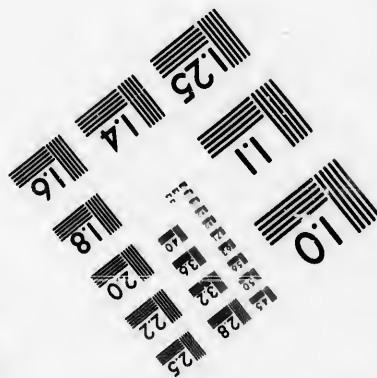
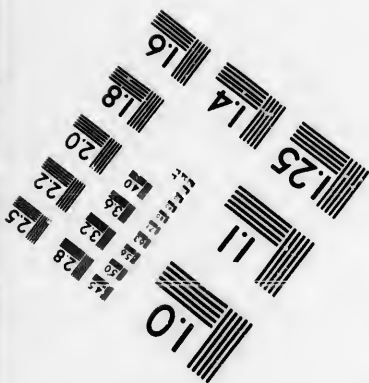
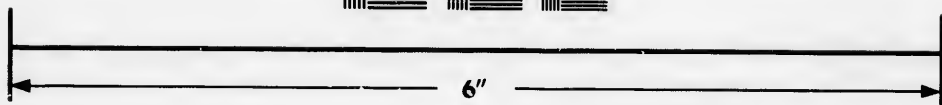
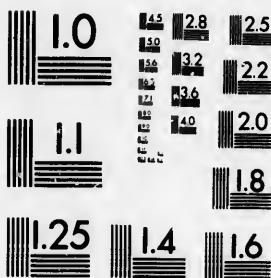


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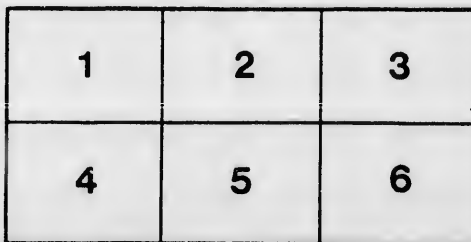
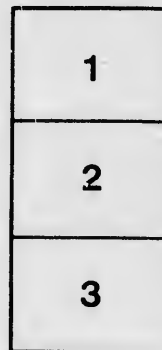
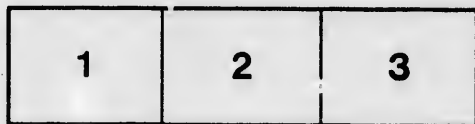
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The information contained in this notice is to be carefully considered, to be noted in the Sailing Directions, and compared with the chart when the ship is navigating the parts to which it refers.

Hydrographic Notice.

[No. 11.]



**LABRADOR — NORTH - EAST
COAST.**

The following information relating to the north-east coast of Labrador, between Cape Saint Lewis and Nain, is by Navigating Lieutenant W. F. Maxwell, R.N., Admiralty Surveyor, 1873-5.*

All Bearings are Magnetic. Variation in 1876:

<i>Cape St. Lewis</i>	- 38° 0' W.	<i>Cape Poreupine</i>	- 41° 50' W.
<i>Occasional harbour</i>	39° 0' W.	<i>Hatton island</i>	- 43° 0' W.
<i>Domino Run</i>	- 40° 30' W.	<i>Nain</i>	- - 45° 40' W.

CAPE SAINT LEWIS TO NAIN.

CAPE ST. LEWIS, the north point of St. Lewis Sound, is a bold headland, sloping steeply to seaward. A low black rock lies close to the cape, with deep water at 2 cables distance

Deepwater creek, immediately north of Cape St. Lewis, is a narrow inlet nearly half a mile deep, with steep rocky sides, and a few houses at the head. Landing from boats may be effected, even in a heavy sea at the fishing stages, alongside which there is deep water.

PETTY HARBOUR lies between Southern and Northern heads. The former, a mile north of Deepwater creek, slopes down from a bare hill 384 feet high, surmounted by a flagstaff; and a valley divides the point into two

* See Admiralty charts:—Labrador, No. 1,422; Cape St. Charles to Sandwich bay, No. 263; Sandwich bay to Nain, including Hamilton inlet, No. 375; and Camp islands to Mecklenburg harbour, No. 133; Also, Hydrographic Notices, No. 22 of 1867 (Occasional harbour to Hopedale); No. 3 of 1873; and No. 11 of 1875.

summits, ending in a cliff-faced cove $1\frac{1}{2}$ cables deep. Northern head is the cliff termination of a round hill 343 feet high, the spur of a higher range surmounted by a large boulder, 408 feet above high water. The north part of this point is marked by conspicuous white stripes.

The entrance of the harbour is N. $\frac{3}{4}$ W. $1\frac{1}{4}$ miles nearly from Southern head, on the north side of a peninsula 39 feet above high water, on which are some houses and a flagstaff. The passage in to the harbour has a sharp bend round this peninsula, and should only be taken by a sailing vessel with a commanding breeze. It is 250 feet from shore to shore, and is still further narrowed by shoal water fringing the north shore, and a rock with 9 feet water on it lying 150 feet off the south shore just within the narrows. The harbour then expands to an average width of a quarter of a mile and to a mile in length. The depth of water, varies from 18 to 12 fathoms in the centre, and the shores are bold-to except on the north.

Rock.—A rock with $2\frac{1}{2}$ fathoms water on it, and 13 fathoms close-to, is situated half a cable off the west point of Hogan cove, an indentation in the north shore.

Petty harbour affords good anchorage, being directly on the sea coast is available as a refuge, and when necessity arises can always be entered by keeping in mid-channel till the harbour opens, and then hauling up close to the north shore till the rock off the south shore is passed.

BARREN BAY or SALMON BIGHT, an open bay with a little shoal water at the head, runs in North $1\frac{1}{4}$ miles from Northern head.

SPEAR POINT, N.E. $\frac{3}{4}$ N. $4\frac{1}{2}$ miles nearly from Cape St. Lewis, slopes gently from an elevation of 190 feet. Off the point close-to is a rock that covers, but the point may be approached to half a cable.

SPEAR HARBOUR, west of Spear point, is entered from a bay between two islands. North island, 50 feet high, is steep-to on the south side, is shoal on the north, and a ledge projects 50 feet from the west extreme. West island, 52 feet above high water, has a reef stretching 150 feet from the west end. The east extreme of Western head shut in with the west side of North island clears this reef, but the shoal water can be seen easily and is steep-to.

To enter, keep North island close on board until the shoal water off West island is seen, when a course may be steered between the shoals. It would be advisable for a long vessel to send a boat to mark the extreme of that shoal, and the boat can be rounded close-to. The two arms branching west from the anchorage in $7\frac{1}{2}$ fathoms within the islands are shallow.

A disadvantage of this harbour is that the indraught carries icebergs into the entrance sometimes so as to completely block it until a westerly wind drives them out.

Several fishing banks lie off the harbour, but none are dangerous.

Little Spear harbour and Paul Peters cove.—Between Barren bay and Spear harbour are Little Spear harbour and Paul Peters cove, both open and wild.

Tinker bank, with 4 fathoms water, lies N. $\frac{3}{4}$ E. half a mile from Spear point, and S.S.E. $3\frac{1}{2}$ cables from American island. The summit of Jack Fling island N.W. by N., open east of American island, leads a cable east of the shoal.

The Ocasst from Spear point to Sealing bight is steep dark cliff, with a deep gorge, Davis gulsh, that crosses Spear point in a N.W. by N. direction.

American island, 67 feet high, is separated from this coast by a channel a little more than a cable wide, in which is a rock with $1\frac{3}{4}$ fathoms on it, nearer American island than the mainland.

Jack Fling island, 99 feet high, is a conical gray island with the remains of a salmon catcher's hut near the summit. It consists of two portions nearly joined and a low black rock off the west extreme.

Jack Fling bank, with $6\frac{1}{2}$ fathoms water, lies North $1\frac{3}{4}$ cables from Jack Fling island.

SEALING BIGHT, an open bay N.N.W. $\frac{1}{2}$ W. $1\frac{1}{2}$ miles from Spear point, is half a mile deep and $1\frac{3}{4}$ cables wide, and divides at the head in two coves with shingle beaches. Within the islet at the mouth of the south cove, the water is shoal, and there are conspicuous white houses at the head. The water is deep, and a heavy sea in northerly gales prevents it being used as an anchorage except with off-shore winds.

Mad Moll, with 6 feet water, lies in the middle of the entrance, and N.W. $\frac{1}{4}$ N. 2 cables from the north point of Jack Fling island. There are 9 fathoms close to.

Fish, Herring-net, and Heigh islands are situated off the north point of Sealing bight. Heigh island is bluff, 131 feet above high water, and separated from that point by a clear channel three-quarters of a cable wide. There is no passage between this and the other islands.

The Scab, a rock with $1\frac{1}{2}$ fathoms water, is the extreme of foul ground off Fish island, $1\frac{1}{2}$ cables N.W. $\frac{1}{2}$ N. from the north point.

MURRAY HARBOUR, an inlet $4\frac{1}{2}$ cables deep and $1\frac{1}{2}$ cables wide, lies half a mile from Fish island. It contains good anchorage in 4 to 5 fathoms, gradually shoaling to the shores. Beyond the islet, 3 cables within the entrance, the water is shoal.

The entrance is split into two channels by Harbour island, about 100 feet above high water; the west passage is shoal.

A rock with 2 feet water on it lies S.S.W. $\frac{1}{4}$ W. 80 yards from Harbour island, and is steep-to on the east side. Double islands well open east of Harbour island, leads east of the rock.

To enter the harbour the east point must be kept close on board, and the vessel anchored in mid-channel, off the houses.

Salt Pond head, the west point of Murray harbour, dividing the latter from Sophia harbour, is bold and steep-to.

SOPHIA HARBOUR extends S.W. $1\frac{1}{4}$ miles from Salt Pond head, where it takes a sudden turn to the eastward and expands into Salt pond, a shallow basin nearly a mile long and half a mile wide. There are no dangers in mid-channel. Good shelter may be had in small vessels at the head, but large vessels should seek shelter only in Meeklenburg harbour.

Fergus head, forming the west side of Sophia harbour, is dark and bluff, terminating in a hillock 100 feet above high water.

Chapel island, half a mile north of Salt Pond head, has a deep channel on both sides of it, the west quite free from danger. It consists of two parts; the east a cliff-faced islet 60 feet high, and the west, green and sloping, 112 feet above high water. Fishing boats often seek shelter in the channel between these two islands. The north and east sides of the island have deep water close to. Shoal water extends a quarter of a cable from the west point, and a short distance from the south point of the larger island. Chapel island rock, generally breaking, is situated between the south points of the two portions.

Soldier shoal, with $2\frac{1}{2}$ fathoms, is the shoalest part of a bank which lies N.N.E. $\frac{1}{2}$ E. 4 cables nearly from Salt Pond head, and E. by S. half a mile from the south extreme of Chapel island. The shoal extends N.E. $\frac{1}{2}$ E. a quarter of a mile, and falls suddenly to 19 fathoms.

MOSQUITO COVE is a deep open bay, west of Sophia harbour, divided into two coves by Aaron island, 59 feet above high water.

LITTLE HARBOUR, W.N.W. a little more than a mile from Salt Pond head, affords snug shelter for small vessels. The entrance is only 300 feet wide, and the channel is still further narrowed to 200 feet by shoal water off the south shore; the banks then recede, forming a basin 3 cables long with an average width of a cable and a depth of $2\frac{1}{2}$ fathoms, mud; there is good holding ground as far as an islet 5 feet above high water. Only $2\frac{3}{4}$ fathoms can be carried in by keeping the north shore close on board.

A shoal with $3\frac{1}{2}$ fathoms water on it, and 6 to 7 fathoms close to, is situated E. by S. $\frac{1}{2}$ S. 4 cables from the entrance to Little harbour,

and S.W. by W. $\frac{1}{2}$ W. 3 cables from the south extreme of Chapel island.

Salmon point, dividing Little harbour and Port Charlotte, is a steep point, sloping from a conical hill 157 feet above high water.

PORT CHARLOTTE, 2 miles in length, is entered by a narrow foul channel, that should not be taken without a pilot, except in an emergency. It expands into a deep bay with good anchorage in 11 to 15 fathoms. Road island, 17 feet above high water, is in the entrance, and is nearly joined to the west point by rocks and shoal water. Off the south side is a rock that covers, and a reef extends 2 cables from the west extreme in the line of the entrance. Shoals of 3 and $3\frac{1}{2}$ fathoms lie S.W. a cable from that reef, and a rock with $1\frac{3}{4}$ fathoms water lies half a cable off Level point, the first within the entrance on the east shore. Bottom arm at the head is three-quarters of a mile deep. Anchorage may be had in it in $6\frac{1}{2}$ fathoms, mud, as far as the narrows, half a mile from the mouth of the arm. Shoal water extends from either shore of the narrows, but by keeping mid-channel 4 fathoms water may be carried to the inner basin, where there is perfect shelter for small craft, and good holding ground in $7\frac{1}{2}$ fathoms.

Directions.—To enter Port Charlotte keep the summit of Chapel island open north of Salmon point, and bearing E. by S. until the north end of a shingle beach in Mecklenburg harbour is open west of Road island, when the low west point of Chapel island bearing E. $\frac{1}{2}$ S. must be brought just open of Salmon point to clear the 3-fathoms shoal; and when Duck island, a small islet near the west shore, bears N. by E., the vessel will be clear of the shoals, and may be hauled to the southward and anchored as convenient.

MECKLENBURG HARBOUR is west of Chapel island, and contains an outer and inner anchorage. The outer is easy of access, and gives good shelter in 18 to 13 fathoms without danger as far as Green island, which divides the arms.*

Water may be procured easily from a brook at the head of Man-of-war cove, the arm north of Green island.

The inner anchorage west of Green island has a shoal bank, with 3 feet least water, extending from the north shore nearly half way across; rocks which cover lie off the north shore, and a bank with 3 fathoms water is situated three-quarters of a cable off the south shore just within the entrance. No natural mark was found to clear these dangers, and the inner anchorage should not be sought without the aid of a chart or a pilot.

* See plan of Port Charlotte, Mecklenburg, and Sophia harbours on Admiralty chart, No. 133.

Crowly head, the point of the entrance north of Chapel island, is deeply indented by fissures 2 cables deep.

DOUBLE ISLANDS, two bare gray rocks, are divided by a narrow shallow channel a quarter of a cable wide. The highest is North 3 miles nearly from Spear point, and 65 feet above high water.

A rock that generally breaks lies three-quarters of a cable from the south-east extreme, but otherwise these islands are bold-to.

Flat island, N.W. by N. $1\frac{1}{4}$ miles from Double islands, is a black rock about 20 feet above high water. In continuation of it shoal water extends a cable, but it may be approached beyond that distance on the east side.

Double island bank, with 8 fathoms water, lies N. by W. $\frac{1}{2}$ W. $4\frac{1}{2}$ cables from Double islands.

THE SKERRIES, with 8 fathoms water over it, and 14 fathoms close to, is situated E. by N. $\frac{1}{2}$ N. three-quarters of a mile nearly from Flat island. Both these shoals are reported to break in autumnal gales.

COPPER ISLAND, N. $\frac{3}{4}$ E. $3\frac{1}{2}$ miles nearly from Double islands, is 186 feet above high water, grass-covered and flat-topped, with steep sides and bold-to. It is separated from the south side of Granby island by a channel a quarter of a mile wide, in the middle of which is Breaking rock, that covers at high water.

Little Copper island, a small white islet 35 feet above high water, is situated just west of Copper island.

GRANBY ISLAND is surmounted by a conspicuous flat-topped hill 461 feet above high water. The west shore is steep-to.

Fish rock, 11 feet above high water, N. by E. $\frac{1}{2}$ E. $3\frac{1}{2}$ miles from Double islands, is separated by a narrow channel from the south extreme of Granby island.

The coast between Fish rock and St. Francis harbour is clifty, rugged, and much indented.

St. Francis Harbour is very small, the anchorage space being only 2 cables in length and $1\frac{1}{4}$ cables in width. It is situated west of cape St. Francis, and the entrance is well marked by the watch-house and flag-staff on Pigeon island, 43 feet above high water. The harbour consists of two arms divided by a round hill 82 feet high, east from which are Chain rocks, low and flat; south of the hill is a low islet.

Round harbour, the south arm, is free from danger, and affords good anchorage for small vessels in $4\frac{1}{2}$ fathoms, sand and gravel. It is 3 cables

deep and a little more than a cable wide. The north arm may be easily distinguished by the house and stores on the east shore. It can be entered from either side of Pigeon island in mid-channel till Chain rocks are passed, then haul to the westward and anchor.

A rock with 5 feet water lies 250 feet off the shore south-east of the store houses.

CAPE ST. FRANCIS, N. by E. $\frac{1}{2}$ E. $7\frac{1}{2}$ miles nearly from Spear point, is a flat-topped rocky island 115 feet above high water, separated from the mainland by a narrow deep passage fit for a boat except in a heavy swell. The island is bold-to on all sides.*

St. Francis harbour bight, $1\frac{1}{2}$ miles north of cape St. Francis, is 3 cables deep and 7 cables wide. Indian head, a steep bluff 195 feet high, marks the approach to this bight, and forms the south side of Fish cove, a deep inlet ending in a ravine.

Burke island, 85 feet above high water, is on the east side of the bight. It is flat, has several houses on it, and is separated from Granby island by Pipers tickle, a narrow boat channel. West of this tickle are two flat rocks just above high water.

Flat islands, 3 feet above high water, lie in the centre of the bight, and are shoal to the point off which they are situated.

A rock awash at low water lies half a cable off Cogan cove at the south end, and is the only danger.

George tickle head is round and green, 119 feet above high water, and the north point of St. Francis harbour bight.

Anchorage may be had in this bight in 10 fathoms, mud, east of Flat islands, with good shelter from all winds, the mouth of the bight being nearly land-locked by Burke, Long, and Hare islands. The channel between George tickle head and Long island is clear.

Long island consists of two peaked hummocks, the north 137 feet and the south 101 feet above high water, joined together by a low neck of land, and separated from Hare island by a channel 100 feet wide at the south end.

Hare island, 356 feet high, is dark and flat-topped, with a cliffy shore, steep-to.

Red island, 67 feet above high water, is N. $\frac{3}{4}$ E. a little more than a mile from cape St. Francis. Rocks that generally break extend a cable from the west side.

* When close inshore, near Cape St. Francis, a deflection of the compass has been observed.

Red island shoal, with $5\frac{1}{4}$ fathoms, breaking in heavy gales, is situated south $1\frac{1}{2}$ cables nearly from Red island.

FISHING-SHIP HARBOUR is formed by the three Fishing-ship islands. The entrance is N.W. by N. nearly a mile from the north point of Hare island.*

West island is bold and cliff-faced on the east side, but from the north point shoal water stretches half a cable. The south shore slopes gradually to the sea, has foul ground off all the points, and should not be approached nearer than a cable. A shoal with 7 fathoms water lies S. by E. $\frac{1}{2}$ E. $3\frac{1}{2}$ cables from the islet, about 10 feet above high water, the north-west extreme of West island. West tinkle, separating West island from the mainland, is shallow.

North-west arm is a good anchorage 7 cables long and 3 cables broad, between West island and the mainland. It is free from all but the following dangers, namely:—A rock with 6 feet water off the entrance to West tinkle, nearly a cable from the shore; and a rock that covers one foot at high water with shoal ground off it, a cable from the west shore near the head. The north point of West island should not be brought east of S.E. to clear the first rock.

Anchorage may be had in 14 to 7 fathoms as convenient.

The channel between West and Middle islands is clear, and a vessel may stand close to the shores when beating, except off the north point of West island.

Hagan arm is a continuation of North-west arm through a channel half a cable wide, with $1\frac{3}{4}$ fathoms in it at low water, and may be entered by keeping mid-channel. After passing the narrows the water deepens, but it should not be entered except with local knowledge.

East island consists of a series of hummocks, the summit near the east end is faced with cliff 329 feet above high water, and there is a sharp peak 163 feet high over north extreme.

It is separated from the mainland $1\frac{1}{4}$ cables wide, narrowed to half a cable by an islet 3 feet above high water, with a sunken rock off it, and from Middle island by Boycans tinkle, a channel only a third of a cable wide, and nearly blocked by shoal water at either end. There is a passage by keeping Middle island close on board, but it is rarely attempted even by local small craft, and should not be (except in distress) by a stranger. Just inside the tinkle is a rock half a cable from East island.

* See plan of Fishing Ship Harbour on Admiralty chart, No. 263.

Middle island is divided in two parts by a deep ravine, the north flat-topped, 240 feet, the south 96 feet above high water. The coast line is rugged and deeply indented. From the points on the east side shoal water extends half a cable. The west side is bold-to, but off the south extreme a shoal with 2 fathoms water lies one third of a cable distant.

Two flat islands, the north and higher 8 feet above high water, lie off the north side of this island, with shoal water between them and the shore. From the outer island, rocks with 15 and 6 feet water extend north and west two-thirds of a cable. There is deep water close to on north-east side.

The mainland forming Fishing-ship harbour is rocky and barren. At the west end is a round hill 203 feet high, separated from the main body of the hills by a deep valley. From it a low spur, slopes to the southward, terminating in rugged points. Off the east extreme is a round islet 4 feet above high water, north of which is a rock that covers. There are 5 fathoms close-to the south extreme.

The east point has shoal water for half a cable off the south part.

Directions.—To enter from the southward, the channel between Middle and West islands should be taken, and then in mid-channel between the flat islets off Middle island and the round rock off the mainland. Rounding the former at one cable, anchorage may be had as convenient in 12 to $7\frac{1}{2}$ fathoms.

Bound through the north passage, the point of East island should be rounded at a cable, and then the mainland kept close on board until the sunken rock off the north point of East island is passed.

Lance Cove is a wild bight without shelter, $3\frac{1}{2}$ cables deep, immediately north of Fishing-ship harbour.

Sloop cove head is the east point of this bight, and is bold-to. Off the north point is an islet 8 feet above high water.

The Chimney.—A shoal with 6 fathoms water on it, lies south $1\frac{1}{2}$ cables nearly from Sloop cove head.

Sloop Cove is a small cove just west of the head of that name, and may be entered from the south by rounding Black rock, an islet close to the shore, and keeping the east shore on board. Only small vessels can go in, but they will find good shelter off the houses at the head. The west side of the entrance is formed by three low rocks.

Caplin bay, 4 cables deep, lies north of Sloop cove head, and narrows to the westward, expanding again into a basin $1\frac{3}{4}$ cables long and a cable broad, where boats may find shelter at the head, and small craft in 9 feet

at low water. In the narrows lies a rock that may be avoided by keeping the north shore on board.

Pigeon island, 82 feet high, lies N.E. $3\frac{1}{2}$ cables from Sloop cove head, and is the east point of Caplin bay. It is round and faced by cliffs, separated from the mainland by a channel half a cable broad, in which are two rocks that break. North-west of this island is a deep cove and Southwest bight, a wild and rugged bay in which the sea breaks heavily with an easterly swell.

Southern Point (of Ship harbour) is an island about 40 feet above high water, nearly joined to a peninsula 60 feet high, that make as a double hummock, and are situated N. by E. 2 miles nearly from East island.

SHIP HARBOUR extends north-west, a little more than $1\frac{3}{4}$ miles from Southern point, and narrows at $6\frac{1}{2}$ cables distance to a cable wide nearly, after passing which the shores recede. The south shore is straight, and steep wooded slopes surmount it; the north shore has open coves at the base of hills intersected by deep ravines, sloping from ranges 700 feet in height.

Russell cove, the second on the north shore, is shallow, filled by large boulders a cable from the beach. A rock which covers, lies 150 feet off the south-east point. The head of the harbour is shoal for a cable.

Anchorage may be obtained off this cove in 16 fathoms, mud, good holding ground.

Ship harbour head, N.N.E. $5\frac{1}{2}$ miles from cape St. Francis, is a rugged promontory 520 feet above high water, faced by steep bluffs with red patches. It is steep to on all sides. The coast between this head and Occasional harbour is remarkable from the deep ravines intersecting the promontory extending a cable inshore. Good cove, the third from Ship harbour head, round a low point, is the only place where landing can be effected in ordinary weather, or with even a light easterly swell.

Twin islands, N.N.E. $\frac{1}{2}$ E. a mile from Ship harbour head, are two in number, the southern consisting of two conical grass-covered mounds about 60 feet high, from which the islands take their name; the northern a black rock 32 feet above high water, separated by a narrow channel.

A rock with 4 fathoms water lies S.S.W. 8 cables from Twin islands, cape St. Michael open either side of these islands lead clear of the rock.

A shoal with $5\frac{1}{2}$ fathoms water lies N.N.W. $\frac{3}{4}$ W. 3 cables nearly from West Twin island.

OCCASIONAL HARBOUR runs in west $5\frac{1}{2}$ miles from Twin islands. It is clear of danger, the water is deep for 3 miles from the entrance, with an average width of $3\frac{1}{2}$ cables, and affords no anchorage; it then expands

into Delaney cove on the south, French and Trout coves on the north. Delaney cove is a quarter of a mile deep, and is separated from the head of Ship harbour by a neck of land $3\frac{1}{2}$ cables across. Rocks lie off the north point of this cove, close to the shore. French and Trout coves are $2\frac{1}{2}$ cables deep, and vessels wishing to fish may haul close to the shore in either cove. The water is shoal close off the point dividing these coves.*

West of Trout cove the harbour is narrowed to $1\frac{1}{2}$ cables by a projecting point from the north shore, with rocks three-quarters of a cable from it. Arch cove, west of this point, is a secure anchorage 4 cables square, with 6 to 12 fathoms water. Mercers island, 3 feet above high water, 4 cables from this point, marks the last limit of the shoal water, and west of the anchorage. Boats may proceed to the basin beyond. An islet 37 feet high lies beyond Mercers island.

Lazy bank, with $6\frac{1}{4}$ fathoms least water, is situated E.S.E. $2\frac{1}{2}$ cables from the point between Arch and Trout coves. The water is deep north of it, but the bank runs along the shore to the southward.

Anchorage may be had as soon as French cove is open, off the entrance to that cove; in Delaney cove in 10 fathoms, or anywhere in 14 to 11 fathoms after passing Trout cove point.

Water may be procured from many places along the shores, but the most convenient place is on the south shore opposite Arch cove. Firewood may be obtained in abundance.

Northern head of Occasional harbour, a steep cliff, has a rock close to a foot above high water.

Hole in the Wall cove lies north of this head, and is 3 cables deep, having a red cliff at the head with a cave in it.

ST. MICHAEL BAY.—CAPE ST. MICHAEL is the turning point to St. Michael bay, north $1\frac{1}{2}$ miles from Twin islands. The coast is steep and bold-to, the extremities are Hole-in-the-Wall, a remarkable ridge with a hole through, and Main cape that terminates in a low peninsula.

Main cape bank, with 6 fathoms water, lies E. $\frac{3}{4}$ N. half a mile from Main cape.

False cape, half a mile north of Main cape, is the north side of Cape cove, 4 cables deep, open and wild, with a deep valley at the head. A small rock lies off the extreme of False cape, and it is bold-to.

False cape bank, with 13 fathoms least water, lies N.E. by E. three-quarters of a mile from False cape.

* See Admiralty plan, Occasional harbour, No. 225; scale, $m = 3$ inches.

First point, N.W. by N. $1\frac{1}{4}$ miles from False cape, is a low point sloping gradually from wooded hills. Between these points are deep coves; that nearest False cape being called Island cove, from a white islet 65 feet above high water in the entrance. It is $1\frac{3}{4}$ cables deep, shoal within the island, and affords indifferent shelter for boats.

Salmon bank, with $7\frac{1}{2}$ fathoms water, lies E. $\frac{1}{4}$ S. 8 cables from First point.

Scrammy bay, much resorted to for drying fish is west of First point. Pinsent island, 67 feet above high water, lies off it, and shelters the bay partially, but not from a north-east gale. Vessels generally anchor west of this island and south of Scrammy island, between Pinsent island and the mainland.

Lazy bank, with $5\frac{1}{2}$ fathoms water, is situated N.E. by E. $1\frac{3}{4}$ cables from Pinsent island.

Pinsent rock, 2 feet above high water, N. by W. $\frac{1}{2}$ W. $1\frac{1}{2}$ cables from Pinsent island, is bold-to on the north side. Hussy rock, with $1\frac{1}{4}$ fathoms water, is south-east a cable from it.

Lump rock, awash at low water, is 4 cables west of Pinsent rock, and a cable off shore. It forms the east point of George cove, that affords good shelter for boats, with no danger in it except close to the shore. Lump rock may be approached to a cable.

Pinsent arm is 2 miles from Pinsent rock. The bay outside the narrows is clear, the south shore sloping from mossy hills, backed by the highest range on the south part of the Labrador coast, the summit is a boulder 895 feet above high water. The north shore ends in an islet 35 feet and a peninsula 56 feet above high water. The narrows are between two hillocks, the north 58 feet and the south 46 feet above high water. At the summit of the north hillock is a flagstaff, at the base a conspicuous white house, and off it are two low islets. Off the south hillock is a rock that covers 3 feet, narrowing the entrance to half a cable. All the channel is foul, and no vessel should attempt it without a pilot, but good anchorage for small craft may be had in $5\frac{1}{2}$ to $7\frac{1}{2}$ fathoms, sand, near the north shore just within the houses.

Long island, 192 feet above high water, $1\frac{1}{4}$ miles from First point, makes as a cone from the southward, but from the westward as two hummocks, the south 106 feet above high water. At the north-east end, joined at low water, is an islet, off which are a rock that covers at half tide $1\frac{1}{4}$ cables north, a bank with $5\frac{3}{4}$ fathoms at $2\frac{1}{2}$ cables, and a shoal with 2 fathoms water S.S.E. $\frac{3}{4}$ E. a cable nearly. The south shore may be approached to half a cable.

Anchorage in $8\frac{1}{2}$ to 12 fathoms may be had on a bank that extends $2\frac{1}{2}$ cables off the east cove on the south shore of this island. The holding ground is said to be good, though the lead brought up only coral and rock.

Fox island, 66 feet above high water, is nearly joined by rocks to the north-west point of Long island.

Pigeon island, 22 feet above high water, is situated N.N.E. $\frac{1}{4}$ E. 9 cables from the south end of Long island.

A bank with two shoal parts of 2 and $2\frac{3}{4}$ fathoms lies N.W. 3 cables nearly from Pigeon island. There are 10 fathoms close-to on all sides. False cape S.S.E. $\frac{1}{4}$ E. open north of Pigeon island leads east of these shoals.

Pigeon island rock, with $1\frac{1}{4}$ fathoms water, is an isolated shoal, steep-to, S.S.E. 2 cables from Pigeon island.

Burnt island, joined at low water to the west point of Square island, is separated from Pigeon island by a clear channel $3\frac{3}{4}$ cables broad. Comprised between it and Square island is a bay with a small islet in it, off which shoal water extends south three-quarters of a cable.

SQUARE ISLAND, dividing St. Michael bay into two parts, is bare, and surmounted by a double hill 504 feet above high water. The shores are bold and intersected by numerous ravines, the north-east point ends in Sugar-loaf, a truncated cone 221 feet high, and Gull island 49 feet above high water. An islet 7 feet above high water is nearly joined to Gull island and from it extends half a cable. Snapper cove is a deep indentation west of Sugar-loaf. In it close to the shore are Upper rock with $4\frac{1}{2}$ fathoms, and Northward rock with 5 fathoms water, small and steep-to.

Square island harbour, a cove 2 cables deep at the south end of the island, is sheltered by East and West islands, and may be approached by three channels. The south channel is marked by Motion island, round and faced by cliffs, 30 feet above high water, and nearly joined to Square island by a low rock. The middle channel is between East and West islands, free from danger; and the north channel between East and Square islands is clear. Harbour point, south of the harbour, has a rock close off it, and a rock that covers lies in the cove on the north side. Harbour rock, 10 feet high, is situated off the east point, and a bank with 5 fathoms water lies a third of a cable south-east from it. There is no anchorage for vessels in the harbour to swing clear, though one or two might anchor in 12 fathoms and moor to the shore, but they would have to leave before

an easterly gale came on. It is convenient, however, for fishing craft and boats, as the water is deep to the shore.

Anchorage for vessels with good shelter may be had in the channel between East and West islands, near the west end in 10 fathoms, the only place available for large vessels.

West island, north 4 miles from Twin islands, is round in shape, the summit, a steep bluff 272 feet above high water, being immediately over the south end. A little shoal water lies close to the north shore of this island.

The Sisters, two small islets, lie $1\frac{1}{4}$ cables south of West island. The channel between is clear, but they should not be approached in the line of their length nearer than a cable.

Mad Moll, with $1\frac{1}{4}$ fathoms water, is a dangerous rock S.S.E. $\frac{3}{4}$ E. half a mile from the Sisters, and covers a space half a cable square. It is steep-to on all sides. Twin islands S. $\frac{3}{4}$ W., open east of cape St. Michael, leads east of Mad Moll, and shut in S. $\frac{1}{4}$ E. leads west of it.

Hampton bank, with 6 fathoms water, is situated S.E. by E. $\frac{1}{2}$ E. $1\frac{1}{2}$ miles from the Sisters. Inner Hampton bank, with 10 fathoms water, lies $1\frac{1}{2}$ cables west of it.

East island is separated from West island by a clear channel $1\frac{1}{2}$ cables wide, and is half a cable from Square island. Through the north channel icebergs frequently drift in the summer, the water being very deep and the current in the direction of the channel. Joined to the south end of East island, 50 feet above high water, is a rocky hummock that makes as a third island, being connected only by a low neck of land. The shores of this island are steep-to.

THE RIBS, two rocky patches with 2 fathoms least water, are situated S.E. by E. $\frac{1}{4}$ E. a little more than a mile from the north-east extreme of East island. A danger called the Skerries is reported in the neighbourhood, but it is believed to be the other head of the Ribs. The surveying vessel *Gulnare* was out in a very heavy sea, and there were no breakers or sign of shoal water, but the Ribs were breaking heavily at the time. Several fishing banks lie north-east of the Ribs, but none are dangerous.

Ship harbour head, S.S.W. $\frac{3}{4}$ W., open south of Twin islands, passes well to the eastward of all shoals.

DEAD ISLANDS may be distinguished by a dome-shaped island, and an island with a remarkable white stripe.

CAPE BLUFF on the north side of St. Michael bay, N.N.E. $\frac{1}{4}$ E. $10\frac{1}{2}$ miles from Twin islands, is the most conspicuous headland on the outer coast of Labrador. It falls steeply from a double-peaked hill about 650 feet high. Gull island, a low dark rock, lies off the east side.

Cooper island (Barren island) is high and flat-topped, falling in steep bold cliffs to the water line.

Stony island is high and bold, with deep bays on the east side, and a conical mound at the south extreme.

VENISON TICKLE.—**Venison island**, on the east side of Stony island, is 7 cables long and 3 cables broad; on the summit, 224 feet above high water, is a flagstaff 67 feet high surrounded by a white hoarding that shows conspicuously from all directions. South of the summit is a bluff that is remarkable when seen from the northward. On the west side are two spurs overlooking the tickle. There is a large fishing establishment with a wharf, alongside which is nearly 3 fathoms water, with rocky débris immediately inshore.*

Venison tickle is the narrow passage between Venison and Stony islands, much used by fishing craft both as a channel and anchorage, the shelter being perfect from all winds. Through the south entrance, that is only 70 yards wide, not more than 3 fathoms deepest water can be carried through, and no vessel drawing more than 12 feet should attempt it; but from the north entrance the water gradually shoals from 8 fathoms to the depth of 3 fathoms at the south end.

Black rock, 10 feet above high water, lies off the south extreme of Stony island, $1\frac{1}{4}$ miles to the southward of the south entrance.

White island, 48 feet high, consisting of two parts joined together at low water, lies three-quarters of a mile to the southward of the entrance, and has two rocks off the south-west extreme.

Cod rock, with $1\frac{1}{4}$ fathoms water, N.W. $\frac{1}{2}$ N. 2 cables from the south point of Venison island, and two-thirds of a cable from the nearest point.

The south entrance to the tickle bearing N.E. leads two-thirds of a cable to the westward of Cod rock.

The King, a rock that breaks in moderate weather, lies S.E. by E. $\frac{1}{2}$ E. $4\frac{1}{2}$ cables from the south point of Venison island.

* See plan of Venison tickle on Admiralty chart, No. 263.

The Queen, with $2\frac{1}{2}$ fathoms water, lies S.S.W. nearly a cable from the King, and S.E. $\frac{1}{2}$ E. $4\frac{1}{2}$ cables from the south point of Venison island.

Eddystone island.—East from Venison island is a group of rocky islets, the outer of which, Eddystone island, is distant $1\frac{1}{2}$ miles.

There is deep water east of these islands, but the channels between them should not be taken.

From the point of Stony island, at the north entrance of Venison tinkle, sunken rocks and shoals extend east a little more than half a mile to Deepwater island, a gray bare rock 30 feet above high water.

The passage is south of these islands and reefs, and by keeping the north point of Venison island bearing West, a mid-channel course may be steered to the tinkle.

White point, N.E. $\frac{1}{4}$ N. 4 cables from Deepwater island, slopes from a conical hill, about 300 feet above high water.

The Flats, a reef with 6 feet on the outer edge, extend S.S.W. $1\frac{1}{2}$ cables from this point.

The Skerries, a rocky bank with least water of 4 fathoms, lies N.E. by E. $\frac{1}{4}$ E. a mile from Eddystone island.

Venison island flag-staff in line with the south extreme of Hen and Chickens (the islets next north of Eddystone island) W. $\frac{1}{2}$ S., leads one cable to the southward.

Between Venison and Seal islands are numerous islands and rocks with the same characteristics as the south portion of the coast, bare and rugged in outline. They are so numerous that time did not permit a detailed examination.

Comfort head, a table-topped hill about 600 feet high, is the only conspicuous landmark, and terminates in spurs with sharp peaks on their seaboard extremes. At the south end is Steep island, terminated in a bluff cliff.

Old King, a rocky patch that breaks in a moderate sea, lies S.S.E. 9 cables from this bluff.

SEAL ISLANDS are a group lying N.E. nearly 14 miles from Eddystone island; the outer Long island flat and barren.

The Ravens, a group of low black islets, extend south half a mile from Long island, and may be approached to a quarter of a mile.

American tinkle, west of Long island, is a narrow passage with a small cove and a planter's establishment.

White rock, 30 feet high, lies N.E. $4\frac{1}{2}$ miles from the South Raven, and has shoal water a cable off north and south extremes. Between this and Bateau harbour are numerous islets and rocks, the outer of which only have been charted.

Green island, a round bare rock 62 feet high, with numerous smaller islets to the westward, lies N. by W. $\frac{1}{2}$ W. $2\frac{6}{10}$ miles from White rock.

Black rock, 4 feet high, with deep water close to, lies N. $\frac{1}{2}$ E. $2\frac{3}{10}$ miles from White rock.

ROUNDHILL ISLAND, 174 feet high, is conspicuous, and the westernmost point of the coast. It is composed of a series of hummocks with deep indentations between, and there is a low islet close to on the east side. It is steep to all round, and lies N.E. $\frac{3}{4}$ E. $9\frac{1}{10}$ miles from White rock.

SADDLE or DOUBLE ISLANDS, west $1\frac{3}{4}$ miles from Roundhill island, are two groups, the east consisting of three connected by shoal water; the highest, 148 feet high, makes as a saddle when seen from the southward. The west group is composed of three black islets, the easternmost and highest 48 feet above high water. The channel between the groups is $4\frac{1}{2}$ cables wide.

A rock awash at low water lies E. by S. $\frac{1}{4}$ S. $4\frac{1}{2}$ cables from the north extremity of the west group.

A rock with 5 feet water on it lies S.S.E. $\frac{3}{4}$ E. $5\frac{1}{2}$ cables from the same point.

O'NEALE ROCK, with 2 fathoms on it, lies S.E. by S. nearly 7 cables from the south end of Saddle islands, and W. $\frac{3}{4}$ S. $1\frac{7}{10}$ miles from Roundhill island.

A rock with 3 feet water lies a cable from the south end of the west group, and S. $\frac{1}{2}$ W. $3\frac{1}{2}$ cables from the same point is a shoal with $2\frac{1}{2}$ fathoms.

MARK ISLANDS lie W. by N. $2\frac{1}{4}$ miles from Saddle islands. Between the two groups there is a clear (and the most frequented) passage. The highest island is flat, 121 feet above high water, from which Cosgrave rocks, 8 feet above high water, extend 3 cables to the southward.

A shoal with 4 fathoms, and deep water close to, lies N.E. $\frac{1}{2}$ N. $1\frac{2}{10}$ miles from the south end of Mark islands, and N.W. $\frac{1}{2}$ N. $1\frac{3}{10}$ miles from the west group of Saddle islands.

QUEEN ISLAND lies N.W. a mile from Mark islands. It is surmounted by a remarkable round hummock 132 feet above high water. There is

deep water close to the south side, but between it and the mainland there is a passage for boats only.

Toole rock, with $1\frac{1}{4}$ fathoms, lies S. by E. $\frac{1}{4}$ E. $2\frac{1}{2}$ cables from the east point of Queer island. Fish island summit in line with the east extreme of Bombproof island, N.E. by E., leads to the eastward.

Lateau harbour lies inside Queer island under the highest hill in the vicinity, 289 feet above high water, sloping gently to the sea. In it is excellent anchorage for small vessels in 4 fathoms water, and wharves are built in the head, alongside which large schooners can load. The only safe passage is east of Queer island, keeping Fish island summit shut in with Bombproof island to avoid Toole rock; and when the black rock off Green island is in line with the north extreme of the Mark group S.E. the harbour may be steered for.

Bombproof island is conical, black and white striped, 69 feet above high water, and shows conspicuously from seaward.

A large group of islands, with rocks and shoals between, lies north-east of this island, but they should not be approached without a chart or a pilot.

Fish island, 41 feet high, is the eastern and outer of the group, and lies N.N.E. $2\frac{9}{10}$ miles from Mark islands; it is green and round.

Carrol island, north 4 cables from Fish island, is a conspicuous dark round island 157 feet above high water.

Black tickle, a narrow sheltered passage, much frequented by fishermen, lies north-east of Carrol island. It may be entered by rounding the south end of Carrol island, and then keeping the west shore of that island and the next north on board. Vessels drawing 12 feet can load here.

Domino point slopes from a conspicuous rugged dark hill 273 feet above high water, and is terminated by a rocky islet. It lies N.N.W. $\frac{1}{2}$ W. $4\frac{3}{4}$ miles from Roundhill island, and N. $\frac{1}{4}$ E. $3\frac{1}{2}$ miles from the west group of Saddle islands.

DOMINO RUN.—This name is given to the passage west of Spotted and the adjacent islands, through which a depth of $4\frac{1}{2}$ fathoms at low water may be carried. The entrance is between South-east point of Spotted island and Domino point. The latter is situated N.W. by N. 5 miles from Roundhill island, and the intervening space is free from danger.*

Mistaken point, $1\frac{3}{4}$ miles from Domino point, is the north extreme of the intermediate dark cliffy coast, intersected by a deep gulsh, and in

* See Admiralty plan, Domino Run, No. 226; scale, $m = 2$ inches.

which is an open cove 4 cables wide, bold to the shore. From this point the shore recedes suddenly to south-west.

Domino harbour, immediately north of Mistaken point, is 4 cables deep and three-quarters of a cable wide. The west side of the harbour is steep-to, and fishing vessels moor alongside in $2\frac{1}{2}$ fathoms water. An isolated rock, with 7 feet water, lies close off the east shore half way up the harbour. There are some houses surrounding it, the most conspicuous on the north side of the entrance. A shoal with 9 feet least water lies a cable off these houses. Penny Hook cove is a shallow bight north of Domino harbour; north of it are several rugged points foul for a cable from the shore.

Wild bay.—Gunning point, the most northern of these points, forms the east side of Wild bay, half a mile deep, foul and shoal, breaking across in easterly gales. Shoal water, called the Flats, extends north three-quarters of a mile from Gunning point, with $1\frac{1}{2}$ fathoms on the outer edge, leaving a channel $1\frac{1}{2}$ cables wide with $3\frac{1}{2}$ fathoms water in it between the Flats and the foul ground west of Entry island.

Red point, the north-west point of Wild bay, and the south turning point into Rocky bay, is a red cliff 50 feet above high water.

An islet 5 feet above high water is situated N. by W. $\frac{1}{2}$ W. a mile from Red point. It is surrounded by shoal water, the east patch, with $3\frac{1}{2}$ fathoms water, being E. by S. $\frac{1}{4}$ S. $4\frac{1}{2}$ cables nearly from the islet, and exactly half way between it and the north point of Grog island.

Green islands and Black rocks lie in the south entrance to Domino run. The former consist of a green cone 64 feet above high water and a group of dark rocks, the highest 15 feet above high water. Black rocks are two low rocks a cable apart, $4\frac{1}{2}$ cables from Green islands, the highest 4 feet above high water.

There is no passage between Green islands and Black rocks, but the channels east of Black rocks and west of Green islands are clear.

South-east point of Spotted island slopes from a conical hill 205 feet high, the spur of a higher range inshore.

Spotted island harbour, between it and South Black head, is an open bay half a mile deep, where anchorage may be had with off-shore winds in 7 fathoms. It is exposed for vessels, but there is a good boat harbour close under the conspicuous white houses at the head.

South Black head narrows Domino run to $4\frac{1}{2}$ cables between it and Mistaken point. It is the extreme of a round hill 165 feet above high water, and is bold-to.

The coast of Spotted island north of South Black head has a shingle beach fronting a green marsh, foul for 3 cables from the shore. Green island

S.S.E. $\frac{1}{2}$ E. open west of South Black head leads just to the westward of the shoal water.

North Black head, the north-west point of Spotted island, marks the north limit of the shingle beach and shoal water. It terminates at the sea coast in a dark cliff.

The coast east of it is of dark cliff, with numerous valleys, and may be approached to a cable distant.

Entry island, dark, with a flat summit 205 feet above high water, shows conspicuously from all directions. Some low rocks lie off the east point, steep-to on the east side, and shoal water extends $2\frac{1}{2}$ cables from the south-west point. The north side is clear at a cable distant.

Duck island, with three flat summits, 120 feet above high water, is separated from the north end of Spotted island by a clear channel 7 cables wide. A hillock 63 feet high faced by cliffs marks the south extreme. The east and north shores are of dark cliffs and steep-to; the west side consists of a series of shingle beaches with shoal water a cable off them.

Trusty rock, with $2\frac{3}{4}$ fathoms, is the least water on a large bank extending nearly 2 cables from the west end of Duck island. Mustering point, the extreme of the land north of Domino harbour, kept shut in with the rocks off Entry island S. by E. $\frac{3}{4}$ E., leads south of this rock.

Grappling island, black and bare, 18 feet above high water, lies $1\frac{1}{2}$ cables east of Duck island. Shoal ground extends from the south point, ending in a rock that covers 5 feet at high water. There is no other danger between Entry, Duck, and Spotted islands.

Grog island, a sharp green cone 100 feet above high water, is situated north of Entry island; a rock that covers 2 feet lies off the south-east extreme, and shoal water extends a cable from the south and west sides. The north point is clear beyond a cable distant.

Fawn rock, with 7 feet water, lies North 4 cables from Grog island. A shoal with $3\frac{1}{2}$ fathoms water is situated a cable south-west from this rock.

The west end of Entry island seen open west of Grog island leads west of these shoals. The west end of Entry island open east of Grog island leads east of the shoal.

Back cove point, the north-east extreme of Spotted island, in line with the north extreme of Duck island E.S.E., leads a cable north of Fawn rock and $1\frac{1}{4}$ cables south of Centipede rock.

Little Duck island, north of Duck island, is 94 feet above high water. There is a passage between them.

Centipede rock, with 2 feet water on it, lies W. by N. $\frac{1}{2}$ N. 3 cables from the south end of Little Duck island. Shoals extend from it to the banks between Pigeon and White islands.

White island consists of two parts, the south 196 feet high, dark and steep; the north 172 feet, a whitish cone joined to the northern by a narrow neck of land faced on the west side by a shingle beach.

A cove 3 cable deep runs in between these parts on the north-east side, and there is a settlement at the head. Shoal water south-west from the island and banks almost fills the channel between White and Pigeon islands. A shoal divided from the south-east point extends $1\frac{1}{4}$ cables, and has $1\frac{1}{2}$ fathoms least water. There is no passage between White, Little Duck, and Pigeon islands.

A shoal with $5\frac{1}{2}$ fathoms water, North 4 cables from White island, is the only dangerous one of several banks on that bearing; and it is said to break in bad weather.

Pigeon island is the name given to two islets separated by a narrow channel. The southern 63 feet high, covered with grass; the northern flat, 53 feet above high water, and faced by cliffs. A group of islets 6 feet above high water lies off the east side of the channel. The whole should not be approached nearer than a cable.

A ledge of rocks extends 3 cables from the islet 21 feet above high water which is situated off Salmon point, south-west of Indian tickle and a bank with $7\frac{1}{2}$ fathoms lies 2 cables beyond.

The west extreme of Deer island touching the east extreme of Lynch island N.E. $\frac{3}{4}$ E. leads south of the ledge; and Entry island S.S.E. just seen east of Grog island leads east of these shoals.

DIRECTIONS.—Entering Domino run by the channels east of Black rocks or west of Green islands, mid-channel between South Black head and Mistaken point will be reached, when the east end of Pigeon island will be seen in line with the west side of Duck island N.N.W. nearly. These marks kept in line will lead in the deepest water between the island of Ponds and Spotted island. If wishing to go to sea the passage between Duck and Spotted islands is clear except the rock close to Grappling island.

To proceed west of Grog island, the channel between it and Entry island should be taken, keeping more than 2 cables from Grog island; and when the fall of the hills over Domino harbour is in line with the west extreme of Entry island S. by E. $\frac{3}{4}$ E., this mark should be kept astern until Back cove point (Spotted island) bearing E.S.E. opens north of Duck island, when a course may be steered for Indian tickle, taking care to clear the ledge of rocks off Salmon point by keeping Entry island S.S.E. in sight east of Grog island.

The course usually followed by fishermen is to round Grog island at about a cable, and when Entry island opens west of Grog island to steer for Indian tickle; but this course leads close to the shoal off Fawn rock.

To pass between Duck and Little Duck islands, Duck island should be kept close on board, and Back cove point brought in line with the north extreme as soon as possible. If bound to Indian tickle keep this mark on astern until Entry island opens west of Grog island, when proceed as before. If bound to the south-ward, when Mustering point is shut in with the rocks off Entry island, alter course for Grog island, keeping Entry island open east of Grog island to clear Fawn rock. After passing Duck island, the west side of that island should be brought in line with the east end of Pigeon island, and this mark kept on astern will lead in the deepest water west of Spotted island.

There is a channel south of Entry island but it is rarely used. To pass through it, Mistaken point must be kept S.S.E. $\frac{1}{2}$ E. open east of Man-of-war point, to clear the Flats, until the north extreme of Spotted island is in line with the south end of the rocks off Entry island. This mark kept on astern will lead in $3\frac{3}{4}$ fathoms between the Flats and the shoals off Entry island. When Pigeon island is just seen west of Grog island N. $\frac{1}{4}$ W., a course should be steered to open it a little; and when the fall of the hills over Domino harbour is in line with the west extreme of Entry island, proceed as before directed.

SPOTTED ISLAND, so called from the alternation of black and white cliffs on the east coast, is 4 miles long and 2 miles broad, and forms the north side of Domino run. The south shore slopes down to Black head, a dark conical hill 153 feet above high water. East of that head is a deep cove with some white houses.

Castle Dermot is a clifly islet nearly joined to the east coast, and several rocks fringe the shore, but the whole may be approached to a quarter of a mile.

Farmer Cove, on the north coast of Spotted island, is an indentation nearly $1\frac{1}{2}$ miles deep, with an island in the entrance. It is exposed to the northward and rarely used as an anchorage.

Griffin harbour three-quarters of a mile north-west of Farmer cove, is 4 cables deep, and has excellent shelter in 4 fathoms at the head, from all winds except east. There is a settlement on the shores.

Farmer ledge, with 3 fathoms, lies north half a mile from the north-east point of Spotted island.

Wedge or Shag island lies north $1\frac{1}{2}$ miles from the north-east point of Spotted island. It is wedge-shaped, with dark cliffs, and a green summit at the north extreme.

A shoal with 4 fathoms water on it lies $1\frac{1}{2}$ cables east of Wedge island, with deep water at 2 cables distance, and a shoal with 8 fathoms water lies a cable off the south extreme.

FERRRET ISLANDS lie nearly 2 miles from the east side of Indian island, and N. by W. $\frac{1}{2}$ W. 6 miles from Wedge island. They consist of three high dark islands, 180 feet high, with shoal water connecting them, and three small islets to the eastward of them, the middle conical and green, 70 above high water, the others low and black. They may be approached to 2 cables all round except on the west side, off which shoal water extends that distance.

A small rock that covers 3 feet at high water lies S.W. $\frac{1}{2}$ S. $3\frac{1}{2}$ cables from the north point, and 2 cables off shore.

From White point, at the north entrance to Indian tickle, the coast trends N. by W. $\frac{3}{4}$ W. 2 miles to Red island. Between them is Sandy cove, 6 cables deep, shoal and rocky.

A rock with 5 feet on it lies S. by E. 7 cables from the east extreme of Red island.

Red island, so called from the colour of the cliffs, is separated from the mainland by a channel nearly half a cable wide, passable by boats, except within an hour of low water.

Red island bank, with 9 fathoms water, lies N.E. $\frac{3}{4}$ N. 8 cables, and the Knob with 8 fathoms lies N. $\frac{1}{2}$ E. a mile, from the north point of Red island.

CAPE GREEP is a dark conical mound, 177 feet above high water, N.W. $\frac{1}{2}$ N. $3\frac{1}{2}$ miles from Red island. Off it are numerous islands and rocks that cover, the highest of which, Green island, lies S.E. $\frac{1}{2}$ E. 8 cables from the cape, and is almost connected by rocks to the mainland.

The bay between Red island and Cape Grep is foul and shoal. In the middle are some black rocks.

A shoal with 3 fathoms water lies N.W. $\frac{1}{4}$ N. $1\frac{1}{4}$ miles from Red island.

Black rocks are three in number, two lying together, the highest 37 feet, and the third about 20 feet above high water, S.S.W. 3 cables from them, and N.E. by N. $1\frac{3}{4}$ miles from White point at the entrance to Indian tickle. The northernmost are steep to all round.

A shoal with 8 fathoms water lies S.E. $\frac{3}{4}$ E. $3\frac{1}{2}$ cables from South Black rock.

Old King, a shoal with 7 feet water, lies N.W. by W. $\frac{1}{4}$ W. 3 cables from the same rock. There are 13 fathoms at a cable west.

Nugent bank, with 8 fathoms water, and 12 to 16 fathoms close to, lies N. $\frac{3}{4}$ W. a mile from North Black rock.

Round island bank, with 11 fathoms, lies E. $\frac{3}{4}$ S. $1\frac{1}{4}$ miles from the same rock.

SOUTH WOLF ISLAND, the summit of which is 311 feet above high water, lies E. by N. 6 miles from the north entrance to Indian tickle, and N. $\frac{1}{4}$ E. $16\frac{1}{4}$ miles from Roundhill island. The name comprises a group of islands $2\frac{3}{4}$ miles in total length north and south. The main island in the centre has a high flat range with a conical boulder at the summit, and deeply indented on the east side. At the south end is a cove in which there is very good shelter for fishing vessels. The best entrance is south of an islet 27 feet above high water, lying between the main and south islands, and after passing it keep the east side of the cove on board to the head. Rocks with 9 feet water on them lie on the west side of the cove, but there is a clear passage a cable wide to the head. South of the main island, separated by a channel $1\frac{1}{2}$ cables wide, are three others, the middle and highest rises to a sharp peak 244 feet above high water.

South Wolf rock lies 2 cables to the south of this island, close to is a rock that breaks.

The two northern islets are separated by a channel three-quarters of a cable wide, through which a depth of $3\frac{1}{2}$ fathoms may be carried by keeping the north shore on board. The two islets are joined, except at high-water springs. A rock one foot above high water, lies N.E. three-quarters of a cable from the tickle between these islets, close to which is a rock awash at low water. A rock with $1\frac{1}{4}$ fathoms water on it, and 14 fathoms close to the north, lies N.N.E. $\frac{1}{2}$ E. $2\frac{1}{2}$ cables from that rock.

North Wolf rock, 38 feet high, N.E. $\frac{3}{4}$ N. $1\frac{1}{2}$ miles from South Wolf island, is bare, dark, and steep-to all round.

Little Wolf island, 157 feet high, N.W. $\frac{1}{2}$ W. 8 cables from the north extreme of South Wolf island, is a steep cone. Off the east side is a low peninsula, and an islet 28 feet above high water. There is deep water all round a cable distant.

North Wolf island, $8\frac{1}{2}$ cables long and 5 cables broad, is surmounted by a flat-topped hill 135 feet above high water. The name comprehends a group of islets, forming a good harbour for boats on the east side. The east islet is dome-shaped, and the harbour may be entered on either side of it. In the middle of the east entrance is a rock with 3 feet water on it, and 9 to 10 fathoms close to. The best shelter is at the west end in 2 or

3 fathoms off a deep cleft in the main island. All these islets may be approached to 2 cables.

Round Wolf island, W. $\frac{1}{2}$ N. 8 cables from North Wolf island, makes as a cone when seen from the eastward, is clifty and steep-to.

Offe Red island, N.W. $1\frac{1}{2}$ miles from Round Wolf island, and N.E. by N. $2\frac{1}{4}$ miles from Black rocks, so called from the colour of the cliffs on the north side, is flat-topped, 200 feet high, slopes gradually to the south side, but falls steeply to the north. It is much indented by rugged coves on the south and deep ravines on the north side. The middle on the north side has a clifty islet about 50 feet high, nearly joined to the shore. Off the west extreme is a small rock with shoal water in continuation for a short distance.

HALF-WAY ISLAND, N. $\frac{3}{4}$ W. nearly $6\frac{1}{2}$ miles from Black rocks, and north 9 miles from the entrance to Indian tickle, makes as a flat-topped cone 278 feet high, and has projecting spurs on south and east sides, the east, 109 feet above high water, being separated by a deep cleft from the island. The whole may be approached to 2 cables.

DEVIL'S LOOK-OUT, N.N.W. $\frac{1}{4}$ W. nearly 11 miles from Indian tickle, is a dark bluff island, wedge-shaped, the highest part, 384 feet above high water, being over the north-east extreme.

Rocky patches, with 2 fathoms water on them, lie a cable off the east side. There is deep water close to east of them.

Inside this island there has been no examination.

Quaker hat, so called from the shape, lies west nearly a mile from Devil's Look-out.

COLLINGHAM ISLAND, N.E. a little more than a mile from Devil's Look-out, is cone-shaped 333 feet above high water, and slopes gently on all sides except the east, where it terminates in steep bluffs. Off the north side, separated by a channel 4 cables wide, are some low islets, the highest, 45 feet, at the east extreme, with deep water to the east and north a cable distant. The channel between the islets and Collingham island should not be taken.

BIRD ISLANDS are two in number, the north a narrow ridge of rock N. $\frac{3}{4}$ W. $3\frac{1}{2}$ miles from Half-way island, a cone 170 feet above high water; the south 77 feet and flat-topped. Off the north-west point of the latter is a low black rock, and in extension of it $1\frac{1}{2}$ cables is a rock that breaks.

South Flat island, N.N.W. 2 miles from North Bird island, is in two parts nearly joined together, about 50 feet above high water, and is foul for a cable all round.

A shoal with 7 feet water lies W. by N. $\frac{1}{4}$ N. $1\frac{1}{2}$ cables from the west side of this island, and another of 7 feet north $1\frac{1}{2}$ cables from the north point.

North Flat island, about 70 feet high, lies north $1\frac{1}{10}$ miles from South Flat island. Off the north side a cable distant is a rock just visible at high water, and shoal water between.

BLACK ISLAND, north 8 cables from North Flat island, is nearly white in colour, and makes as a flat ridge with a sharp peak at either end, the east 217 feet high, and west 190 feet. The coast line is rugged, and has shoal water 2 cables from the north and west shores.

Black island harbour is a deep narrow cove at the north-east point of the island, with excellent shelter for fishing craft, and may be entered by keeping the south shore on board. Separated from the north-east point by a shoal channel about half a cable wide is an island with two summits, the north 91 feet high, the south 84 feet. On each side is a deep cove nearly dividing the island, and all the points have foul ground extending a cable from their extremes.

Offer Wolf island, 222 feet high, E. by S. $\frac{3}{4}$ S. $1\frac{1}{4}$ miles from the north extreme of Black island, is wedge-shaped, the summit on the east side falling in steep cliffs to the sea. The south side terminates in two hummocks, the south dark, 110 feet above high water. An islet 56 feet high lies a cable off the north extreme. A rock that covers lies in the channel between.

The Wolves are a cluster of rocks and islets separated by a channel 2 cables wide from Wolf island.

Half-way rock, 15 feet high, between Offer Wolf and Black islands, has shoal water at a cable distant all round.

A rock awash at low water lies in mid-channel between Offer Wolf island and Half-way rock.

A shoal with 4 fathoms water lies N.W. $\frac{3}{4}$ W. $5\frac{1}{4}$ cables from the south point of the Wolves.

A shoal with 6 fathoms lies W. $\frac{1}{2}$ N. $7\frac{1}{2}$ cables from the same point, and 5 cables from Black island.

Bare island, 224 feet, is clifty and steep-to, separated from Greedy island by a channel a cable wide, through which there is passage for small vessels only.

Rocks that break lie nearly a cable off the north point, and a rocky hummock 15 feet above high water is joined to the east point.

GREADY ISLAND, lying north of Black island, $2\frac{1}{4}$ miles long and nearly a mile wide, is conspicuous and dark, with a flat summit 362 feet

above high water, surmounted by a large cairn of stones. The sides alternate in patches of dark and light rock, are rugged and deeply indented, but may safely be approached to 2 cables. On the north side is a ridge facing Gready anchorage, within which is a large pond that debouches at Watering cove, a small bight on the west side, from which water may always be procured.

Little Gready island, $8\frac{1}{2}$ cables long and $1\frac{1}{2}$ cables wide, is separated from Gready island by a channel one cable wide, through which a depth of 3 fathoms can be carried by keeping Gready island shore on board, and thus avoiding a rock that covers at high water near the east entrance. On this island is a large fishing establishment and two flag-staffs, the east surrounded with a white paling. The north shore is cliffy and steep-to, and has a deep cove in the centre, at the head of which is a red house with a large white stripe. The summit, 88 feet above high water, slopes to the east point, off which shoal water extends a short distance.

A shoal with 3 fathoms water lies N.W. by N. $1\frac{1}{2}$ cables from the east point.

A shoal with 4 fathoms, and deep water close to, lies W. $\frac{3}{4}$ S. 2 cables from the west point.

Anchorage may be had in 14 to 10 fathoms with Stunk island shut in with Little Gready island, near the west entrance as convenient.

Cross island, dark and flat-topped, 129 feet high, lies $1\frac{1}{2}$ cables off the west point of Gready island, with 10 to 12 fathoms in mid-channel between. It is nearly divided by two deep bights. The west side is bold-to, but off the east end is an islet 13 feet above high water. The channel between this and cape North is a mile wide.

STUNK ISLAND, N.W. 4 cables from Little Gready island, is round-topped, 277 feet high, and falls abruptly on all sides. The south-west point is a dome-shaped hummock with a steep face. It is bold-to except off the south-west extreme.

Mad Moll covers 5 feet, and lies S. by W. $\frac{2}{3}$ W. 2 cables from the west point of Stunk island, to which it is nearly joined by shoal water, but it may be approached to a cable on the south and west sides.

Clearing marks.—Gready island cairn in line with the white flagstaff on little Gready island, E. $\frac{1}{4}$ N., leads $1\frac{3}{4}$ cables to the southward of Mad Moll; and Gannet islands east extreme N.N.E. $\frac{2}{3}$ E., open north of Stunk island, leads three-quarters of a cable to the westward.

High-rat bank, with 8 fathoms water, lies N. $\frac{1}{4}$ W. one mile nearly from the east point of Stunk island.

Gready reef, on which the least water found was 12 fathoms, lies N.E. $\frac{1}{4}$ N. $2\frac{3}{10}$ miles from the east point of Stunk island, and N. by W. $\frac{3}{4}$ W. $1\frac{9}{10}$ miles from the east point of Gready island. Cross island S.W. $\frac{1}{4}$ S., just open south of Stunk island, leads to the eastward.

GANNET ISLANDS, a group of islets and rocks, lie north $7\frac{1}{2}$ miles from the east point of Gready island. The west island, 226 feet above high water, is steep on the east side, and slopes gently to the west with a little foul ground off it. The east consists of several rocky islets, between which vessels should not pass.

A rock with 3 feet water lies a third the distance across the channel from the south island to the west, and a shoal with 2 fathoms water lies $1\frac{1}{4}$ cables east of the south island.

A rock that covers lies close to the north side of the south island, and the whole eastern group should not be approached nearer than 2 cables.

West Gannet rock, W. $\frac{3}{4}$ S. $1\frac{9}{10}$ miles from West Gannet island, is dark in colour and 12 feet above high water.

A rock that breaks in moderate weather lies N.W. by N. 2 cables from that rock.

East Gannet rock, 55 feet high, lies S.E. $\frac{3}{4}$ S. $2\frac{4}{10}$ miles from South Gannet island. A rock that breaks in moderate sea lies from it E. $\frac{3}{4}$ N. $1\frac{3}{4}$ cables.

Outer Gannet island, 104 feet high, is flat, with sides smoothed by the action of ice. It lies N.E. by E. $3\frac{1}{4}$ miles from West Gannet island.

A rock that breaks lies a cable off the north-west point.

Boulton rock, a dangerous rock that breaks in moderate weather, with 21 fathoms at a cable distance all round, and no indication of approach to it, lies N.W. $\frac{2}{3}$ N. $4\frac{9}{10}$ miles from Outer Gannet island.

TABLE BAY POINT is the north point of the large bay of that name, west of Devil's Look-out, from which it bears N. $\frac{1}{2}$ W., $4\frac{1}{4}$ miles. It slopes gradually from a flat-topped range of yellow-coloured hills, and terminates in a rock that covers at high water.

Mullins cove is north of Table Bay point, $1\frac{1}{2}$ miles deep, and much frequented by fishing vessels. There is anchorage at the head in 3 fathoms, with good shelter from northerly winds.

The coast between this and Cape North slopes gradually from the same range. All the points end in low rocks with foul ground a short distance off them, but the whole may be approached safely to 2 cables.

CAPE NORTH is an isolated hill with a double summit 323 feet above high water, separated from the mainland by a flat marsh between two shallow coves.*

A shoal with $3\frac{1}{4}$ fathoms on it lies a cable off the east bill, and an islet 69 feet above high water, steep-to, is separated by a narrow channel from the cape, and is rarely distinguishable as an island.

Cape North cove is the shallow bight, 4 cables deep, west of cape North. An islet with a house on it nearly fills the cove, $2\frac{1}{2}$ cables within the west bill, and a rock 2 feet above high water lies S. by W. $\frac{3}{4}$ W. $2\frac{1}{2}$ cables from the same point. A shoal with 9 feet water lies a cable west from this rock. Small vessels wishing to go into this cove should keep the north shore on board, and anchor in 5 fathoms.

The Sisters.—Two islets 55 feet above high water, and nearly connected by shoal ground, lie N.N.W. nearly a mile from cape North.

Sunken rocks fringe these islands for half a cable, but there is no danger at 2 cables distant.

Padding bank, with $6\frac{1}{4}$ fathoms water, lies N.W. $\frac{3}{4}$ W., 3 cables from the west point of the north Sister. From it a shoal of 8 fathoms extends N.N.W. $\frac{3}{4}$ W., 2 cables; beyond which there is deep water.

THE COAST.—Between cape North and Curlew harbour the coast is barren and foul, and should not be approached nearer than a quarter of a mile.

Muddy creek, a shallow bay ending in a salt-water pond a mile deep, lies W. by S. $\frac{1}{2}$ S. a little more than a mile from cape North.

American creek, W. $\frac{1}{2}$ N. $1\frac{9}{10}$ miles from the same point, is 2 cables deep, has 2 fathoms water in it, and a black rock about a foot above high water in the middle of the entrance.

Creek rock, awash at low water, lies W. $\frac{3}{4}$ N. $1\frac{6}{10}$ miles from the north point of cape North, and east $2\frac{1}{2}$ cables from the east point of American creek. Between them is a rock awash at low water.

A shoal with 7 fathoms water lies N. by E. $3\frac{1}{2}$ cables from the east point of American creek.

Curlew island, W. by N. $\frac{1}{4}$ N. $2\frac{1}{2}$ miles nearly from the north extreme of cape North, is 21 feet high, gray in colour, and forms the north side of the entrance to Curlew harbour.

A shoal with $4\frac{1}{4}$ fathoms on it, and $8\frac{1}{2}$ fathoms close to, lies N.E. $\frac{1}{2}$ E. $1\frac{3}{4}$ cables, and a rocky bank with $4\frac{1}{2}$ fathoms water lies west 3 cables from the north point of Curlew island.

CURLEW HARBOUR runs up $2\frac{1}{4}$ miles in a south-easterly direction from Curlew island, with depths decreasing gradually from 16 fathoms to

* See Admiralty chart, Curlew harbour and approaches, No. 251; scale, $m = 2$ inches.

the head. The bottom is mud, good holding ground, and the sides are barren, utterly devoid of wood.

Large vessels may anchor in 12 fathoms with the east point of Long island touching the west extreme of Curlew island. Smaller vessels may go up into 9 to 6 fathoms water, as far as a steep bluff 175 feet high on the south shore, on either side of which is a long deep valley. At the mouths water may be obtained. Up to this the only danger is a rock with $1\frac{1}{4}$ fathoms on it, the outer edge of foul ground a cable from the shore just within the north point of the harbour proper. The peak of Long island bearing North, and open west of the harbour point, just clears in 6 fathoms. Beyond the Bluff the water shoals from either side, narrowing the space with more than 3 fathoms water to $1\frac{1}{2}$ cables wide.*

A shoal with $6\frac{1}{4}$ fathoms water on it, and 12 fathoms close to the south side, lies S.W. $\frac{1}{2}$ W. $1\frac{1}{2}$ cables from Observation point (the north point of the harbour).

The Goat-shore forms the south side of Curlew harbour, and extends to Toomie point, the north entrance to South-east cove. It is rugged and foul, and should not be approached nearer than 2 cables.

Lindsay rock, with $2\frac{1}{4}$ fathoms, is the extreme of shoal water extending 3 cables from Toomie point and the north end of the Goat-shore.

The summit of Stunk island in line with the south extreme of Green island E. by S. $\frac{1}{2}$ S. just clears to the northward.

CARTWRIGHT ISLAND is flat in outline and surmounted by a square hummock 199 feet above high water. It is separated by a channel $3\frac{1}{2}$ cables wide from Toomie point, narrowed to 2 cables by rocks. The south side of the island has steep green slopes to the water's edge, with a skirting of shoal water for nearly a cable. The north point of Tinker island just shut in with the east point of Long island, N.E. by E. $\frac{1}{2}$ E., leads in mid-channel in $4\frac{1}{4}$ fathoms, the deepest water that can be carried through. The east point of Cartwright island is a mound 58 feet high, sloping to a rugged point, off which reefs extend a cable. The north shore is rugged and rocky, with long points and deep coves. Off the north side shoal water extends 2 cables. Off the west end are three islets forming the east side of Bull gut, the outer having $4\frac{1}{2}$ fathoms close to. From this islet a sand-bank with 2 fathoms on the east edge extends S.E. 2 cables.

* See Admiralty chart, Curlew harbour and its approaches, No. 251; scale, $m = 2$ inches.

There is anchorage off the south shore of Cartwright island in 16 to 13 fathoms, at 2 cables distant, with good holding ground, but a large vessel may anchor anywhere inside Toomie point.

Gimblet shoal, with $2\frac{3}{4}$ fathoms water, lies W. by N. $\frac{1}{3}$ N. $4\frac{3}{4}$ cables from the extreme of the rocks off the north-east point of Corbet island, the north point of Cartwright island.

Mad Moll covers 4 feet at high water, and lies $1\frac{1}{2}$ cables off Cartwright island, and N. by E. $\frac{3}{4}$ E. $3\frac{1}{2}$ cables from the islet at Bull gut. There are 5 fathoms at a cable north of the rock.

Indian head, west entrance to Bull gut, slopes from a grassy cone 127 feet high, connected at low water with the peninsula west of it, and with it forms the north side of Isthmus bay.

A rock with 2 fathoms on it lies N.E. by E. $\frac{1}{2}$ E. half a cable from the east extreme, narrowing the channel through Bull gut to half a cable, and a shingly spit with 3 fathoms water on it extends E. $\frac{3}{4}$ S. 2 cables from the south point.

South-east cove runs up S.S.E. $\frac{1}{2}$ E. $1\frac{1}{2}$ miles from Toomie point, but the water is shoal for three-quarters of a mile from the head. There are $7\frac{3}{4}$ fathoms deepest water between the points, shoaling gradually to the shore, but rapidly to 2 fathoms towards the head. The holding ground is not very good, but the anchorage may be used in summer months.

ISTHMUS BAY runs up with one bend in a westerly direction $3\frac{1}{2}$ miles from the entrance to South-east cove.

The shores are barren except at the head, where a dark hill 424 feet above high water is faced by swamps and lakes with small timber around them. The water decreases gradually to an islet 15 feet above high water, south of which all is shoal. A bay with shoal water lies north-west of this islet.

Bay shoal, with 3 fathoms water on it, lies N. by W. $\frac{1}{4}$ W. 6 cables from this islet (which should not be brought to bear to the eastward of South), on a spit extending from it in that direction, another head of which, with $4\frac{3}{4}$ fathoms water, lies on the same bearing a mile distant.

Blackguard bay runs up west $1\frac{1}{2}$ miles from Indian head, and is separated from Isthmus bay by two islands joined at low water, of which that head is the eastern. It is foul and shoal, and should not be entered beyond Bull gut. The north point of this bay slopes from a dark dome-shaped hill 184 feet above high water, and has foul ground stretching east 3 cables, with 10 fathoms a cable beyond.

Pinch-gut island, 13 feet high, is off the point of entrance to Hare bay. There is shoal water between it and the mainland, but on the seaward sides it may be approached to 2 cables.

Pinch-gut bank, with $2\frac{1}{2}$ fathoms water, lies E. by S. $\frac{1}{4}$ S. $8\frac{1}{2}$ cables from Pinch-gut island. Duck island S.E. by E. $\frac{1}{4}$ E., a little open north of Round island, leads clear of this and Gimblet shoal.

Green island, forming the north side of the entrance to Curlew harbour, is round and barren, 145 feet above high water, with sloping points, skirted by foul ground for a cable. The channel between it and Curlew island is 7 cables wide.

A shoal with $5\frac{1}{2}$ fathoms water lies 12 cables from the south end of Green island, and a bank with $6\frac{1}{2}$ fathoms S.W. $\frac{1}{2}$ S. $5\frac{1}{2}$ cables from the east point, and N.W. by W. $\frac{1}{4}$ W. 6 cables from Curlew island.

ROUND ISLAND is dark and rugged, 222 feet high, lying N.W. three-quarters of a mile from Green island. Between them is Pigeon island and a cluster of long rocks that are awash at high water, closing the channel to a stranger.

The north shore is composed of dark cliff with deep ravines, and on the south side rocks that cover and shoal water fringe the shore for a little more than a cable, leaving a channel only half a cable wide between them and the foul ground off Cartwright island, through which $3\frac{1}{2}$ fathoms can be carried. There is a fishing settlement on this shore, the planter's house having a belfry.

The Cobbler, a shoal with 2 fathoms water on it, and 15 fathoms at 2 cables north, lies N.W. 3 cables from Round island.

Harbour rock, 2 feet above high water, lies South $2\frac{1}{2}$ cables from the south point of Round island, to which it is nearly joined by reefs. South of it rocks extend three-quarters of a cable.

Long island, so called from the shape, is $1\frac{1}{4}$ miles long by 2 cables broad at the widest part. The summit is conical, 231 feet above high water. Off the east point close-to is a rock one foot above high water, and several low rocks lie close to the south shore. Off the north-west point are Duck island, 101 feet, and Black rock, 6 feet above high water, with deep water at 2 cables. Between Long and Round islands there is no passage for a stranger.

McFarlane bank, with 7 fathoms water, lies a quarter of a mile from the south side of Long island.

TINER ISLAND, 56 feet high, N.E. by E. $\frac{3}{4}$ E. $1\frac{1}{2}$ miles from the east point of Long island, is flat, with numerous boulders scattered over the top. There is deep water at a cable distant.

Tinker rock, with 3 fathoms water and steep-to, lies S.W. by W. $\frac{1}{4}$ W. $3\frac{1}{4}$ cables from Tinker island.

BUDGET ROCK, 4 feet above high water, lies E.N.E. $5\frac{1}{2}$ cables from Tinker island. A shoal with 8 fathoms lies between.

Budget bank, with 3 fathoms water, steep-to, lies N.E. $\frac{1}{4}$ E. $3\frac{1}{2}$ cables from Budget rock.

A shoal spit, with $7\frac{1}{2}$ fathoms least water, extends nearly from Budget rock to Budget bank.

Munday bank, with 7 fathoms water, lies N. by W. $\frac{1}{4}$ W. $2\frac{6}{10}$ miles from the east point of Long island, and N.W. $\frac{1}{4}$ W. $2\frac{1}{2}$ miles from the west point of Tinker island.

A bank with 15 fathoms least water, and 23 fathoms a cable distant, lies N.W. by N. nearly 3 miles from Tinker island.

DIRECTIONS.—**Making Curlew harbour from the eastward.**—After passing between cape North and the Sisters, Little Greedy island should be kept E. by S. $\frac{1}{2}$ S., open of cape North, to avoid the shoal of $4\frac{1}{2}$ fathoms off Curlew island. When Long island is shut in with Green island, Curlew island may be rounded, and when the south extreme of Long island bearing N. by E. $\frac{3}{4}$ E. shows west of Green island, the anchorage may be steered for.

Proceeding to Isthmus bay.—After passing Curlew head a mid-channel course should be steered between Green island and the Goat shore until the summit of Stunk island is shut in with the south extreme of Green island E. by S. $\frac{1}{2}$ S. This mark should be kept on until the north side of Tinker island just overlaps the east point of Long island N.E. by E. $\frac{1}{2}$ E. This mark kept on will lead between the shoal water off Toonie point and that off Cartwright island, and when South-east cove opens anchorage may be had there, or farther up Isthmus bay by keeping mid-channel, taking care not to bring the islet near the head of the bay, to bear to the eastward of South.

From the westward.—Small vessels may only enter between Round and Cartwright island by keeping Harbour rock S.E. until within 2 cables, when the vessel should round it and pass at a cable south, and Curlew harbour steered for; or, if proceeding to Isthmus bay, bring the north side of Tinker island just shut in with the east point of Long island, and proceed as before directed.

Through Bull gut.—This channel should only be taken in emergency. The western islet in the gut off Cartwright island should be brought to bear South, then run for on that bearing and kept close on board; a

south-easterly course will then clear the sand-spit off this islet, and anchorage may be had in Isthmus bay.

POMPEY ISLAND, N.W. by W. $5\frac{1}{4}$ miles from the east point of Long island, is round and barren. Off the east extreme is an islet 20 feet above and a reef awash at high water, between which and the island is shoal, but there is deep water at a cable east.

Pompey rock, N.E. $\frac{3}{4}$ N. nearly 2 miles from Pompey island, breaks at low water. There are 11 to 17 fathoms close to. The summit of cape North S.E. $\frac{1}{2}$ S., shut in with the east point of Long island, leads 2 cables to the westward; and Independent island N.N.W. $\frac{1}{2}$ W., seen open east of Seal islet, leads $2\frac{1}{2}$ cables to the eastward.

Red island, 10 feet above high water, lies N.W. a mile from Pompey island, and S.E. $\frac{1}{2}$ S. 6 cables from the islet at the east extreme of Huntingdon island. It is fringed by shoal water a cable distant from the shore.

An islet, 25 feet above high water, lies N. by W. $\frac{1}{4}$ W. $1\frac{8}{10}$ miles from Red island. Reefs extend 2 cables from the south extreme, and there is shoal water off the west side.

A rock awash at low water lies N.N.W. $\frac{1}{4}$ W. $1\frac{1}{10}$ miles from Red island.

Dog islands, N. by W. $\frac{3}{4}$ W. 4 miles from Pompey island, consist of two wedge-shaped islands, the east 176 feet and the west 100 feet above high water. Between them are two islets and shoal water. They may be rounded at 2 cables distance.

SEAL ISLET, 35 feet above high water, lies E. by N. $\frac{1}{2}$ N. $1\frac{1}{10}$ miles from Dog islands. It is wedge-shaped and has a reef stretching west a cable.

A rock with 5 feet water on it lies N.E. by N. $1\frac{1}{4}$ cables from Seal islet. A rock with 3 feet lies N.W. $\frac{1}{2}$ N. $3\frac{1}{4}$ cables, and a shoal with $1\frac{1}{2}$ fathoms water lies E. by N. nearly 3 cables from Seal islet.

CAUTION.—The passage between Seal islet and Independent islands should not be taken until a further examination has been made.

Seal rock, S. $\frac{3}{4}$ E. 8 cables from Seal islet, breaks in a moderate sea, and has deep water close to on all sides.

Independent island N.N.W. $\frac{1}{2}$ W., open east of Seal islet, leads 3 cables to the eastward; and Green island North, open west of Seal islet, leads 2 cables to the westward.

NEWFOUNDLAND ISLAND, N.W. by N. a little more than a mile from Dog islands, is undulating in outline, with a bold bluff 316 feet high over the east end, separated by a deep cleft from a lower spur on the seaboard. A shoal with $2\frac{1}{2}$ fathoms water lies two-thirds of a cable from the base of this bluff. The west side has not been examined.

The north shore is bold and straight, with deep water at a cable distant. Off the south point are two islets; the south is flat, 32 feet above high water; and separated by a channel $1\frac{3}{4}$ cables wide, in the middle of which is a rock with 4 feet water on it. The northern, Farrels island, is joined to Newfoundland island at low water, and has some houses on it. A low islet lies close to the south-east point, and a rock that covers off the north end.

Reefs with 5 feet water on them extend a cable from the east point of the south islet.

INDEPENDENT ISLAND, off the east side of Newfoundland island, is rugged and cliffy on the east coast, but slopes gently to the west shore. Off the south-east point reefs extend a cable nearly, and off the south-west point half a cable is a rock with 5 feet water on it. A low black rock lies close to the east side, and a cove runs 2 cables in the north shore. It has several summits, the highest about 250 feet over the east coast.

Between Independent and Newfoundland islands is a grass-covered islet 70 feet above high water. The passage on the west side is shoal, and a rock with 9 feet water lies close to the east side. By keeping Independent island close on board 14 feet may be carried through. This channel is only half a cable wide.

Independent harbour is formed by Independent and Newfoundland islands, and has good anchorage in $4\frac{1}{2}$ to $8\frac{1}{4}$ fathoms water east of Farrels island. To enter keep midway between Independent and the flat island south of Newfoundland island, and anchor as convenient. Only $4\frac{1}{2}$ fathoms can be carried in.*

Pigeon island, a cone 83 feet above high water, lies close to the west end of Newfoundland island.

Pickens island, a grass-covered mound 45 feet high, lies North $3\frac{1}{2}$ cables from Pigeon island, with a deep channel between.

Packs harbour islands.—At 4 cables from the north-west point of Newfoundland island, are two narrow islands with conical hills, forming the harbour between them, the south and highest 215 feet above high water. The only approach to this harbour is from the west, the east channel

† See plan of Independent harbour on Admiralty chart, No. 263.

being blocked by rocks. There is good shelter for fishing vessels in 3 or 4 fathoms water.

A rock with 3 feet water on it lies in the middle of the west entrance, but may be avoided by keeping the north island close on board. A rock with 3 feet on it lies a short distance off the west point of the south island.

Tinker island, $2\frac{1}{4}$ cables north of Packs harbour islands, is conical and cliffy, 139 feet high, with shoal water a cable off the points. There is deep water in the channel between.

Grappling island, 133 feet high, is wedge-shaped, with the steep fall on the east side. It lies 2 cables from the east extreme of Packs harbour islands. Close to the west end is a rock that covers 3 feet at high water, and a rock that covers one foot lies in mid-channel between this island and the north-east point of Packs harbour islands.

BLACK ROCKS, N.N.W. a mile from north-east point of Independent island, are three small rocks, the highest 3 feet above high water.

Double islands, North $1\frac{1}{2}$ miles from Independent island, are two cliffy mounds, the west and higher 158 feet high, separated by a channel $1\frac{1}{2}$ cables wide from the eastern. A rock lies close to the west extreme.

YELLOW ROCK, E. $\frac{1}{4}$ N. $2\frac{6}{10}$ miles from the north-east point of Independent island, is isolated and bare. Off the south-west extreme is a rock that breaks, and a spit with 9 fathoms lies one-third of a mile from that point.

LONG ISLAND, North nearly 7 cables from Double islands, is long and narrow, with a hat-shaped summit 157 feet above high water.

Fleming rock, awash at low water, lies S.E. by E. $\frac{1}{3}$ E. three-quarters of a mile from Long island. There is deep water close-to. Independent island S.W. by S., open east of Double islands, leads a quarter of a mile to the eastward; and Independent island S. $\frac{1}{2}$ W., shut in with Double islands, leads the same distance to the westward.

Ragged rocks, in the form of a semicircle, lie between Long and Tinker islands. They are low and dark, and there is no passage between them and Long island.

Shag island, N. $\frac{3}{4}$ W. $5\frac{1}{2}$ cables from the west point of Long island, is bluff and steep.

A rock that breaks lies a cable off the east extreme, and a low white rock lies N.N.E. 2 cables from the same point, north of which nearly a cable lies a rock that breaks.

HANDY HARBOUR ISLANDS, West nearly half a mile from Shag island, are a group enclosing an excellent boat harbour, with numerous passages to it, but not available for larger craft. The islands may be approached to 2 cables.

HAYPOOK ISLAND, N. $\frac{1}{2}$ W. 5 miles nearly from Independent harbour, is the northernmost of the group, and has a remarkable cone 254 feet above high water, that shows conspicuously from all directions. A rock that breaks lies $1\frac{1}{2}$ cables from the west extreme. A low rock lies off the north side, and shoal water extends a cable from the south-west point.

FARMER LEDGE, a rocky bank with 3 feet least water on it, and 10 fathoms at a cable distant, lies N.W. by N. $1\frac{1}{2}$ miles nearly from Haypoock island. The summit of Packs harbour islands S. by W., open west of Handy harbour islands, clears 3 cables to the eastward.

Green island, 130 feet high, east $2\frac{1}{2}$ cables from Haypoock island has a ledge with 9 feet water $1\frac{1}{2}$ cables off the west extreme. Two rocks lie nearly 2 cables from the north side, and a low black islet N.E. by N. $\frac{1}{4}$ N. 2 cables from the east extreme.

Green island bank, with 7 fathoms water, lies S.E. $3\frac{1}{2}$ cables from the same point.

BLACK ROCKS are two in number, the highest 20 feet above high water, lies N.E. $\frac{1}{2}$ N. $3\frac{3}{4}$ miles from the north-east point of Independent island.

A rocky bank with three heads that nearly dry at low water lies S.E. $\frac{1}{2}$ S. 3 cables from Black rocks. There are 27 fathoms at a cable east.

BIRD ROCKS, N.E. nearly 5 miles from the north-east point of Independent island, are two islets, 49 and 43 feet high respectively, the easternmost of the group. A bank with 10 fathoms water extends a quarter of a mile from the west extreme. There is deep water at a cable distant in other directions.

HORSE-CHOPS ISLAND, so called from the numerous cliff-faced hills on it, lies half a mile north-west of Packs harbour islands. The summit is 398 feet high, and a remarkable high bluff east of it is 389 feet above high water. The north shore only has been examined. This shore is cliffy and steep-to, with numerous summits. Black Duck cove, a shallow bay with an islet in the entrance, is in the middle of the north coast of Horse-chops island.

Munden island, low and flat, is nearly joined at low water to the north-east point of Horse-chops island.

Partridge harbour islands lie north of Munden island. The higher, 318 feet high, has a flat top faced by cliffs, and the lower is conical when seen from the eastward. Between them is Partridge harbour, where fishing vessels anchor in 4 fathoms, with shelter from all but easterly winds. A rock with 6 feet water lies a cable off the east point of the north island. West of these are three islets, between which all is shoal.

Pigeon island, north a mile nearly from Partridge harbour islands, is long and narrow. It has numerous hillocks, the highest near the centre conical, 146 feet above high water.

A rock that covers lies a cable from the west extreme.

CAPE PORCUPINE, N.W. by N. 5 miles nearly from Haypook island, is a promontory half a mile wide, jutting out $2\frac{1}{2}$ miles from the mainland, surmounted by a double-peaked summit 343 feet above high water.

Gull island, 63 feet high, is joined to the east extreme of cape Poreupine at low water. The shores are shoal, with sandy beaches and rocky points alternating. From the west extreme a sand beach extends South 5 miles to some low islets, with boulders that cover off them.

BLACK ROCK is isolated, 22 feet above high water, E. by N. $\frac{3}{4}$ N. $5\frac{1}{2}$ miles from cape Porcupine, and N.N.E. $\frac{1}{4}$ E. $5\frac{8}{10}$ miles from Haypook island.

Mid-channel rock, with 5 feet on it and 15 fathoms close-to, lies E. $\frac{1}{3}$ S. $6\frac{1}{2}$ miles nearly from Gull island off cape Poreupine, N.E. $4\frac{1}{2}$ miles from Haypook island, and N. $\frac{3}{4}$ W. $4\frac{3}{4}$ miles from Bird rocks.

Horse-chops S.W., open west of Haypook island, leads $1\frac{1}{2}$ cables to the westward, and Grappling island S.W. $\frac{3}{4}$ S., open south of Green island, leads $1\frac{3}{4}$ cables to the eastward.

HOLTON ISLAND (NEAR HAMILTON INLET) TO NAIN.

The COAST.—From Holton harbour the coast trends north-west to Little Holton, a shallow anchorage separated by a narrow neck of land from Allink bight. From this to the point of Byron bay, west of Tinker island, the coast is fringed with rocks, and should not be approached within 2 miles until further examined.

TINKER ISLAND, 201 feet high, is a conspicuous rugged cliffy island, N. $\frac{3}{4}$ W. 6 miles from Holton island. West from this numerous islets and rocks almost reach the shore.

* See Admiralty chart, Sandwich bay to Nain, including Hamilton Inlet, No. 375.

Quaker hat, 125 feet high, so called from the shape, is situated E. $\frac{3}{4}$ S. 4 miles from Tinker, island and N. by E. $\frac{3}{4}$ E. 7 miles from Holton island.

Quaker reef, 20 feet high, is between these islands, distant $2\frac{1}{4}$ miles from Tinker island. The channels on either side of this reef are clear, but that west of it is the one generally used.

Ship harbour head, about 500 feet high, is a conspicuous cone in Byron bay, sheltering Ship harbour, N.W. $\frac{3}{4}$ N. 13 miles from Tinker island. False cape is the extreme of a saddle-shaped hill 900 feet high, that with cape Harrison forms a deep bay. Off False cape is a low islet, steep-to on the seaboard.

Bear island, about 150 feet high, lying 2 miles south of cape Harrison, is reddish in colour and steep-to on the east side.

CAPE HARRISON, is the bluff extreme of high land, with two summits close together, the highest 1,065 feet. Steep reddish cliffs fringe the promontory, and it is conspicuous from all directions, fully meriting the Esquimaux name Uiväluk or the cape.

Between capes Harrison and Strawberry is a deep bay nearly semi-circular in shape, containing the Adlavik islands, and flanked by conical hills ranging from 1,500 to 2,400 feet, that show conspicuously also from the course between Tinker island and cape Harrison.

The track pursued by vessels is close to the mainland points of this bay, and is free from danger.

Jigger island, (west of which is Jigger tickle) is a low green island about 200 feet high, wedge-shaped, $3\frac{1}{2}$ miles from Webeck island. West 2 miles from it is a promontory surmounted by a prominent conical green hill about 500 feet high, that slopes gradually to a point faced by whitish cliffs with a deep fissure in them, forming the east side of a deep bay.

Double islands, about 450 feet high, are joined by a low neck, and are situated 10 miles from the north point of Webeck island. They terminate to the eastward in a low rocky point, and are steep-to on the north side.

An islet about 60 feet high lies East three-quarters of a mile from the north extreme of Double islands, and may be passed a convenient distance on either side.

An island, long and narrow, with a mound about 100 feet high at the north end, is situated N.W. by W. $3\frac{1}{2}$ miles from Double islands.

A deep bay lies south of Double islands, with a dark round hill in the foreground, and containing a wedge-shaped island about 150 feet high, and several islets joined to the mainland at low water. The mainland from this is indented with some deep bays, and presents everywhere the same character, high conical hills falling steeply to the water's edge.

Dog islands, two in number, about 300 feet high, are N.W. 8 miles from Double islands. The eastern consists of two hills joined by a low beach, and the western is flat-topped with steep sides, 8 cables from the eastern. A rocky islet 20 feet high lies off the north end.

A dark island with two summits is situated N.N.W. 4 miles from Dog islands, S.E. 7 cables from which is a grassy islet 30 feet above high water, with a low reef half a cable from it.

A conical island lies North 4 miles from Dog islands, the west extreme of Adlavik islands, a large group, and a port of call for the mail steamer. Time did not allow the channels between these islands to be examined, and therefore they should be used with great caution.

Manak island, (Maunay) is situated N. $\frac{1}{2}$ E. $4\frac{1}{4}$ miles from the conical island, several islets and rocks lying east of the direct line between them. It is surmounted by a sharp-peaked hill on the south-west side, and slopes gradually to the northward in a series of summits, ending in a cluster of low islands and rocks that may be approached to 2 cables.

Pomiadluk point, is low and sharp, sloping from a moderate elevation, and lies N.N.E. $\frac{3}{4}$ E. $5\frac{3}{4}$ miles from the islets off Manak island. Between them are several islets that are passed to the eastward; and near the shore at $1\frac{8}{10}$ miles from Pomiadluk point is a group of low rocks, with a sunken rock off the south extreme. The passage is close to the shore inside these rocks.

CAPE STRAWBERRY, or Umiakkoviktanuk, is the extremity of a hill 1,235 feet high, the east end of a high range running inland and terminating in a conspicuous cone, Altagaiyavik or Monkey hill, 2,170 feet high. The cape is faced by terrace-like cliffs, with deep ravines at the extreme of each.

Between capes Strawberry and Mokkaik is the entrance of a bay reported to run up 20 miles. At the entrance is a group of low black islets and sunken rocks almost blocking the channel north of them. South of these rocks under cape Strawberry is Strawberry harbour, formed by a small island.

CAPE MOKKOVIK, the south side of Aillik falls in a succession of round summits from the inland ranges to a steep bluff on the coast. Two islets lie east of the point, between which and the shore there is no passage, but they may be passed between, or at a cable's length east from them. The north and east points of this cape are foul for 2 cables.

ISLANDS.—Between capes Harrison and Mokkaik are the following groups of islands:—

Ragged islands (Kingnitoaksoak), a group of basaltic rocks, are composed of four principal and numerous small islets and rocks. The highest is the second from the north, and is most conspicuous from the remarkable hill 640 feet high that falls in a perpendicular cliff to the sea. The northern island is also high, with two round mounds, and is the largest of the group. Fishing craft anchor in all the passages, but the anchorages, are not good. The southern islet is situated N.N.W. $\frac{1}{2}$ W. 8 miles from cape Harrison. Two rocks about 10 feet above high water lie S.W. by W. three-quarters of a mile from the northern island.

Adlavik islands are a large group filling the north corner of the bay, nearly all are high and much indented, and the channels are narrow, with small islets and rocks in them, but time did not allow the examination of these intricate passages.

Tikaoralik (Wheel), a sharp-peaked islet about 400 feet high, is the southern of the group, and is situated N.W. $\frac{1}{2}$ N. 18 $\frac{3}{4}$ miles from Webeck island. A small islet lies close to it, 20 feet high, with a narrow channel between, through which 3 fathoms can be carried.

A rock is reported between this and Ragged islands.

Kikkertarak is the largest of the group. Rogers harbours lie at the east extreme, N.W. by N. 2 miles from Tikaoralik. The entrance is deep and narrow between low rocks on either hand, and craft anchor in 12 fathoms. The harbour is made by an islet and these rocks, and there is a passage between the islet and Kikkertarak from harbour to harbour.

Rocks.—Off the eastern harbour are two dangerous ledges that cover at high water; to clear them the shore should be kept on board till the first channel opens north of Rogers harbours.

The northern island has a round dark hill with a cairn on the summit, and between it and Kikkertarak is an islet with a triple hill.

Anainat, a flat island about 200 feet high, lies 3 $\frac{1}{2}$ miles off Kikkertarak, and N.W. by N. 11 miles from Ragged islands. Between it and Adlavik islands are several islets and rocks.

Kidlialuit is the outer of two large and some small islets, the inner of which are called Troubound islands by the fishermen. It is about 250 feet high, with a steep cliff at the east end, and is almost divided by a fall in the hills. The east extreme lies N. by W. $\frac{1}{2}$ W. 32 $\frac{3}{4}$ miles from cape Harrison.

Uigoklialuit is the eastern of another group lying parallel to Kidlialuit, the eastern extremes lying N.W. $\frac{3}{4}$ N. and S.E. $\frac{3}{4}$ S. 7 miles. The outer and inner are nearly the same height and shape, but the eastern island has a portion almost detached at the extreme.

Aillik bay is fringed by boulders on the south side, where is a lagoon dry at low water, but the north shore is steep to till the trading post of the Hudson bay company is reached, off which is a bank that breaks in bad weather. There is good anchorage in Summer cove, the first indentation on north shore, in 10 fathoms, mud, but north-westerly winds blow with heavy squalls.*

Cape Aillik, the north point, is a small islet 80 feet high, steep to on the outer face.

Turuavik islands are a group situated $1\frac{1}{2}$ miles north of cape Aillik. The largest and northern is wedge-shaped, the summit about 300 feet high over the east extreme, off which is a low islet. The western islet is dark and basaltic. A cluster of islets and rocks is situated south of the largest island, and east of the westernmost, between which there is no passage. The only track to be followed is south of this cluster and close to the east extreme of the west island. Nauyaksigaluk (Gull rock), about 40 feet high, is the southern of the group, and may be approached on the east side to 2 cables. Reefs that generally break lie between this and the low islet east of the northern Turuavik island.

The harbour is on the west side of the northern island, and is formed by an islet point, within which about fifty vessels moor side by side.

A rock that breaks in bad weather is situated N.E. by N. $2\frac{3}{4}$ miles from the Turuavik islands.

Kaipokok, a remarkable hill 895 feet high, is situated W. by N. 10 miles from cape Aillik. A bay about 30 miles deep runs in west of this mountain, at the head of which is a post of the Hudson bay company. Several small harbours are situated at the promontory at the base of this mountain, but they were not examined, and the approaches to them are through a labyrinth of rocks and islets that should not be navigated without local knowledge.

Ukalluktok are a group of islands N.W. by N. $8\frac{1}{2}$ miles from Turuavik islands. Between these two groups sunken rocks lie scattered, but there is a passage between them and just west of them. The western of the Ukalluktok group is curiously striped black and white in nearly horizontal bands, and is an excellent mark for distinguishing the track to Tikkerasuk.

Tikkerasuk (Tickle Arichat of the fishermen) is an island 91 feet high, off a promontory of the mainland, $3\frac{1}{2}$ miles from Ukalluktok. There is

* See Admiralty plan, Aillik bay, No. 223.

only a shallow channel between the island and the main, but it forms an excellent anchorage for fishing vessels; off the south side are some low islets, within which anchorage for a night may be had; the east point is steep-to, and off the north side of the passage are some islets that shelter the anchorage.

From Tikkerasuk to Hopedale the islands and rocks are almost innumerable, and so many are alike that it would be impossible to identify them from description. In the directions those bordering on the track will be described.

Canairiktok, a deep bay, runs in N.W. from Tikkerasuk 25 miles. Kyaksunatalik, an island with a sharp peak, is situated on the east side of this bay, at the east extreme of which are long points, each surmounted with a conical hill, on the northern and southern of which cairns have been built. These cones range from 300 to 400 feet in height. From the eastern of these to Hopedale is a straight run.

Nanuaktok (White Bear island) is the eastern of the group between Ukalluktok and Hopedale. It is situated N. $\frac{1}{4}$ W. $17\frac{3}{4}$ miles from cape Mokkovik, is about 50 feet high, flat, and fringed by low rocks.

NAUYAKSIGALUK (The Gull), surmounted by a flagstaff for recognition by the mission ship, is 210 feet high, faced by cliffs, and is the north-eastern of this group. Two low islets lie east of it $3\frac{1}{2}$ miles, with sunken rocks east and west from them. Rocks lie off Gull island west 5 cables.

Uyarazuksulik (Two Stones), so called from two remarkable blocks of stone on the south side, is separated from Gull island by a channel 9 cables wide, in which is a rock that breaks. Off the south-east of this island rocks extend 9 cables.

Two low islets are separated by a channel 8 cables wide from the north end of Gull island, and a rock lies half-way between them and the outer rocks off Gull island.

From Gull island to Hopedale there is almost a straight run, with large groups of islands on either hand.

Kingitok are two remarkable islands on the south side of this passage, both dark and basaltic; the eastern, 370 feet high, shows as a cone from all directions; the western, 330 feet high, shows conical only from east and west. They are excellent marks for recognising the passage to Hopedale.

TRACKS.—Between Hopedale and Windy Tickle or Ikirasuluk, and thence to cape Harrigan there are two tracks that may be pursued, namely, either to keep quite outside or inside the islands. The islets and rocks are so closely studded together, and so many breakers show with even a moderate sea, that the navigation among them until thoroughly surveyed must be attended with great danger.

DIRECTIONS.—By the inner track.—From Holton island a course N. $\frac{3}{4}$ W. $6\frac{3}{4}$ miles will lead between Tinker island and Quaker reef, whence N. by W. $22\frac{3}{4}$ miles will lead to cape Harrison, passing close east of Bear island. Rounding Webeck island a course N.W. by W. $9\frac{8}{10}$ miles will lead close north of the small islet off Double islands; then W. by N. $\frac{1}{2}$ N. $7\frac{1}{10}$ miles will lead north of Double islands and south of the next islet. The course must then be changed to N.W. $\frac{1}{2}$ W. to pass between Dog islands and the mainland. Rounding Dog islands a course N. $\frac{1}{2}$ E. will lead from the islet just north of Dog islands to the conical island, passing east of the island with two summits and grassy islet off it. From the conical island a course N.N.E. $\frac{1}{2}$ E. 11 miles will bring the vessel to the narrow passage between the mainland and some low rocks, passing east of the islets off Manak island at 7 miles, and west of a double islet at 9 miles. The coast may then be kept off a reasonable distance to Pomiadluk point, whence to the islands off cape Mokkaik is north $8\frac{1}{4}$ miles.

By the outer track.—A course N. $\frac{1}{2}$ E. $8\frac{1}{2}$ miles from Webeck island, will lead east of Ragged islands, when a course N. by W. $\frac{1}{2}$ W. $22\frac{1}{2}$ miles will lead to the east extreme of Kidlialuit. Pass by the east end of Uigoklialuit, and then steer N.W. $\frac{1}{2}$ N. $6\frac{8}{10}$ miles for cape Mokkaik.*

By the middle track.—Stand down for Jigger island, and when it bears S.W. steer N.N.W. $\frac{3}{4}$ W. 15 miles to pass eastward of Tikaoralik; rounding the east extreme of Kikkertarak (Rogers) keep close to the shore till, the first channel north of that island is open; then stand off shore until Pomiadluk point is seen well clear of the east side of the Adlavik group, when a course N. $\frac{3}{4}$ W. $11\frac{1}{2}$ miles will lead between Pomiadluk point and some low islets, whence a course may be steered for cape Mokkaik. This route should be used with great care, as the soundings are most irregular.

FROM AILLIK TO HOPEDALE.—By the inner tracks.—From cape Aillik a course N.W. $\frac{1}{2}$ N. $3\frac{1}{4}$ miles will lead south of the southern islets of the Turnavik group to the west island, that should be rounded at a cable. The best route to follow is N.W. by N. 4 miles to the striped island of Ukalluktok, thus passing west of the numerous rocks and breakers, and east of the archipelago of islands in this reach. After passing between the striped island and an islet 5 feet high 9 cables west of it, the west end of the Ukalluktok group should be rounded, and the point of Tikkerasuk steered for. The usual track from this is to steer N.W. $\frac{3}{4}$ N. $5\frac{3}{4}$ miles to a brown islet 15 feet above high water, then N. $\frac{1}{4}$ W. $2\frac{1}{4}$ miles to an islet about 50 feet, passing west of an island

* The track of H.M.S. *Gannet* passed west of the Ragged islands to the east extreme of Kidlialuit.

70 feet high at $1\frac{3}{4}$ miles. Thence for the point under Niachungoat, the south conical hill at the east extreme of Kayaksuatilik, passing between an islet and a rock 3 feet above high water just west of it.

Keep the east points of Kayaksuatilik close on board, to avoid a rock with 3 feet water on it, 4 cables within the southern cove. When Nuvuksoakuluk, the northern cove, is reached, a course N.N.W. $\frac{1}{2}$ W. $5\frac{1}{2}$ miles will lead to Hopedale.

Another track from Tikkerasuk is to pass about a mile south-west of the brown islet, then W. by N. $\frac{1}{2}$ N. 6 miles will lead to a narrow passage south of a conical islet about 300 feet high, under Kayaksuatilik, and west of some remarkable cliffy hummocks; a sharp bend west and another north, each about a mile long, lead into an open channel, whence a course N.E. $\frac{1}{2}$ N. $6\frac{1}{2}$ miles will bring the vessel within sight of the mission flagstaff at Hopedale.

By the outer track.—From cape Aillik to Gull rock is $1\frac{1}{2}$ miles, from which a course N. by E. $2\frac{1}{2}$ miles will lead 4 cables east of the reefs that lie between Gull rock and the islet off northern Turuarik island; thence North $11\frac{1}{2}$ miles will lead to Nanuaktok (White Bear island), passing three-quarters of a mile west of a rock that breaks. From Nanuaktok to clear the reef off Uyarazuksulik N. $\frac{3}{4}$ W. $6\frac{1}{2}$ miles, and when that is passed the east side of Gull island may be rounded. From the north side of Gull island W. by S. $2\frac{1}{2}$ miles will open the passage north of Kingitok between the two large groups of islands, and thence N.W. by W. $\frac{1}{2}$ W. 11 miles will bring the vessel within sight of the mission flagstaff at Hopedale.

The track of H.M.S. *Gannet* from Nanuaktok passed east of the first group of islets east of Kingitok, whence the route was the same as that described above.

FROM HOPEDALE TO NAIN.—From Hopedale the course lies through the narrow channel next north of the anchorage, rounding west of Achritoaksoak, a dark cliffed island; when a course N. by E. $\frac{1}{2}$ E. $3\frac{1}{2}$ miles will lead between Napakataktalik, a dark cliffy island, and a small black rock 3 feet above high water. From this passage a course N.E. $\frac{1}{2}$ N. $10\frac{3}{4}$ miles will bring the vessel between a round islet 120 feet high on the east, and Multū, a high sharp-peaked island on the west side, passing close east of an islet 10 feet above high water at 3 miles, and a cliff-faced island at 4 miles. From the island 120 feet high a course N. by E. $\frac{1}{2}$ E. $2\frac{1}{4}$ miles leads to the entrance of Windy tickle (Ikirasaluk).

If, after passing the cliff-faced island 4 miles from Napakataktalik, the ice be close in, a course N. by W. $\frac{1}{2}$ W. 3 miles will lead south of Napatalik, which has a high peak 500 feet high, and thence a mid-channel

course between the mainland and the group of islands of which Napatlik is the southern, will lead to Windy tickle.

Kikkertaksoak is the only prominent island east of these tracks; it has two sharp peaks about the same height, 250 feet, and reefs stretch from and lie off it in all directions.

Nanuktok (Bears), (Farmyard islands of the fishermen) are a group consisting of two principal and several smaller islets, S.E. by E. $10\frac{1}{2}$ miles from cape Harrigan, and N.N.E. $\frac{1}{4}$ E. $19\frac{1}{2}$ miles from Gull island. After a strong breeze of wind many breakers were seen between them, cape Harrigan, and Kikkertaksoak, and great care should be taken when navigating in that locality.

CAPE HARRIGAN is the outer point of the Windy tickle group. The islands forming it are about 620 feet high, falling in a series of conical hummocks to the east point. The ice prevented the *Gulnare* rounding the point, and an examination being made of the outer harbours.

WINDY TICKLE (Ikirasalik) is the channel between Windy Tickle islands and the mainland; it consists of two bends, N.E. 2 miles and N.W. by N. 3 miles. In the southern reach a shoal extends off the first bight on the east shore, but by keeping the west shore on board a clear track will be found. On the north side of the western bend is a deep bay with an islet in the middle, making two anchorages. The water is shoal nearly out to this island from the shore, deepening suddenly from nearly dry to 10 fathoms. Vessels should not anchor in less than 12 fathoms, nor attempt to go inside the island. The west bend of Windy tickle is shallow from another islet lying west of the one described, and mid-channel should be kept, but even then not more than $1\frac{1}{4}$ fathoms can with certainty be carried through at low water. With winds from N.W. to North terrific squalls blow down the southern reach, hence the name.

A course N. by W. $\frac{1}{4}$ W. $11\frac{3}{4}$ miles from the west entrance of Windy tickle leads to a group of low islets, passing west of Massere island (Kutallik), about 200 feet high, close to and east of a low rock 5 feet above high water $1\frac{1}{4}$ miles farther on, and crossing the mouths of two deep inlets, named Jack Lane, and Jem Lane bays. Davis inlet, where is a post of the Hudson Bay Company, lies next north of Jem Lane bay. It is reported that a strong tide rip and overfall prevails at the narrow shallow entrance to this inlet, and that sailing vessels should not take the passage except at slack water and with a commanding breeze.

After rounding the low group of islands above mentioned, the coast of Ukasiksalik (Freestone island) should be kept on board till the east

extreme is reached, when two tracks present themselves. The western is convenient as being free from field ice at an early period of the season, and the fog rarely fetches in, but the eastern is more direct and is on the seaboard.

By the West track.—The coast of Ukasiksalik must be rounded at about 2 cables distant; the north shore has deep bays, with eliffy sugar-loaf hills forming the points; and passing south-west of some smooth, sloped, greenish islands, the south-west point of which is foul for a short distance off. From this point a course N.N.W. $\frac{1}{4}$ W. 5 miles leads between a dark eliffy island on the west side with rugged points ending in islets; and on the east side some low islands, through the channels between which the outer islands can be seen. An island about 200 feet high will then be seen. Pass west of this island and a low black islet lying off the north extreme. Sunken rocks lie north-west of this islet, and are nearly connected with the island just passed.

From this low islet a course North 5 miles leads west of Tunungayualuk, a large island with steep tree-covered sides, to a narrow tieckle, passing east of a group of islets conical and mound shaped, at the back of which is situated Merrifield mountain, a square hill about 1,700 feet high. Tunungayualuk should be kept at least 2 cables off when rounding the north point, to avoid a shoal stretching off it a short distance. Passing east of some low islets two channels will be disclosed; the western, narrow, with only 2 fathoms water in it, opens at the west end into the bay, on the north shore of which Zoar, a missionary station, is situated. From the west end of this channel a course should be steered to leave Taktuinak (the island between the two channels) half a mile off, to avoid a rock that breaks, and thence E. by N. $\frac{3}{4}$ N. 3 miles nearly, will lead to a low island promontory, on the east extreme of which is an Eskimo hut.

To avoid this shallow channel, keep mid-channel between Tunungayualuk and Taktuinak, the next island north, until the second channel running north is open. Taktuinak is surmounted by a hill 600 feet high, that falls in a steep cliff over south-east extreme; the northern portion has a sloping greenish hill. Between the two is a deep gully in the hills.

Tunungayaksoak is situated east of Taktuinak, and is wedge-shaped, the summit nearly over the west extreme, off which close to is a shoal. Proceed between Taktuinak and Tunungayaksoak, passing west a cable off an islet 5 feet above high water. From the north end of this channel the low island promontory, on which is the Eskimo hut, will be seen North $1\frac{1}{4}$ miles. From this hut a course N.E. 5 miles will lead close west

of Achpitok (an island with a deep cove, in which anchorage may be had in 12 fathoms), and between it and the mainland about Zoar. From Zoar the land trends N.N.E., and consists of high green hills with raised terraced beaches on the slopes, surrounding deep indentations. This course will lead to an islet about 30 feet high, rounding east of which, a course of N. $\frac{1}{4}$ E. $5\frac{1}{2}$ miles will lead close west of Nuasomak (Dog), a conical island 400 feet high, and east of a dark islet 40 feet high to the shore of Kikkertavak, a large island 600 feet high. This shore should be kept about 2 cables distant till the narrow channel between it and Taktuk (Fog) is reached; passing west of Nochalik, a high island with a deep ravine through the north extreme, nearly disconnecting a portion; west of Nukasusutok, a dark island with a summit about 800 feet high, falling in a cliff face on the north; and south-west of Niatak, an island with two prominent summits about 300 feet high, smooth slopes on west side, and deep bays with cliff shores on the east.

Taktuk is a small island about 150 feet high, with an Eskimo hut at the west extreme; the west shore is fringed by boulders, and the shore of Kikkertavak immediately opposite has some low rocks a short distance off.

From this narrow passage N. by E. 3 miles will pass east of Palungatak, an island about 600 feet high, with a mound nearly detached at the east end. Off the east side boulders extend nearly half-way to the opposite shore, and the channel between should be navigated with great caution; 4 fathoms water can be carried through nearer the north than the south shore.

Tunnulsoak (Pownal or Pauls island) is $16\frac{1}{2}$ miles long, situated north-east of Palungatak, and nearly divided by two deep inlets running from east and west extremes. Off the south-west opposite Palungatak is a small promontory ending in a rocky mound, with deep bays on each side filled with boulders.

Ford harbour is at the east end of this island, formed by a flat promontory on the south composed of a series of terraces. The harbour may be seen from the west over the marsh that joins this promontory to the mainland. Boulders fringe the shores of the harbour, but the water deepens suddenly to 10 fathoms. Anchorage may be had in the bay north-east of Ford's house in 13 to 16 fathoms, mud, good holding ground.

NAIN.—From the channel between Palungatak and Pauls island, the coast of the latter should be kept about half a mile distant, with a general course of N.E. for $4\frac{1}{2}$ miles, when the south point of Nain will bear about West 2 miles distant. Rounding this the mission station at Nain will be seen, off which anchorage may be obtained in 13 fathoms, mud.

The rule is universal for this coast that the water deepens suddenly from the line of the boulders; to mark the north and east limits of the latter at Nain, four small white beacons have been erected, and vessels must anchor before either pair come in line.

FROM NAIN TO FORD HARBOUR.—Retrace the track described above till the shallow passage between Palungatak and Pauls island is passed; when a mid-channel course should be kept between the latter and Taktuk, Niatak, and Kugjautak (Wedgo) a general direction S.E. $\frac{1}{2}$ S. for $13\frac{1}{2}$ miles, when an islet, Amushavik, will be seen 4 cables off the south-east point of Pauls island. Pass between them and round Pauls island close to Ford harbour.

From Ford harbour, by the inner route, there is a good passage south of Niatak, a course W. by N. $\frac{3}{4}$ N. $7\frac{3}{4}$ miles from Amushavik will lead north of Nukasusuktek. Rounding this island Nochalik should be steered for but vessels should use this channel with great care, as there is a rock off the low islets west of Nukasusuktek.

FROM WINDY TICKLE TO FORD HARBOUR BY THE OUTER TRACK.—Steer as before described till the east point of Ukasiksalik (Freestene island) is reached. From this, E. by S. $\frac{1}{2}$ S., $2\frac{1}{2}$ miles, leads to Ayagatot, a barren island with a round summit about 250 feet high. A rock lies S.W. from this island about 2 cables. From the west of this island, N.E. $\frac{1}{2}$ N. $7\frac{1}{2}$ miles, will lead to Kikkertaksoak (Sprackling's island), but the islets nearly in the track must be kept a little farther off than the direct course leads to avoid any spurs stretching off them.

Kikkertaksoak (Sprackling's island) is very remarkable, being the outer high island, and having two sharp peaks at the south end and a high mound at the north. There is a small harbour on the east side sheltered by some islets.

Uvingtayuk (Lopsided island) is a remarkable dome-shaped rock, about 400 feet high, W. by N. $\frac{1}{2}$ N., $2\frac{1}{2}$ miles from Kikkertaksoak.

Hare island (Ukallik) is an island with two summits about 200 feet, S.E. by E. $\frac{1}{2}$ E. $4\frac{1}{4}$ miles from Kikkertaksoak. This is the island usually made by the mission ship for going either to Zoar, or to Nain.

Kimit, the outer island, is situated S.E. $\frac{1}{2}$ E., $3\frac{1}{2}$ miles from Hare island.

FROM SPRACKLING'S ISLAND TO ZOAR a course N.N.W. $\frac{1}{4}$ W. 5 miles will lead east of a group of small islets, the western Pakertuk is 140 feet high, whence N.W. $\frac{3}{4}$ N. $9\frac{1}{4}$ miles will bring the vessel to the east point of Tunungayaksoak, a little hillock joined to the main island. Keep

this island shore about half a mile distant, and steer W.S.W. 4 miles mid-channel between that island and two islands, Aklatalik and Tunungayaksoak, north of it, the former about 500 feet high, with numerous conical summits, and passing close to an islet about 60 feet high. This will lead to the entrance of the channel between Taktuinak and Tunungayaksoak already described.

FROM SPRACKLINGS ISLAND TO FORD HARBOUR.—The natives state that a clear passage will be found between these places by steering N. $\frac{3}{4}$ E. $19\frac{3}{4}$ miles to another island called Kikkertaksoak (Big island), about 300 feet high and flat in outline, thence N.E. 4 miles to Sioralik or Sandy island, so called from the colour. The west point of Sandy island must be kept close on board to avoid a shoal, whence a course N. $\frac{1}{4}$ W. for 6 miles will lead to Ford harbour

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