you haul to the Westward, until you bring the light to bear E. N. E. when you must steer W. S. W. about five miles, which course will carry you to *Eastern Point*. When you pass said *Point* keep your course W. N. W. until you bring *Cape-Ann* harbour to bear North, when your course is N. E. If the wind be to the Eastward, you may anchor in a Bay that makes between *Ten Pound Island* and *Eastern Point*, the latter bearing S. b. E. and *Ten Pound Island* bearing North. Here you may anchor in four fathoms water, on muddy bottom. This is a good harbour against Easterly winds, but if the wind be S. W. you are exposed to it, in which case you may clear away *Ten Pound Island*, leaving said *Island* on your starboard hand, and steer into the harbour as above directed, and come too near *Five Pound Island*.

Directions for Cape-Cod and Plymouth Harbours.

IF you come round *Cape-Cod*, and are bound to *Plymouth*, you must bring *Race-Point* to bear E. N. E. and then steer W. S. W. distant five leagues. Steer this course 'till' the Lights on *Gurnet-Head* bear W. N. W. Within half a mile of these lights lies a sunken rock, which bears E. by S. $\frac{1}{4}$ South. It has but three feet of water on it at low tide. — When you pass the rock, bring the lights to bear E. by N. and then steer W. $\frac{1}{2}$ S. for the harbour or *Beach-Point*, and 3 miles distant, and anchor in four fathoms water, with a sandy bottom. The tide of flood sets into *Barnstable Bay* very strong; the flood W. S. W. and the ebb E. N. E. so that if you have the wind to the Westward and an ebb tide, you must not attempt this harbour, when *Cape-Cod* will be under your lee.

Directions for Cape-Cod Harbour.

IN passing *Race-Point* to the Southward, you must give it a berth of one mile, as there is a long flat of sand that lies to the Southward of said point. You must not haul to the Eastward 'till' you come near *Herrin-Cove*. In going into this harbour, you must not stand far on your starboard hand, as it is very shoal in the bottom of the Bay, and your best anchorage is in the N. E. of the Houses. If the wind should blow hard at N. E. and you cannot fetch the harbour, bring *Race-Point* to bear N. W. b. N. and steer S. E. b. S. seven leagues, which course will bring you into *Wellfleet*, formerly called *Billengale*; in steering this course you will make *Harwich* right a-head. When you open the Bay you will bring an *Island* on your larboard hand, when you may haul to the Eastward, and anchor safe from all winds.

Directions for Newburyport and Ipswich Bay.

WHEN you come round *Cape Ann* and bring the dry *Salvage-Rock* to bear S. E. you may steer N. W. to *Newburyport Bar*. But you must not haul up to the N. W. before you get two miles to the Northward of said *Rock*; it is 6 leagues distance to the *Bar* from said *Rock*. You must bring the *Lights* to bear W. S. W. and anchor in 11 or 12 fathoms water, if the tide will not permit your coming in. There are several *Pilots* belonging to this harbour, who will, if possible, be out-side the *Bar*, to take command of every vessel that wishes their assistance. If they cannot, you must keep the *Lights* in Range, and run for them till within a *Cable's* length of the *Eastern Light*, when you must haul to the Westward, and anchor abreast of the *Western Light*, in four fathoms water.* In case your *Cables* and *Anchors* are not good, you may bring the *Western Light-house* to bear S. E. b. S. and run N. W. b. N. for *Salisbury Point*, but as soon as you make said point, you must haul up N. W. which course will carry you clear of *Badger's*, *Black Rocks*, and the *Hump Sands*. The *Hump Sands* lie S. W. from *Salisbury Point* which makes the channel very narrow and difficult for strangers. You pass the *Black Rocks*; when you must haul up W. b. S. which will bring you in Channel way and good anchorage. And if it be in the night or dark weather, when you judge yourself about half a mile from *Black Rocks*, you may come too with safety. I would recommend to all masters, whether they belong to *Newburyport* or not, to avoid coming to this Port in a gale of Easterly Winds, except they are well acquainted, and have a good prospect of getting in, as every master that belongs there must know that no *Pilot*

* A vessel that draws 20 feet 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 bring you safe over.

can get over the Bar when it blows a gale to the Eastward. And in case you should make *Cape-Ann* Lights, and bring them to bear S. b. E. or the *Dry Salvages* to bear S. b. E. you may run with safety N. b. W. or N. $\frac{1}{2}$ W. distance ten leagues from *Cape-Ann* to *Portsmouth*. In running the above course you will make the *Ile of Shoals*, it if is any way clear, from which you may take a new departure; when you pass the said Islands you bring *Star-Island* to bear S. S. E. and then steer N. N. W. distant from said Island 3 leagues to *Portsmouth*. (*Star Island* is the S. W. Island.) There is a very good harbour in the *Ile of Shoals* from the wind from North easterly round to Southerly, and you may lay land locked with any of them; but if the wind hauls to the S. W. or W. N. W. you may run out between *Smutty Nose Island*, which has a wind-mill on it, and *Flag Island*, where there is water enough for a first rate man of war; and where you anchor you have 12 fathoms muddy bottom.

In going into *Portsmouth*, you may bring the Light House to bear N. N. W. till you get within *Wood Island*, then you may haul away North or N. b. E. till you pass the Light-House; you may then haul up W. N. W. or N. W. b. W. and bring the Light-House point to shut in with *Wood-Island*, where you will be safe from all winds and anchor in 8 or 9 fathoms water.

When you come from the Eastward with the wind at East, or E. S. E. with which winds you cannot weather away *Cape-Ann*, when you are to the northward of the *Ile of Shoals*, your only shift is to *Portsmouth*, and you are obliged to run so far to the westward as to bring said point to bear N. N. W. and in general the wind at east at sea hauls two or three points to the Northward which makes it a head wind.

P. S. The masters of vessels out of *Newburyport* ought in general to be acquainted with the harbour of *Squam*. When a vessel at anchor off *Newburyport Bar* parts a cable and loses an anchor with the wind at N. E. or E. N. E. if the crew carry double reefed sails, she may run S. S. E. 5 leagues which course if made good, will carry her a little to the eastward of *Squam Bar*, and in case the weather is so clear as to see half a mile when you make the land to the

eastward of *Squam* you may run within a cable's length of the shore; your course is S. S. W. There is a ledge that lies about half a mile to the N. N. E. of said Bar, called *Plumb-Cove Ledge*; this ledge is covered at high water, but it can easily be shunned, for it does not lie half a cable's length from the main land, and is easily known. There is a deep cove a little to the southward of it, and when you pass the ledge you may run within a short cable's length of the shore; if it is clear weather you may see *Wigwam Point* a mile or two. There is a large mast on said point forty or fifty feet high.—In the fishing season the people hoist a lanthorn for their boats in thick weather. You may run so near this point as to throw a bullet on shore; when you pass this point you continue your course S. S. W. until you get about a mile from the Bar, then you may haul up to the South-eastward, and if you have neither cable nor anchor you may save your vessel by running on shore on the sands on the starboard hand—or running up to Capt. *Gee's* wharf. There is seven feet of water on this bar at low water.

Directions for Portsmouth, (Newhampshire.)

WHEN you fall into the eastward and make *Cape Neddock*, and are bound to *Portsmouth*, when within half a mile of said *Cape* your course is S. S. W. 4 leagues, which course you are to continue till you bring *Portsmouth Light-House* to bear N. N. W. which course you steer till within half a mile of the Light, then haul away N. b. E. or N. N. E. and when you pass the Light haul up N. W. b. N. But in case you should be obliged to turn into said harbour, there is a sunken Ledge to the S. W. of the Light-House about a cable's length, which ledge shows itself; but at high water you cannot perceive it.

When you come from the S. W. and make *Cape Ann* and to the eastward of the *Dry-Salvages*, and bring said *Salvages* to bear S. b. E. you may steer N. b. W. or N. $\frac{1}{2}$ W. In steer-

ing said course you will make the *Ile of Shoals*, from which you may take a new departure—bring *Sar Island* to bear S. S. E. and ~~the~~ N. N. W. but if the wind should come to the Northward, and you are obliged to turn into said Port, you must stand to the Westward no farther than to bring the Light to bear North, till you get within *Odiorne's Point*, and when standing to the eastward to go about as soon as the Light-House bears N. N. W. until you get within *Wood-Island*.—Be careful of *Odiorne's Point*, coming from the south-westward, for it lies off more than half a mile, with sunken rocks which do not shew themselves when the wind is off the land.—Likewise in standing to the east, you must be careful of the *Whale's back*. It lies S. southwest of *Wood-Island*, and covered at half tide. If you are bound to the eastward from this port you steer S. b. E. one league from the *Light-House*, then steer N. N. E. for *Old York* or *Cape-Neddock*, which is 4 leagues from *Portsmouth*; but if the wind should get to the northward you must be careful of *York-Ledge*, which bears from *Swett's Point*, S. E. distant 2 leagues. There is a sunken ledge that lies a mile S. W. from *York-Ledge*—it is never bare, but always breaks at low water. It is called the *Tray Angle*. Some part of *York-Ledge* is bare at half tide.

The next you come to is *Boon-Island* which lies S. E. from *Cape-Neddock* or the *Noble* so called; when you pass *Boon-Island*, bound to the eastward, and take the wind to the N. N. E. you must take care of a ledge of rocks due north from *Boon-Island*, one mile distant.

[N. B. I have pass said place sundry times in the course of forty years but never saw it before the year 1783, at which being bound from the eastward, the wind took me from the westward, but the vessel having no more than steerage way, I hove over a line to catch a fish and found I had 24 fathoms water, sandy bottom: and in a few minutes I had but 10 feet of water, and my vessel drawing nine; all that saved me from striking was, that the water being entirely smooth, the current set me to the eastward, and I got into 24 fathoms within the length of the vessel from where I sounded and had but 10 feet.] *This by way of caution.*

The worst ledge that I know on our Eastern Shore, is *Boon-Island-Ledge*; it bears E. S. E. from *Boon-Island*, distant one league; and from *Aquamanticus Hill*, it bears S. E. 5 or 6 leagues.—It is not safe for strangers to make too free with this

ledge, for several of the rocks are out of water, long before low water.

When you come in from sea and make *Aquamantick's Hill*, bearing N. W. b. N. you are then to the westward of it, but when the said hill bears N. W. b. W. you may be sure you are to the eastward.

Direction to sail from Cape Neddock to Cape-Porpoise,

YOUR course from *Cape-Neddock*, to *Cape-Porpoise* is N. E. distant 7 leagues. *Cape-Porpoise* is a bad harbour and not to be attempted unless you are well acquainted or in distress. In going in you must leave two small islands on your larboard hand and three on your starboard. It may be known by the high land of *Kennebunk*, which lies to the N. W. of it. When the harbour* bears N. W. you must haul in, but be careful of the point on your larboard, and not go too near it, as it is very rocky. As soon as you are in the harbour and clear of the point of rocks on your starboard hand, your course must be N. E. about two cables length, when you must come to, and moor N. E. and S. W. A vessel that draws 10 feet will be aground at low water. The harbour is so narrow that a vessel cannot turn round, is within 100 yards of the sea, and secure from all winds, whether you have anchors or not.

* At the eastern side of the harbour lies a ledge which always breaks.

Directions from Cape-Porpoise to Wood-Island.

WOOD-ISLAND lies N. E. 5 leagues distant. You may go into this harbour either at the eastward or westward of the Island. There are several rocks to the westward of the Island, and likewise a long Bar, which lies to the S. W. about $\frac{1}{4}$ of a mile distant. When you have the wind to the southward you may lay your course in and anchor near *Stage-Island*. This is called *Winter-Harbour*. You may go in to the eastern way and have room to turn your vessel (which is an advantage you cannot have in going into the westward) but here you are exposed to the wind at N. E. or E. N. E. but if your cables and anchors are not good you may run into the Pool and lie safe from all winds.

Saco lies about a league to the northwest, but it is a barred place, and not above 10 feet at high water, and not fit for a stranger to go in.

The next port to *Wood-Island*, is *Richman's-Island*, which lies about N. E. northerly 4 leagues; this place is only fit for small vessels, such as coasters—but few vessels put in here, it being only 1 league to the westward of *Portland*, which is at present one of the principal ports in the eastern country.

In sailing by *Richman's-Island*, you must be careful of a sunken ledge that lies off about S. E. near half a mile from the N. E. end of the Island; it does not show itself except the wind blows fresh—but you need not go so near the Island unless you have a scant wind, or turning to windward.

Directions to sail into Portland.

WHEN you come from the S. Westward and intend to go into *Portland*, you give *Cape-Elizabeth* a birth of $\frac{1}{2}$ mile and steer N. N. E. until you bring *Portland Light-House* to bear N. N. W. then you must haul up N. N. W. if the wind will permit, but if you are in a large ship and the wind at N. W. or W. N. W. your safest way is to continue your course N. N. E. which will carry you safe into *Hussey's-Sound*, allowing it to be tide of flood, for *Portland-Sound* is narrow between the *Light-House* and *Bang's-Island*, which is on your starboard hand—but in case you should turn into *Portland*, if it is night, in standing to the S. Westward you must go about as soon as the light bears N. N. W. and in standing to the eastward you must go about as soon as the Light bears W. b. N. for there is a Ledge of Rocks that bears due S. b. E. from *Portland Light-House*, and there is a low Island called *Ram-Island*, about east northerly one mile distant from the *Light-House*; but if you have a leading wind you may go in without fear, keeping about middle channel way, and when abreast of the Light steering about N. b. W. for *House-Island*, which you leave on your starboard hand; when you pass *House-Island*, you bring it to bear S. E. b. E. and steer N. W. b. W. or W. N. W. with the tide of flood. In steering the above course you may see a round bushy tree to the northwest of the town, and a house with one chimney: You bring the tree to the northwest of the house, which course will bring you up channel way in 6 or 7 fathoms water; but when you come abreast of the fort which stands on a hill you haul away W. S. W. for there is a shoal bank on your starboard hand, which has not more than 10 or 12 feet of water at high water, which you are to avoid. Here you will be careful of a long Ledge of Rocks about 2 miles within the *Light-House*, which stretches off from your larboard hand near half a mile in length. They lie to the S. W. of *House-Island*, and are all bare at low water. If you are obliged to turn in here they

are much in the way—and when you are standing to the southward be careful of them. The marks will do in the day time but are of no service in the night. There is a Pilot who generally attends here. This harbour is very open to the wind at N. E. and E. N. E.

In case you should come in, in a dark night, your best way is to go into *Hogg-Island-Rode*;—when you pass the *Light-House*, steer N. b. E. until you pass *Bang's Island*, which you leave on your starboard hand: In steering said course you will make *Houje-Island*, which you will leave on your larboard hand; when you are between both of these Islands you steer N. E. b. E. till you come to the second Island on your starboard hand. If it is day time you will see a large house on said Island, and may anchor as soon as you get abreast of it in 10 or 12 fathoms, muddy bottom.

In case you should fall into the eastward of *Portland* and make the Island of *Sequin*, bring said Island to bear E. and steer W. which course you are to continue till you make *Portland Light* to bear from N. W. to W. b. N. then you may run for it without fear.

N. B. You must have some regard to the tide of flood which sets very strong between the islands to the eastward of *Portland*.

Directions for Hussey's Sound.

IF you come from the eastward and should make *Sequin Island*, bring it to bear east; you may steer west for *Hussey's-Sound*, in case you have a fair wind and day light, as you have nothing but Islands on your starboard hand. The tide of flood sets very strong in between these Islands; when you get within two miles of *Hussey's-Sound* you will make two Islands which have no trees on them, called *Green Islands*—you continue your course till you make *Hussey's-Sound*, bearing N. N. E. then you may steer on with your course N. N. E.

There is a large sound called *Broad-Sound*, about half way between *Sequin* and *Hussey's-Sound*; you leave *Marrickneek-Is-*

and on your starboard and *half way rock* on your larboard hand—but this found has several rocks under water, and is not fit for strangers to go into.

When you pass the two Islands after you enter *Hussey's-Sound* you leave three Islands on your larboard hand and two Islands on your starboard; the northern Island on your starboard is called *Smith's Island*; when you pass said Island about $\frac{1}{4}$ of a mile you may haul away E. N. E. till you shut in said Island to the S. E. then you may anchor in 8 or 9 fathoms, muddy bottom.—*Hog-Island* to the S. W.—*Basket-Island* to the N. W.—*Great Gabagus Island* to the N. E.—and *Smith's Island* to the S. E. Here you may lay 200 sail of ships safe from all winds; and when wind and tide serves, you may be out to sea in one hour.

Directions for Kennebeck and Sheepscut Rivers.

IF you come from the westward and bring *Cape-Elizabeth* to bear west and steer east for *Sequin* 10 leagues—if you are bound into *Kennebeck* river, you must steer E. $\frac{1}{2}$ N. and leave said Island on your starboard hand, giving it a berth of about $\frac{1}{2}$ a mile, and as soon as you bring said Island to bear south, you steer due north which course will carry you into *Kennebeck* river. You must have regard to the tide, for the tide of ebb sets out very strong due south, right on *Sequin-Island*, therefore if you have not a good breeze of wind you cannot stem the tide for it sets four or five knots an hour.—In going into the harbour you will leave a large Island covered with spruce-trees on your starboard hand, and three or four Islands on your larboard hand; when you get to the northward of the first Island, if it is tide of ebb, you must steer for the two *Sugar-Loaves*; these are two high rocks, which appear white, and make like sugar loaves; when you pass to the westward of the *Sugar-Loaves*, you must steer W. b. N. and in case you are not acquainted you may anchor at *Parker's-Flatts* on your larboard hand in 4 or 5 fathoms and then take

a Pilot, if you are bound up the river, for this river is not to be attempted without a Pilot, but if you have a fair wind and day light you may go up as far as Capt. Mc Cobb's mill, which you will see on the west side of the river.

If you are bound to *Sheeps-cut-River*, from the westward, and make the Island of *Segwine* you may leave said Island on your starboard hand, giving it a birth of half a mile, and when you pass it to the eastward you must bring it to bear S. W. b. S. and steer N. E. b. N. which course will bring you to *Ebenicook Harbour* distance 3 leagues; this harbour is very narrow, at the entrance but makes like a basin when you get into it—in the entrance it lies E. N. E. You cannot get in here with a N. E. or easterly wind, but must have the wind south or westerly: After you get into this harbour you must haul up N. E. or N. E. b. N. for there are several sunken rocks on the starboard hand as you go in which you are to avoid. The best anchorage is against *Capt. Smith's* wharf, where are 4 fathoms, muddy bottom; and where you are safe from all winds. But if you are bound up *Sheeps-cut river* in a large vessel, and come from the westward, you must go to the southward of *Segwine Island*, steering about N. E. or N. E. b. E. one league, and when the river bears N. or north a little westerly, you may run north; and must keep the starboard hand best aboard; there are many rocks and ledges, some of them above, and some under water; they are all to the eastward of *Segwine*; when you get up a high as *Ebenicook*, you leave the two *Mark Islands* on your larboard keeping your course north, a little easterly, but if you only come here to make a harbour, when you get up to *Capt. Hudgen's* you will see a bare ledge on your larboard hand if it is low water; the ledge is covered at high water; you may anchor in 8 fathoms to the northward of it.

If you want to go up to *Wiscasset Point*, you must keep your starboard hand best aboard north-easterly till you come to *Cross-River*, which you leave on your starboard hand. You will not attempt to go up to *Wiscasset Point* with a head wind and tide of ebb, for it is 3 leagues from *Cross River*, but when you have a fair wind and tide, you may proceed without fear. This river is narrow and lies more to the westward, when you are about a mile or a mile and $\frac{1}{4}$ up you must keep your larboard hand best aboard for there is a ledge of rocks

which reaches near half way across the river ; they are on your starboard hand, and the rock near the middle is covered at high water, but may be seen two hours before. The river runs strait to *Deeker's Narrows*, then it turns round to the westward : When you enter these narrows you may see the turn—In case you should go up in the night you must be careful of two large rocks that lie W. S. W. of these narrows ; the tide of flood sets very strong for them ; they are never covered ; you may go on either side of them, and may anchor in 10 or 12 fathoms water, muddy bottom.

It is high water here at full and change of the moon about three quarters of an hour sooner than at *Boston*.

Directions for Townsend Harbour.

IN case you come from the westward and make *Segwine Island* and you leave it on your larboard hand giving it a birth of about half a mile, then steer N. E. about 2 leagues, which course will carry you to *Squirrel Island* ; if it is day time you will see two large rocks* on your starboard hand, to which you give a small birth, and when you pass them you will make *Squirrel Island*, which you leave on your starboard directing your course N. $\frac{1}{2}$ W. about 4 or 5 miles—the entrance of *Townsend* is narrow, and there is a small rocky Island that is very low which you leave on your starboard hand, then you may haul to the N. E. or N. E. b. E. but in a dark night and thick weather I would recommend to anchor under the lee of *Squirrel Island*, where you may make a good harbour with any wind that blows, for you may go round this Island with any vessel whatever ; but in the day time there is not the least danger in going in, only follow the above directions and you may anchor in the N. E. or the S. W. side, but the N. E. harbour is the best and safest with all winds : In going to the N. E. harbour, you will leave a small Island on your larboard hand, and bring it to bare S. W. where you will be safe from all winds and in case you loose your cables and anchors you may run your vessel up to the head of the harbour.

Called the Cackolds.

If you fall into the eastward and make the Island of *Manheigin*, you must bring it to bear E. S. E. and run W. N. W. for *Townsend*, 8 leagues distant. In running to this harbour from the eastward, you leave all *Damascope Island* on your larboard hand. The harbour is bold, but you must be careful if you should go about, not to stand too near the starboard hand, which lies near *Damoriscotti River*. When you pass *Fisberman's Island* you continue your course W. N. W. for the middle of *Squirrel Island*, which you will make right ahead, as there are several ledges of sunken rocks on your starboard hand. When you pass *Damoriscotti River*, you may go within a quarter of a mile of several Islands, but with a fair wind give it a birth of half a mile, and then steer N. W. for the harbour, and follow the directions you have for going into the harbour of *Townsend*, where you may lie safe from all winds.

Directions from Townsend to Manheigin.

WHEN you take your departure from *Squirrel Island* you steer E. S. E. for the Island of *Manheigin*, keeping said course until the passage between *George's Islands* and *Manheigin*, bears N. E. You may then steer N. E. for *White Head*, leaving *George's Islands* on your larboard hand, which are three in number. The eastern Island has no trees on it. There are two dangerous rocks bearing due south from the middle of the Island called the *Old Man* and the *Old Woman*, which are bare before low water. They lie about 1 mile from the shore, and at high water, when the wind blows off the land, they do not appear. If you are bound to the eastward and the wind should take you ahead, when you are between *Manheigin* and *George's Islands*, you bring the middle of *Manheigin* to bear south, and run in north, which course will carry you between the eastern *George's Island* and the middle Island. You may run as near as you wish to the eastern Island, but the middle Island has a ledge of rocks that lie to the eastward of it, which are always dry, which you are

to leave on your larboard hand. When you get to the northward of this Island you must haul to the westward and run up between it and the western Island, so as to bring the body of the Island to bear N. E. of you. Here you must moor your vessel if you stay any time.

If you are bound to the eastward from this Island you may go to the northward of the eastern Island, but you must be careful of a ledge that lies to the eastward of said Island, which you must leave on your starboard hand; and when you bring *Manbeigin* to bear S. W. you may go N. E. If night should come on, or the wind ahead you may haul up about N. E. b. N. for *Tennant's* harbour, which lies about 3 leagues from *George's Islands*. You cannot miss this harbour in the day time. You will make *Musqueto* harbour which lies between two Islands, covered with Spruce Trees. The entrance of this harbour is North. When you pass this harbour you will run about 2 miles, keeping your course N. E. b. N. when you will pass by an Island with burnt trees on it; then you must bring the harbour to bear W. N. W. before you enter. This is a good harbour provided you have neither cables or anchors, where you may save your vessel by running up to the head of it, on muddy bottom, and your vessel will be dry at low water.

Directions from Tennant harbour to the Muscel Ridges.

IN sailing from this harbour you may steer E. b. N. one league to *White Head*, but be careful not to haul in for it before it bears N. E. as there is a large ledge of rocks lying about W. N. W. about one mile from said Head. You may go within pistol shot of this Head. There is a good harbour on your larboard hand as you pass this Head, where you may lie safe from all winds. In going in you must give the larboard hand a berth as there is a sunken ledge that breaks when there is any sea, unless at high water.

Your course from *White-Head* is N. E. to *Ash-Point* (or *Island*) one league distant, which has a large rock to the S. W. of it, at about a mile distant, which you must leave on your larboard hand. It is not in the way except you are obliged to go about. When you haul round this *Island* give it a small birth and steer N. N. E. or N. E. b. N. for the *Owl's Head*, leaving two *Islands* on your starboard hand; but when you draw near the larboard shore you steer about E. N. E. for the *Owl's Head* which has a good harbour on the larboard hand as you go to the eastward. This harbour makes with a deep cove. You may bring a rocky point that lies on your starboard hand to bear N. E. and a Ledge of Rocks that lie without said point to bear E. N. E. and anchor in 4 fathoms water, muddy bottom.

This harbour is open to the wind at E. b. N. and E. N. E. but in all other winds you are safe. The tide of flood sets to the eastward and the tide of ebb S. W. through the *Muscel Ridges*.

If it is night when you come to *White Head*, you had better not attempt going through the *Muscel Ridges*. Your best way is to go by * *Two-Bush-Island*, which you must leave on your larboard hand, keeping your course E. N. E. or N. E. b. E.

If you are in a large vessel your best way is to go in this passage, as it is the most safe. You must follow your course as above directed about 2 leagues then you will have *Penobscot Bay* open. You may then direct your course to either side of *Long-Island*. If you go to the westward your course is N. N. E. to *Great-Spruce-Head*. Seven leagues from said *Spruce-Head* your course is N. E. b. N. 5 leagues. In steering said course you will leave *Belfast Bay* on your larboard hand, and *Bojadsce Island* on your starboard hand, which *Island* has a good harbour, and if you mean to go into said *Island* you must leave it on your larboard hand and steer in about north or N. b. W. You may run up above this *Island* and anchor on the starboard hand if the wind is to the eastward; but if to the westward, or to the S. W. you must not. There is a bar that lies from this *Island* to the main land, which is covered at high water.—There is also, a good harbour to the

* This *Island* called *Two-Bush-Island*, has not one bush on it, but formerly had two.

westward of this Island, called *Long-Cove*. If you turn into either of these harbours you must be careful of some Rocks that lie to the southward of this Island more than half a mile from the main land. But in going into *Penobscot* proceed as above, and keep your larboard hand on board. When you pass this Island for the old *Fort-Point*, which has no trees on it, you must observe before you come to it, that a large ledge of rocks, lie about $\frac{1}{2}$ of a mile at the E. S. E. of it, which are covered at high water but bare at half tide. You may go within a cable's length of *Old Point*, in smooth water. These rocks may be discovered when it blows. When you leave this place and are bound up the river, you will come to *Marsh-Bay*, which lies on your starboard hand, about 2 leagues from *Waldow's Island*.

You have no particular course in going up this river, but may sometimes go to the westward of north, and sometimes to the eastward of north, keeping your larboard hand on board until you pass *Marsh-Bay*. You may then keep the middle of the river until you come near the *Falls*, where you have neither rocks nor shoals.

When you enter *Penobscot Bay*, and are bound to the eastward of *Long Island*, you must steer N. E. b. N. leaving *Long Island* on your larboard hand, which course will carry you up to *Bagaduce*. If you intend going into this harbour, as soon as it bears E. N. E. you may run in steering E. N. E. keeping the middle of the channel on your starboard hand until you pass the first Island, giving said Island a birth 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 safe from all winds.

In going into the harbour of *Bagaduce*, you leave three Islands on your starboard hand, but if you are bound up *Penobscot* river you must steer north, leaving the ledge of rocks off the old *Fort Point* on your larboard hand, and then follow the same directions you have for running into *Penobscot* river, which will carry you up to the *Falls*. The tide ebbs and flows at full and change, about 10 or 11 feet.

Directions to sail through Fox-Island passage.

WHEN you are bound from the westward and intend going through *Fox-Island*, bring *Owl's-Head-Island* to bear W. b. S. and then steer E. b. N. from *Owl-Head*, 4 leagues distant. If you have a head wind and are obliged to go into the mouth of the *Bay*, be careful of a ledge of rocks that bears from *Crab-Tree-Point* about S. W. or S. W. b. S. distant 4 or 5 miles. This passage has rocks on both sides. *Crab-Tree-Point* is on the larboard hand. It is on the northern *Fox-Island*, and there is a long point of rocks, near 1 league to the S. W. of it. This passage is not fit to go into in the night, unless you are well acquainted. When you get in, bring *Crab-Tree-Point* to bear W. b. S. and steer E. b. N. about three leagues, which will bring you to *Young's-Narrow*. In steering this course you will make two large bare rocks called the *Sugar-Loaves*. You can go on either side of them, but to follow your directions you must leave them on your starboard hand, and also be careful of a ledge that lies about north $\frac{1}{2}$ of a mile from them. The entrance to *Young's-Point* is narrow at low water. Off this point lies a ledge of rocks which are covered at high water. There are also a quantity of sunken rocks at the larboard hand, near a mile to the W. N. W. which lie off the *Dumplings*. These *Dumplings* are three Islands which you leave on your larboard hand. Your course in this passage is E. S. E. and W. N. W. keeping your starboard hand on board. When you pass this point on your starboard hand, you must keep your larboard hand on board and steer E. S. E. about 2 miles, when you will make *Deep-Cove* on the starboard hand, which lies to the eastward of a very high bluff of rocks. If you have neither cables nor anchors you may run into said cove, or secure your vessel with the main or fore sheet, or come to, and anchor in 7 fathoms water, off the said cove. Here the flood meets; one from the W. N. W. and the other from the E.

S. E. which makes an eddy against this cove and high land ; here you may ride safe with any wind. When you leave this place and are bound to the eastward you steer E. S. E. and keep your starboard hand on board till you come up to a clear spot of land where the trees have been cut off. As soon as said spot bears W. S. W. you steer E. N. E. for the middle narrows. When you draw near the narrows you will see two large white rocks in the middle of the passage, unless at high water, at which time they are covered about one hour, but may be seen at all other times of tide. You may go on either side but the deepest water is at the southward of them. You continue your course E. N. E. about 1 league, when you must keep your starboard hand on board as there are several funken rocks and ledges on your larboard hand which are covered at high water. You will make the *Eastern Narrows* on your starboard hand, and as soon as you bring it to bear S. S. E. you may run through, where you will have a fine harbour which is safe to ride in with all winds except at E. N. E. but you may remain in the west passage with the wind at E. N. E. or anchor at the northward of a bare Island, that you will see at your starboard hand as you go back to the westward. When you pass the eastern passage of *Fox Island* you must steer E. N. E. about 4 miles, which course will carry you into a large Bay that lies between *Fox-Island*, and the *Isle au Haut*. This bay lies north and south, and about 4 leagues east and west. When you get into this Bay from the above mentioned passage, and are bound to the eastward of the *Isle au Haut*, you may steer E. S. E. 6 leagues, which course will bring you to the southward of the *Isle au Haut*.

[N. B. When you come from the westward and pass the Island of *Manbeigin* and the entrance of *Penobscot Bay*, you may steer E. N. E. which course will carry you between the *Fox-Islands* and *Martinicus-Islands*, leaving all the *Fox-Islands* on your larboard hand ; but when you bring the *Isle au Haut* to bear N. N. W. you may steer E. N. E. 5 leagues to *Long-Island*, which you leave on your larboard hand. If you are bound to *Blue-Hill-Bay* or *Union-River*, as soon as you pass *Long-Island* you will open a large sound to the N. N. W. which course you are to steer 7 leagues when you will be up with *Robert-*

son's Island, leaving the *Ship* and * *Barge* on your larboard hand and *Robertson's-Island*, is the only Island near that place that has a house on it. The south part of the Island is clear of Trees, on which part of the house stands. When you come near the south part of the Island, give it a birth of $\frac{3}{4}$ of a mile, as there are several sunken rocks off said Point. When you bring this Island to bear from S. W. to N. W. you may anchor in 6 or 7 fathoms water, muddy bottom; but if you are bound to *Blue-Hills-Bay*, you may stand to the northward direct for the *Blue-Hills*, which you may see 10 or 15 leagues off. If you are bound for *Union-River*, you had better take a Pilot.

Directions from Long-Island to the S. W. harbour of Mount-Desert.

YOUR course is N. E. or N. E. b. N. distant 5 leagues. You must leave the two *Duck-Islands* on your starboard hand and three Islands on your larboard hand. It is not safe for a stranger to run here in the night, as there is a large ledge that is covered at high water and bare at half tide. You leave this ledge on your starboard hand. It is about a mile from the harbour. Here is a long ledge on the larboard hand which runs off half a mile, but there is a good turning channel between them. The S. W. passage is not fit to enter with a large vessel at low water, but at high water, you may enter with any vessel, keeping nearest the starboard hand as you go in for there is a long Point that lies about half a mile off on the larboard hand. Off this Point you will find 6 or 7 feet of water at low tide. When you pass the Point on your larboard hand, you have the harbour open when you must

* The *Ship* is an Island that has three Trees on it and appears like a Ship at a distance, and the *Barge* is a dry rock that appears like a barge.

bear up N. W. or W. N. W. and anchor well up the harbour, in 5 or 6 fathoms muddy bottom, and lie safe from all winds. If you are in a large vessel and make the *Isle au Haut*; bring the said Island to bear W. S. W. and steer E. N. E. 10 leagues, which course and distance will carry you up the eastern passage going into *Mount-Desert*: You must leave all the Islands to the northward, and go to the northward of *Mount-Desert-Rock*, which lies E. S. E. from the *Isle au Haut*, S. E. from *Long-Island*, and S. from the *Duck-Islands*. When you bring the harbour to bear W. N. W. you may stand directly in, for you may go about with a first rate man-of-war, in this passage. You may steer in this channel, with a fair wind, from W. N. W. to W. b. N. till you come to *Longledg's-Island*, which lies about 1 league up the harbour and makes the starboard hand of the river that runs from the N. E. You must be careful of said Island, as there is a sunken ledge of Rocks abreast of it, near half a mile off. The river above-mentioned has water enough for any ship to go into and is a safe harbour.

Directions from Mount-Desert, to Goulsborough and Machias.

IN going from *Mount-Desert* to *Goulsborough*, you must steer N. N. E. for **Skatock-Hills*, which lie to the N. N. E. of that port, and which are remarkable from any hills in the Eastern country. Keeping your course N. N. E. about 4 leagues, you will pass *Frenchman's-Bay*, which you leave on your larboard hand. You will see three Islands which lie in the mouth of the harbour which you must leave on your larboard hand and go in the eastern passage. In standing in for this place you will see a small Island called *Petitmenan's-Island*, which you leave on your starboard hand. There is a Bar that runs from the shore to this little Island, which is about 1 league from the land, and has a few bushes on it. This Bar is covered at high water but bare at low tide. If you are bound to *Machias* or *Pesamaguddy*, your course from *Mount-Desert* is E. N. E. distant from *Machias*

* There are five of these Hills, and at a distance they appear round.

about 11 leagues. In steering the above course and distance, you pass by nothing but islands on your larboard hand with inlets and sundry good harbours, pleasant rivers, *Moose-Peck-Reach*, and *Chandler's-River*, which are all good harbours, but too intricate to be described for strangers to attempt it with safety. If you cannot steer your course as above directed, in standing to the E. N. E. there are three low Islands to the S. W. of *Grand-Manan-Island*, which lie due S. E. from *Machias*, distant 4 leagues, which you must be careful of in the night. You may see the Island of *Grand-Manan* 2 or 3 leagues before you come to it, and when it bears N. E. these Islands run southwest from *Grand-Manan*, about 2 leagues distant, and in thick weather if you make these Islands you may run for *Machias*, bringing said Island to bear S. E. and then run N. W. for the entrance of *Machias*; or if you make the S. W. end of *Grand-Manan*, you may bring it to bear E. b. S. 5 leagues distant, and run for *Machias* W. b. N. When you pass *Crofs-Island* which you leave on your starboard hand, you may steer north. In steering this course you will leave a large white Rock on your larboard hand, and if you do not want to go into *Machias* harbour, you may haul to the westward. When you have passed this Rock about half a mile, bring a high round Island that is covered with trees to bear north, when you may anchor in 4 or 5 fathoms, muddy bottom. This is called *Jone's-Harbour*; but if you mean to go up to *Machias*, you must keep your course north till you pass a round high Island on your larboard hand, when you may shape your course W. S. W. or W. b. S. for a Point that is covered with young birch trees, and a house on it, for on the starboard hand there are nothing but flats and shoals. You may keep your larboard hand after you pass this house until the River opens to the northward, when you may run up to *Crofs-River*, where you may anchor in 4 fathoms; but if you are bound up to the S. W. *Mills*, you must haul away to the westward.

Directions from Machias to Pasamaquady.

WHEN you leave *Machias* and are bound to *Pasamaquady*, when you bring *Grass-Island* to bear S. W. b. W. your course is N. E. b. E. distant 9 leagues to *West-Pasamaquady-Head*. But if the wind takes you to the eastward there is a good harbour about 2 leagues to the N. E. of *Cross-Island*. This harbour bears due east from the middle of *Grand-Manan-Island*; it is called the *Little-River*, but you cannot see it except you are near the north shore. You must not run in for it, before it bears N. W. or N. W. b. N. There is a bluff Point of Rocks on the starboard hand as you go in, and an Island in the middle of the harbour: As you pass in, leave the Island on your larboard hand, and when you have passed the Island half a mile you may anchor in 4 or 5 fathoms, muddy bottom, and remain safe from all winds. Your course from this harbour to *West-Pasamaquady* is N. E. b. E. distant 7 leagues. When you come from the S. W. and are bound into *West-Pasamaquady* you must give the *Seal-Rocks* a birth of three quarters of a mile before you haul in for the harbour, as there is a whirlpool to the eastward of them: The Bay is about a league from this point; it is high water here at full and change of the Moon about the same time as at *Boston*.

There is a good Bay that lies about W. S. W. from this Point, where you may anchor, if the tide does not suit to go over the Bar; but if the tide suits you may proceed, keeping to the westward till the Bar bears N. N. W. which course you may steer till you get up to *Allen's-Island*. In steering this course you will see a house that has two doors in it, on *Allen's-Island*, which house you must keep open with a little *Green-Island* which lies in the middle of the passage. When you get over the Bar, this house must be brought open to the

westward of the Island and you may go on either side of it as the wind should favor you. If you go to the westward of it with the tide of flood, and the wind fails you, the tide will carry you into a large Bay on your larboard hand. The first Island you come to is the *Collector's* which lies on your larboard hand, and the next to this is *Allen's-Island*. When you come to the westward of the little Island you may anchor opposite the long house on *Allen's-Island*, or direct your course N. N. E. distant 3 miles, to *Moose-Island*. In the passage of *West-Pasamaquady* the tide sets to the N. N. W. over the Bar, two hours before it rises one foot, and likewise sets S. S. E. two hours before high water. When you get up as far as *Allen's-Island*, and leave it with the tide of flood, steer N. N. E. 3 miles, when you will have the tide against you 4 hours, and two hours before high water the tide sets S. S. W. till you come down to the *Collector's-Island*, when it sets over the Bar S. S. E. The tide rises here 25 feet. There is a fine Cove on the south end of *Moose-Island*, where a ship of 500 tons may lie, moored head and stern, safe from all winds, but the anchors are very much exposed, with the wind to the eastward or E. N. E.

If you are bound up *Scodice-River* from *Moose-Island*, when you pass *Bald-Head*, give it a birth of half a mile as there is a large ledge of Rocks that lie off from it. When you have passed this Point your course is N. N. W. distant 8 or 9 leagues to the *Devil's-Head*, or *Oak-Point*, (so called.) The *Devil's-Head*, you leave on your larboard hand. It is very high land and may be seen 10 or 12 leagues. Your course from said Head is W. N. W. 2 leagues, when you will come to a large ledge of Rocks which you must leave on your larboard hand, which is bare at 2 hours ebb and extends half way over the river. You keep your starboard hand on board, and when you pass this ledge your course is W. S. W. distant 1 mile to *Pumroy's-Point*, and from said Point to the harbour your course is N. W. b. N. distant 3 miles and the next reach to the *Falls* is W. N. W. distant 1 mile; the tide flows here 25 feet, and there is only 6 or 7 feet in the channel at low water, with long *Falls* of mud on both sides.

There are several good harbours on the west side of this river, and all the difficulty is the great depth of the water which is in general from 18 to 24 fathoms. There is also a

good harbour on your starboard hand, going into *Deer-Island*, which lies to the southward of *St. Andrews*, 2 leagues distant. It may be easily known, as there is a large Bay between the two Islands which lies N. E. from the river *St. Croix*, 3 leagues distant. *St. Croix* lies in lat. 45, 00. north.

Directions to go to the eastward of the Island of Campo-Bello, between the said Island, and the Wolves-Islands.

IF you are bound to the River of *Pasamaquady* in a large vessel your best way is to go to the eastward of *Campo-Bello* keeping your course N. E. b. E. which will carry you to the *Wolves* distant about 3 leagues from *Campo-Bello*. The *Wolves* lie about E. S. E. from said Island, and when the passage between *Campo-Bello* and the *White-Horse*, bears W. N. W. you must steer W. N. W. leaving the *White-Horse* on your starboard and keep the island, (*Campo-Bello*) best on board. The *White-Horse* is a large white Rock as you pass the N. E. end of *Campo-Bello*. You will see a fine harbour called by the French, *Harbour-Delute*. You will leave several Islands on your starboard hand, when you pass the *White-Horse*. As you pass here, you will open a large Bay to the W. S. W. which is sufficient for 100 sail of the line to lie in. You will find very deep water between the *Wolves* and the *Island of Campo-Bello*, being from 50 to 100 fathoms. When you bring *Campo-Bello-Island* to bear S. S. E. or S. E. you will have 20 fathoms water where you may anchor and be safe from all winds. Your course to *Moose-Island* is W. S. W. distant 2 leagues, where you may anchor in 8 or 10 fathoms, muddy bottom. Here is the best harbour in the *United States* for making dry Docks, as you may have them either on the south end of *Moose-Island*, or 30 or 40 miles up *Scodice* river. Common tides rise here 25 feet. At full and change, it is high water at half past eleven at *Moose-Island*.

Description of the Coast from Palamaquady, skewing the making of the land, and the setting of the tides and currents with the soundings from Georges-Bank, to the shore.

IN coming from the eastward over the east end of *George's-Bank*, in the lat. of 42, 30, you will find sounding in 100 and 110 fathoms, fine black and yellow-sand mixed with large gravel and broken shells. Steering from this latitude W. b. N. and W. N. W. 5 or 6 leagues distant you will find from 70 to 75 fathoms water, with fine black and yellow sand, mixed with gravel and broken shells. As soon as you get in the latitude of 43, 00, you will have no bottom with 130 fathoms.

In coming from the southward on the middle of *George's-Bank*, you will find bottom in the latitude of 41, 00, from 60 to 75 fathoms, yellow gravel, &c. In steering N. N. W. from the latitude of 41, 00, you will have sounding from 40 to 75 fathoms, and when you get to the north of latitude 42, you will have no bottom with 130 fathoms.

When you cross *George's-Bank* 6 or 7 leagues to the eastward of the Shoals, you will have from 18 to 20 fathoms, and as soon as you get to the latitude of 42, 12, you will have 60 fathoms which sounding is on the north side of the *Bank*. Your sounding on *Georges's-Bank* when the breakers bear from W. S. W. to N. W. 3 or 4 leagues distant, is 5 fathoms, fine yellow sand, mixed with large yellow gravel, in lat. 41. 30. north. If you are bearing near these Shoals when to the eastward of them, the current sets from E. N. E. to W. S. W.

Directions for the Eastern Coast when you fall in with Grand-Manan or Mount-Desert-Hills.

THESE places may easily be known from the western coast. You may see *Mount-Desert-Hills* 20 leagues at sea, and when you get within 4 or 5 leagues of them you may see *Skutock-Hills* bearing about N. N. E. The tide of flood sets here E. N. E. and the ebb, W. S. W. but as soon as you are 9 or 10 leagues from the land the current runs in general to the S. W. westward.

If you fall in with *Mount-Desert-Rock*, which lies south 6 leagues from *Mount-Desert-Hills*, the tide of flood sets to the W. S. W. along shore, till you come to the *Fox-Islands*; but the same flood runs up to the northward into *Blue-Hill-Bay*, *Union-River* and *Ile-au-Haut** bay.

The next remarkable land is *Penobscot-Hills*, which you will see over the *Fox-Islands*, bearing from the N. W. to N. N. W. of them. When you pass the *Ile-au-Haut*, in steering W. S. W. you will leave *Matinicus-Islands* and *Matinicus-Seal-Island* to the southward of you. [If at night or thick weather I would advise you to go to the southward of all these Islands, unless you are well acquainted.] When you pass to the westward of *Matinicus-Islands*, the main passage from sea to *Penobscot-Bay*, lies about N. b. W. If you go into this passage you leave *Matinicus-Island* on your starboard, and the two *Green-Islands* on your larboard hand, steering N. westerly, 4 leagues, and if bound up the Bay follow your directions for *Penobscot-Bay*.

If you come in from sea and make the Island of *Manhattan*, when it bears north, or N. N. W. it appears like two Islands; but when it bears East or West it appears in one Island. *Da-*

* The *Ile-au-Haut* is a remarkable land which makes with a large Bay on each side of it, and the highest part of the Island is in the middle.

mis Cove-Island lie to the W. b. N. of it, which are all bare of trees except the north part. The rocks called *Rantain-Ledge*, lies two miles from *Damiscove*, S. W. or W. S. W. When you are 6 or 7 leagues off at sea, you will have 70 or 80 fathoms of water, with a S. W. current. In general between *Damiscove* and *Manbeyn-Island* the flood tide parts it and sets E. N. E. to the eastward, and W. S. W. to the westward as far as the Island of *Segwine*, and to the northward up to *Broad-Bay*, *Sheepcut-River* and *Kennebeck-River*, and the ebb sets the contrary way.

* *Segwine-Island* is remarkable when bearing east or west. It lies two miles from land but when it bears north, shuts in with it. It may be known by the high land of *Cape-Small-Point* bearing N. W. from it. You have deep water to the eastward of *Segwine*. When you pass to the westward of *Segwine* the tide of flood sets strong to the northward, into *New-Meddows*, and W. N. W. into *Broad-Sound* and up to *Portland*, and the ebb tide the reverse. Your soundings between *Segwine* and *Cape-Elizabeth* is various: At times you have 18 or 20 fathoms, rocky bottom, and within a cable's length you will find 30 or 35 fathoms, muddy bottom.

There are three rocky ledges that lie about east and west to the westward of *Segwine*, which are not much wider than a wharf. The land here is all in Islands until you come to *Cape-Elizabeth*, which Cape has a Light-House to the N. W. and a wind-mill to the westward, near *Richmond's-Island*, which is the first wind-mill you see when coming from the eastward.

Remarks on the White-Hills.

THESE hills lie N. W. from *Portland* and N. N. W. from *Wood-Island*. You may see them in clear weather when no other part of the land is in sight. At the first

* There is a Light-House on this Island, which contains a repeating Light, so constructed as to disappear once in every minute and a half, which distinguishes it from *Portland Light*.

light they appear like a cloud and are always white occasioned it is said, by their being covered with white moss. These hills have been seen in lat. 43, 10, being forty-six miles from *Cape-Elizabeth*. The depth of water in the above latitude is 80 fathoms, muddy bottom. When you steer N. W. or W. N. W. from this latitude, you will make *Agamenticus-Hills*, and when bearing W. b. N. 6, or 7 leagues they appear with three hills and the smallest of them to the eastward: At the same time you will make *Wells'-Hills*, bearing W. N. W. and when you are on the northern part of *Jeffry's-Ledges* in 45 fathoms water, you will see the hills of *Agamenticus*, bearing W. b. N. or W. N. W.

I would recommend to all Mariners, in coming from the eastward, not to go the northward of lat. 43, 10, in thick weather, unless they are well acquainted, and judge themselves to the westward of *Boon-Island-Ledge*, as this has proved fatal to many who were acquainted.

Between *Jeffry's* and the *Isle-of-Shoals* you will have 70 and 75 fathoms water, muddy bottom, and a strong current setting to the S. W. You may see the *Isle-of-Shoals* 5 or 6 leagues when you are to the eastward of them, but in thick weather you will see a wind-mill first, which is on one of the Islands. When you go to the westward of these Islands and are bound to *Portsmouth* or *Newburyport* give them 3 miles distance as there is a large rock called *Innesis-Rock*, 2 miles off, bearing S. W. b. S. from *Star-Island*, which is bare before low water.

Directions for Ipswich Bay.

WHEN you are from the eastward and *Cape Ann-Lights* bear N. W. or N. W. b. W. 7 or 8 leagues off, you will have 60 or 70 fathoms water, muddy bottom. You may see them 7 or 8 leagues distant. In the day the Cape makes with five hills when bearing as above mentioned, and *Pidgeon-Hill* appears the highest.

In standing to the S. W. westward, in lat. 42, 30, you will make the *Blue-Hills*, bearing about W. S. W. They lie about 20 miles from the Light-House, and as you run to the S. W. westward, you will make the high land of *Marssfield* bearing S. S. W. and when you bring the Light-House to bear S. W. you will have 18 or 20 fathoms water, soft muddy bottom.

When you come into the south channel, you will find soundings in lat. 40, 10, sixty fathoms, fine white, black and yellow sand. There you will have a strong N. E. current. About 8 or 10 leagues to the westward of this is *Tuckonick-Channel*. You will have soundings in the lat. of 40, 00, fifty-four fathoms, soft mud, with oozy bottom. You must use a peice of cloth on your lead or you cannot tell when you have bottom, the mud being so very soft. Your course in this channel is N. N. W. If you intend to make the land, you will have 44 fathoms, in latitude 40, 15, of the same kind as above-mentioned. You will make the high land of the *Vineyard*, bearing N. b. W. distant 5 leagues, and have 25 fathoms, pepper sand. The tide of flood sets very strong to the northward, and the ebb to the southward out sight of land. In coming in from sea you make *Gay-Head*, when it bears north, or N. b. W. and cannot see any land to the westward of it. *Noman's* land lies to the southward, shut in, but as you stand to the westward it opens to the southward and lies 3 leagues from *Gay-Head*, to the N. W. westward you will make *Elizabeth-Islands*. There is a large ledge of rocks bearing W. N. W. 1 league distant from said Islands, called the *Sow* and *Pigs*, which are dangerous in the night but may be seen in the day time.

From Cape-Cod to Holmes'-Hole.

BRING *Morris'-Island* to bear N. N. W. then, by steering S. S. E. you will pass the *Pallock-Rip*, in 3 or 4 fathoms water; and, if the weather is clear, you will make the Light-House on *Sandy-Point*, (*Nantucket-Island*) 7 leagues distant, which bring to bear S. W. b. W. then steer for the Light-House, keeping it in this direction, and you will pass

between the great and little round Shoals. When you are within about 2 miles of the Light-House, steer W. N. W. until you are past the *Point-Rip*, or you may bring the Light-House to bear South, and steer W. b. N. taking care to make your course good for *Holmes'-Hole*.

To go through the *Ship-Channel*, steer from *Morris'-Island* S. S. E. until you pass the *Pollock-Rip* in 3 or 4 fathoms water; if the weather be clear, you will make the Light-House; Continue your course S. S. E.—S. b. E. and south until the Light-House bears West from you, then steer directly for it until you are within 2 miles of it. You should then steer N. W. until the Light-House bears S. W. b. W. and then steer W. b. N. making your course good for *Holmes'-Hole*. If you wish to anchor near the Light-House, you may after bringing it to bear S. W. b. W. as before directed, and passing it within about 2 miles of the shore, run until you are 2 or 3 miles to the southward of it, and there come to an anchor in 6, 7, or 8 fathoms water.

From Holmes'-Hole in Martha's-Vineyard to Cape-Cod.

FROM the east end of *Holmes'-Hole*, steer E. b. S. until you pass *Nantucket-Light-House*; bring it to bear west, and steer east, taking care to make this course good, which will carry you over the Shoals in *Ship-Channel*; the ground is very uneven, and you will have from 4 to 8 fathoms water. When you have passed over the Shoals, you will have from 10 to 14 fathoms water, and then, by steering north, you will make the high-lands of *Cape-Cod*.

To go to the northward of the *Round Shoal*, you must proceed according to the foregoing directions until you pass the Light-House, and bring it to bear S. W. b. W. then, by making a N. E. b. E. course good, you will go between the *Great* and the *Little-Round-Shoal*, in 2, 3, 4, and 5 fathoms water. The *Little-Round-Shoal* bears N. W. from

the great one, distant about 3 miles. Continue your N. E. b. E. course, until you deepen your water to 12 or 13 fathoms, and then steer north for the back of *Cape-Cod*.

If you are coming from sea, and make the Island of *Nantucket* to the northward of you, it may be known by three wind-mills which stand near to each other upon an eminence. You may then steer directly for the land, until you are within half a mile of it; and may, if bound to the eastward, run along the shore in 4, 5, and 6 fathoms water, to the S. E. part of the Island, where there are Shoals and Rips, on which you will have only $2\frac{1}{2}$ or 3 fathoms water. Continue your course along the shore, until you bring *Sancoty-Head* to bear S. W. from you; then steer N. E. and you will go over the same Shoals in the *Ship-Channel*, as you do in steering east from the Light-House.

Off the north-east part of *Nantucket-Island*, there are 3 Rips; the first is called the *Boat-Rip*, and is about 3 miles from *Sancoty Head*; on some parts of this rip there are only 8 feet water; on other parts there are $2\frac{1}{2}$ and 3 fathoms water.

The *Great-Rip* is about 7 miles from *Sancoty-Head*; on this Rip, about E. S. E. from *Sancoty Head*, there are 6 feet water; and east from *Squam* there are only 5; but on many other parts of it, there are $2\frac{1}{2}$, 3 and 4 fathoms water.

Fisher's-Rip is about 5 leagues from *Sancoty-Head*, and has from 5 to 7 fathoms water on it. Between this and the *Great-Rip*, the ground is uneven; there are 12, 22 and 15 fathoms water. These two Rips stretch nearly north and south, and are about 12 miles in length.

If, in coming from sea you make the South Shoal, which lies in 40, 48, north latitude; give it a berth of a mile or two. If you intend to make *Nantucket-Island*, steer N. b. W. and when you come near the Island, you may proceed along the shore, according to the former directions.

If, when you make the South Shoal, you are bound to *Boston-Bay*, and choose to go to the eastward of all the Shoals and Rips, pass a mile or two to the eastward of the South Shoal, then steer N. E. b. E. until you deepen the water to 45 or 50 fathoms, and then steer N. b. W. for the back of *Cape-Cod*.

BEARINGS and DISTANCES

OF

Nantucket-Shoals, from the Light-House.

- T**O the *Handkerchief* N. b. E. four and a half leagues.
 To the *Snow-Drift* N. N. E. five ditto.
 To the *Stone-Horse* N. E. b. N. four do.
 To *Sandy-Point* N. b. E. $\frac{1}{2}$ E. five and a half do.
 To the *Little-Round-Shoal* N. E. three and a half do.
 To the east end of *Pollock-Rip* N. E. seven do.
 To the *Great-Round-Shoal* E. N. E. three and a half do.
 To the north end of the *Great-Rip* E. S. E. $\frac{1}{2}$ E. five and a half do.
 To the *South-Shoal* S. $\frac{1}{2}$ E. twelve do.
 To *Nantucket-Harbour* S. S. W. three do.
 To *Tuckanuck-Shoal* West, three do.
 To the *East-Chop* of *Holmes-Hole* W. b. N. eleven do.
 To the *Horse-Shoe* N. W. b. W. five and a half do.
 To *Hyannas* N. W. $\frac{1}{2}$ N. six do.
 To a small *Rip* or *Shoal* E. N. E. half a league.

S. S. E. and W. N. W. Moon makes high water on the Shoals; the tide of flood sets N. E. b. E. and ebb S. W. b. W. from two to three knots an hour. It ebbs and flows about five or six feet.

When you come in from sea and fall into *Black-Island-Channel*, you will have from 24 to 70 fathoms, soft muddy bottom. You will have soundings in the lat. of 40. In standing to the northward you will find your water to 30 fathoms, and when in sight of *Black-Island* you will have 25 and 20 fathoms, fat-

dy bottom. When *Block-Island* bears north, distant 4 or 5 leagues, you cannot see any land to the northward or eastward, but as you approach the Island you will see *Montock-Point* to the westward, making a long low Point to the eastward. In sailing to the W. S. W. you will make no remarkable land on *Long-Island* from the eastward of said Island to the westward, its broken land appearing at a distance like Islands. You will have 20 or 22 fathoms water out sight of land, sandy bottom in some and clay in other places. When you come in sight of *Sandy-Hook-Light-House* you will see the *Highlands of Never-sink*, which lie W. S. W. from *Sandy-Hook*, and is the most remarkable land on that shore.

Directions for those who fall in with Block-Island, and intend to go between Martha's-Vineyard and the Main, and thence through the Shoals to the Eastward.

IN approaching the south end of *Block-Island*, from the southward, the water shoals gradually. When the Island bears from N. W. to N. B. W. the bottom is mud; this is commonly called *Block-Island-Channel*. This Island, if you come from the southward, appears round and high, and if you approach it from the S. E. it appears like a saddle, being high at both ends, but highest to the southward. Your course from *Block-Island* to *Gay-Head* is E. $\frac{1}{4}$ N. and the distance 14 leagues.

Gay-Head is the westernmost Point of *Martha's-Vineyard*. The land of this Head is high and of divers colours, namely, red, yellow and white in streaks. In steering from *Block-Island* for *Gay-Head*, you must be careful to avoid the *Sow* and *Pigs*; they are a great parcel of Rocks, some of which are above, and others under water. These Rocks lie 3 miles S. W. from the westernmost of *Elizabeth's-Isles*, and N. W. from *Gay-Head*, 5 miles distant. The first of the flood tide sets

strong to the northward, over the rocks into *Buzzard's-Bay*, which is very foul. Within *Gay-Head* there is a fair sandy Bay, in which is good anchoring, with south and south-easterly winds. Your course along *Elizabeth's-Isles* is E. N. E. in 15, 14, 12, 8, 15, 16 and 17 fathoms water: Give the Isles a birth of about three quarters of a mile. There is an opening at the west-end of the easternmost of *Elizabeth-Islands*; it is called *Quick's-Hole*, and has pretty good anchorage. About 3 leagues E. N. E. from the mouth of *Quick's-Hole*, there is another opening at the east end of the Islands, called *Woods'-Hole*.

About midway between *Quick's-Hole*, and *Woods'-Hole* there is a fair sandy cove in the Island, called *Elizabeth-Island*, because the largest of *Elizabeth-Isles*: This is called *Tarpauling-Cove*: The entrance is bold on both sides, and you may anchor in 6, 5, 4, and 3 fathoms water, and lie secure from all winds, excepting those which blow from the E. S. E. The ground is good for holding, and there is no tide. In this cove, the tide flows, at change and full days of the moon at nine o'clock; but in the channel, between *Elizabeth-Island* and *Martha's-Vineyard*, the flood runs until twelve o'clock. In this channel there is a middle ground, which extends nearly as far to the eastward as the North Point of *Martha's-Vineyard*, called *West-Chop*. On this ground there are from 2 to 6 fathoms water. On the south side of the ground there is also a channel in which are 9, 8, and 7 fathoms water. When the *East-Chop* of *Holmes'-Hole* comes open of the *West-Chop*, you are to the eastward of the middle ground.

Holmes'-Hole, in *Martha's-Vineyard*, lies about 3 leagues S. S. E. from *Tarpauling-Cove*; it is a very good harbour, the ground good, and you may anchor where you please. The usual mark for anchoring is the *West-Chop*, bearing from S. S. W. to S. W. b. W. in 6 or 5 fathoms water. In this harbour, which is about 2 miles deep, you will lie secure from all winds except a northerly one. About two and a half miles northward from *Holmes'-Hole*, there is a Shoal called the *Hedge-Fence*; it extends W. N. W. and E. S. E. 6 miles, is about a mile broad, and has from 4 to 6 feet on it at low water; between this Shoal and *Holmes'-Hole*, there are from 8 to 12 fathoms water.

From *Holmes'-Hole* to *Cape-Poge*, the course is S. E. b. E. and the distance about $3 \frac{1}{2}$ leagues; in the channel between them, there are 12 and 11 fathoms water. In going through this channel, you must be careful to keep your lead going, in order to avoid a dangerous sand which lies on the north side of it, called the *Horse-Shoe*. The channel between this sand and *Cape-Poge*, and also between the former and *Tuckanuck-Shoal*, is narrow. In it there are from 12 to $4 \frac{1}{2}$ fathoms water. Some parts of this sand dries at low water, in other parts, there are narrow channels, through which vessels may pass: the easternmost part of it spreads with divers prongs, like fingers. When *Tuckanuck-Island* bears S. S. W. you are to the eastward of the *Horse-Shoe*. On the south side of the channel also, there are several spots of land, to avoid which, you must keep your lead going.

There is a harbour between *Martha's-Vineyard* and *Cape-Poge*, in which you may anchor. In proceeding for this harbour, pass within a mile from *Cape-Poge*, and then steer in south along the low sandy beach on the west side, in 5 fathoms water until you come to the southernmost part of it; then sail more easterly about a mile, until you bring the town, which is in a Bay to the westward, fairly open; and then steer directly west into the harbour until you get within half a mile of the town, where you may anchor in 4, or 3 fathoms water. This harbour is a gut between *Martha's-Vineyard* and *Cape-Poge*, and is formed by a Shoal which lies on the N. W. and west side of the entrance, and the beach to the southward. The tide runs strong into this harbour until twelve o'clock.

If you come from the eastward, and are bound for *Long-Island* or *New-York*, you should be careful not to go to the northward of 40, 30. latitude, until you pass the south Shoals of *Nantucket*; the southernmost part of them lies in lat. 40, 48. If by stress of weather you should be driven so far to the northward, as to be near *Nantucket-Island*, you may pass through the channel to the southward of the Island. This is a very difficult and dangerous passage, and not to be attempted but in case of necessity. *Martha's-Vineyard-Island* lies in much the same latitude as *Nantucket-Island*, and may be known by a small round Island which lies off to the southward of *Gay-Head*, called *Nowan's-Island*. You may sail between this Island and *Martha's-Vineyard*; but you must take care to avoid a ledge of Rocks which lie nearly in the mid-channel.

Ships, in passing the Shoal ground on *George's-Banks*, and on *Nantucket-Shoals*, should take care to go between those shoals and the gulph stream. As the Southernmost part of the shoal ground on *George's-Bank* lies in 41, 38, Latitude ; and the Northern limits of the gulph stream, directly South from this part of the shoal ground, extends to Latitude 39 Degrees; you should pass the shoal ground between these two Latitudes. As the South part of *Nantucket-Shoals* lies in Latitude 40, 48, and the gulph stream Southward from this part, reaches as far to the Northward as Latitude 38, 30, you should pass *Nantucket-Shoals* between these Latitudes. The shoal ground on *Georges'-Bank* lies in Longitude 67, 56, West, and the South shoal of *Nantucket* in 69, 45, West.

By observing the foregoing directions, and keeping between the gulph stream and the shoals, you will shorten your passage to *New-York, Delaware, Virginia*, or other Western Ports ; for you will have the advantage of the eddy current, running contrary to the gulph stream ; the latter would retard your progress at the rate of 60 or 70 miles in a day.— The *Nantucket* Whalers, by their constant practice of Whaling on the edge of the gulph stream, all the way from their Island to the *Babamas*, are well acquainted with its course, velocity and extent. A stranger may know when he is in the gulph stream, by the warmth of the water, which is much greater than that of the water on either side of it. If, when you are crossing the gulph stream, you are bound to the Westward, you should get out of it as soon as possible.

Directions for those who fall in with Block-Island, when they are bound for Rhode-Island Harbour.

FROM the S. E. point of *Block-Island Light-House*, the course is N. b. E. $\frac{3}{4}$ E. and the distance 7 Leagues ;

about midway between them, there are 24 Fathoms water. If you are on the West side of *Block-Island*, with the body of the Island bearing E. N. E. in 8 or 10 Fathoms water, your course to *Point-Judith* is N. E. b. E. about 6 Leagues. This Point appears like a *Nag's Head*, and is pretty bold: Between *Block-Island* and the Point, there are from 30 to 6 Fathoms water. From *Point-Judith* to *Rhode-Island* harbour, your course is N. E. and the distance about 5 Leagues. The Light-House must be left on your larboard side; it stands on the South Point of *Conanicut-Island*: This Point is called the *Beaver's Tail*, and is about 3 Leagues distant from *Point-Judith*. After leaving the Light-House on your larboard side, you must take care to avoid the Rocks which lie off South from *Castle-Hill*, some of which are above water:—*Castle-Hill* is on the East side of *Rhode-Island* harbour. If you steer N. E. you will have 20 Fathoms water; the shore is hard and rocky. A little within the harbour, and near to the shore on the West side, there is a rock called the *Kettle-Bottom*. There is also a Cove on the West side, called *Mackarel Cove*, the entrance of which is shoal and dangerous.—About a mile and a half within the harbour, there is an Island called *Scape-Goat-Island*: it lies right before the Town, and stretches about N. E. and S. W. As both ends of these Islands are pretty bold, you may pass into the anchorage at either end, and ride nearer to *Rhode-Island* side than to that of *Scape-Goat-Island*, as the other parts of the harbour are grassy, and would be apt to choak your anchors. *Rhode-Island* is navigable all round by keeping in the middle of the channel.

Narraganset-Bay lies between *Conanicut-Island* and the main. Your course in, is about North, taking care to avoid the *Whale-Rock*; you may pass it on either side, and anchor where you please. From the Light-House on *Conanicut-Island* to *Gay-Head* in *Martha's Vineyard-Island*, the course is E. S. E. and the distance 10 $\frac{1}{2}$ Leagues. In little wind you must take care that the flood tide does not carry you into *Buzzard's-Bay*, or on the *Sow* and *Pigs*.

From Block-Island to Gardner's-Bay.

MONTUCK POINT, which is the Easternmost part of *Long-Island*, is $5\frac{1}{2}$ Leagues W. b. S. from the S. W. point of *Block-Island*. Between the Island and the point there are 16 and 18 Fathoms water. As you approach the Point, you will quickly come into 9, 7, and 5 Fathoms water. A flat runs off from the above point on the outer parts of which, there is water enough.

The N. E. part of *Gardner's-Island* is $5\frac{1}{2}$ Leagues W. N. W. from *Montuck-Point*. With Westerly winds you may anchor off this part of the Island, which is sandy. The marks for anchoring, are the highlands of *Plumb-Island*, N. W. and the South point of *Gardner's-Island* in sight, bearing S. b. W. or South; you will have 12 or 10 fathoms water: The bottom is sand and mud. About 5 Miles North from the North part of *Montuck-Point*, there is a rock on which there are 16 Feet water.

The entrance of *Gardner's-Bay* is formed by the North end of *Plumb-Island*, and the sandy point of *Gardner's-Island*. When going into this Bay, you must give the North end of *Gardner's-Island* a large birth, for a shoal runs off from it to a considerable distance; come no nearer to it than 6 fathoms water. You should also be careful not to go any nearer to *Gull-Rock* than a mile and a half, in order to avoid a very foul and rocky spot, on which there are about 3 Fathoms at low water. This shoal lies with the following marks and bearings; namely, a house on *Plumb-Island* (standing about one third of the way between the middle and the N. E. end) or with the Northernmost of the two trees which appear beyond the house, the North end of *Gull-Island* to bear N. N. W. or N. b. W. $\frac{1}{2}$ W. and the South-East end of *Plumb-Island* or with the Northwest point of *Long-Island*. In order to avoid this rock, when going into, or coming out of

Gardners'-Bay, you must be sure to keep the South point of *Plumb-Island* open off the North-West point of *Long-Island*, whilst the Houle on *Plumb-Island* is on with the Northernmost of the two trees, as before-mentioned. There are several trees, but they appear, when viewed at a distance, to be only two trees. This shoal is called by some the *Bedford-Rock*, because the English Ship *Bedford* grounded on it, Aug. 15th, 1780. In *Gardners'-Bay* you may anchor in what depth of water you please, from 5 to 8 fathoms.

On the South-West side of *Gardners'-Island* there is very good riding. If you are to the Eastward of the Island, with an Easterly wind, and wish to take shelter under the South-West side, you must give the North-West end of the Island a large birth as above directed; and as you open the West side of the Island, you may haul round the North-West point, and anchor where you please. The soundings are regular.

About $4\frac{1}{2}$ miles N. W. $\frac{1}{2}$ N. from *Montuck-False-Point*, there lies a small rocky shoal, on which there are 16 feet at low water. *Montuck-False-Point* is about 3 Miles N. W. from the true point. On the 16 Feet rocky shoal there are the following bearings: namely, the long white cliffs on the West end of *Fishers'-Island*, N. b. W. $\frac{3}{4}$ W. The *Gull-Rock*, W. N. W. The North-East Bluff of *Gardners'-Island*, W. S. W. $\frac{1}{2}$ W. A Grove of trees, which stand on the West side of *Fort-Pond-Bay*, and rises like a cock's comb, touching, or rather to the Eastward of *Willis'-Point*, and bearing S. b. W. $\frac{1}{2}$ W. *Willis'-Point* is on the East side of the entrance of *Fort-Pond-Bay*. This Bay is very convenient for Wooding and Watering; the ground is clear and good, and you may anchor in any depth you please. In a large ship you may bring *Willis'-Point* to bear N. E. and even N. E. b. N. and then have in the middle, about 7 Fathoms water. Near the shore, at the bottom of the Bay, there is a Pond of fresh water.

From the West point of *Fisher's-Island* a dangerous reef runs off about one Mile W. S. W. which, in passing, if you must be careful to avoid. In this passage, which is called the *Horse-Race*, the tides run very strong. It flows, on the change and full days of the Moon, half past eleven o'clock, and the water rises five or six feet.

Long-Island, from *Montuck-Point* to *Yellow-Hook*, extends W. b. S. about 108 miles, and is at the broadest part about 10 Miles across. The land is generally pretty low and level excepting a few hills which lie about 40 Miles to the Westward of *Montuck-Point*. Along the South side of the Island, a flat extends about a Mile from the shore; in some places it runs out a Mile and a half. * Your course along this flat, from *Montuck-Point* to *Sandy-Hook*, is S. W. b. W. $\frac{1}{4}$ W. 14 Leagues; and then W. b. S. 22 Leagues. The East end of the flat is sand, the middle and West parts are sand and stones. At 4 Leagues distance from the Island, there are from 15 to 18 Fathoms water, and from that distance to 20 Leagues, the water deepens to 80 fathoms; in the latter depth you will have oozy ground, and sand with blue specks in it. About 4 Leagues off the East end of the Island, you will have coarse sand and shells; and at the same distance from the middle and West end, there is small white sand.— From the South-West end, a shoal extends to about 6 Miles towards *Sandy-Hook*.

Directions for Gay-Head, and Martha's Vineyard-Sound.

WHEN you come in from the S. W. you must give *Gay-Head* a birth of about 1 league, as there is a ledge of rocks that lie W. N. W. from it, 2 miles distant. If you have the wind at South, or S. S. E. and intend to go up the South Channel, when you bring *Gay-Head* to bear S. E. b. E. you haul in for the *Vineyard* land in 7 or 8 fathoms water; then you may steer N. E. b. E. 6 or 7 leagues.* There is a good harbour in *Elizabeth's-Island*, called *Tarpauline-Cove*: It lies about 4 leagues from *Gay-Head*. Your course

* This Channel is very dangerous in the night; but in the day there is a very good passage. If the wind blows hard at S. E. or S. S. E. you may make a good harbour in *Norfolk-Island*, which lies about 10 leagues from the East end of *Gay-Head*. You may lie here safe with the wind at S. Eastward.

from *Gay-Head* to the Cove, is N. E. It is safe from all winds, except S. E. or E. S. E. but if you have good cables and anchors you may moor your vessel N. E. and S. W. Here you may ride safe in 5 or 6 fathoms, good anchorage. It is high water here full and change, at 9 o'clock and 52 minutes. When you leave this place, bound for *Holmes'-Hole*, your course is E. b. N. till you bring the West Chop to bear E. b. S. when you may steer E. b. S. with the tide of flood, but with ebb, S. S. E. In anchoring in *Holmes'-Hole* with a large vessel you may lie in 5 or 6 fathoms; but if you lie a long time here you must moor S. E. and N. W. and lie safe from all winds except N. E. or E. N. E.

Directions for New-Bedford.

IF you come into the Sound between *Gay-Head* and *Elizabeth-Island*, in the winter season, and have bad cables and anchors, you must bring *Gay-Head* to bear South and run North for *Quick's-Hole*, about $3\frac{1}{2}$ leagues from *Gay-Head*. In going through this passage keep the larboard hand best on board, as there is a ledge of rocks on the starboard hand as you enter from the southward. When you pass this place you must steer N. $\frac{1}{2}$ E. 4 or 5 miles, for there is a sunken ledge which you leave on your larboard hand after you go about 2 leagues on the above course; then you must steer N. N. W. In steering this course you will make a dry ledge of rocks and a low Island with a few trees on it, on your starboard hand: You will see *Fort-Point* when you pass these Islands, and make an Island on your larboard hand with sundry trees on it. You may then run within a cable's length of *Fort-Point* which you leave on your starboard hand. You will see the town of *New-Bedford* on the West side of the river, and *Dartmouth* on the East. *Dartmouth* is the safest place to lie in with an Easterly wind, but at *New-Bedford* you will lie safe at the wharves.

You may fetch these ports from *Quick's-Hole* with the wind at East or E. N. E. distant 4 leagues. The ebb tide sets strong South, through *Quick's-Hole*, and the flood North, but when you get into the Bay there is but very little tide.

Directions from Gardiner's-Island to Shelter-Island.

IF you fall in with *Gardner's-Island*, you may sail on either side of it, but the south side is the safest, as there is a shoal point on the North side above a mile distant. You may bring the Island to bear East and anchor in 7 or 8 fathoms water. If your cables and anchors are not good you may make a fine harbour which lies to the Westward called *Shelter-Island*, lying West 3 leagues from *Gardner's-Island*. You must leave *Shelter-Island* on your starboard hand, and run W. b. N. about 5 or 6 miles, when you will open a large Bay where 100 sail of vessels may lie safe and anchor in 3 or 4 fathoms water.

Directions from Gardner's-Island to New-London.

YOUR course from *Gardner's-Island* to *New-London*, is N. b. E. 5 or 6 leagues. In steering this course you will leave *Plumb-Island* and *Green-Island* on your larboard and *Fisher's-Island* on your starboard hand. In this pass you will go through the *Horse-Race*, where you will have a strong tide: The flood sets W. S. W. and the ebb E. N. E. This place breaks when there is any wind, especially when it blows against the tide. Your soundings will sometimes be 5 fathoms, at others 15 or 16. In passing the West end of *Fisher's-I-*

land, you must give it a birth of $3\frac{1}{2}$ miles as there are several rocks to the Westward of it ; then your course to the Light-House is N. N. W. distant 2 leagues, but in going in here you must not make long hitches : You will leave a sunken Ledge on your larboard, and one on your starboard hand. When within one mile of the Light-House you may stand to the Eastward till the Light bears W. N. W. and then run up about N. b. W.

Directions for Noman's-Land.

THERE is a dangerous * Rock bearing N. W. b. N. from *Noman's-Land*, distant about 1 league : You may go on either side of this Rock, but the best channel is between the Ledge and *Gay-Head*. You may see it break in the day, but at full sea and smooth water you cannot. It bears from *Gay-Head*, S. E. b. S. about 2 leagues distant.

Directions to go into Sandy-Hook, (New-York.)

BRING the Light-House on *Sandy-Hook*, to bear W. b. N. or W. N. W. when you may run for it ; there is a Sand Bank which you leave on your larboard hand, that has not more than $2\frac{1}{2}$ and 3 fathoms water on it. Your course in this channel is N. E. b. E. but as soon as you come up with the Light-House you must give it a birth of half a mile, as there is a spit of sand that makes off from the Light. You may keep your course in this channel with the wind at N.

W. or N. N. W. and in the main *Ship-Channel* you must turn in with the wind at N. W. When you go into the Eastward of this Bank and it bears S. W. you will have 4 and 3 $\frac{1}{2}$ fathoms; then you will edge over to the Eastward and have 5 and 6 fathoms; continue your course W. S. W. till you bring the Light-House to bear S. b. E. when you may haul to the S. W. westward and anchor in 5 or 6 fathoms; the Light-House bearing E. b. N. or E. N. E.

If in the day time, and you intend going up to *New-York*, you will see three trees to the S. W. which you must bring to bear S. S. W. and steer N. N. E. for *Hendrick's-Point*, 3 leagues distant. There is a small middle Bank bearing West from *Cunny-Island*, which you leave on your starboard hand; here you will have 5 and 6 fathoms water, and after passing *Cunny-Island* you will have 7 and 8 fathoms. In running up channel the tide of flood sets strong over the Western land, and the ebb sets strong over the Eastern land. In coming into the *Narrows* you must give a birth to *Hendrick's-Point*, as a ledge of rocks lie a cable's length from it; you may keep as nigh *Staten-Island* as you please. Your course through the *Narrows* is N. W. b. N. 18 or 19 fathoms water. When you bring *Fort-Point* to bear North, or N. b. E. off *New-York* you may run for it and anchor in the *East-River*, giving *Fort-Point* a birth of a cable's length.

Directions from Sandy-Hook Light-House, to Cape-May, or Light-House on Cape-Henlopen.

In sailing from *Sandy-Point* Light-House, off *New-York*, you must steer E. S. E. 2 leagues, and then S. S. E. 3 or 4 leagues, then S. S. W. 5 leagues, which will bring you up with *Barney-Gatt*, which place has a shoal Bank 2 leagues off. When you pass this *Gatt*, steer S. W. b. S. 13 or 14 leagues, which course will carry you up with great *Egg-Harbour*, which has a Shoal Bank 2 leagues from the shore that has not

more than 6 feet of water on it. This land is easily known by its appearing like broken Islands. On this shore is the *Highland of Neberfunk*, which lies a little to the Westward of *Sandy-Point*. In the day time you may go within three leagues of the shore, but in the night it would be prudent to keep further off. When you pass great *Egg-Harbour*, you may steer S. W. b. W. or W. S. W. There are several Inlets between *Egg-Harbour* and *Cape May*, but none fit to go into except the former, which has water at full tide, enough for a vessel of 60 tons. This shore makes broken land, when you are within 2 leagues of it, and at mast-head, you may see the water between these Islands and the main land.* If you are in a vessel that draws not more than 10 feet of water, you may make a good harbour between *Cape-May* and the *Over-Falls*, with a N. E. wind. *Cape-May* has several houses, and a wind-mill on it, and a large grove of trees to the Westward. If the wind should be at E. S. E. or S. E. you may run round the Cape and anchor in 3 or 4 fathoms, after bringing it to bear S. S. E. or S. E. b. S. but if you are in a large vessel you must run for the Light-House, which you must bring to bear S. W. b. W. from the Eastward, and N. W. b. W. from the Southward.

Directions to sail into the Delaware.

BRING the Light-House to bear West and run for it till within half a mile : When abreast of it you will have 15 or 16 fathoms water. After you pass it steer W. N. W. till you bring the Light-House to bear E. S. E. where you may anchor in 3 or 4 fathoms. If you intend running up the Bay, bring the Light-House to bear South, and steer N. b. E. with a flood tide, and N. b. W. with an ebb. The flood

* The land to the Westward of *Egg-Harbour*, may easily be known by *Seven-Mile-Reach* ; *Five-Mile-Reach* ; and *Four-Mile-Reach* : These Reaches have small inlets between them only fit for Pilot-Boats.

sets W. S. W. and the ebb E. N. E.—Steering the above course 11 or 12 miles, you will make the *Brown* which you leave on your larboard hand ; it has a buoy on it. Continue your course North till you bring *Cape-May* to bear S. E. b. E. when you will make the *Brandywine* on your starboard hand, which has a buoy on it. Then steer N. W. b. N. or N. W. b. N. $\frac{1}{2}$ N. and you will have 7 or 8 fathoms water. The channel between the *Brown* and *Brandywine* is not above 1 mile wide. S. E. moon makes high water here at full and change. There are two Banks, about mid-way between *Brandywine* and *Cross-Ledge* ; called 14 *Foot-Bank*, and 10 *Foot-Bank* ; The former you must leave on your larboard, and the latter on your starboard hand. These Banks are not in the way with a fair wind, for they lie about N. W. b. W. and S. E. b. E.—*Cross-Ledge* lies 9 miles from *Brandywine*, which you leave on your starboard hand : It has a small vessel with a mast in her for a buoy, which you may see 2 or 3 leagues. *Cross-Ledge* is about 8 miles long ; the middle you leave on your larboard hand (which has a buoy on it.) When you pass the middle, steer N. W. 2 leagues, for *Bombay-Hook*, and when it bears N. W. or N. W. b. W. you must be careful of a Bar that lies a mile and a half off from it, called *Joe-Flogger*, which has not more than 6 feet water on it at low water. Your course to *Reedy-Island*, with a fair wind, is N. W. b. N. distant 15 miles ; if you have the wind a head be careful of *Stony-Point-Ledge*, which you leave on your starboard hand : The channel is not more than two miles wide.

Stony-Point-Ledge is partly bear at low water : It bears about S. E. from *Reedy-Island*, distant 5 or 6 miles.

Directions for sailing into Cape-May with an ebb tide.

WHEN you pass the *Over-Falls*, bring *Cape-May* to bear S. E. and steer N. W. with a flood tide and N. W. b. N. with an ebb tide, 18 miles, which will bring you in the main *Ship-Channel* : Leave the *Brandywine* on your larboard hand, and then follow your directions to *Reedy-Island*.

Directions from Reedy-Island to Philadelphia.

WHEN you pass *Reedy-Island*, be careful of a long Shoal that lies to the N. N. W. of said Island, a mile and a half in length. In passing said Shoal Point keep your larboard hand best on board. You will make a small low Island on your starboard hand which has a shoal flat to the Northward of it, near 1 mile and a half in length, called the *Pea-Patch*. Keep your larboard hand on board till you bring the river to bear N. E. or N. E. b. N. when you may stand up for *New-Castle*. This place is 40 miles from *Philadelphia*. When you have passed it about a mile, you give the larboard hand a birth, as there is a flat Shoal near half a mile off; if you have a fair wind you may keep the middle of the river. This river winds from *New-Castle* to *Marcus-Hook*, from N. E. to E. N. E. distant 20 miles. Your course from this to *Chester-Island* is E. N. E. 6 miles. You leave said Island and a long low point that lies W. S. W. from them, on your larboard hand, giving it a good birth, and keeping your starboard hand best on board, till you come up with **Billing's-Point*, when you will haul up for *Mudd-Fort*, but before you come up with this Fort you will see a black buoy in channel way which you may go close to. Leave the *Cheave-au-de-Fries* on your starboard hand and run within the length of your vessel to *Mudd-Fort* wharf, in 5 or 6 fathoms water. When you pass *Mudd-Fort*, keep your larboard hand best on board steering about N. E. or N. E. b. E. till you come up with *Gloucester-Point*, as there is a low mud Island on your starboard hand and a Bar that lies to the Westward of *Redland* about half a mile distant, which you will leave on your starboard hand. Soon as you pass *Redland*, keep near the middle of the river till you come to *Gloucester-Point*, when you may haul up N. W. or N. W. b. W. 3 miles distant, for *Philadelphia*, giving the S. E. end of *Wind-Mill-Island* a birth which you leave on your starboard hand.

• This is a high Sandy Point, and bluff.

 T I D E T A B L E .

Moon	}	S. E. b. E.	} makes <i>Full-Sea</i> at	}	<i>Cape-May.</i>
		S. E.			<i>Cape-James.</i>
		S. S. E.			<i>Bombay-Hook.</i>
		S. b. E.			<i>Reedy-Island.</i>
		S.			<i>New-Castle.</i>
		S. S. W.			<i>Chester.</i>
		S. W.			<i>Philadelphia.</i>

Setting of the tide within the Bay near the Capes.

First Quarter Flood,	W. N. W.
Second to last Quarter,	N. N. W.
First Quarter Ebb,	E. S. E.
Second to last Quarter,	S. S. E.

 Directions from Cape-Henlopen to Cape-Henry.

WHEN you leave *Cape-Henlopen* bound to *Cape-Henry*, give it a birth of 3 or 4 miles and steer S. S. E. 10 leagues, as there is a Shoal Bank that lies S. b. E. from *Cape-Henlopen*, 11 leagues distant, called *Serpent*. It lies 1 league from land. If you turn in or out by *Cape-Henlopen*, be careful of the *Hen* and *Chickens*, which lie S. b. E. from said Cape, 1 league distant. There is a Bank that lies S. E. b. S. from

the Light-House, distant 5 leagues, which has not more than 5 fathoms water on it. When you judge yourself to the Southward of *Senepuxet*, you may steer S. b. W. 10 or 11 leagues, which will bring you the length of *Chingoteack Shoals*: which lie in latitude 38, 00. bearing due South from *Cape-Henlopen*, 20 leagues distant, and 2 leagues from land; between it and the shore there is 10 and 12 feet water.

Remarks on the land from Cape-Henlopen to Chingoteack Shoals.

INDIAN River lies 8 miles to the Southward of the Light-House. This inlet is fit only for small vessels that draw not more than 6 feet water. *Fenwick's-Island* lies 15 miles to the Southward of the Light-House, which Island parts the *Delaware* from *Maryland*. This Island has a grove of trees on it and you will have 6 or 7 fathoms water within a league of the land, and a strong current setting to the Southward. When you are within half a mile of *Senepuxet* and *Chingoteack Shoals* you will have 12 fathoms water. The land from *Chingoteack* to *Cape-Charles* makes broken land with Islands and several small inlets. There is a good harbour within *Chingoteack Shoals* which goes by the same name. You leave *Chingoteack Shoals* on your larboard hand, and *Metomkan* harbour about 3 leagues W. S. W. from *Chingoteack*. *Metomkan* harbour has 9 feet of water, at high tide. These are very dangerous harbours in a gale of wind, but you may ride along shore with the wind from N. W. to S. W.—When the wind blows hard at N. E. or E. N. E. and you are in sight of *Chingoteack Shoals*, your only chance for safety is to stand to the Southward, for you cannot clear the land to the Northward or go into the harbour of *Chingoteack*, which lies about N. W. 8 miles from the South end of the Shoals. When the wind is to the Eastward it is generally thick weather on this coast. After you pass the Southward of *Chingo-*

teack, steer S. S. W. for the Light-House on *Cape-Henry*, for the Northern part of *Machapungo Shoals* lie 4 or 5 leagues to the Northward of *Smith's-Island*, and the Southern part of them comes near abreast of said Island. In steering to the S. W. Westward, 5 or 6 leagues S. E. of *Smith's-Island*, you will have 12 or 13 fathoms, and in some small places 3 and 4 fathoms. When you are 20 leagues from land, in the latitude of 37, 30, you will have from 40 to 45 fathoms; but when to the Southward of *Cape-Henry* you will have 7 or 8 fathoms within a league of the land, and a strong Southerly current, which in general runs from 2 to $2\frac{1}{2}$ knots an hour.

Directions for sailing in by Cape-Henry Light-House.

WITH a fair wind you may bring the Light-House to bear West: but if you have the wind ahead and are obliged to turn in you may stand to the Southward till the Light-House bears N. W. b. N. and to the Northward till it bears W. S. W. You will have 9 or 10 fathoms within a mile of the Light-House, and from 6 to 5 fathoms close to the middle ground.

Directions for sailing between the Middle-Ground and the Horse-Shoe.

CAPE-HENRY S. E. b. S. leads over the tail of the *Horse-Shoe* in 5 and 6 fathoms. This part of the Shoal lies in ridges, so that you will frequently find a fathom difference at a call; but it is not dangerous. The tide of ebb down *Chesapeak-Bay* sets over it to the Southward.

The *Middle-Ground* is very hard sand and pretty steep : The ebb out of *James* and *York* rivers sets over it to the Eastward which makes it dangerous sailing there in the night. In turning, stand towards the *Horse-Shoe* to 4 or 5 fathoms and towards the middle to 8 fathoms ; but it is best not to venture into deeper water, for the deepest water, viz. 9 and 10 fathoms, is very near the said Shoal.

Directions for New-Point-Comfort.

WHEN you bring *Cape-Henry* to bear S. S. E. you may steer N. N. W. 8 leagues, which course and distance will carry you into *New-Point-Comfort*. There is a shoal which lies East from the point, distant 2 miles, and 4 rivers that empty into this Bay or harbour, called *Severn-River*, *Way-River*, *North-River*, and *East-River*. These rivers are all navigable for vessels of 50 or 60 tons and considerable places of trade.

Directions to sail into Hampton-Road and Norfolk.

WHEN you pass the Light-House and bring it to bear E. S. E. then steer W. N. W. 4 leagues, which will carry you up with *Willoughby's Point*, (which has a small vessel for a buoy on it ;) which lies in 6 fathoms water. If it is night and you cannot see the buoy, take your soundings from the *Horse-Shoe* in 3 and 4 fathoms water, and when you pass *Willoughby's Point* in channel-way, you will have from 10 to 12 fathoms water.

As soon as you get up with *Old-Point-Comfort* you may steer W. b. S. or W. $\frac{1}{2}$ S.—You must be careful of a flat Bar that runs up from *Old-Point-Comfort* to *Newport-Newes*. If you are bound into *Norfolk*, you must bring *Old-Point-Comfort* to bear N. E. and steer S. W. but when you pass *Sowell's-Point*, steer for *Craney-Island* S. S. W. but be careful of a Shoal bank that lies N. E. 3 miles from *Craney-Island*: The tide of flood runs strong over this Shoal. *Tanner's-Creek* lies on the larboard and *Craney-Island* on the starboard hand. There is a Shoal off *Lambert's-Point*, and the channel between *Craney-Island* and *Lambert's-Point*, is only $\frac{1}{4}$ of a mile distant. When you bring *Craney-Island* to bear N. N. W. steer S. S. E. for *Norfolk*.

Directions for running from Cape-Henry up the Bay to Baltimore.

WHEN you come in from sea and are bound up the Bay, bring *Cape-Henry* to bear S. S. E. and steer N. N. W. about 4 leagues, which will carry you to the Northward and Westward of the middle ground, that lies between the two Capes. When you have *Smith's-Island*, off *Cape-Charles*, to bear East, you will be to the Northward of this shoal. If you have the wind ahead and are obliged to turn to windward you must not stand further to the eastward after the Light-House or the Cape bears S. S. E. as the western part of the Middle Ground is steep. In standing to the westward you may go into $3\frac{1}{2}$ and 4 fathoms without danger; but in standing to the eastward you must not go into less than 8 fathoms, as you will be near the Middle Ground. If you should wish to anchor at *New-Point-Comfort*, which bears from the Cape about N. W. b. N. distant 8 leagues, you must take care of the Spit that runs off the Point about S. E. 2 miles. Keep to the Westward of this Point of Sand and you may run in under the Point and anchor in 4 or 5 fathoms water, fine bottom, where you will be secure from Northerly or N. E. winds: After you are

clear of the Middle Ground as before directed, and have the Cape to bear S. S. E. and a fair wind, you may steer up the bay north; come not to the westward of North till you have *Gunn's-Island* to bear West, to avoid a shoal called the *Wolf-Trap*, which lies N. N. E. $2\frac{1}{2}$ leagues from *New-Point-Comfort*, and S. E. b. E. $1\frac{1}{2}$ league from *Gunn's-Island*, which is but small. When you have *New-Point-Comfort* to bear West, you are within 10 leagues of *Watt's-Island*. In running the above course and distance you will have from 10 to 4 fathoms before you come up with the Islands. If you should come into 3 fathoms as you approach these Islands you may haul a little to the westward when you will deepen your water. Off *Watts'* and *Tanger's-Islands* the soundings shoal gradual. If you want to go into *Rappahanock* river, which is about 6 leagues to the northward and westward of *New-Point-Comfort*, and $1\frac{1}{2}$ league from *Gunn's-Islands*; you must, when it bears about N. W. run for it leaving *Pian-kitank* on your larboard hand, where you will have from 7 to 3 fathoms. As you come up with the larboard head for the river, keep your soundings on the larboard hand from 3 to 7 fathoms, and not deepen your water more than 7 fathoms to the northward, to avoid a long spit of sand that runs off 2 miles S. E. from the northern head of the river, which is very steep, but keep round the southern head, in the above depth of water, where you may anchor in 7 or 8 fathoms, good bottom, and lie safe from all winds.

After you are up the Bay as far as *Watt's-Island*, and have it to bear about E. S. E. you will deepen your water from 5 fathoms to 10 and 12, muddy bottom. Continue your course North until *Watt's-Island* bears S. E. and *Smiths'-Point*, which is the southern head going into *Potomack-River*, to bear West, when you will be in 10 or 12 fathoms water. If you deepen your water to 15 or 20 fathoms, you will be very near the bad spit or shoal that runs off from *Smith's-Point* into the Bay $1\frac{1}{2}$ league. Keep your soundings in 10 or 12 fathoms on the *Tanger's* side as before directed: you may then haul up N. W. b. N. for *Point Lookout*, which is the northern point of *Potomack-River*, and come too within 1 mile of the point on the western side of the Bay and have 4 and 5 fathoms water, muddy bottom. When you are up with *Potomack-River* and would wish to harbour, having the wind down the Bay, you may run in round *Point-Lookout*, giving it a small birth,

and anchor, where you will be sheltered from all northerly winds.

When you are up as far as *Point-Lookout*, and have the wind ahead, you have a good channel to beat in, up as far as *Patuxet-River*. You may stand on each tack to 4 or 5 fathoms; but in standing to the eastward when you have 9 or 10 fathoms, it is best to tack, as the ground rises sudden to 4 or 5 fathoms, and then into 2, hard land; the Western side is more regular. Your course from *Point-Lookout* to *Patuxet River* with a fair wind is N. b. W. $\frac{1}{2}$ W. and the distance 5 leagues, in 7 and 10 fathoms water, which will carry you up with *Cedar-Point*, which is pretty bold and makes the south point of *Patuxet River*. If the wind is to the northward and you cannot get into *Patuxet*, (which is often the case) you may run in under *Cedar-Point* and anchor in 3 or 4 fathoms, good bottom and secure from the wind down the Bay.

Patuxet is as remarkable a river as any in the Bay, having very high land on the north side of the River, with red banks or clefts. If you go into this river, give *Cedar-Point* a small birth and stand to the northward till you have the River open, when you may run in for *Drum-Point*, which is on your starboard hand: This is a sandy bold point, with some small bushes on it: Double this point and come too in $2\frac{1}{2}$ and 3 fathoms water, where you will be secure from all winds. In beating into this place you may stand to the north side for the high red Cliffs to 3 fathoms, and to the south side to 5 fathoms water; in the channel you will have 7 fathoms water. When standing to the south side of the river, you will see some buildings on the north side of the river above *Drum-Point*: As soon as these buildings come on with *Drum-Point* you must tack, to avoid a spit that runs off from the south side of the mouth of the River. If you cannot get up the Bay you may anchor under the high Cliffs and lie safe from northerly winds, in 4 or 5 fathoms water.

If you should harbour in *Patuxet*, when you come out, bound up the Bay, give the high land on the northern side of the river something of a birth, and also give *Cow-Point* a good birth, as a large spit runs off here some way, which is very bold: You will have 8 fathoms, and before the next cast of your lead you may be ashore. Run from *Patuxet* into the Bay till you have 9 or 10 fathoms water, when you will be near

mid channel. Your course up the Bay when in the channel, is N. b. W. $\frac{1}{2}$ W. to *Poplar-Island*, distant 8 or 9 leagues: In running this course you will have from 10 to 15 fathoms. When *Sharp's-Island* bears East, you may find 18 fathoms, muddy bottom. After leaving *Patuxet River*, if you intend to go into *Great-Choptank-River*, you must leave *James'-Island* (or Point) on your starboard and *Sharp's-Island* on your larboard hand, giving both a good birth as there are long spits off from both these places. After you have passed *James'-Point*, steer away about N. N. E. in 7 and 8 fathoms, which will carry you in under *Sharps'-Island*, where you may anchor within half a mile of the Island, and lie secure from northerly or N. W. winds, and, if you wish it, take a Pilot at this place. After you are up with *Poplar-Island* and it bears East you may then steer away about North, distant $5\frac{1}{2}$ leagues, which will carry you up to *Annapolis-River*: After leaving *Poplar-Island* the next you come to is *Kent-Island*, between which makes *Wye-River*. If the wind comes ahead when you are up as far as the southern part of *Kent-Island*, you may run in under it, opposite *Poplar-Island*, and anchor in 6 or 7 fathoms water, and lie secure from all winds except at S. W.

The land on the western side of the Bay from *Patuxet* to *Annapolis-River* is something high, with several Bays, such as *Hemming* and *West-River-Bays*, where the soundings are gradual on both sides. You will have, in running from *Poplar-Island* to *Annapolis* or *Talley's-Point* (which is the southern point of *Annapolis-River*) from 7 to 15 fathoms water. Give *Thomas'* and *Talley's-Point* a good birth, as there are long spits off from both places. If you go into *Annapolis-River*, give *Talley's-Point* a good birth and haul into the westward for the mouth of the River, taking your soundings of the south side in 3 and 4 fathoms water, and pass in between *Talley's* and *Green-Bush-Point*, which you leave on your starboard hand, giving said point a birth of an equal width, and run just above them, where you may anchor in 3 or 4 fathoms and lie secure from all winds.

After you are up with *Annapolis* and you are bound to *Baltimore*, when in the middle of the channel, your course is N. b. E. about 5 leagues, which which will carry you up to *Baltimore River*. Come not to the northward of N. b. E. for fear of *Rattle-Snake-Point* and the *Bodkin* shoals which you leave on your larboard, and *Swan's-Point* on your starboard

hand; this point is on the eastern side of the Bay, to the northward of *Kenis'-Island*, (or *Love-Point*.)

From *Annapolis* to the mouth of *Baltimore-River* you will have from 4 to 10 fathoms. Come no nearer the western side than $4\frac{1}{2}$ or 5 fathoms, till you have the river open, at which time *Swan-Point* bears about E. S. E. when you may haul in for the River. The best mark is the north point a little open with a gap of woods on *Sparrow's-Point*, which will carry you in 3 fathoms water, which is the most you will have in this channel, soft bottom. Keep these marks till *Bodkin-Point* bears S. S. W. then steer west, or W. b. N. into the River, giving north point a birth of about a mile. When abreast of north point steer away for the White Rocks, which you will see on the south side of the River, until you are abreast of the Rocks, when you must haul to the southward till you bring *Leading Point* (which is high bluff woods) within 2 sails breadth of *Hawkin's-Point* and keep it till you are almost abreast of the Rocks, when you must again haul to the southward till you bring the said points within a small sails breadth of each other, which must lead you up to *Hawkin's-Point*, to which give a birth of one quarter of a mile. There are several small shoals of about 2 fathoms on each side of the channel, which are steep and the channel between them not more than $\frac{1}{4}$ of a mile broad. When you come up with *Hawkin's Point*, you may steer away for the *Narrows*, (on which the Fort stands) about N. W. b. N. which course has nothing to obstruct you; you will have from $2\frac{1}{2}$ to 5 fathoms. When you are up with the *Narrows*, pass between the two points and give the larboard side a good birth, to keep clear of a shoal just above the *Narrows*, then haul to the S. W. up off the wharves, on the point which is on the starboard hand, and there anchor or proceed up to *Baltimore*. If you leave the point keep your larboard hand on board, when you will find good bottom, from which you may proceed to the wharf or come too with safety.

Directions from New-Point-Comfort to Potomack-River.

FROM this point, a spit extends S. E. 2 miles, which you will avoid by not going into less than 4 fathoms water. About $2\frac{1}{2}$ leagues N. N. E. from *New-Point-Comfort*, and 2 leagues East from *Iron-Point*, lies the *Wolf-Trap-Rock*, on which there are 12 feet at low water; between this rock and *Point-Comfort*, there are 8 and 9 fathoms. From the spit, which runs off from *New-Point-Comfort*, to the entrance of *Rappahanock-River*, the course is N. b. W. and the distance 6 leagues. You may keep in 5 or 6 fathoms water. Near to the *Wolf-Trap-Rock*, there are 7 fathoms.

From the entrance of *Rappahanock* to the flat which runs off from *Wichocomaca-Point*, the course is North, and the distance 6 leagues: You may run in 5, 6, or 7 fathoms water. When you draw near the Shoal which runs off from *Wichocomaca-Point*, you should not go into less than 7 fathoms. This shoal extends about $2\frac{1}{2}$ miles E. S. E. from *Smith's-Island*; on its extremity there are only 2 fathoms water; and very near to it Eastward there are 10 or 12 fathoms. The mark for the shoalest part of this sand is, a house with a white chimney, standing among the trees on the shore within *Smith's-Island*, open to the Northward of the Island, and bearing West. When this house bears W. b. N. you are to the southward of the extremity of the shoal; and when it bears W. b. S. you are to the northward of it. That which adds considerably to the danger of this shoal in going either up or down the *Chesapeake*, is, the broken Islands which lie on the East side of the channel and the flats of sand which extend from 3 to 8 miles to the westward from them.

The land of those Islands is low, with several tufts of trees standing on them. The easternmost is called *Hooper's-Island*: It is about $3\frac{1}{2}$ leagues in length; and to the southward of

Tangier-Islands lie *Watts'-Islands* ; they are small and extend about $2\frac{1}{2}$ leagues in length ; between the South end of *Hooper's-Island*, and the Northernmost of the *Tangier-Islands*, there is a passage for *Nanticoke-River*, called *Hooper's-Straits* ; and at the North end of the Southernmost of the *Tangier-Islands*, there is another passage, called *Tangier-Straits*. To the Eastward of *Watts'-Islands*, lie *Potomack-Bay* and *River*.

Potomack-River separates *Virginia* from *Maryland* : Its entrance is formed by *Wichocomaca-Point* on the South side, and *Point-Lookout* on the North side ; the distance between these two points is about $3\frac{1}{2}$ leagues.

If you are bound to *St. Mary's-River*, you must give *Point-Lookout*, and also the shore above it, a good birth ; and when you approach *St. George's-Island*, you must keep nearer to the main than to the shoal, which extends from the Island. Your course into the River is N. W. and as it is all open to your view, you may anchor where you please, in 5 or 6 fathoms water.

If you are bound to *Wichocomaca*, in *Potomack-River*, your course from the East end of *St. George's-Island*, to *Ragged-Point*, is N. W. $\frac{1}{2}$ W. and the distance 4 leagues. On the South or larboard side, there are flats lying off from the shore, in some places they extend 1 mile ; come no nearer to them than 7 fathoms. In the middle of the channel you will have 11, 10, 13, 10 and 8 fathoms. You must give *Ragged-Point* a good birth, in order to avoid the shoal which extends from it nearly one mile. From *Ragged-Point* to *Clement's-Island*, your course is W. $\frac{1}{2}$ N. and the distance 2 leagues. In the middle of the channel you will have 6, 5, $4\frac{1}{2}$ and 7 fathoms water. On the South side a little below *Clement's-Island*, is *Nomine-Bay*. From abreast of *Clement's-Island*, steer W. N. W. in 6, 5, and 4 fathoms water, until you have *Wichocomaca-River* open ; then pass pretty near to the Island, which is on the East side of the entrance, in order to avoid the shoal which runs off from the Point on the West side. Steer about North into the river, and anchor on the South side of *Newton's-Point*, in 5 or $4\frac{1}{2}$ fathoms water.

Directions from Potomack-River to Patuxet-River.

FROM *Point-Lookout* a flat runs off a considerable way, which you must be careful to avoid, by not coming any nearer to it than 7 or 8 fathoms water. Opposite this Point, the flat of *Tangier-Islands* extends so far to the Westward as to narrow the channel of the *Chesapeake* to about $4\frac{1}{2}$ miles. This part of the flat is steep, and has 12 fathoms close to it. About two leagues to the Northward of *Point-Lookout*, is *St. Jerom's-Point*, off which, above two miles, there lies a shoal. Above 3 leagues to the Northward of *St. Jerom's-Point*, is *Cedar-Point*. Between them (7 or 8 fathoms) is a good depth to keep in; near to the flat on the East side, there are 10, 16, 9, and 10 fathoms.

Cedar-Point is on the South side of the entrance of *Patuxet-River*: The ground is low and sandy, and has some stragling trees standing on it. From this Point a flat extends to the Eastward, and also to the Northward. On the North side of this River, there are high hills, called Cliffs, with trees on them, and from this side also a flat extends, but the shoalings on each side of the channel are gradual, and the ground soft. In the middle of the channel there are 8 fathoms water—Higher up is *Rouss's-Point* on the South side, and *Drum-Point* on the North side; the latter is a low sandy Point. You may anchor without these Points, or you may go further up the River, always observing the following general rule, in all the deep bays throughout *Virginia* and *Maryland*; namely, to give every Point, more especially where the sand is low, a good berth in passing; because spits or flats of sand extend from them, and consequently the water is shoal in such places.

*Directions for going from Cape-Henry or
Lyn-Haven-Bay, to York-River.*

AS *Cape-Henry* S. b. E. would lead you on the tail of the Middle Ground, and as the proceeding with it at S. E. would carry you on the tail and North edge of the *Horse-Shoe*, your keeping the Cape on any bearing between the S. b. E. and S. E. will carry you through between the two shoals. On the tail, and along the North side of the *Horse-Shoe*, the shoalings are gradual. With *Cape-Henry* bearing S. S. E. or S. E. b. S. steer N. N. W. or N. W. b. N. until you bring *Cape-Charles* to bear E. b. N. you are then to the Northward of the *Horse-Shoe*, and may steer N. W. or N. W. b. W. according as you have the wind and tide. As the ebb sets strong out of the *Chesapeake* over the *Horse-Shoe*, you must not, with a Northerly wind and an ebb tide, approach any nearer to the shoal than 5 or 6 fathoms water. When you have brought *New-Point-Comfort* to bear North, and *Back-River-Point* S. b. W. you are then abreast of the tail of *York-Spit*, in 3 fathoms water. When you are a little above *Long-Isle*, you must not come any nearer to the shore than 7 fathoms, until you enter the river above the marsh, then keep in 9 or 10 fathoms, and run up and anchor, between *York* and *Gloster*, in what depth you please.

With a contrary wind, stand towards the *Horse-Shoe* in $4\frac{1}{2}$ or 5 fathoms, and from it into $6\frac{1}{2}$ or 7 fathoms, until you are abreast of the entrance of *New-Pocofan*, where there is a gut of 7 fathoms, which runs close to the entrance; you should therefore be careful to avoid going too far in, and thereby getting on the tail that extends from *Toes Marsh*. When you have got thus far up, you should come no nearer to the shore on this side, than 7 or $6\frac{1}{2}$ fathoms, all the way up to *York*. On the other side, you should not stand any nearer to the small Isles on *York Spit*, than 10 or 11 fathoms: Close to the tail of this spit there are 7 fathoms. Close to the

middle of it there are 10 fathoms; and close to it abreast of the Islands, you will have 13 fathoms, and before you changed another cast of the lead, you will be ashore. When you have entered the river you must not come any nearer to the flat than 8 or 9 fathoms water. This flat extends from the North shore, almost one third over the river.

Cape-Hatteras.

THIS Cape lies about S. $\frac{1}{2}$ E. 37 leagues from *Cape-Henry*; between them lie the inlets of *Currituck* and *Roanoke*. In the former there are 10 feet water, and in the latter 8 feet water. About 6 $\frac{1}{2}$ leagues N. b. E. $\frac{1}{2}$ E. from *Cape-Hatteras*, lies the South end of a bank, on which there are 5 and 4 fathoms water; it extends North and South nearly 3 leagues, and is about 2 $\frac{1}{2}$ miles broad. The inner edge of this bank is about 3 miles from the shore; between them there are 10 and 9 fathoms water. Close to the South end, and along the outer or East side, there are 7 fathoms. About 3 miles N. b. W. from the North end of this bank, and 3 miles E. b. S. from the North end of *Hatteras-Island*, there lie some small knowls, on which there are only 9 feet at low water.

Cape-Hatteras shoals extend 10 leagues E. S. E. from the Cape, and are from N. N. E. to S. S. W. 5 $\frac{1}{2}$ leagues, at the broadest part; near to them, on the North side, there are from 6 to 9 fathoms; near to the East end, there are 9 and 10 fathoms; and near to them, on the South side, there are 20 fathoms. There is a channel between the Cape and the shoals, in which there are from 2 $\frac{1}{2}$ to 4 fathoms water. The channel or swatch lies about S. W. b. S. and N. E. b. N. in going through it you will pass the Light-House on the Cape at the distance of 4 $\frac{1}{2}$ miles; as the sea generally breaks on the Shoals on each side, you will see the swatch. Your course from *Cape-Henry* to the outer end of the shoals, is S. b. E. $\frac{1}{2}$ E. and the distance about 39 leagues.

Cape-Lookout bears S. W. $\frac{1}{2}$ W. distant 23 leagues from *Cape-Hatteras*. About $7\frac{1}{2}$ leagues S. W. $\frac{1}{2}$ W. from *Cape-Hatteras*, is *Occacoke* inlet, in the entrance of which, there are from 17 to 13 feet water. Between the two Capes there are very regular soundings, in from 8 to 5 fathoms water.

Cape-Lookout shoals extend $4\frac{1}{2}$ leagues S. b. E. $\frac{1}{2}$ E. from the Cape and are about 3 miles across; close to them on the East side, and off the outer end, there are 5 fathoms water; near to them, on the West side, there are from 5 to 9 fathoms. The outer part of these shoals lie 25 leagues S. W. $\frac{1}{2}$ S. from *Cape-Hatteras*; and 30 leagues S. W. b. W. $\frac{1}{2}$ W. from the outermost part of *Cape-Hatteras* shoals. The deepest water between them is about 30 fathoms.

About $3\frac{1}{2}$ leagues N. W. b. W. $\frac{1}{2}$ W. from *Cape-Lookout*, is the entrance of *Cove-Sound*, in which there are 3 fathoms water. The channel lies in, first N. E. b. E. and then gradually alters round the flat, which extends from the Island on the larboard or West side, to the N. N. W. $\frac{1}{2}$ W. You will have 3, 4, and 3 fathoms in the channel, as you proceed to *Beaufort*, where you may anchor in 3 fathoms at low water.

Cape-Fear lies 26 leagues S. W. b. W. $\frac{1}{2}$ W. from *Cape-Lookout*. Between the two Capes, there are Islands lying all the way along the shore, off which, about 2 leagues distant, there are from 5 to 9 fathoms water. About $10\frac{1}{2}$ leagues to the Westward of *Cove-Sound*, is the entrance of *New-River*, in which there are only 5 feet at low water. On each side of this entrance there are two inlets, in which there are from 7 to 11 feet water.

Cape-Fear Shoals extend about $7\frac{1}{2}$ leagues S. b. E. $\frac{1}{2}$ E. from the Cape; they are about 3 miles broad. On the inner part of the shoals there are 6 feet water; and on the middle part there are only 5 feet water, near to them every where, there are 5 or 6 fathoms. About 4 miles to the southward of their extremity, there are 13 fathoms. The entrance of *Cape-Fear* River is about 6 miles to the westward of the Cape; there are 3 fathoms in it at low water.

*Directions for coming in from Sea for the
Coast of North-Carolina.*

WHEN you are steering in for this Coast, you should endeavour to keep about a degree to the southward of the latitude of the place which you intend to make, until you reckon yourself upon the edge of the gulf stream; and then your own judgment will direct what course is best, according as you find the wind to blow. Do not, if possible, go to the northward of 33, 20, latitude, until you get into 10 fathoms water; in this depth you will be within the south or outer end of the *Frying-Pan-Shoal*; it lies in latitude 33, 30.—In approaching the coast, in 33, 20, latitude, your first soundings will be from 30 to 35 fathoms; in this depth you will be very near to the inner edge of the gulf stream. When you get into 17 fathoms you will have fine grey sand, with black spots; in this depth of water there is a long flat. In steering West you will, for the first 5 or 6 leagues, shoal the water very little: When you come in 14 fathoms, you will shoal your water quicker, but gradually. In 10 fathoms water you will see the land, if the weather be clear; and you may then be sure that you are within the *Frying-Pan*. From the outside of this shoal, you can see no land bearing to the Westward of Northwest.

In order to go over *Cape-Fear* Bar, you must take care not to bring the pitch of the Cape to the eastward of E. b. N. until you have brought *Bald-Head* to bear N. $\frac{1}{4}$ E. the channel over the bar will then be fairly open; and, if the weather be so bad as to prevent your getting a pilot, you may steer in N. $\frac{1}{4}$ E. without being apprehensive of danger. At such times, the middle-ground on the larboard side, and the fingers on the starboard side, will shew themselves very plain, by the breakers. As the least water on the bar is 3 fathoms, you may venture to go in at half flood.

George-Town entrance is 18 leagues S. W. $\frac{1}{4}$ W. from *Cape-Fear* : between them lies a bank, on which there are 5 fathoms water. The North end of this bank lies about $5\frac{1}{2}$ leagues S. W. b. W. from *Cape-Fear* ; it thence extends S. W. $\frac{1}{2}$ S. $8\frac{1}{2}$ leagues. The inner or N. W. side of this bank is about 4 leagues from the shore : near to this edge, there are 10, 9, and 8 fathoms water ; it shoal gradually as you advance towards the shore. This is called *Long-Bay*. Near to the North end of this bank, there are 10 fathoms water : along its S. E. side there are 8, 7, and 6 fathoms ; to the southward of this bank there are several shoals.

Cape-Roman lies about $5\frac{1}{4}$ leagues S. W. b. S. from *George-Town* entrance : between them lie the entrance of *Santee-River*. The South entrance is $2\frac{1}{2}$ leagues from the entrance of *George-Town* river, and 3 leagues from *Cape-Roman*. Ships that fall in with the shoals off *George-Town* entrance, should not come into less than 4 fathoms water ; you are then about 10 or 12 miles from the land, and although the muddiness of the water is apt to frighten strangers, there is no real danger to be apprehended. The land here is low, and appears, when viewed at a distance, in Hummocks, like a range of Islands.

Cape-Roman is very low land ; it has neither tree nor bush, and appears, when seen at a distance, to be a sand left dry by the tide. All the way from the South entrance of *Santee-River*, to about 2 miles S. W. of *Cape-Roman*, there is a shoal which extends to a considerable distance from the land ; the S. E. point of it lies about 4 leagues S. E. $\frac{1}{2}$ E. from the South point of *George-Town* entrance ; and the S. W. point lies about 3 leagues S. E. b. S. from *Cape-Roman*. There are 4 and 3 fathoms close to this dangerous sand ; the land is so low, that you cannot, at the extremity of the shoal, see it from the deck.

From the S. W. part of the shoal, steer W. N. W. and you will soon see the Island called *Raccan-Lays* ; it is a long narrow Island, and lies about W. b. S. from *Cape-Roman*. When you see *Raccan-Lays* Island, steer W. S. W. or S. W. b. W. in about 5 fathoms water. As there is a shoal runs off about 5 miles S. E. b. E. from the North-east end of *Bull's-Island*, you should take care to avoid it in passing. Between *Raccan-Lays-Island* and *Bull's-Island*, lies *Service-Bay*. As

there are shoals lying off the West end of *Rocoan-Lays*, you should anchor near to *Bull's-Island*, in 6 fathoms water.

From the shoal off the N. E. end of *Bull's-Island* to *Charlston-Bar*, your course, to go clear of the *Rattle-Snake*, is S. W. b. W. $\frac{1}{2}$ W. and the distance 7 leagues. Between *Service-Bay* and *Charlston-Bar*, there are 4 Islands; namely, *Bull's*, *Spencer's*, *Davis'* and *Long-Island*. There are flats extending from all the Islands, along which the soundings are regular. With *Charlston* churches to the northward of *Sullivan's-Island*, you will be in $5\frac{1}{2}$ fathoms water on the edge of the *Rattle-Snake*; and when the churches are open to the southward of *Sullivan's-Island*, you are clear of the *Rattle-Snake*: you should not come any nearer to this shoal than 5 fathoms water.

Directions for sailing into Charleston, (South-Carolina.)

THE entrance of *Charleston-Bar* lies in latitude 32, 45, North. In running in for *Charleston-Light-House*, which may be seen some distance at sea, you will have gradual soundings. When you come near the Bar you may see the North and South Breakers, between which is the entrance over the Bar. In running over the Bar you must have the Light-House and Beacon nearly in one, keeping the Light or Beacon to bear West southwardly. Continue this course between the two Breakers when you will find from 12 to 18 feet of water, according as the tide may be. Follow the above course, taking care that the tide of flood does not set you on the North Breaker, till you come within half a mile of the Beacon, when you may anchor in 4 or 5 fathoms water.

There is another *Ship-Channel*, to the southward of this, called *Lawford's-Channel*, where you will have from 10 to 15 feet water, according as the tide may be. In going into this channel, the course is about N. W.—Bring the church a little open to the northward of the Light-House, and continue

the course till within $\frac{1}{2}$ or $\frac{1}{4}$ of a mile of the Beacon, when you may anchor as aforesaid.

This anchorage is called *Five-Fathom-Hole*. From thence your course is about N. $\frac{1}{2}$ E. $3\frac{1}{2}$ miles, in 6 or 8 fathoms water, which will carry you abreast of *Cumming's-Point*; when this point bears W. one half a mile distant, steer N. N. W. for the S. W. part of *Sullivan's-Island*, you will have from 7 to 10 fathoms water. You may go within a quarter of a mile of *Sullivan's-Island*, as it is bold. Your course from thence for *Charleston* is about West $\frac{1}{2}$ North, and distant $4\frac{1}{2}$ or 5 miles. When you bring *Hog-Island* to bear North, and *Fort-Johnson* to bear S. b. W. you are up with the Eastern end of the middle ground, which you must not go nearer than 3 fathoms. You may then steer nearly West, keeping in 4 or 5 fathoms water, which will carry you between the *Marsh* or *Shuts'-Folly*, and the middle ground. This channel is narrow, not being more than $\frac{1}{4}$ of a mile broad as the flats lie off from *Shuts'-Folly* $\frac{1}{4}$ of a mile. Continue you West course till you come up to the town, where you may anchor in 5 or 6 fathoms water. In running up from *Sullivan's-Island* stand no nearer to the southward than till you come into 3 fathoms, for fear of the spit, a middle ground that lies off to the N. E. and East from *Fort-Johnson-Point*, as far as *Cumming's-Point*, nor to the northward nearer than 3 or 4 fathoms.

After sailing from *Sullivan's-Island* as before directed, you must, if bound through the S. W. channel, or by *Fort-Johnson-Point*, bring the point of land on which the Fort is, to bear S. S. W. and run directly for it where you will have from 4 to 6 fathoms. When abreast of this point, direct your course about N. W. b. W. in 6 and 7 fathoms, about 1 mile, or till you bring a point of wood land to the northward of the town on *Cooper's-River* to bear N. N. W. when you may run N. W. b. N. about 1 mile, which will carry you up to the town, and anchor as above directed.

From Charleston Bar to Port-Royal.

FROM 5 fathoms water off *Charleston Bar* to *North Eddisto Inlet*, the course is S. W. b. W. $\frac{1}{2}$ W. and the distance $5\frac{1}{2}$ leagues: this course will carry you clear of the shoals which lie off *Stono Inlet*; they lie further out than any that are in your way to *Eddisto*. *Stono Inlet* is about 2 leagues from the South Channel of *Charleston*; between them lie two Islands; namely, *Morris' Island*, on which the Light-House stands, and the Island called the *Coffin-Island*. With the Light-House open of the *Coffin-Land*, you will go clear of the *Stono* shoals, in 6 fathoms water; but if you shut the Light-House in with the *Coffin Land*, you will not have more than $5\frac{1}{2}$ fathoms off *Stono* shoals; you will pass close to the breakers, and consequently be in danger: the breakers, unless the sea be smooth, shew where the shoal is. In *Stono Inlet* there are 9 or 10 feet at low water; but it was not much frequented, until *Charleston* was blocked up, in the year 1775.

From *Stono Inlet* to *North Eddisto Inlet*, the course is S. W. b. W. $\frac{1}{2}$ W. and the distance 11 miles: between them, the soundings are regular; and the shoalings, when you are coming from the offing towards the shore, are very gradual. The Bar of *North Eddisto*, and the shoals which are contiguous to it, lie off about 4 or 5 miles from the land. Close to the Bar and shoals, there are 3 and 4 fathoms water; on the Bar, there are 9 or 10 feet at low water. *South Eddisto* is 3 leagues W. S. W. from *North Eddisto*. The shore of the Islands, which lie between them, may be approached with your lead without danger; the shoalings towards it are gradual.

St. Helena Sound.

THE entrance of this Sound lies between *South Eddisto Island* and the Northernmost *Hunting Island*; it is about 2 leagues wide. This place is navigable by vessels of 7 or 8 feet water only; it is full of sand banks, many of which dry at low water. Six navigable rivers empty themselves into this Sound, namely, *South Eddisto*, *Ashappa*, *Cumbabaw*, *Cebaw*, *True-Blue* and *Corraw*. These rivers are all navigable; some of them come 200 miles down the country, but few of them can be navigated by vessels of 6 feet water, for more than 38 or 40 miles from the Sound. From the entrance of *St. Helena Sound*, along the *Hunting Islands*, to the entrance of *Port-Royal*, the course is S. W. $\frac{1}{2}$ S. and the distance about $5\frac{1}{2}$ leagues. The soundings are regular, you will have 5 or 6 fathoms water.

Directions for Port-Royal Harbour.

WHEN you are coming in from the sea, for *Port-Royal Harbour*, you should get into the latitude of *St. Michael's Head*, which is $32^{\circ} 6'$ North, then steer West for the *Head*, and when you come within 15 leagues of it, you will have from 20 to 25 fathoms water. Continue your West course until you make the land, which you will do, if the weather be clear, at the distance of 6 leagues, in 12 fathoms water. The land hereabouts is generally low, but the trees are high. *Port-Royal* entrance is known by a small grove of

trees, which stand on the North side of it : they tower up above all the other trees, like a high-crowned hat, hence this grove is called the *Hat of Port-Royal*. Continue to steer, as before, keeping your lead going, until you get into 8 fathoms water, you will then be about 3 leagues from *St. Michael's Head*. You may then steer a point to the Southward of the West, until you get into 5 fathoms water : then steer more Southerly, taking care not to bring *St. Michael's Head* to the Northward of N. W. b. N. until you see the great North breaker, called *Coles Care*, close to which there are 4 fathoms water ; this shoal must be left on the starboard side. As you approach this breaker, from the Northward, you will see another breaker to the Southward, called *Martin's Industry* ; between these two breakers lies the entrance of the channel into *Port-Royal Harbour* ; it is about a mile wide. The mark to go clear of the North breaker is, a parcel of high trees which stand near to the mouth of the river *May*, and appear like an Island, kept just open of *Elizabeth-Point*. Your course through, between the two shoals, is W. $\frac{1}{2}$ N. or W. b. N. In this channel there are not less than $3\frac{1}{2}$ or 4 fathoms at low water. Continue to steer as aforesaid, between the two breakers, until you bring *Phillips' Point* to bear N. N. W. then steer directly for it, and you will have as you proceed, 9, 8, and 7 fathoms water. When you are abreast of *Phillips' Point*, give it a small birth, and steer up N. b. W. $\frac{1}{2}$ W. in 6 and 5 fathoms water : in the latter depth you may anchor, in a very safe harbour.

There is also a channel between *Martin's Industry* and *Gaskin Bank*, called the *South Channel*, in which there are not less than 12 feet at low water. In order to go in through this Channel, you must, when in 7 fathoms water, bring *Hilton's Head* to bear N. W. b. N. and then steer, with an ebb tide, N. W. and with a flood tide, N. W. b. N. until *Phillips' Point* bears N. b. W. $\frac{1}{2}$ W. You may then steer for the Point, and proceed as before directed.

About $3\frac{1}{2}$ miles S. E. from *Hilton's Head*, and 4 miles S. b. E. from *Phillips' Point*, lies the East end of the *Joiner's Bank* : it thence extends W. N. W. about $2\frac{1}{2}$ miles, and has $3\frac{1}{2}$ fathoms on it at low water. *Hilton's Head* is on the South side of the harbour, and is a higher bluff point of land than any thereabouts.

Tybee Inlet lies 5 leagues S. W. $\frac{1}{2}$ W. from the entrance of *Port-Royal South Channel*; between them is *Hilton's Head Island*; it is large, fertile, and well inhabited; the Inhabitants are, for the most part, of low circumstances. From this Island the *Goskin Bank* extends about 8 miles at the broadest part. You may proceed along this bank in 5 fathoms water.

Some, when bound to *Port-Royal*, reckon it best to make the land about *Tybee*, because the Light-House, which is a large wooden Tower, without any light kept in it, makes that part of the coast distinguishable from any other part. *Tybee Inlet* is the entrance of *Savannah River*. Ships which draw 14 or 15 feet water, may go in at *Tybee*, and proceed through land to *Beaufort* in *Port-Royal Island*; and from *Beaufort*, vessels of 8 or 9 feet water may go through land to *Charleston*. From *Charleston* vessels drawing 7 or 8 feet water, may go through land to the *River Medway*, in *Georgia*.

On this Coast it is observed, that N. E. Easterly, and S. E. winds, cause higher tides than other winds, and also somewhat alter their course. At *Port-Royal* entrance, the tide flows, on the change and full days of the Moon, a quarter past 8 o'clock. About 6 leagues from the land, in 12 fathoms water, the flood sets strongly to the Southward, and the ebb to the Northward; further off from the shore, there is no tide at all. Near to the entrance of the harbour there is a strong indraught during the flood tide, and an outlet with the ebb tide.

Winds and Weather, on the Coast of South-Carolina.

WHEN the wind blows hard in the N. E. quarter, without rain, it commonly continues to blow hard for some time, perhaps for 3 or 4 days; but if such winds are attended with rain, they generally shift to the East, E. S. E. and S. E.

South-East winds blow right in on the coast ; but they seldom blow dry, or continue long : in 6, 8, or 10 hours after their commencement, the sky begins to look dirty, which soon produces rain. When it comes to blow and rain very hard, you may be sure that the wind will fly round to the North-West quarter, and blow very hard for 20 or 30 hours, with a clear sky.

North-West winds are always attended with clear weather. They sometimes blow very hard, but seldom do so longer than 30 hours.

The most lasting winds are those which blow from the S. S. W. and W. N. W. and from the North to the E. N. E. When the wind is in any of these quarters, the weather is the most settled.

Thunder-Gusts are very common on this coast, in the summer time ; they always come from the North-West quarter, and are sometimes so heavy that no canvass can withstand their fury : they come on so suddenly, that the greatest precautions are necessary to guard against the effects of their violence.

From *Tybee Inlet* to *St. Simon's Head*, the course is S. b. W. $\frac{1}{2}$ W. and the distance 16 leagues : and from *Tybee Inlet* to the Bar or entrance of *St. Simon*, the course is S. b. W. and the distance 19 leagues. Between them are the following sounds, namely, *Wassaw*, *Hofaba*, *St. Catharine's*, *Sapello*, and *Little Simon's*. In proceeding from *Tybee* for *St. Simon's Sound*, you will have from 4 to 7 fathoms water : the shore of the several Islands which lie between them is flat, and the shoalings, as you approach, are gradual.

St. Simon's Bar lies 9 or 10 miles from *St. Simon's Fort* : the Fort is on the South end of *St. Simon's Island*, and by its white appearance, makes this place remarkable. About a mile and a half to the Southward of the Fort, is the South end of *Jekyl Island*, which is easily known by the trees, appearing as an umbrella, and therefore called the *Umbrella Trees*. In order to sail over the Bar, bring a large round tree, which stands to the Westward of the Sound, right on with the middle of the opening between *St. Simon's* and *Jekyl Islands* ; bring also the three trees, which stand together to the Westward of *St. Simon's Fort*, just open to the Southward of the Fort, and then steer West, until you are over the Bar. On the Bar you will have, at three quarters flood, about 19 feet water. The

width of the Bar is about three quarters of a mile: the extremities of the sands, on each side, generally shew themselves by the breakers. The North break head, and the South break head bear of each other, S. E. b. E. and N. W. b. W.—Come no nearer to the North break head than half a cables length. The ground, on the Bar, is hard; but without and within the Bar, it is soft. When the South end of *Jekyl-Island* bears S. W. $\frac{1}{2}$ W. the North-East point of *St. Simon's Island*, called *St. Simon's Head*, N. b. W. and the round tree, which stands to the Westward of the Sound, is on with the middle of the opening between *Jekyl Island* and that of *St. Simon*, you are on the middle of the Bar.

When you come into $4\frac{1}{2}$ fathoms water, you are within the Bar, and should then steer W. b. N. $\frac{1}{2}$ N. There is a middle ground in the fair way, but you need not to fear it, because there are always 3 feet more water on it, than on the Bar. Give the Fort, in passing it, a birth of about a cable and a half's length; and anchor with the Fort E. b. S. in 13 fathoms water: you will then be about three quarters of a mile from the Fort.

The tide flows on the change and full days of the Moon, as follows; namely, in the Sound, 9 o'clock; on the Bar $\frac{1}{2}$ past 7 o'clock, and in the offing, three-quarters after 6 o'clock.

The Mouth of St. Mary's River.

ABOUT $7\frac{1}{2}$ leagues S. b. W. from *St. Simon's Bar*, lies the Bar of *St. Mary*, or the entrance of *Prince William's Sound*: between them you will have 5 or 6 fathoms water. Run to the Southward, until you bring the Northernmost of the three sand hills, which you will see on the North end of *Amelia Island*, half a cable's length to the Northward of the Southernmost Umbrella Tree on the said Island, and you will then have the Bar open. When you are on the Bar, the North end of *Amelia Island* will bear W. b. N. dis-

tant $3\frac{1}{2}$ miles, and the Southernmost part of *Cumberland Island* W. N. W. $\frac{1}{4}$ W. distant $4\frac{1}{2}$ miles. Steer W. N. W. $\frac{1}{2}$ W. The North breaker generally shews itself; this is called by some the *Middle Breaker*. On the Bar there are not less than 12 feet at low water. In the Channel between the Bar and the South end of *Cumberland Island*, there are 4 and 5 fathoms water; this is called the South Channel.

There is another Channel, called the North Channel; it lies near to the South-East point of *Cumberland Island*. Here are two Bars, distinguished by the names of *Outer* and *Inner Bars*; there are only six feet on them at low water. In order to go over in the best of the water, bring the North-West point of *Amelia Island* to bear S. b. W. $\frac{1}{4}$ W. and then steer for it, until you have passed through between *Cumberland Island* and the North Breakers. *St. Mary's River* separates the province of *Georgia* from *East Florida*.

St. Augustine lies S. b. E. $\frac{1}{4}$ E. 20 leagues, from *St. Mary's Bar*: between them lies *Nassau* and *St. John's Rivers*. The bar or entrance of *Nassau* lies 5 leagues to the southward of *St. Mary's*: between them there are 5 fathoms water. The sands, at the entrance of *Nassau*, lie 3 miles off from the south-east point of *Amelia-Island*, and from the north-east point of *Talbot-Island*. The entrance of *St. John*, lies 3 leagues to the southward of that of *Nassau*. Between *St. John's* and *St. Augustine*, the shore is bold; you will have 5 or 6 fathoms within half a mile of the shore. When you are abreast of *Point Cardeel*, you will open *St. Augustine's Bay*. When *St. Augustine's Fort*, which is large and white, bears W. b. N. distant 8 miles, you will have about $7\frac{1}{2}$ fathoms water. Before *St. Augustine*, lies on the North end of the Island *St. Anastasia*.

St. Augustine's Bar is formed by the extremity of a narrow sand which extends 2 miles E. S. E. from *Point-Cardeel*, and the point of another sand which extends half a mile E. b. N. from the north-east point of *St. Anastasia's-Island*. This bar is little more than a quarter of a mile wide, with a small shoal lying in the middle, which divides it into two channels, called the North and South Bars: there is not more than 12 feet on either of them at high water, spring tides. On the North end of *St. Anastasia's-Island*, there is a lookout-house, which appears like a Light-House.

Matanza-Inlet lies S. S. E. $\frac{1}{2}$ E. about 6 leagues from *St. Augustine's Bar*. This inlet is at the South end of *St. Anastasia's-Island*: there are only $8\frac{1}{2}$ feet on the shoalest part of the Bar at high water. Vessels that go in at this inlet, may proceed, between *St. Anastasia's-Island* and the main, to *St. Augustine*: on the South end of this island, there is also a look-out-house. The tide flows, at both ends of the island, on the change and full days of the moon, half past seven o'clock.

Cape-Canaverel, lies S. S. E. 24 leagues from *Matanza-Inlet*: between them lies *Moskito-Inlet* or *New-Smyrna-Entrance*; it is about 11 leagues N. N. W. $\frac{1}{4}$ W. from *Cape-Canaverel*. The shore, all the way from *Matanza-Inlet* to the Cape is bold, excepting a rocky shoal, which extends a mile and a half from the shore, about 5 miles to the southward of *Matanza-Inlet*.

From *Cape-Canaverel*, some rocky shoals extend East, about 6 leagues; their breadth, from South to North, is about $5\frac{1}{2}$ leagues. The north-east extremity lies $4\frac{1}{2}$ leagues N. E. $\frac{1}{2}$ E. from the Cape; and the South-east extremity lies S. E. b. E. $\frac{1}{2}$ E. $5\frac{1}{2}$ leagues. Near to them, on the South side, there are 4 fathoms; and near to them without, or on the East side, there are 9 fathoms.

The northernmost part of *Maranilla-Reef* bears E. b. S. from *Cape-Canaverel*. Near to these shoals, on the north side, there are 5 fathoms water, bearing S. E. b. E. distant 26 leagues. *Memory-Rock* bears S. S. E. $\frac{1}{2}$ S. distant 28 leagues from the Cape and 25 leagues S. S. E. $\frac{1}{2}$ E. from the easternmost part of the shoals which lie off the Cape.

About 16 leagues S. b. E. from *Cape-Canaverel* is *Ayes-Inlet*, now called *Hillsborough-Inlet*; the land between them is curved; near to the shore, in the bight, there are some rocks. Between the Cape and this inlet, there are 2, 3, 4, 5, 6, 7 and 8 fathoms water. From *Hillsborough-Inlet* to the south-east part of the shoals which lie off *Cape-Canaverel*, your course is N. b. E. and the distance $13\frac{1}{2}$ leagues: between them there are 10 fathoms water. *Memory-Rock* lies 16 leagues E. S. E. from *Hillsborough-Inlet*.

From *Canaverel* to *Biscaino-Isle* the coast lies nearly south; and the distance is about 54 leagues. From *Biscaino-Isle* to *Cape-Largo*, the coast runs south westerly; and from *Cape-Largo* to *Cape-Florida*, it runs S. b. W. and S. S. W.

Maranilla-Reef is the North end of the *Little-Babama-Bank* : as the flood tide sets in, on every part of this end of the bank, it is exceedingly dangerous.

About 12 leagues S. b. W. from *Memory-Rock*, lies *Seal-Key* ; this key lies off the North end of the *Behama-Island* : this is a long narrow Island, stretching about S. E. b. E. and N. W. b. W. 23 leagues : it is rocky, from one end to the other.

Directions for going to the Southward, through the Gulph of Florida.

THOSE who are bound to the southward, and intend to go through the *Gulph of Florida*, should go without, or to the eastward of the *Little-Babama-Bank*, taking care to keep at a considerable distance from it, until they get into the latitude of 26 degrees North. You should steer to the westward in this latitude, for the south-end of *Abacco-Island*. This Island is long and narrow ; in its south-end there is a hole, through which you may see ; it is called the *Hole-in-the-Wall*, or the *Hole-in-the-Rock*. The east side of *Abacco-Island* is rocky, with several small keys ; and to the northward of the Island, there are, along the east edge of the reef or bank, many keys or small Islands.

From the *Hole-in-the-Rock*, steer W. S. W. for the north-west part of the *Berry-Islands* : this course will bring you near to *Money-Key*, the distance is about 14 leagues. From the north-westernmost *Berry-Island*, across the deep water, to *Little-Isaac-Rock*, the course is W. b. N. and the distance 11 leagues. From *Little-Isaac-Rock* to *Great-Isaac-Rock*, the course is about W. $\frac{1}{4}$ N. and the distance 8 leagues. Between the two rocks, the soundings extend from the bank, from 3 to 5 miles ; they extend furtherest at the *Great-Isaac-Rock*.

As there are no foundings on the West side of *Great-Isaac-Rock*, at a cable's length distance from it, you will, in rounding it, get out of foundings, and consequently into the current of the gulph. Should the wind be so scant to the eastward, that you cannot lay south or S. b. E. in order to have the current under your lee-bow, your best way will be to anchor, or to keep under way in foundings to the northward of the rock, until the wind comes favourable.

By what has been said, you will see the propriety of getting to *Isaac Rock* in the morning; day-light will enable you, when the wind is free, to get round the rock, and keep in foundings: by the clearness of the water, and the whiteness of the bottom, you will plainly discern the bank; and you will thereby be enabled to keep entirely out of the current of the gulph.

Bemini-Isles lie S. $\frac{1}{2}$ W. about 10 leagues from *Great-Isaac-Rock*. At *Bemini* there is a harbour, with 9 feet water in it, and an anchorage in the opening; on the east point there is a well of water.

Cat-Key-Harbour lies S. $\frac{1}{2}$ E. about 7 leagues from *Bemini*. Off *Bemini* the breadth of the sounding ground is small, and consequently the current is strong; abreast of *Cat-Key-Harbour* it is broader, and the current weaker. A little to the southward of *Beak's-Key*, lies the northernmost *Riding-Rock*. The *Riding-Rocks* have a few bushes on them, and appear like wrecks.

About 7 miles S. W. b. S. from the southernmost *Riding-Rock*, there is a shoal on which a rich *Spanish-Galleon* struck, in 1765; she went to pieces, and her bottom now lies 7 or 8 miles to the eastward of the shoal, in 17 feet water. The inhabitants of the Island of *Providence* were considerable gainers by the loss of this ship.

Three leagues and a half S. S. E. from this shoal, is *Orange-Key*. About 5 or 6 miles S. W. from this key, there is good anchorage, in 20 fathoms water. When you get, as far as this bank, you may reckon your passage through the gulph to the southward secured; for you may then sail either in the night or in the day, steering S. W. 10 or 12 leagues. By steering thus, you will fall in with the *Double-beaded-Spot-Bank*, the north side of which, for 8 or 9 leagues, stretches about East and West: in proceeding along this side of the bank, you will have good foundings, and the current will increase in

strength as you get to the westward. You may discern, by the bank, how far you are to the eastward of the *Double-beaded-Shot*; there are spots all the way, proper for anchoring. Abreast of the *Double-beaded-Shot*, the soundings are narrow.

Key-Sal lies on the south-west part of the bank, about 4 leagues S. S. E. from the *Double-beaded-Shot*. On this *Key* there is water; and here the Spaniards make salt. There is good anchorage to the westward of the *Key*, in 6 or 7 fathoms water. To the eastward of *Key-Sal*, lies *Key-Sal-Bank*.

From the *Double-beaded-Shot* to the edge of soundings, a little way to the westward of *Cape-Florida*, is N. W. b. N. distant 15 leagues. From the *Double-beaded-Shot* to the *Matanzas*, the course is S. W. b. W. and the distance 23 leagues; and from the *Matanzas* to the *Havanah* is W. $\frac{1}{2}$ S. 20 leagues.

Directions for going to New-Providence, and thence northward through the Gulph.

THOSE who are bound to *New-Providence* from the northward or from the eastward, should steer for the south-end of *Abacco-Island*, which is rendered remarkable by the *Hole-in-the-Wall*. From the *Hole-in-the-Wall* to *New-Providence*, the course is south, and the distance about 20 leagues.

The Island of *Providence* lies nearly East and West, about 30 miles, and is 12 miles broad. The town is called *Nassau*, and is in 25° 4' latitude. To the northward of this Island, there are several Islands and keys, the principal of which are, *Hog-Island*, *Long-Island*, and *Salt-Key*. *Hog-Island* lies right before the town, and makes the harbour.

In order to go into *Nassau-Harbour*, you must steer for the West-end of *Hog-Island*. Haul round the point, within a cable's length of the shore, and you will soon get into 4 fathoms water. If the tide of ebb be against you, come to an

anchor until the flood makes, and then turn up, taking care to avoid a flat of sand which extends from *Hog-Island*, and stretches up about half a mile above the castle. The channel lies nearest to the castle, and is about two cables' length wide. You may anchor above the castle, in 3 fathoms at low water : the bottom is clean sand.

If you are bound from *Providence* through the *Gulph* to the northward, your course, to *Weather-Berry-Islands*, is N. N. W. 18 leagues ; then W. N. W. 36 leagues ; you will then be abreast of the West-end of the *Grand-Bahama-Island*, and after steering N. W. b. N. 9 or 10 leagues, you may steer north.

From Providence over the Grand-Bahama-Bank for Cuba, or the Florida-Shore.

FROM the west-end of *Hog-Island*, or entrance of *Providence* harbour, to the southernmost of the *Berry-Isles*, called *Frozen-Key*, the course is W. N. W. and the distance 10 leagues ; and from *Frozen-Key* to the *North-west-Passage*, or the entrance upon the bank, between *Blackwood-Bush* and *Yowler-Keys*, the course is W. $\frac{1}{2}$ N. and the distance 9 leagues. As the edge of the bank is rocky here, you must pick your way through one or other of the several swatches, which, though they are narrow, have no less than 2 fathoms in them at low water. The clearness of the water will enable you to perform this business without much difficulty.

When you first come upon the bank, you will see some scattered rocks, but as they will all be very visible ; you may easily avoid them ; by running W. S. W. about 17 leagues, you will be 5 or 6 miles to the southward of the *Riding-Rocks*, on the West side of the bank, whence you may easily find your way either to *Cuba* or the *Florida-shores*.

As the being among the shoals in the night-time must always be deemed dangerous, the propriety of choosing daylight, for passing through the difficult parts, will appear obvious to every navigator.

Those who come from the eastward, and intend to go over the *Great-Bahama-Bank*, should take care to make the *Hole-in-the-Wall*, south-end of *Abacca-Island*, and then steer W. S. W. or W. S. W. $\frac{1}{2}$ W. 14 or 15 leagues, which will bring them to *Money-Key* or *Stirrup's-Key*: the latter is the northern-most of the *Berry-Islands*. After you have passed *Stirrup's-Key*, steer S. W. about 7 leagues, you will then be in 8 or 9 fathoms water. You should next steer S. W. b. S. after running 12 leagues, you will be nearly on the middle of the bank, and may depend on having no less than $2\frac{1}{2}$ fathoms water. After you lose sight of the *Berry-Isles*, you ought not to see any land until you make *Orange-Key*, and the *Roques*.

In your entering on the bank, and also in going off it, you will find a pretty strong tide, setting either directly on, or right off the bank; as the water is very clear, you will easily observe its motion by the ground. On the middle of the bank there is little or no tide. If the wind comes so far to the southward as to force you to the westward of your course, you must be sure to lose no time in coming to an anchor, lest you fall in with the shoals which extend about three leagues to the South-eastward of *Bemini-Islands*. As soon as you can steer South, you should get under-way again.

From *Orange Key*, your course to the westernmost of the *Double-Head Shot Key* is S. S. W. and the distance about 15 leagues. Sometimes the current will force you on the *Double-Headed Shot bank*, even in steering S. W. from *Orange Key*.

If you are steering towards the *Double-Headed Shot Keys* in the night, you should be very careful to keep clear of them; there are a number of bare rocks, perhaps an hundred or more; some of them are about the size of a ship, and some are smaller; in general there is water enough between them. About 4 leagues S. S. E. from the south-westernmost of the *Double-Headed Shot Keys*, is *Key Sal*, about which there are several sunken rocks. In proceeding from *Orange Key*, the best way is to steer S. W. from *Orange Key*, or the *Roques*, and not to run the whole of the distance between *Orange Key* and the southernmost of the *Double Headed Shot*,

before day light in the morning : if, in the morning, you find yourself out of the soundings, steer S. W. b. W. for *Matanzas*, and thence along the coast of *Cuba*, until you are abreast of *Babia Honda* ; from this place, if you are bound to the Gulph of *Mexico*, you must steer over, about N. W. which will carry you clear of every thing into that Gulph.

Direction from Port Royal in Jamaica, to the Gulph of Florida.

AS ships generally sail out of *Port Royal* in the morning, with land winds, you should, on weighing, keep well to the westward of the middle ground ; because the current commonly sets to the eastward in the morning ; and you ought carefully to avoid bringing the church steeple on with the corner of the wall where the embrasures are, before you bring *Yellow's Hill* in one with *Lime Key*. If you should not see *Yellow's Hill* or *Point*, there is a mount on *Halfshire*, which, when open of *Salt-Pond Hill*, shows that you are southward of the *Middle-ground*. The leading mark, both out, and in, is the second embrasure (counting from the westward) in a line with the church steeple.

You are next to keep clear of the *Turtle-heads*, by bringing the church steeple on with the easternmost part of the *Fort* ; this is the leading mark for the South channel, & must be kept on, until you bring the southern key on with *Yellow's Point*, which will carry you clear of the *Three Fathoms Bank*, and also of the *Rack-reef*. If you should fall so far to the leeward, as to bring the church steeple near to the corner of the fort, you must either immediately anchor, or tack and stand in.

From *Port-Royal-Keys* to *Portland*, is S. W. but you must steer more to the southward to avoid the *Kuck-Reef*, and the keys and shoals which lie off *Old-Harbour*. To the southward of those keys, there is a good sounding in 16, 18, or 20 fathoms water. When the easternmost point of *Halfshire* bears N. b. E. and the outermost land of *Portland* in sight N.

W. b. N. you will probably have 17 or 23 fathoms water, and the very next cast, though hove quickly, no ground with 80 fathoms of line.

About 4 miles East from *Portland*, there are two keys; and *Negro-Head-Rock*, and the other keys lie in N. E. by these is the passage into the *Old-Harbour*. Right off *Portland* there are gradual soundings for 8 or 9 miles.

To the westward of *Portland-Point* there is a point which, on account of a reef that extends from it, is called *Rocky-Point*.

As you proceed to the westward, you must give this point a birth of 3 or 4 miles. Should you intend to go into *Witby-Wood*, you must continue to proceed to the westward, until you bring a little round hill in *Witby-Wood* Bay to bear North or N. b. W. and then steer for it, which will bring you in sight of the *Old-Fort*. The fort will then be between you and the *Little-Round-Hill*: In thus proceeding, you will meet with the following depths of water; namely, 10, 8, 7, 6, 5, 4, and $3\frac{1}{2}$ fathoms; in the latter depth, you will be about a mile a half from the shore. If you intend to load here, and you should anchor with the Fort bearing N. N. E. and *Portland* on with *Rocky-Point*, bearing E. S. E. In this situation, your boats can sail to and from the shore, with the sea-winds.

If you want to anchor off *Milk-River*, you must proceed in the same manner as for *Witby-Wood*. Between *Milk-River*, and *Pedro-Point* is *Alligator-Pond*, and off it lies *Sandy-Key* and *Reef*: within the reef there are 3 fathoms water, and without it, for a long way, there are good soundings.

From *Portland-Point* to *Great-Pedro-Point*, the course is W b. N. and the distance about 11 leagues.

About S. $\frac{3}{4}$ E. distance 14 leagues from *Point-Pedro*, lies the easternmost *Pedro-Key*. To anchor in 9 fathoms water, hard ground, you may bring the easternmost key E. $\frac{1}{2}$ S. distance 4 or 5 miles, the middle key to bear S. E. $\frac{1}{2}$ S. and the western or *Savanna-Key*, S. b. E. $\frac{1}{2}$ E. For 3 or 4 leagues to the westward, there are soundings from $9\frac{1}{2}$ to 7 fathoms, and then 10 fathoms, hard ground.

Boxa-Nova lies 27 leagues S. S. W. $\frac{3}{4}$ W. from *Pedro-Key*; and 50 leagues S. b. W. from the West end of Jamaica.

To anchor at *Boxa-Nova*, bring the easternmost point of the reef to bear E. N. E. distant 6 or 7 miles; the small fan-

dy key E. S. E. distant 3 or 4 miles ; and the westernmost of the breakers in sight, from the deck of a large ship, S. S. W. you will then be in 10 fathoms water, and hard sandy ground. The latitude of this anchorage is $15^{\circ} 57'$ North. About 2 cables' length S. b. W. from it, there are 10 fathoms water ; 3 cables' length, in the same direction, there are 8 fathoms : and at the distance of a mile, there are $7\frac{1}{2}$ fathoms : the bottom, all the way, is coarse sand. About $2\frac{1}{2}$ miles S. b. E. $\frac{1}{2}$ E. from the anchorage, and $2\frac{1}{2}$ miles W. S. W. from the key, there is a rock with 7 feet water on it. About a quarter of a mile S. b. E. $\frac{1}{2}$ E. from this rock, there is another with only 4 feet water on it. Each of these rocks is steep to, and not larger than a boat. Between the anchorage and the key you will have 10, 9, 8, 7, 6, and 5 fathoms water ; the latter depth is within a mile of the key.

The key stretches E. b. N. and W. b. S. about 2 cables' length, and is about one third broad. This was reckoned a good station for large ships during the *Spanish* war ; because most of the ships, in proceeding from the *Spanish* main for the *Havannah*, came this way.

Off *Portland*, the soundings extend 8 or 9 miles from the shore : and off *Pedro-Point*, they extend 5 or 6 miles. The edge of the soundings stretch E. S. E. and W. N. W.

If you intend to go into *Black-River*, you must keep *Point-Pedro* open of *Parratee-Point*, and that will lead you along the outside of the reef. Continue this mark on, until you bring the church on with a gap in the high-land, bearing N. N. E. easterly : then steer right in for the church, and this will carry you in the best of the channel ; it is full of heads of coral rocks.

Off *Bluefield's-Point*, the soundings are but narrow ; but you may sail down by it, keeping the land to the eastward in sight open of the point, until you open the leading mark, which is a little house standing on a small hill, on with the Tavern which is by the mouth of the river, and then bearing N. E. b. E. Steer right in for them, in this direction, until you bring the easternmost point of the Bay to bear S. E. b. E. and you will then have 4 or 5 fathoms water.

Savanna-le-Mer bears from *Bluefield's-Point* W. b. N. $\frac{1}{2}$ N. distance about 3 leagues. The leading mark in here is, the fort bearing North, which will carry you in the best of the channel.

The south-west point of *Jamacia* bears, from *Point-Pedro*, W. N. W. distance about 20 leagues. All round the West end of *Jamacia*, there are regular soundings. The south-west point of the Island lies in latitude $18^{\circ} 18'$ North.

From the south-west point of *Jamaica* to the *Grand-Cayman's* the course is W. b. N. $\frac{3}{4}$ N. and the distance 56 leagues. The best way will be, to steer W. N. W. until you get into the latitude of the south part of the Island, which is $19^{\circ} 11'$ North, and then steer W. $\frac{1}{2}$ S. until you see the land.

The *Grand-Caymans* is about 9 leagues long, and from 1 to 4 leagues broad. The south side of the Island stretches from the East end to the middle, W. b. S. and from the middle to the West end, W. b. N. The East end of the Island is rocky, and ought to be avoided. Off the south-west point a reef of rocks extends 2 or 3 miles, to which you must give a proper birth. The south-west and north-west points lie 4 leagues N. N. W. and S. S. E. from each other: between them there is a village called the *Hogsties*, off which you may anchor. The best anchorage is with the southernmost house bearing E. S. E. about a mile from the shore. The bottom is rocky in places, but as the water is very clear, you will easily see where the properest spot is for dropping your anchor.

The *Little Caymans* lies 18 leagues E. N. E. from the *Grand Caymans*; and 35 leagues N. W. $\frac{1}{2}$ N. from the South-west Point of *Jamaica*.

The *Caminbrack* lies 2 leagues E. N. E. from the *Little Caymans*: between them there is a good channel, but the *Caminbrack* side is the boldest; because, from the East end of the *Little Caymans*, a rocky reef runs off a mile or two. The latitude of the *Caminbrack* is $19^{\circ} 46'$ North.

The South side of the Isle of *Pines* is 52 leagues North, 52° West, from the East end of the *Grand Caymans*; and 47 leagues North, 47° West, from the North-west point of the *Grand Caymans*.

From the South side and East end of the Isle of *Pines*, a great bank and reef extends E. b. S. 22 leagues. There are several low keys upon this bank; they are called the *Jardines*. The south side of the Isle of *Pines* is pretty bold land. The latitude of this side is $21^{\circ} 22'$ North; and the hills are in $21^{\circ} 57'$. When you bring the hills to bear E. N. E. the anchorage in *Watering Bay* is then open, and lies directly be-

tween you and the hills. The passage into the Bay lies between *Key Blanco*, and a little key which lies off the South-west point of the island ; it is about 4 leagues wide.

In turning into this bay, you must keep in the mid-channel ; the depth of water is 3 and $3\frac{1}{2}$ fathoms. You should keep your lead going for about a mile to the northward of the *Little-Key*, because of a spit there, on which there are only 12 feet water. When you have got a good way into the bay, you will meet with deeper water, perhaps 5 or 6 fathoms. You may approach within a mile and a half of the *North-Shore*, and there anchor in from $4\frac{1}{2}$ to 3 fathoms water. Here in the proper season, you may have plenty of fish and turtle : there is also a small river. Between the anchorage and the hills, there are three rivulets, and several springs.

To the westward of *Watering Bay*, is *St. Phillip's Bay* ; between them you will have gradual soundings along the outside of the *Saddy-Keys* ; these keys form several inlets. On the west side of the bay is *Point Piedras*, which is bluff : from this point a reef of rocks extend 4 or 5 miles. When you are 3 leagues to the westward of *Point Piedras*, and within a mile of the shore, the westernmost part of the high land of *Bonavista* will bear about North ; and 15 or 16 miles distant.

From the south-west point of the Isle of *Pines*, to *Cape Corientes*, the course is W. $\frac{1}{2}$ N. and the distance 24 leagues. From the West end of the *Grand Caymans*, the course to *Cape Corientes* is North 52° West, and the distance 76 leagues. Before you get to *Cape Corientes*, the high land of *Bonavista* will be end-on, or in other words, the hills which compose it will be on or in a line with each other.

Cape Corientes, at first sight, appears very like *Cape Antonio* ; but on viewing it attentively, you will find there are no cabbage trees upon it : upon *Cape Antonio* they are very visible. From *Cape Corientes*, a reef or flat extends 3 or 4 miles. If you want to water, you may come to an anchor to the westward, by bringing the *Cape* or point to bear S. E. b. S. in 5 fathoms water ; you will then be about $1\frac{1}{2}$ or 2 miles from the shore. There are several wells of pretty good water a little within the point, with a good rolling way from the wells to the water-side. If you want wood, you must go further up the bay, where there are salt water ponds. The *Cape-*

Land is so low, that you may, from the mast-head look over it and see whatever comes from the eastward.

From *Cape Coriente* to *Cape Antonio*, your course, to go clear of the *Middle-Cape*, is W. b. S. and the distance 13 leagues. *Middle Cape* is in latitude $21^{\circ} 44'$ North. *Cape Antonio* is in latitude $21^{\circ} 49'$ North.

Cape Catouch is 57 leagues from *Cape Antonio*; it is the North-east point of *Yucatan*, the land is low: but *Loggerhead-Key*, which lies 4 leagues to the eastward of *Cape Catouch*, and often mistaken for it, is a high bluff: its latitude is $21^{\circ} 38'$ North.

Ships from the Bay of *Honduras* generally make *Loggerhead-Key*, before they shape their course to the northward of Cuba, and through the Gulph of *Florida*. Their first object then, as well as those who come from Jamaica round *Cape Antonia*, is to go clear of the *Colorada-Rocks*, the northernmost part of which lies in latitude $22^{\circ} 30'$ North:

If the ships from Jamaica steer, from *Cape Antonio*, N. b. E. and those who come from the Bay of *Honduras* steer N. E. from *Loggerhead-Key*, until they get between the 23d and 24th degrees of latitude, they will have nothing to fear from the *Colarados*; as the wind there generally blows from the eastward, it will be necessary for them to keep as far to windward as they can with safety. Those who have steered to the westward of north from *Cape-Antonio*, have sometimes, when standing to the southward on the other tack, had the misfortune, by the uncertain operation of currents, to fall in among the *Colarados*, that very danger which they anxiously endeavoured to avoid.

Although there are soundings all the way between *Cape-Antonio* and the South west end of the *Colarados*; and altho' the shoalings, as you approach the latter, are gradual, prudence requires you to keep at a distance in passing to the eastward. If you pass close by the south-west end of the *Colarados*, which bears W. b. N. from the southernmost part of the high land of *Bonavilla*, you will probably get into the eddy or counter-current, which, to the eastward of this end or point of the reef, sets to the westward.

Key-Lavisa bears from the North of the *Cocks'-combs*, W. N. W. Next to the *Cocks'-combs* is *Manatee-Head*: about 4 leagues to the eastward of the *Cocks'-combs*, and north-west from the point, is *Key-Grand*, or the *Angular-Key*; the *Keys*

or *Reefs*, to the westward of this *Key*, stretch W. S. W. or S. W. and those to the eastward of it stretch E. b. N. and East. You should not come near to the shore until you are to the eastward of *Key-Grand*.

The *Saddle-Hill* is the next remarkable land to the eastward of *Manatee-Head*, when it bears S. $\frac{1}{2}$ E. *Rio-Porka* is directly been you and it. The entrance of this river is very distinguishable by two little *Bluff-Keys*.

About 5 leagues to the eastward of *Rio-Porka* is the Bay of *Hunda*, or more properly the Harbour of *Hunda*; the *Saddle-Hill* bearing S. W. b. W. will lead you into it; the entrance is nearly half a mile wide. This harbour is capable of containing a considerable number of ships. About S. E. from the little island which is in the middle of the harbour, there is a fresh water river, called the *River-Hunda*. On the little island there is also a well of fresh water; this well will yield 10 or 12 tons of water before it is exhausted; and after being exhausted will soon fill up again.

If you intend to go into the harbour of *Hunda*, you must proceed along the reef that runs off from the *East-Point*, by your lead, and steer South, or S. b. E. along the East-shore, until you come to a low point, from which there spits a shoal. After giving this point a proper birth, in passing it, haul up to the eastward, and anchor, with the little island bearing South or S. S. W. in 6 or 7 fathoms water.

From *Hunda-Bay* to *Porta-Cavana*, is $3\frac{1}{2}$ leagues: from *Porta-Cavana* to *Porta-Mariana*, 4 leagues; and from *Porta-Mariana*, to the *Havannah*, 10 leagues. Between the latter two places there are two inlets.

The *Havannah* is a very spacious and commodious harbour; its entrance is so narrow, that it will admit of only two or three ships to go abreast of each other. Near to the *Havannah*, but *in-land*, there are two little round hills, called *Maiden's-paps*, which being brought to bear S. b. E. the *Moro-Castle* will be directly between you and them. When you have got to the entrance, your course, through the narrow channel, is about S. E. b. E. The *Moro-Castle* stands on the East side of the entrance, and is very remarkable: close to its foot there are 13 fathoms water. To the westward of the *Havannah*, there is a table land, called *Table-Mariel*.

From the *Havannab*, the south-west key of the *Tortugas*, bears N. W. $\frac{1}{2}$ W. distance 37 leagues; and from the *Havannab*, *Looe-Key* is N. E. b. N. distance 32 leagues.

The Bay of *Matanzas* is E. $\frac{1}{2}$ N. about 20 leagues from the *Havannab*; both places lie nearly, in latitude $23^{\circ} 14'$ N. and the land between them is remarkable. When a round hill, up the country, called the *Pan* of *Matanzas*, bears S. E. b. E. the Bay is then open; it lies in S. E. b. E. and S. E. the best anchorage is on the West side, a little above the castle, in 7 fathoms water.

Those who are working up along the *Cuba* shore, in order to go through the *Florida-Gulph*, should bring the *Pan* of *Matanzas* to bear south or S. b. E. before they steer for the *Gulph*, and then the course commonly steered is N. N. E.

The height of the land of the Island of *Cuba*, and its being in many places particularly marked, have generally induced navigators to keep along that shore until they get as far to the eastward as the *Matanzas*; and then to steer N. N. E. for the *Gulph* of *Florida*. But as those who proceed along the coast of *Cuba* often meet with a lee-current against them, the best way will be, after coming round *Cape Antonio* and getting into the latitude of 24° North, as has already been mentioned, to stretch along the *Florida-Keys*, which they may safely do, by steering *in* while it is day-light, and *off* in the night time. They will then generally have a strong windward current in their favour; and in the winter months, when the wind is often northerly, they possibly may have a fair wind and smooth water all the way to the *Gulph*.

A description of the Tortugas and the Florida Keys.

THE *Tortugas* consist of 10 small Islands, or Keys; and they extend E. N. E. and W. S. W. 10 or 11 miles; most of them are covered with bushes, and may be seen at the distance of 4 leagues. These keys are about 30 leagues dis-

tant from the nearest part of the *Florida-Coast*, and 14 leagues from the westernmost of the *Florida-Keys*. The south-west key is one of the smallest, but the most material to be known; it is in latitude $24^{\circ} 32'$ N. and longitude $83^{\circ} 40'$ West. From the south-west part of this key, a reef of coral rocks extends about a quarter of a mile; the water upon it is visibly discoloured.

About 5 or 6 miles to the westward of the *Tortugas*, there is a pretty large bank of brown coral rocks, intersperied with patches of white sand; the soundings upon it are very irregular, from 6 to 12 fathoms. Strangers, when on this bank, need not be alarmed at seeing the bottom very plainly, for there is no kind of danger; between it and the *Tortugas*, there are from 13 to 17 fathoms water. The soundings, to the southward of the *Tortugas*, extend only 5 or 6 leagues; but, to the westward, they extend much farther.

If, in passing the *Tortugas* to the eastward, you should meet with a strong easterly gale, which frequently happens there in the summer-time, you may safely anchor under the lee of the long *Sandy-Island*, which is to the northward of the south-west key, in 5 or 6 fathoms water; you will then be about a quarter of a mile from the shore. There is also good anchorage in several other places, particularly in a small snug harbour near *Bush-Key*, where you will be entirely sheltered from the sea by a large reef of rocks, and a shoal flat within them, about half a mile broad; the bottom is soft clay and mud. The water in this harbour is quite smooth, even in a gale of wind; and as there are 3 fathoms close to the bank, a vessel, in case of necessity, might easily be hove down in it. There is no drinkable water on any of the *Tortugas*, except on the northernmost Island; nor is there any fire-wood to be got, except a few bushes which ought not to be cut down, because they render the keys visible at a greater distance than they otherwise would be: but the *Tortugas* abound with a variety of birds, turtle, and excellent fish.

To the eastward of the *Tortugas* there is a wide channel, in which there are from 10 to 17 fathoms water; but none ought to attempt it, unless they can see the *Tortugas* distinctly and keep within 2 or 3 leagues of the easternmost island; because there is a coral bank, at the distance of 5 leagues, on which there are only 12 feet water; and further to the eastward, towards the westernmost of the *Florida-Keys*, there is

a very extensive and dangerous bank of *Quick-Sand*, on many parts of which there are no more than 5 feet water. This bank is remarkably white coloured, and may, in the day time, be easily seen and avoided.

The *Florida* Islands and keys are innumerable; the westernmost part of them consists of eight or nine *Mangrove-Islands*, and are called *Cayo-Marques*: several of them are covered with pretty high trees, and may be seen at a considerable distance. From these islands, the beforementioned bank of *Quick-Sand* extends 4 or 5 miles to the north-ward and 5 leagues to the westward. There is no good water to be found on the *Cayo-Marques*, but there is plenty of fire-wood. At the East end of *Cayo-Marques*, there is a channel through to the northward, called by the Spaniards *Boca-Grande*; it is above 2 leagues wide, and has nine or ten feet water in the shoalest parts; but it cannot be recommended to strangers. To the eastward of *Boca-Grande* there are several scattered *Mangrove-Islands*, the three southernmost of them have white sandy beaches.

Cayo Huefio is 9 leagues to the eastward of *Cayo-Marques*; it is the first island of any consequence, being 7 miles long, and has a sandy beach on the south side. The trees stand very thick on this island; especially at the west end; round this end there is a very good harbour, in the channel leading to which, there are 4 fathoms water. In proceeding for this harbour, you must keep within less than a cable's length to the north-west point of the island which is rendered remarkable by a single bushy tree and a turtle crawl. After you are round the point, come to an anchor, about half-way between it and a small *Mangrove-Island*, which is about a mile to the northward of it. As there is some small coral near the middle and West parts of the harbour, the best place for anchoring is near to the East bank. The turtles and wreckers from the Island of *Providence*, and also the fishing craft from the *Havannab*, frequent this harbour: the channel which goes from this place through the bank to the northward, makes it convenient for them to stop here, in their way to the coast of *Florida*.—At the East end of *Cayo-Huefio* there is a small opening, called *Boca-Chica*, it leads to a great number of small *Mangrove-Islands*; but nothing, except canoes, can pass from it quite through over the shoals.

On the West end of *Cayo-Hueffo*, there are several wells dug in the sand, in which there is pretty good water, especially after rain; whenever it is found to be brackish, which is sometimes the case, the best way is to dig a new well, which may soon be done, and you will find water much better in quality than that which has been standing in the old wells.

About 7 miles to the eastward of *Boca-Chica*, there is a small island, with a high bluff of trees on it, which, in most directions, appears in the form of a saddle. At each end of this island, there is an opening or passage into a large, but shoal bay; the North side of which is bordered with a great number of *Mangrove-Islands*. From *Cayo-Hueffo* to the eastward, the general course of the islands turns gradually to the northward of the East.

From 5 to 9 leagues from the East end of *Cayo-Hueffo*, there are several large islands; they are covered with pine trees, and extend as far to the eastward as *Babia Honda*. These *Pine-Islands* are bordered on the south side with *Mangrove-Keys*, and between them, there are several openings or channels quite through to the northward; but there is so little water in them as to be navigable only by boats and canoes.

Babia-Honda lies about 9 leagues to the Eastward of *Cayo-Hueffo*, in latitude $24^{\circ} 35'$. It has a wide entrance, and a fair channel of 4 and 5 fathoms deep; in the harbour there are from $3\frac{1}{2}$ to $2\frac{1}{2}$ fathoms water; the bottom is, in general, rather hard and rough. This place may easily be known by three little islands on the West side of the entrance, and by one on the East side, which is about a mile long, with a sandy beach. This island is rendered remarkable by a number of tall palmetto cabbage trees, which are the first of the kind to be met with in coming from the westward.

Cayo-Vaccas is the next considerable island to the eastward of *Babia-Honda*; the distance between them is 4 leagues, and the coast, in its direction turns still more to the northward. As the thick cluster of Islands terminate about *Babia-Honda* the almost vacant space, between it and *Cayo-Vaccas*, is the more remarkable; in this space there are only a few small keys.

Good water may be got at *Babia-Honda* by digging a well. On the south side of *Key-Vaccas*, about 8 miles from the west-end, there are wells of fresh water; they are on the east side of a narrow opening, which has on each side of it a sandy beach. On the north side of this Island there is a large natural refer-

voir, in which the water never fails. It lies in a valley about 6 miles from the west end of the Island, and a hundred yards from the beach, a little to the westward of three *Mangrove-Islands*. Among the rocks, at the west end of *Key-Vaccas*, and also on the small Islands to the westward of it, you may sometimes find fresh water.

Cayo-Vaccas, or rather the thick range of Islands, which are called by that name, extend from the West end about 5 leagues N. E. b. E. the easternmost of these Islands is called *Duck-Key*. They are all covered with trees of various sorts, such as *Mangrove*, *Palmetto*, *Button-wood*, &c. Among the rocks, on the West end of *Duck-Key*, there is very good fresh water.

Viper-Key is about 5 miles to the north-eastward of *Duck-Key*, between them there are three small *Mangrove-Islands*; this key is about 5 miles long, has a white sandy beach, and is remarkable by a high hummock of trees on the West end.

About $3\frac{1}{2}$ miles from the East end of *Viper-Key*, is the West end of *Old-Matacumbe*, it hence extends N. E. about 4 miles: the trees on its North end are so very high and level at the top that they appear, when viewed at a distance, like table land. Near to the North end of this Island, there is a harbour, into which vessels of 7 or 8 feet water may go, and lie in 3 fathoms, secure from all winds. In proceeding for this harbour, you must go round the East end of a little Island, called *Indian-Key*, keeping about a cable's length from the shore. In thus proceeding you will, after having 9 or 10 feet water for some distance, get into a broad channel of 2 and 3 fathoms deep: it leads you round towards the North end of *Matacumbe*, where you will see a large turtle-crawl. This channel is easily discerned between the white banks which form it; and on which there are only 2 or 3 feet water. *Indian-Key* is about a mile to the eastward of *Matacumbe*; the water all the way between them is shoal. To the north-east and northward of *Matacumbe*, the *Mangrove-Islands* begin again; and they continue to the main (about 6 or 7 leagues distant) and also all the way to the eastward, within *Long-Island* and the south-west end of *Cayo-Largo*. This large space is occupied by an almost continued flat, with some narrow channels through it, in which there are only 5 or 6 feet water.

In the North end of *Old-Matacumbe* there is a natural well in a rock ; it is about 4 feet deep, is supplied by a spring, and always full of excellent water. On this and also on some other accounts, *Matacumbe* is much frequented by the wreckers and turtlers. For many leagues to the north-eastward of this place, there is no fresh water.

The south-west end of *New-Matacumbe* is more than 2 miles to the north-eastward of *Old-Matacumbe* ; it thence extends north-east, 4 miles, and is covered with tall trees. At the East end of this Island, there is an opening of about half a mile wide, with a little *Mangrove-Island* in the middle. On the East side of this opening there is a *Mangrove-Island*, about 2 miles long : the East end of this Island is separated, by a narrow channel, from an Island which is about 7 miles in length, and covered with high trees of different kinds : here is some fine-grained mahogany and *Madeira-wood*. This Island is called *Long-Island* ; it is separated from *Key-Largo* by a narrow channel ; the two Islands, when viewed at a distance, appear to be one continued track of land.

Key-Tavernier is a small Island, 2 miles from the south-west end of *Key-Largo*, and about 5 leagues N. E. from *Old-Matacumbe* : to the northward of this little Island, there is a very good road.

Key-Rodrigues lies off *Key-Largo* and bears from *Tavernier*, N. N. E. $\frac{1}{2}$ E. distant 5 miles. This is a pretty large *Mangrove-Island*, but without any dry land, the roots of the trees being always overflowed : it lies in 25° North latitude, and $81^{\circ} 17'$ West longitude. From this place, the coast of *Key-Largo*, which here appears to be main-land, turns quickly to the N. N. E. and N. b. E. and then to the North. For this reason some think that *Cape-Florida* may be reckoned somewhere hereabouts.

*A Description of the General Florida Reef,
and the Channel between it and the Florida-Keys.*

THE West end of the *General-Florida-Reef* lies S. $\frac{1}{2}$ E. about $3\frac{1}{4}$ miles from the western extremity of the great bank of quick-sand, which extends 5 leagues to the westward of *Cayo-Marques*. This extensive reef runs parallel to the keys, and forms a general Bar to the coast: its West end, which is nearly the most southern part of it, is in latitude $24^{\circ} 22'$ North.

Between the reef and the bank of quick-sand, and likewise all along between the reef and the *Florida-Keys*, there is a channel, which is, in many places, more than 4 miles wide. The reef is, in general, very steep on the South or outside, there being from 20 to 30 fathoms water within a mile or two of it: the bottom is muddy. As the outside of the reef is not, in any part of it, more than 6 or 7 miles distant from the range of Islands, you may safely approach near enough in the day time, to make the land distinctly.

The reef at the West end, is about 3 miles broad; the least water on it is 5 fathoms, the soundings are irregular from 5 to 8 fathoms. The water is all discoloured; generally brown, with patches of white sand and coral rocks: the bottom plainly appears. The water in the channel within the reef, is all of a white colour; the bottom is in general, either fine sand, mud, or clay. You will find pretty good anchorage all along, only be careful of not coming into less than 5 fathoms water.

To the westward of *Cayo-Marques*, there are from 7 to 11 fathoms water in the channel; and not less than 4 fathoms

on the reef ; abreast of *Cayo-Marques*, 7 fathoms is the greatest depth in the channel ; and $3\frac{1}{2}$ fathoms the least water on the reef. In the channel, abreast of *Cayo-Marques*, the bottom is soft mud.

About 3 leagues S. S. W. from the West end of *Cayo-Huessò*, lies the westernmost *Sandy-Key* on the reef ; it lies in latitude $24^{\circ} 23'$ and in longitude $82^{\circ} 35'$ West. About 4 miles to the westward of this key, there is a dry patch of rocks on the reef ; and about 2 miles to the eastward of the key, there is another patch. For about 3 miles to the eastward of this patch, or 5 miles to the eastward of the *Sandy-Key*, there are 2 and 3 fathoms water on the reef. To the eastward of this, there is a fair channel over the reef, in which there are $4\frac{1}{2}$ and 5 fathoms water : it lies with the West end of *Cayo-Huessò*, bearing about N. N. W. Those who, from the outside of the reef, intend to go through this channel, for the harbour or passage at the West end of *Cayo-Huessò*, should steer with the aforesaid mark until they get into 6 or 7 fathoms, soft mud, within the reef ; and then keep more to the westward, in order to give the south-west point of *Cayo-Huessò* a birth of about three quarters of a mile, on account of a rocky spit that extends from it.

Between *Boca Grande* and *Cayo-Huessò*, the channel within the reef is, in general, about 3 miles wide ; and 6 or 7 fathoms is the deepest water ; the bottom is fine sand and clay. About $2\frac{1}{2}$ or 3 miles S. S. E. from the West end of *Cayo-Huessò*, there are 2 or 3 small patches of coral rocks, on which there are from $2\frac{1}{2}$ to 3 fathoms water. These patches lie nearly in the mid-channel, with 5 and 6 fathoms all round them ; the channel is here about 5 miles wide.

About S. E. 7 miles from the East end of *Cayo-Huessò*, there are 3 small sandy keys on the reef. Between the westernmost key and the middle one, there is a channel, in which you may carry 4 fathoms water over the reef : and between the middle key and the easternmost one, there is another channel of 3 fathoms deep. For about 10 miles to the eastward of these keys, the reef is broad and dangerous : it is in general full of sunken rocks, on which there are only from 4 to 6 feet water ; and in some places the rocks are above the water, with curved channels between them of 6 and 7 fathoms deep. The middle key is in $24^{\circ} 24'$ latitude, and in $82^{\circ} 20'$ West longitude.

The channel within the reef, continues to be more than 4 miles wide, from the coral patches which lie S. S. E. from the West end of *Cayo-Hueffo*, until you are to the eastward of the three keys which are on the reef off *Boca-Chica*. To the eastward of this place, the increased breadth of the reef narrows the channel ; and the deepest water in it is 4 or 5 fathoms. The narrowest part of the channel is 5 or 6 miles to the westward of *Looe-Key*, where it is only a mile and a half wide ; and a little more than 3 fathoms is the greatest depth of water.

The key where the *Ship-Looe* was wrecked, since called *Looe-Key*, lies on the reef, about 7 leagues from the East end of *Cayo-Hueffo*. The reef is here very steep on the south-side : about 2 leagues to the southward of the key, they are 100 fathoms water ; and within a mile of it, there are 20 fathoms. The rocks extend but a very little way from the key ; and there is no kind of danger but that which may be avoided in the day time. About a mile to the westward of the key, there is a channel across the reef, in which there are 4 and 5 fathoms water : but to the eastward of it, for 2 or 3 miles, you cannot depend on carrying more than $2\frac{1}{2}$ fathoms across. From one league to the eastward of the key, to 5 or 6 leagues distant from it, you will have no less than $3\frac{1}{2}$ and in many places 4 and 5 fathoms water. *Looe-Key* is in $24^{\circ} 30'$ North latitude, and $82^{\circ} 6'$ West longitude.

The narrowest part of the channel within the reef, is 5 or 6 miles to the westward of *Looe-Key*, where it is only a mile and a half across : but as you approach the key, the channel grows wider, and the water deepens, from more than 3 fathoms at the narrowest part, to 5, 6 and 7 fathoms. The bottom is mud and clay. About 4 miles North from *Looe-Key*, there is a small harbour, called by some *Newfound-Harbour* ; but as there are no more than 7 or 8 feet water in the shoalest part of the passage, it is fit only for small craft. Abreast of *Babia-Honda*, the channel is about 3 miles wide, and from 5 to 7 fathoms deep : the width of the channel continues nearly the same, as far as *Cayo-Vaccas*, or *Cow-Keys*.

Concerning the whole of the channel to the westward of the *Cow-Keys*, it may be necessary to state the following remarks, namely, that you will have 3 fathoms water all the way within a mile of the keys, and will always find the deepest water nearest to the reef. That the usual method of navi-

gating between the reef and the keys, is to proceed in the day, and lie at anchor in the night; and that, should you be obliged to anchor where there is any coral, it will sometimes be necessary to buoy up your cable, to prevent its being rubbed.

Cayo-Sombrero lies about 5 miles South from the West end of the *Cow-Keys*; it is a small sandy key on the reef, and lies in latitude $24^{\circ} 34'$ North, and longitude $81^{\circ} 55'$ West. From this key to the eastward, as far as the West end of *Matacumbe*, the reef is in general very broken ground: there are many patches of coral rocks, with 6 and 8 feet water on them: and there are others which rise to the surface, particularly off the East end of the *Cow-Keys*, about 7 or 8 miles from the shore. There are likewise some large patches of coral off the middle of *Viper-Key*, on which there are 8 or 9 feet water; and there is another large rocky shoal, about 5 miles off the West end of *Matacumbe*, with 8 feet water on it. Between those patches there are channels across the reef, in which the least water is 3 fathoms.

Between the reef and the south-west part of the *Cow-Keys*, there are some dangerous shoals of coral rocks in the channel, the largest of which lies about 2 miles off the *Cow-Keys*, and 4 miles north-east from *Key-Sombrero*, with only 4 feet water on it. To the north-east of this shoal there are several small patches, with 5 or 6 feet water on them. As all these shoals are of a brown colour, and appear plainly at a distance, they may easily be avoided in the day time; the danger of running in the night, renders it always necessary to lie at anchor till day-light, through the whole extent of the channel.

From the *Cow-Keys* shoals, the channel, all the way to the eastward of *Matacumbe*, continues to be 2 or 3 miles wide: and the deepest water in it is 4 fathoms; but along *Viper-Key*, at the distance of two or three miles from it, the general depth is $2\frac{1}{2}$ and 3 fathoms.

On the reef, opposite *Old-Matacumbe*, there are no shoals, except the beforementioned one, which lies 5 miles off the South-west end, with eight feet water on it. About E. S. E. 6 or 7 miles from the north-east end of *Old-Matacumbe*, there is a large patch of coral rocks, on which there are only 4 or 5 feet water. Off *Rodrigues* there is a large shoal, which forms a kind of elbow, with only 7 or 8 feet water on it. Northwards, from this shoal, the patches of coral rocks increase

both in number and extent, forming several reefs, with narrow channels between them, through which there is deep water. The *Fowey-Rocks* is the northernmost patch; and the *Carrysford-Reef* the most considerable.

The names of the channels or inlets, reckoning from the southward, are *Spencer's*, *Palmerston's*, *Buller's* and *Keppel's-Inlets*: the *Fowey-Rocks* form the North side of the latter inlet.

Off *Rodrigues*, the channel within the reef is nearly 3 miles wide; and the deepest water in it, all the way along, is generally about 3 fathoms.

From the foregoing observations it clearly appears, that there can be no great difficulty in getting fresh water on most of the Islands; and, excepting the *Tortugas*, there is plenty of fire-wood upon all of them. With respect to water it may be observed, that just within the sandy beach, the Islands are generally bordered with *Mangrove-Swamps* of about a hundred yards broad; beyond these swamps, the ground rises higher, and is generally of a rocky bottom, where you will often find fresh water ponds, or natural tanks, which receive and retain the rain water.

Besides other vegetables, the cabbage-tree, which abounds on some of the Islands, affords a very wholesome food for man. Abundance of birds of various kinds, a variety of the finest fish, and some turtle, are to be found all along the coast; and to the eastward of *Cayo-Hueso*, there are deer. Among the roots of the *Mangroves*, and also about every old log or piece of rotten wood, there are such numbers of the largest crayfish, that a boat may, in a few hours, be loaded with them. Here it may not be improper to observe, the small *Mangrove-Islands*, which are numerous, have very little solid ground in them; but whenever a *Mangrove-Bush* takes root in the salt water, it soon forms an Island; and it is evident that many clusters of small Islands have been formed in this manner upon the coral banks.

Observations on the Florida-Stream, with suitable Directions.

AS the sun greatly rarifies the atmosphere within, and near to the *Torrid-Zone*, the currents of air, thereby produced, follow the apparent motion of the sun from East to West. On the North side of the Equator, these currents of the atmosphere are generally to the Northward of East; and on the south-side of the Equator, they are commonly to the Southward of East: they are called, by way of distinction, the *North-East* and the *South-East-Trade-Winds*. The waters of the *Atlantic* being impelled to the Westward by the *Trade-Winds*, and meeting with the *American-Shore*, are turned to the north-westward. The coast, from *Cape-St.-Rogue* in 5° South latitude, to *Cape-Catoch* in latitude $21^{\circ} 38'$ North, stretches N. W. b. W. and W. N. W. and the waters, proceeding along the coast in those directions, are forced through between the West end of *Cuba* and *Cape-Catoch*, into the *Gulph of Mexico*, with considerable velocity.

The *Gulph of Mexico*, from the vast body of water continually forced into it, may be considered as one great whirlpool; this great body of water enters by *Cape-Catoch*, and proceeds along the shores of this very extensive *Gulph* in a kind of circular motion, and makes its egress between *Cuba* and the *Florida-Shore*, where there is the least resistance. This circular motion of the water appears evident by the following remark, namely, that all the points of land on the coast of the *Gulph of Mexico*, have on the one side deep water, and on the other side, a spit or bank of sand, which runs off to a considerable distance. These shoals have been formed by the eddies occasioned by the several points.

South-east gales always force an extraordinary body of water into the Gulph of *Mexico* ;* and North and North-east winds, by retarding the progress of the water, lessens its quantity, both in the ingress and egress. When the winds are regular and gentle, the force of the currents, in and near to the Gulph of *Florida*, are moderate ; but immediately after northerly and North-east gales, the currents and counter-currents run with great velocity.

The accumulation of water in the Gulph of *Mexico* is sometimes so great, that, in issuing through between the island of *Cuba* and *Florida*, eddies or counter-currents are produced in several places : such counter-currents are generally to be met with among the *Colorados*, and almost on all that part of the coast of *Cuba* to the westward of *Babia-Hunda*. Up the *Florida-Reef*, and in the channel between it and the *Florida-Islands* or *Keys*, there is a counter-current setting to the westward. Here it may be necessary to observe, that wherever any point of land projects considerably beyond the general line of the coast, it produces a counter-current in-shore : if the channel be narrow at such places, the current in it will be more central and rapid, and the counter-current, on one or both sides, will be augmented, both in its velocity and extension.

From what has been said of the counter-currents, it is evident, that small vessels, in passing from *St. Augustin* to the *Havannah*, or the Gulph of *Mexico*, may make their passage by keeping very near to the shore, and by going within the *Florida-Reef*, or in soundings along the outside of the reef : in the latter case they will, at least, keep out of the current which runs to the North eastward, called the *Gulph-Stream*. The same advantage may be taken on the *Bahama* and *Cuba* side of the gulph, which has already been mentioned, and directions given for that purpose.

Ships in proceeding through the Gulph from the *West-Indies*, have the great current from the Gulph of *Mexico* always in their favour, provided that they keep in the direct

* During a gale or storm from the South-east quarter, the water, in the bays and rivers on the coast of *West-Florida*, has been known to rise seven feet perpendicular ; and vessels of considerable burthen have thereby been driven up amongst the pine trees, at some distance from the shore. Hence it may be inferred, that such gales produce a similar, or at least, a very considerable rise of the water, in every other part of that very extensive bay.

course of the stream, which changes according to the course of the channel, from E. b. N. to North. After passing *Key-Largo*, the gulph stream, being turned by the *Babama-Islands* and *Banks*, proceeds along the coast of America, in a North, and North easterly direction; turning more and more to the eastward, until it gets considerably beyond Nantucket shoals: it then takes its course to the southward of the East, and by degrees is lost in the Atlantic, somewhere about the Western Islands.

After this very remarkable stream gets to the northward of the *Babama-Banks*, its breadth, between the 28th and 30th degrees of latitude, is about 17 or 18 leagues: in latitude 33°, and opposite *Charleston, South-Carolina*, it is about 20 leagues broad; and the inner edge of the stream is nearly the same distance from the shore: Off *Cape-Hatteras*, it is 25 leagues broad; and in latitude 37°, its breadth is about 33 leagues. As the stream, in its progress, increases its breadth and distance from the *American Coast*, it also gradually loses its velocity and heat: opposite to *Charleston*, it runs at the rate of 3 miles in an hour: Off *Cape-Hatteras*, it runs 2½ miles; and in latitude 37°, its velocity is only about 2 miles in an hour.

Outerly winds press the gulph stream towards the *American Coast*; the consequences of this pressure are, the breadth of the stream, and its distance from the shore, are diminished, and its velocity is increased. Winds which blow from the coast, produce contrary effects.

As the heat of the gulph stream water, on the *American coast*, is generally 5 or 6 degrees, of *Farenheit's* thermometer, more than that of the *Atlantic-Ocean*, those who are provided with a proper thermometer may know when they are, and are not, in the gulph stream. Upon the edge of the stream, there are great rappings, that are most obvious when the weather is fine. The water in the stream, Doctor Franklin says, does not sparkle in the night: however that may be, the appearance of the gulph-weeds about you, will clearly prove that you are in the stream.

T H E T I D E S,

ON the *Tortuga-Banks*, and among the *Florida-Keys*, are pretty regular ; they run from 4 to 6 hours, and sometimes they run 8 hours. The flood appears to come from the counter-current, by its running in the same direction ; it runs into all the channels between the islands, at the rate of $1\frac{1}{2}$ and 2 miles in an hour : when it gets to the Northward of the islands, it turns to the East and South-eastward, and thereby fills all the bays and lagoons on that side. At the *Tortugas*, and among the *Florida-Keys*, it is high water, on the change and full days of the moon, at half past eight o'clock in the morning. The water, at spring tides, rises only about 3 or 4 feet.

(This should have been inserted in the 6th page, after Cape-Ann.)

Directions for sailing into *Squam-Harbour*.

SQUAM Bar is from *Hollowboat-Point*, (which is the N. E. end of *Cape-Ann*), from W. S. W. to S. W. distant about 2 leagues. There is nothing to hurt you in running from *Hollowboat-Point* to *Squam-Bar*, except *Plumb-Cove-Ledge*, which lies N. N. E. of said bar, distant $\frac{1}{2}$ of a mile. After you have passed this Ledge (which shows itself except at high tide) you will pass another Cove called *Hodgkin's-Cove*, when you will come up with *Davis'-Neck*, so called. When up with this Neck, haul S. W. or S. W. b. W. for *Wigwam-Point*, which lies on the larboard hand. Continue your course to the S. W. till you have the river open, and to bear S. S. W. when you may see one Pine Tree on *Coffin's-Beach*, which is on the starboard hand of the River, on the Sand knovls, which you may see if the weather is clear. Bring this tree to bear S. S. W. and run for *Wigwam-Point** which you must keep close aboard (within a biscuit throw.) When you are off the Bar you will see some Trees up the River on the larboard hand, which you must keep open to the Westward of the Beacon on *Wigwam-Point*, about a sail's breadth, which will carry you clear of *Harridan's-Rock*, which lies rather on the Eastern side of the river, going into *Squam*, about 2 cables length short of *Wigwam-Point*. This is a flat Rock that has not more than 5 feet water on it at low-tide, but it is very bold all round it. After you have passed *Wigwam-Point*, haul a little to the Westward, toward the Bar, to avoid *Lobster's-Rocks* (so called) which lie about

* There is a large mast on this Point, 40 or 50 feet high, on which a Lantern is hoisted in thick weather which serves for direction to vessels bound in.

1 $\frac{1}{2}$ Cables length within *Wigwam Point* which are covered except at low-tide. After you have passed these rocks haul away more to the Southward, keeping in the middle till you come just above the first Point on your larboard hand, when you may come to ; but if you have no anchors, go round the Point and run your vessel ashore on the flats, without injury or danger.

THE Publishers were disappointed by not receiving from their Correspondent directions for going into the River *Mississippi*, but at a future day it shall be given.

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COURSES AND DISTANCES,

FROM THE PRINCIPAL

Harbours, Capes and Headlands,

BETWEEN

Pasamaquady and the River Mississippi.

	<i>Leagues.</i>
F ROM <i>Point-Alderton</i> , when to the eastward of the <i>Graves</i> , to <i>Cape-Ann</i> , N. E.	10
From <i>Broad-Sound</i> , to <i>Marblehead</i> , N. N. E.	5
From <i>Boston Light-House</i> , when to the eastward of the <i>Graves</i> , to <i>Cape-Ann</i> , N. E. $\frac{1}{2}$ N.	7
From the dry <i>Salvage-Rock</i> , off <i>Cape-Ann</i> , when said Rock bears S. E. two miles distant, to <i>Newburyport-Bar</i> , N. W.	6
From <i>Newburyport-Bar</i> , to <i>Portsmouth Light-House</i> , N. N. E.	7
From the dry <i>Salvage-Rock</i> , to <i>Portsmouth</i> N. $\frac{1}{2}$ W.	11

	<i>Leagues.</i>
From the dry <i>Salvage-Rock</i> , to the <i>Isle of Shoals</i> , N. $\frac{1}{2}$ E.	8
From the <i>Isle of Shoals</i> to <i>Portsmouth</i> , N. N. W.	3
From <i>Newburyport-Bar</i> to the <i>Isle of Shoals</i> , N. E.	7
From the <i>Isle of Shoals</i> to <i>York harbour</i> , N. $\frac{1}{2}$ E.	5
From <i>York harbour</i> to <i>York Ledge</i> , S. E.	2
From <i>Portsmouth</i> , when the <i>Light-House</i> bears N. N. W. distant 1 league, to the <i>Nubble</i> or <i>Cape-</i> <i>Neddock</i> , N. N. E.	4
From <i>Cape-Neddock</i> to <i>Boon-Island</i> , S. E.	2
From <i>Boon-Island</i> to <i>Boon-Island-Rock</i> , E. S. E.	1
From <i>Cape-Neddock</i> to <i>Well's-Bar</i> , N. b. E.	4
From <i>Cape-Neddock</i> to <i>Cape-Porpoise</i> . N. E.	7
From <i>Cape-Porpoise</i> to <i>Wood-Island</i> , N. E.	
From <i>Wood-Island</i> to <i>Cape-Elizabeth</i> , N. E.	5 to 4
From <i>Cape-Elizabeth</i> to <i>Alden's-Ledge</i> , E. S. E.	3
From <i>Portland Light-House</i> , to <i>Alden's-Ledge</i> , S. S. E.	4
From <i>Cape-Elizabeth</i> to <i>Segwine-Island</i> , East,	10
From <i>Segwine-Island</i> , to <i>Manbeigin-Island</i> , East,	10
From <i>Cape-Ann</i> to <i>Cape-Elizabeth</i> , N. N. E.	28
From <i>Manbeigin-Island</i> to <i>Mattac</i> , East,	10

	<i>Leagues.</i>
From <i>Matinic-Island</i> to the <i>Isle-of-Holt</i> , N. N. E. $\frac{1}{2}$ E.	7
From the <i>Isle-of-Holt</i> to <i>Long-Island</i> , E. N. E.	7
From <i>Long-Island</i> to <i>Mount-Desert-Rock</i> , S. E.	3
From <i>Manticus-Island</i> to <i>Mount-Desert-Rock</i> , E. N. E.	14
From <i>Matinicus</i> to <i>Machias-Seal-Islands</i> , E. N. E.	26
From <i>Matinicus</i> to <i>Machias</i> , N. E. b. E. $\frac{1}{2}$ E.	27
From <i>Machias-Seal-Islands</i> to <i>Grand-Manan</i> , E. N. E.	2
From <i>Cross-Isle-Machias</i> to <i>West-Pasamaquady-head</i> N. E. b. E.	9
From <i>West-Pasamaquady-Head</i> over the bar to <i>Allen's-Isle</i> , N. N. W.	2
From <i>Allen's-Island</i> to <i>Moose-Island</i> , N. N. E.	1
From <i>Moose-Island</i> to the <i>Devil's-Head</i> , or <i>Oak-Bay</i> , N. N. W.	9
From <i>Grand-Manan-Isle</i> to the <i>Wolves'-Islands</i> , N. E. b. N.	3
From the <i>Wolve's-Island</i> —when said Island bears E. S. E. your course to <i>Campa-Bello-Island</i> , W. N. W.	3
From <i>Cape-Ann</i> to <i>Cashes-Ledge</i> , E. $\frac{1}{2}$ N.	24
From <i>Cape-Ann</i> to <i>Manbeigin-Island</i> , N. E. $\frac{1}{2}$ E.	40

	<i>Leagues.</i>
From <i>Boston</i> to go clear of <i>Cape-Cod</i> , E. b. S.	16
From <i>Cape-Ann</i> to go clear of <i>Cape-Sables</i> , E. b. S.	75
From <i>Cape-Ann</i> to the shoals of <i>Georges-Bank</i> , S. E. $\frac{1}{2}$ E.	45
From <i>Cape-Ann</i> to go clear of <i>Cape-Cod</i> , S. E. b. S.	18
From the high land of <i>Cape-Cod</i> to <i>Georges-Bank</i> , E. S. E.	35
From the high land of <i>Cape-Cod</i> to the <i>South-Shoal</i> of <i>Nantucket</i> to go clear of the Shoals, S. S. E.	28
From the <i>Clay-Ponds</i> of <i>Cape-Cod</i> , to <i>Chatham</i> , South.	12
From <i>Chatham</i> to the <i>Round-Shoal</i> , S. S. E.	7
From <i>Chatham</i> to <i>Butler's-Hole</i> , S. S. W.	4
From <i>Butler's-Hole</i> when clear of the <i>Pollock-Rip</i> , to <i>Nantucket Light-House</i> , S. S. W.	4
From <i>Sandy-Point Light-House</i> to <i>Nantucket Light-</i> <i>House</i> , S. S. W.	3
From <i>Morris-Island</i> to the <i>Round-Shoal</i> , S. S. E.	7
From the <i>Round-Shoal-Channel-way</i> when the <i>Light-</i> <i>House</i> bears S. W. b. W. steer S. W. b. W. to the <i>Light-House</i> .	3
From <i>Morris-Island</i> and <i>Ship-Channel</i> , S. S. E. and S. b. E.	7 $\frac{1}{2}$

	<i>Leagues</i>
From <i>Gay-Head</i> to <i>Block-Island</i> , W. b. N. with an ebb tide.	14
From <i>Block-Island</i> to <i>Rhode-Island</i> , N. E. b. N.	7
From the Light-House to the harbour of <i>Rhode-Island</i> , N. E.	1½
From <i>Block-Island</i> to <i>Point-Judith</i> , N. N. E.	4
From <i>Block-Island</i> to <i>Gardner's-Island</i> , W. ¼ N.	11
From <i>Block-Island</i> to <i>Montock-Point</i> , W. b. S.	6½
From <i>Montock-Point</i> to <i>Gardner's-Island</i> , W. b. N.	5½
From <i>Gardner's-Island</i> to <i>Shelter-Island</i> , West,	3
From <i>Block-Island</i> to the East end of <i>Fisher's-Island</i> , W. b. N.	8½
From <i>Block-Island</i> to <i>Watch-Point</i> , which lies to the Northward of <i>Fisher's-Island</i> , W. N. W.	7
From <i>Watch-Point</i> to the Light-House of <i>New-London</i> , going to the Northward of <i>Fisher's-Island</i> , W. b. N. 2 leagues, and W. N. W.	7
From <i>Block-Island</i> to the S. W. end of <i>Fisher's-Island</i> , W. b. N.	11
From the S. W. end of <i>Fisher's-Island</i> , to <i>New-London</i> , N. N. W.	2½
From <i>Point-Judith</i> to <i>Fisher's-Island</i> , W. ¼ S.	11
From <i>Plumb-Island</i> to <i>Sharp's-Point</i> , (being up the Sound on <i>Long-Island</i>) W. b. S.	19
From <i>Sharp's-Point</i> , to <i>Cranes's-Point</i> , West,	2½

	<i>Leagues.</i>
From <i>Crane's-Point</i> , to * <i>Huntington Harbour</i> , W. b. S.	5
From <i>Montock-Point</i> to <i>Sandy-Point</i> , or <i>Light-House of New-York</i> , W. S. W.	46
From <i>Sandy-Point</i> , to <i>Cape-Henlopen</i> , S. S. W. $\frac{1}{4}$ W.	37
From <i>Cape-Henlopen</i> to <i>Cape-Henry</i> , S. S. W. $\frac{1}{4}$ W.	40
From South Shoal of <i>Nantucket</i> to <i>Cape-Henry</i> , S. W. b. W.	141
From <i>Gay-Head</i> to <i>Cape-Henlopen</i> , W. S. W. $\frac{1}{4}$ S.	97
From <i>Gay-Head</i> to <i>Cape-Henry</i> , S. W. $\frac{1}{2}$ S.	130
Your course from <i>Hoime's-Hole</i> in the north channel to <i>Gay's-Head</i> is W. S. W. Your course from <i>West-Chop</i> to <i>Wood's-Hole</i> is N. b. W.	3
From <i>Cape-Henry</i> to <i>Cape-Hatteras</i> , S. S. E. $\frac{1}{4}$ E.	37 $\frac{2}{3}$
From <i>Cape-Hatteras</i> to the S. W. point of <i>Cape-Hatteras-Shoals</i> , S. E. $\frac{1}{4}$ E.	11
From <i>Cape-Hatteras-Shoals</i> to <i>Cape-Loak-out</i> , W. S. W.	20
From thence to the South point of the shoals off ditto, S. b. E. $\frac{1}{2}$ E.	20
From thence to <i>Cape-Fear</i> , W. S. W. $\frac{1}{4}$ W.	20
From thence to the S. E. point of <i>Fryingpan-Shoals</i> , off do. S. S. E.	20

* If you are bound from this part to New-York, I would recommend your taking a Pilot, as the passage is dangerous.

	<i>Leagues.</i>
From thence to <i>George-Town</i> , W. b. S. $\frac{3}{4}$ W.	23
From thence to the Shoals off ditto. S. S. E.	8
From thence to <i>Cape-Roman</i> , West.	4 $\frac{2}{3}$
From thence to <i>Charleston Light-House</i> , W. S. W. $\frac{1}{4}$ W.	21
From thence to <i>Savannah</i> , S. W. b. W. $\frac{1}{4}$ W.	23 $\frac{1}{3}$
From thence to <i>Tybee Light-House</i> E. S. E. $\frac{1}{4}$ E.	2 $\frac{1}{3}$
From thence to <i>Port-Royal</i> , N. E. $\frac{1}{4}$ E.	6
From thence to the entrance of the <i>River St. John</i> , S. $\frac{1}{2}$ W.	38 $\frac{1}{3}$
From thence to <i>Augustine-Bay</i> , S. b. E. $\frac{1}{4}$ E.	18 $\frac{2}{3}$
From thence to <i>Cape-Caneveral</i> , S. b. E. $\frac{3}{4}$ E.	31
From thence to Shoals off ditto, East.	1 $\frac{1}{3}$
From thence to <i>Cape-Florida</i> , South.	45 $\frac{1}{3}$
From thence to the S. W. point of <i>Dry-Tortuga-</i> <i>Shoals</i> , S. W. b. W. $\frac{3}{4}$ W.	59 $\frac{1}{3}$
From thence to <i>Cape-Sable</i> , E. N. E. $\frac{3}{4}$ E.	33
From thence to <i>Cape-Roman</i> , N. W. b. N. $\frac{3}{4}$ W.	20 $\frac{1}{3}$
From thence to <i>Charlotte-Harbour</i> , N. $\frac{3}{4}$ E.	21 $\frac{1}{3}$
From thence to <i>Spiritu-Santo-Bay</i> , N. N. W. $\frac{1}{4}$ W.	9
From thence to the Bay of <i>Apalache</i> , N. W. b. N. $\frac{1}{4}$ W.	56

	<i>Leagues,</i>
From thence to <i>Cape-St.-Blaize</i> , W. b. S. $\frac{1}{2}$ W.	13 $\frac{2}{3}$
From thence to <i>Pensacoly-Bar</i> , W. N. W.	34
From thence to <i>Mobile-Point</i> , W. b. S. $\frac{1}{2}$ W.	15 $\frac{1}{2}$
From thence to the mouth of the <i>Mississippi</i> , S. W. b. S. $\frac{1}{2}$ W.	24 $\frac{2}{3}$

N. B. These courses are to be made good. No variations allowed.

A
T I D E T A B L E,
S H E W I N G

The time of High-Water at full and change of the Moon at the following places.

[NOTE H. stands for hours, M. for minutes, and F. for fathoms.]

	H.	M.	F.
Boston Light-House	11	30	12
Marblehead, Salem and Cape-Ann,	11	30	12
Newburyport and Portsmouth,	11	15	10
Portland and Casco-Bay,	10	45	9
Kennebeck and Sheepscut,	10	45	9
Townsend, Broad-Bay and Georges River,	10	45	9
Penobscot River and Fox-Island,	10	45	10
Mount Desert and Gouldsbrough,	11	—	12
Mathias,	12	—	12
Pasamaquady River and Moose-Island,	11	30	25
Plymouth, Cape-Cod and Manony Point,	11	30	6½
Rhode-Island,	12	3	5
Long-Island,	10	2	5
New-Haven, New-Bedford, Block-Island and Rhode-Island Harbour,	7	37	5
New-York, Elizabeth-Town-Point and Cape-Henlopen,	8	54	5
New-York,	6	37	5
and Cape-Charles*	7	—	4

These times are governed by the winds. When it blows for two or three days the flood tide does not rise 2 feet, but when the wind blows a gale the tide rises 4 or 5 feet.

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T A B L E
 OF THE LATITUDES AND LONGITUDES
 OF THE
 PRINCIPAL HARBOURS AND CAPES,
 FROM THE
 ST. CROIX-RIVER (THE EASTERN BOUNDARY OF THE
 UNITED-STATES OF AMERICA,) TO THE MOUTH
 OF THE RIVER MISSISSIPPI.

<i>Names of Places.</i>	<i>Lats.</i>		<i>Names of Places.</i>	<i>Lats.</i>	
	<i>North</i>	<i>West.</i>		<i>North</i>	<i>West.</i>
Entrance of St. Croix-River	45,00	66,40	Nantucket Light-house	41,22	70,08
Wolves'-Islands	44,48	66,30	Noman's-Land-Island	41,15	71,05
Island of Campo-Bello, (middle) or West passage of Patuxqua- dy Bay	44,50	66,46	Gay-Head, (West-end of the Vineyard)	41,23	71,05
East end of Grand-Manan	44,42	66,34	Block-Island	41,15	71,40
Island of Grand-Manan, W. end	44,30	66,48	Point-Judith	41,24	71,28
Machias-Seal-Islands	44,27	66,52	Rhode-Island Light-House	41,28	71,24
Entrance of Machias River	44,35	66,56	Montock-Point, E. End of Long- Island	41,15	71,52
Gouldsbrough-Harbour	44,34	67,56	New-York Light-House, on San- dy-Point	40,30	74,02
Mount-Defert-Rock	44,15	67,40	Cape-May	39,06	74,45
Long-Island, Entrance of Blue- Hill-Bay	44,25	67,45	Light-House on Cape-Henlopen	38,56	75,00
Isle of Holt	44,23	68,10	*Chincoteague-Shoals, on Mary- land-Shore	38,00	75,00
Matinicus-Island	43,56	68,50	Cape-Charles	37,11	75,09
Island of Manheigan	43,56	68,20	Cape-Henry	37,0	76,04
Penmaquid-Point	44,05	69,00	Cape-Hatteras	35,16	75,54
Kennebeck-River, (Mouth)	43,45	69,40	Cape-Hatteras Shoals, S. W. point	34,54	75,34
Cathe's-Ledge, (Shoalest part)	43,50	69,08	Cape-Lookout	34,22	77,04
Segwina-Island	43,56	69,20	Shoals off do. South point	34,10	77,00
Alden's-Ledge, off C.-Elizabeth	43,53	69,43	Cape-Fear	33,51	76,28
Portland-Light-House	44,02	69,52	Fryingpan-Shoals off do. S. E. part	33,30	78,17
Cape-Elizabeth	43,56	69,50	George-Town	33,27	79,24
Wood-Island	43,50	69,57	Shoals off do.	33,05	79,13
Boon-Island	43,13	70,19	Cape-Roman	33,05	79,00
Boon-Island-Ledge	43,07	70,19	Charleston Light-House	32,42	80,10
Cape-Neddock	43,10	70,24	Savannah	32,03	81,24
York	43,13	70,37	St. Augustine	32,00	81,10
Portsmouth Light-House	43,4	70,41	Tybee-Light	32,12	80,54
Isle of Shoal	42,59	70,33	Port-Royal	30,13	81,30
Newbury-Port Light-House on Plumb-Island	42,47	70,47	River St.-John, (Entrance)	29,47	81,21
Ipswich	42,41	70,45	Augustine-Bay	28,20	80,45
Squam, (Pidgeon-Hill)	42,40	70,36	Cape-Canverel	28,20	80,49
Cape-Ann light-house on Thatch- er's-Island	42,36	70,33	Shoals off do.	25,44	80,44
Beverly	42,31	70,50	Cape-Florida	24,32	81,40
Salem	42,30	70,50	Dry-Tortuga-Shoals, S. W. point	24,51	81,52
Marblehead	42,29	70,47	Cape-Sable	25,42	82,36
Boston Light-House	42,25	70,50	Cape-Roman	26,47	82,24
Cape-Cod	42,12	70,08	Charlotte Harbour	27,36	82,54
South Shoal of Nantucket	40,48	69,45	Spirita-Santo-Bay	29,40	85,00
Shoal of George's-Bank, West end	41,30	68,45	Bay of Apalache	29,35	85,44
Shoal of Georges, East end	41,45	68,22	Cape-St. Blaise	30,15	85,34
Shoal of Georges, S. W. end	41,30	68,54	Penacola-Bar	30,11	85,35
Suncory-head or Nantucket-I- land	41,15	69,58	Mobile-point	30,12	80,27
			Mouth of the River-Mississippi		

* It bears about South from Cape-Henlopen, two leagues from land.

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6
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8 7
10 7
12 7

56
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112

41 1
1 19
42-20
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79 20

69-30
1 40
67-44

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