AR

REPORT

ON THE

DOMINION GOVERNMENT EXPEDITION

TO

ARCTIC ISLANDS AND THE HUDSON STRAIT

ON BOARD THE

C. G. S. "ARCTIC"

1906-1907

BY

CAPTAIN J. E. BERNIER,

Officer in Charge and Fishery Officer.

OTTAWA

PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST EXCELLENT MAJESTY

1909

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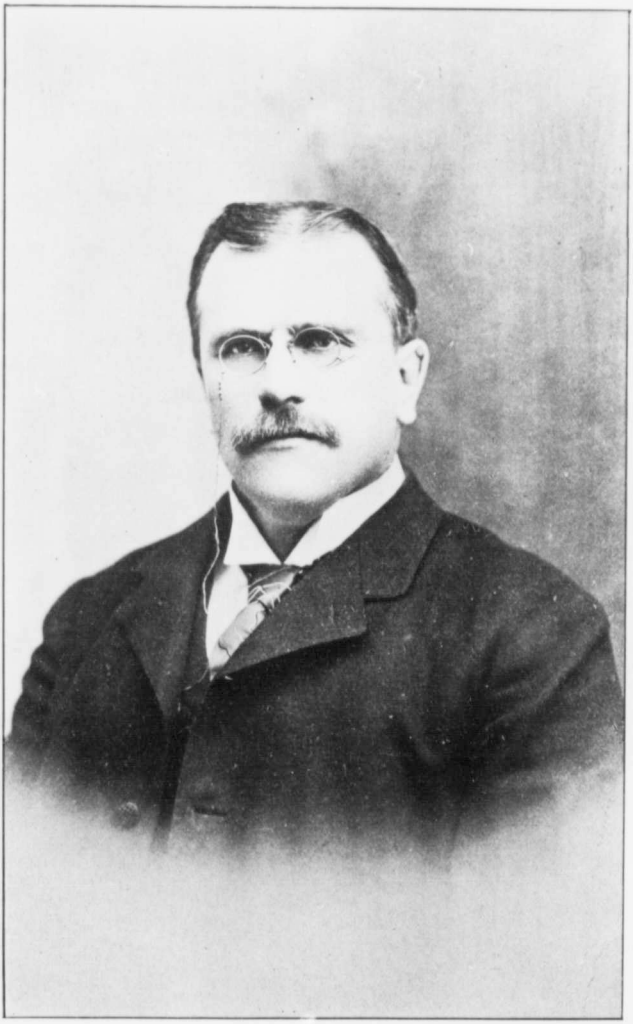
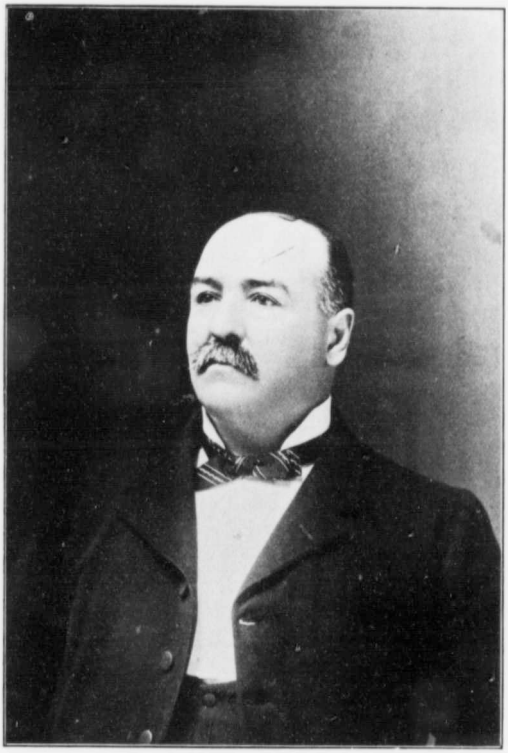


Hon. Louis-Philippe Brodeur, Minister of Marine and Fisheries.



J. E. Bernier.

OTTAWA, October 18, 1907.

Hon. LOUIS-PHILIPPE BRODEUR, M.P.,
Minister of Marine and Fisheries.

SIR,—I have the honour to respectfully submit herewith my report on the expedition to the Arctic regions in the Canadian government steamship *Arctic;* to which, on your kind recommendation, I was appointed officer in charge by a commission authorized under an order in council of July 30, 1906. I beg also to add thereto a report of the duties I have performed in conformity with my appointment as a fishery officer by commission authorized under an order in council of July 30, 1906.

In accordance with the instructions contained in the above mentioned commissions I proceeded northward, with a view of asserting Canadian sovereignty in the Arctic regions which are territory of this Dominion by right of cession made to Canada by the Imperial government.

I have great pleasure in mentioning that with the valuable assistance of the officers and crew who accompanied the expedition we were able to successfully cruise in the following waters: Davis Strait, Baffin Bay, Navy Board, Admiralty Inlet, Prince Regent Inlet, Lancaster Sound, Barrow Strait, Melville Sound, Lady Ann Strait and other Arctic regions.

Permit me to here acknowledge the kindly and valuable assistance afforded me by Col. F. Gourdeau, Deputy Minister of Marine and Fisheries, by Commander O. G. V. Spain, and by all the officers of the department at Ottawa, Sorel and Quebec, with whom it was my duty and privilege to work. It is also my pleasure to mention the valuable help given me by Mr. James White, geographer, Mr. Bell, geologist and Mr. C. O. Senecal, of the Geological Bureau.

I have the honour to be, sir,
Your humble servant,

J. E. BERNIER.

C. FITZPATRICK,
23-7-06.
Deputy Governor of Canada.

CANADA.

EDWARD THE SEVENTH, by the Grace of God of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, KING, Defender of the Faith, Emperor of India.

To CAPTAIN JOSEPH ELZÉAR BERNIER, of the City of Ottawa, in the Province of Ontario, in Our Dominion of Canada,—

GREETING:

A. POWER,
Acting Deputy Minister of Justice,
Canada.

KNOW you, that reposing trust and confidence in your loyalty, integrity and ability, We have constituted and appointed, and We do hereby constitute and appoint you the said JOSEPH ELZÉAR BERNIER, to be a Fishery Officer under the Fisheries Act and any Act in amendment thereof and under the Act intituled 'An Act Respecting Fishing by Foreign Vessels.'

To have, hold, exercise and enjoy the said office of a Fishery Officer, unto you the said JOSEPH ELZÉAR BERNIER, with all and every the powers, rights, authority, privileges, emoluments and advantages unto the said office of right and by law appertaining during pleasure, and with full power and authority to exercise the functions, powers and jurisdiction of a Justice of the Peace for the purposes of the said Acts or any of them, and of any regulations made or continued thereunder or in respect thereto.

IN TESTIMONY WHEREOF, We have caused these Our Letters to be made Patent, and the Great Seal of Canada to be hereunto affixed. WITNESS, The Honourable CHARLES FITZPATRICK, Deputy of Our Right Trusty and Right Well-beloved Cousin the Right Honourable Sir ALBERT HENRY GEORGE, Earl Grey, Viscount Howick, Baron Grey of Howick, in the County of Northumberland, in the Peerage of the United Kingdom, and a Baronet, Knight Grand Cross of Our Most Distinguished Order of Saint Michael and Saint George, &c., &c., Governor General of Canada.

At Our Government House, in Our City of Ottawa, this TWENTY-THIRD day of JULY, in the year of Our Lord One thousand nine hundred and six, and in the sixth year of Our reign.

By Command,

F. COLSON,
Acting Under-Secretary of State.

SHIP'S COMPANY.

OFFICERS.

Captain J. Elzéar Bernier, Commander.
George Hayes, Chief Officer.
O. Jules Morin, 2nd Officer.
Charles W. Green, 3rd Officer.
Joseph R. Pepin, Doctor.
Fabien Vanasse, Historian.
James Duncan, Customs House Officer.
George R. Lancefield, Photographer.
W. H. Weeks, Purser.

CREW.

John Van Koenig, Chief Engineer.
Emile Bolduc, 2nd Engineer.
Ernest Croteau, Electrician.
Paul Mercier, Oiler.
F. Brockenhenser, Oiler.
Louis Bernier, Fireman.
Ulric Bégin, Fireman.
Ernest Lahaie, Fireman.
Joseph Thibault, Chief Cook.
Louis Beaulieu, 2nd Cook.
Paul Levasseur, Chief Steward.
Napoléon Stremenski, Ass't Steward.
Harry Charron, Waiter.
Alexandre Patenaude, Waiter.
Hervé Perron, Waiter.
Louis Jeffrey, Boy.
Michael Ryan, Carpenter.
William Ross, Boatswain.
Benjamin Taverner, Boatswain's Mate.
Joseph Lessard, Quarter-Master.
Napoléon Chassé, Quarter-Master.
J. A. Simpson, Customs House Clerk.
Thomas Doyle, A.B.
William Coady, A.B.
Sylvester Cain, A.B.
Ruben Pike, A.B.
Thomas Fraize, A.B.
James Hearn, A.B.
Richard Barron, A.B.
James Ryan, A.B.
George A. Bödeker, A.B.
Joseph Goulet, Laundryman.

LIST OF SOME OF THE TERMS USED IN ICE NAVIGATION BY WHALERS, SEALERS AND OTHERS.

Floe.... A large mass of floating ice.

Pan.... A small floe or small piece; one that can be forced aside or slewed.

A field.... A large body of ice that may be seen around.

Land floe.... Ice frozen fast to the shore.

Packed ice.... Are small pieces closed together and held by the pressure of ice and currents.

I b'ink.... Is a peculiar pale yellow reflection on the sky; indicating the presence of ice at a distance.

The ice pack.... Is that large body of solid ice extending across the whole sea and beyond which it is impossible to advance.

Slack ice.... Is detached, so that it can be worked through. Ice is said to be slacking when it begins to be open so as to be navigable.

Running abroad.... Ice is said to be running abroad when it opens out or slacks away so as to be navigable.

A nip.... Ice is said to be nipping when it begins to close by reason of the action of winds or currents, so as to prevent the passage of a vessel.

Calving.... Ice is calving when the small pieces break off from the bottom and rise to the surface of the water.

A lead.... Is a strip of navigable water opening into the pack.

A blind lead, a pocket.... Is a short opening into the pack and terminating against solid or thick ice.

Hummocky ice.... Is rough, uneven or thick ice.

Porridge ice.... Is small, finely ground up ice.

Slob.... Is snow afloat and forming into ice.

Sish.... Is thin new ice just formed in thin sheets.

Lolly.... Is loose new ice.

Waking.... Is the following in the wake of another vessel through leads and slack ice.

Backing, running or butting.... Is backing off and running the ship at ice in order to force or head a way through it.

Slewing.... Is forcing the vessel ahead against the corner of a piece of ice, with the intention of causing it to slew or swing out of the way, so as to force a passage by it.

Tracking.... Is following along the edge of the ice pack.

Water sky.... Is a dark or bluish appearance of the sky indicating open water beyond the pack.

Slatches.... Are considerable pools of open water in the ice.

Swatch.... Is a small pool of open water in the ice.

Swatching.... Watching for seals around a swatch.

Wash.... Is the sound of the sea breaking against ice.

Rote.... Newfoundland term for wash.

Rafting.... Occurs when two pans meet with force either by the action of the winds or currents—the edges are broken off and either rise on top of or pass under the body of the pans.

Pressure ridge.... Is the ridge or wall thrown up while the ice is rafted.

Growler.... Is a more or less washed and grounded lump of ice which rolls about in the water, formed from broken up bergs or detached pieces of heavy old arctic floe ice.

Decker.... Rafter at a pressure ridge (Newfoundland).

Black sheet.... Is thin dark looking ice with no snow on it; usually found between pans of older ice. At night or at a distance looks like open water.

Collar ice.... Is the margin of ice frozen fast to an island or shore, presenting an abrupt wall against which the floating ice rises and falls with the tide.

Beset.... Inclosed on all sides by the ice.

PARTICULARS AND DIMENSIONS OF THE C.G.S. *ARCTIC* TAKEN FROM THE CERTIFICATE OF REGISTRY.

Class.—Highest of Germanic Lloyd.

Material.—Best dry oak and pitch-pine woods.

When and Where Built.—1900-1, at the Howaldt's Ship Yard, in Kiel, Germany.

Register Tonnage.—Gross 650 tons, net 436 tons.

Capacity (Including Bunkers).—Two bunkers are on each side of the engine-room, and the main hold, amidship and aft in the decks between, holding in all 400 tons.

Length.—165·4 feet.

Main Outside Breadth.—37·2 feet.

Side Depth from Inner Edge to Upper Deck Beam.—22 feet.

Deck, Upper Deck and a 'Tween Deck.

Water Ballast Equipment.

Depth Laden.—22 feet.

Depth Empty.—13·3 feet.

Water Gates.—Two steel water gates to close engine-room and boiler-room.

Hatches.—One on the fore deck.

Three Mast Top-sail Schooner, Fore-mast Square, with Special Ice Propellers.

Auxiliary Engine Power.—Triple expansion engine with surface condensation, ind. h.p. 275. Boiler built 1900-1.

Speed when Laden.—Seven knots in water; in ice, unknown.

Steam Cranes.—Two.

Electric Light.—Good electric unit with engine attached, steam for engine from the main boiler.

CHAPTER I.

VOYAGE TO THE ARCTIC ISLANDS.

The present report contains a narrative of the voyage of the C.G.S. *Arctic*, during the seasons 1906-7, to the Northern Arctic Islands and entrance of Hudson Strait. Following this, under their respective headings, are short accounts of our trips, explorations, discoveries of inland waters, returns of our perception of whalers' licenses and Customs dues, and of our weather observations in Albert Harbour, Baffin Land; also a complete report of the annexations of Arctic Islands. The appendices contain the meteorological observations taken during the voyage of the *Arctic;* and the meteorological observations taken at Port Burwell, during one year, by the Rev. Mr. Waldmann. I have also added a detailed description of the different conditions and state of the ice while we wintered in the following places: Fullerton, Hudson Bay, Albert Harbour, Baffin Land and vicinity.

This report is based largely upon knowledge obtained during the voyage, by the officers of the expedition; and this has been supplemented by information received from natives of those regions, and captains of the Scottish whalers who were in those waters at the different times of our cruises. The four captains we had the good fortune of meeting, and from whom we received information, were: Captains Much, Milne, Adams and Cooney, Comer.

The accompanying map has been compiled by the Department of Geological Survey and Mr. A. P. Low, B.Sc., F.R.G.S.

All bearings are true north; for example, when we went into the Hudson Bay in 1904-5 our compasses pointed to the true north, while in Long. 91° 30′ W. and Lat. 60° 42′ N., while at Cape Cockburn, Bathurst Island, in Lat. 60° 42′ N. Long. 91° 30′ W.; the true north was due south, there being 180° variation. This will give an idea of the many different courses that had to be given during the voyage in order to maintain our true north.

The illustrations in the text of this report are from photographs taken by Mr. George R. Lancefield, photographer accompanying the expedition.

The Dominion Government decided to have the Steamer *Arctic* fitted out and repaired at the Government shipyard, Sorel, at the beginning of the season of navigation of 1906. Having completed embarkment of stores, &c., she was finally ready to leave on the 14th July. Her draught was 19′ 10″ aft, and 19′ 4″ forward, with 530 tons of coal on board; thus being in good trim and ready to commence her work through the ice, which she is expected to encounter before she reaches her station for the coming winter.

Acknowledgment is made of the kindness Mr. Desbarats, Superintendent of the Government Shipyard, Sorel, has shown to us during the preliminary preparations for the voyage, and for the able way in which he has contributed to the preparation of the *Arctic*. It is also with much pleasure that we beg to offer our thanks and express our appreciation of the services Mr. J. U. Gregory, I.S.O., Agent of the Marine and Fisheries, Quebec, has so kindly rendered us in the interest he has taken to insure that everything necessary for the welfare and comfort of the crew was placed on board at Quebec, before our departure for a period of eighteen months.

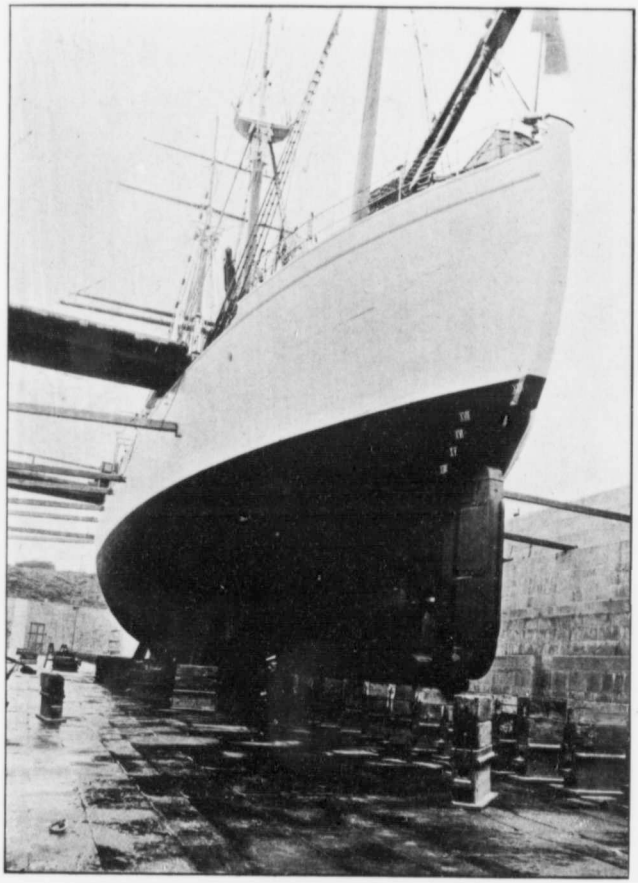
On the 14th July we received instructions to proceed to Quebec. We moved from the wharf and went into the stream, where we adjusted the ship's compasses and anchored outside of Sorel, in eight fathoms of water.

At 3 a.m. Sunday, 15th July, we got under way and proceeded down the river towards Quebec. There was a light fog, but it cleared up by 6 a.m. The day was fine and warm, and the progress was fair. At 12.45 a.m. the next day we arrived in Quebec harbour, and anchored abreast of the Government wharf, in 16 fathoms of water. Our riding lamps and watch were properly set. At 1.10 a.m., the same day, the Norwegian steamer *Elina* crossed our bow and broke our bowsprit, jib-boom and all the gear attached to it; the pilot in charge of this steamer had apparently miscalculated his position. Our lights were burning bright at the time, and the mate's watch was on deck. We lowered a boat and went to ascertain the name of the steamer. At 9 a.m. we reported the accident to the Agent of the Marine and Fisheries Department, at Quebec, and then to the same department at Ottawa, and orders were received from the Deputy Minister to have the repairs made at once. All the damage was repaired and we were again ready for sea on Saturday, 28th July. We left at 11 a.m. the same day, weather fine and clear. Sunday morning, 29th July, we were passing White Island. At 10 a.m. Dr. Pepin and I made the morning inspection all through the ship, to look into the general sanitary condition of the vessel; everything was found to be in proper order. At 2.30 p.m. we landed the pilot at Father Point; as we did not receive the expected instructions on arrival at the above mentioned place, we anchored close to the gas buoy, in 8 fathoms of water.

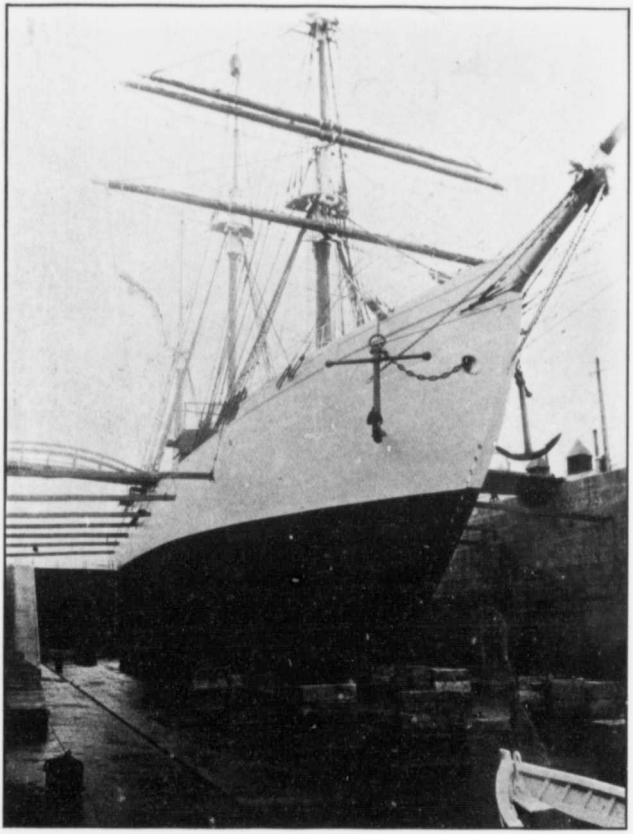
Monday, 30th July. Strong breeze from S.W., we received some mail for the ship's company. At 7 p.m. we hove anchor and proceeded towards Chateau Bay, Labrador, where we arrived on the morning of August 3rd. We received our final orders from the Department of Marine and Fisheries; we landed the ship's mail, and at 3 p.m. proceeded; the wind was very strong from the N.E., and our progress was slow at the start, but the wind died during the night. The next day, Saturday, August 4th, we were blessed with fair wind; the ship was in good order and everything worked satisfactorily. We issued oil-skin boots and other clothing for the crew. The first iceberg was noticed during the evening. Sunday, 5th August. Strong breeze from S.W., and we were going towards Greenland to get out of the track of the numerous icebergs that were west of our course; they were immense floating icebergs, which were coming down from the north. On Wednesday, 8th August, we saw the high lands of Greenland. The wind had changed to a cold northeaster and we were under fore and aft sails, to keep the boat steady and from rolling.

Friday, 10th August. The wind veered to the S.W., we were still under sail, but we were also using the steam power, and running along the coast of Greenland. It was a splendid sight to see this coast and the large icebergs intervening.

Saturday, 11th August. Wind west, weather hazy. We met a fishing schooner; it was well under the land. At 12 p.m. we passed the Arctic circle. Issued pilot cloth coats, underclothes, stockings and mittens to the men, as is customary in vessels sailing in Arctic regions. On Sunday, 12th August, wind from the southward, weather fine. We held our first church service on board; it was well attended by the members of the crew. At noon we passed Disko Island, and we shaped our course toward N.N.W. On the 13th August, the ice fields were in sight; we were sailing due north, parallel to the ice. At noon the sun was obscured and we could take no observation. Several icebergs were in sight to the eastward of us; the ice was constantly visible around us, and we shaped our course to pass in the clear water between the numerous icebergs of all dimensions. Thursday, 14th August, wind from S. and accompanied with a thick fog, decreased the speed of the ship, and steered between the different icebergs. I was forced to remain on deck during twenty-four consecutive hours; it was almost daylight during the entire time. We tried to go into the open ice to find in what state it was, and after having ascertained its thickness we were glad to follow along the edge on the outside and in fairly clear water, but for a number of large icebergs, which did not interfere with our progress. August 15th, thick fog with S.E. wind, and we were forced to make fast to the ice into an opening in the ice. We filled the fresh water tanks with good water from a pool. I ascertained during that time that the ice was in a navigable condition for the *Arctic* or any ship of her power. After our noon observation, which placed us in 74° 42′ N. and 63° W., I then proceeded



STEAMSHIP "ARCTIC."



Steamship "Arctic."

Navy Board Inlet.

Bylot Island.

Barron Strait Ice.

towards Lancaster Sound. On the 16th August, saw icebergs of immense proportions. From the 'crow's nest' we saw Cape York, it was at a great distance. Weather was remarkably clear and calm. We made good headway through loose ice; which ice appeared to be of the present year's formation. I then decided to push on to the westward. All the large leads are in the W.N.W. direction, which I was glad to follow. On the 17th August, the wind came from the S.W.; it was accompanied with rain. We are going fairly well with all sails set and the engine stopped. We inspected all the boats on board, they are all ready to put overboard in case of need. Did not take observation that day. Our latitude by account was 73° 36′ N. and Long. 76° W. During the afternoon we saw the Island of Bylot, and we shaped our course to Lancaster Sound; during the evening we passed Cape Liverpool, on Bylot Islands. During the night the fog set in and did not clear until the next day, when we made Wollaston Islands, and took a photo of these islands, at the entrance of Navy Board Inlet.

We entered the Navy Board Inlet and pursued our course towards Albert Harbour. In the middle of the strait very light ice was encountered, it appeared to be of last year's formation, and we kept going through it; making different courses as the openings led us to. During the night and on Sunday morning we were in Eclipse Sound, and we kept on sounding near low land off Bylot Islands, it appeared to me to be a shallow point and dangerous to navigation. A ship passing this point would need to keep outside of two miles from this part of the land. On Sunday we arrived outside of Albert station. Mr. James Cameron, of the sloop *Albert*, of Dundee, Scotland, came on board with his whaling boat. We proceeded to Salmon River, three miles westward of the station; where we anchored in twenty fathoms of water. The next morning, as the weather was fine and clear, Mr. Cameron, some members of our crew in company with some natives, went fishing for salmon, and caught about ninety of these. Our photographer took many views of Bylot Islands and the surrounding country.

I hired two natives at that place, and bought ten Eskimo dogs for our use during the voyage north. The natives names are Monkeyshaw and Cameo. After giving provisions for six months to the wives of the natives on board, and having learned that the whalers had not managed to get through the middle pack, we decided to send them notices and copy of the new law that had been passed with regard to whaling licenses. These letters were addressed to each of the captains of the whalers, and were given in care of Mr. Cameron, for distribution. I was led to believe that the fleet would be in Lancaster Sound, and I prepared to sail at once for this sound and Barrow Strait.

CHAPTER II.

VOYAGE FROM ALBERT HARBOUR TO MELVILLE ISLAND.

At 6 p.m., August 20th, we got ready to sail. Wind being to the eastward, we set our sails and steered for Navy Board channel. We met a good deal of young ice, it appeared to be of this year's formation; we had to work our way through it, and we had to pass clear of an iceberg occasionally. At 8 a.m., August 21st, we passed the S.W. part of Bylot Island, which is the most dangerous part in the surroundings; we kept on sounding all the way through. At 11 a.m. we landed on the most western part of Bylot Island, to take possession of it. It has an area of 5,100 square miles. After landing we built a cairn and we hoisted the Canadian flag on top of it as a token of formal possession of this island and all the adjoining ones. The island has been discovered by Sir John Ross, Commander of the SS. *Isabella*, during an expedition of 1818. Having inclosed a copy of the original document of formal possession of the island, in a bottle; and after having named the point 'Canada Point,' in honour of the first ship of the Canadian Marine Service, we deposited this bottle in the cairn on the said island. Lat. 73° 22' N., Long. 60° 50' W. We carved the name of the ship *Arctic* on one of the large stones of the cairn; we then took a view of the place, and at 3 p.m. left the place.

Copy of the original document deposited on the island:—

August 21st, 1906.

This island, Bylot Island, was graciously given to the Dominion of Canada, by the Imperial Government in the year 1880, and being ordered to take possession of it in the name of Canada, know all men that on this day the Canadian Government Steamer *Arctic*, anchored here, and I planted the Canadian flag and took possession of Bylot Island in the name of Canada. We built a cairn to commemorate and locate this point, which we named Canada Point, after, and in honour of the first steamer belonging to the Canadian Navy.

Being foggy no latitude was obtained. On the chart this point is located in Long. 80.50 west and 73.22 north Latitude.

From here the *Arctic* will proceed onward through the Navy Board inlet, to the westward into Admiralty inlet, and from these westward to Port Leopold, where we will leave a record of our future work.

Witnessed thereof under my hand this 21st day of August, 1906 A.D., in the fifth year of the reign of His Most Gracious Majesty King Edward VII.

J. E. Bernier,
Commanding Officer, by Royal Commission.
Fabien Vanasse, *Historiographer.*
Joseph Raoul Pepin, *M.D.*
Jas. Duncan, *Customs Officer.*
Wingate H. Weeks, *Purser.*
Geo. R. Lancefield, *Photographer.*

Weather was foggy, but we kept going on slowly in the direction of Lancaster Sound, which we entered during the night. On Wednesday, 22nd August, the wind changed to the N.N.W., and the weather cleared up. At 12 o'clock noon we sighted Cape Crawford, about eight miles distant. Very little ice in the Sound at present.

Canada Point, Bylot Island.

During the afternoon we took provisions for three months, from the hold, with the intention of landing the same at Port Leopold. After passing Cape Crawford we noticed that our compasses were sluggish and we could not depend very much on them, especially in calm weather. There was a light fog until 4 a.m. on the 23rd of August when we sighted Leopold Island. At 8 a.m. we anchored in port Leopold, and landed on Whaler Point. There we found the 'Gjoa' cache in very bad order; some of the boxes broken, and the tent that had been placed over the stores was blown away; this depot had been left here by Capt. Cooney, of the steamer *Windward*, 1904, for the use of Capt. Admundsen, in case his vessel should be wrecked in the neighbourhood. We built a new shed to shelter these goods and some of the provisions which we landed from the *Arctic*. After having placed everything in order in the shed we took a photograph of the place, and hoisted the Canadian flag.

The following is a list of the goods which compose this depot:—

Pilot biscuits, 53 boxes	lbs.	1,219
Salt pork, 3 barrels	"	600
Coffee	"	400
Tea	"	400
Salt beef	"	200
'Creton'	"	100
Flour	"	200
Mutton and beef (tinned)	"	936
Lard	"	72
Petroleum oil, for stoves	gallons	40
Molasses	"	20
Sugar	barrels	2
Methylated spirits	gallon	1
Medical stores	boxes	2
Hand lantern complete		1
Pemmican, 10 cases	lbs.	600
Bovril fluid beef	"	420

J. E. Bernier,
Commander C.G.S. 'Arctic.'
Wingate H. Weeks, *Purser.*

Proclamation.

In the name of His Most Gracious Majesty, King Edward VII., and on behalf of the Government of the Dominion of Canada, I have, this day, taken possession of the Island of North Somerset, and of all the smaller islands adjoining it.

And in token of such formal possession, I have caused the flag of the Dominion of Canada to be hoisted upon the land of North Somerset; and have deposited a copy of this document, in a sealed metal box, at Leopold Harbour, on the said island.

A. P. Low,
Officer in Charge of Dominion Expedition to Hudson Bay and Northward.
On board Dominion Steamship 'Neptune.'

Leopold Harbour, North Somerset,
16th August, 1904.

The above is a reproduction of the document found on Whaler Point, in a sealed metal box which was in an old boiler abandoned on the shore by Sir James Ross in 1848.

Leaving everything on shore in good order we went on board. Got everything ready and proceeded towards the west along the land. The fog set in, but we kept our course all night. At 6 a.m., August 24th, we passed Cape Rennell; fog was lifting somewhat and we could see the land as far as Cape Bunny and Limestone

Island. At 11 a.m. we stopped against an immense field of ice, and we could not see any passage ahead of us, from the crow's nest. Our intention was to take possession of Prince of Wales Island, but seeing no passage, we shaped our course towards Griffith's Island, which we reached at 5 p.m., 24th August. We landed on the extreme northeast point of this island at 6 p.m., and named the place 'R. R. Dobell,' in honour of the late Hon. Richard R. Dobell, in recognition of his help towards this expedition. We left a copy of a document, concerning the formal taking possession of the island, in a closed bottle, on the said island. The area of North Somerset Island is 9,000 square miles.

Document found in an abandoned boiler on Whaler Point:—

NORTHWEST MOUNTED POLICE.

To Agents in charge of Whaling and Trading Stations, Masters of Whalers, &c., and all whom it may concern:

NOTICE.

A detachment of the Northwest Mounted Police has been sent into Hudson Bay for the purpose of maintaining law and order and enforcing the laws of Canada in the territories adjacent to the said Bay and to the north thereof.

Headquarters have for the present been established at Fullerton. This has also been made a port of entry for vessels entering Hudson Bay and adjacent waters. All vessels will be required to report there and pay customs duties on dutiable goods before landing any portion of their cargoes on any place in the said territories.

Duty imported into Canadian territories lying to the north of Hudson Bay will be collected for the present by a Canadian cruiser which will visit those waters annually or more frequently. Any violation of the laws of Canada will be dealt with by an officer of the police accompanying such cruiser.

By order,

J. D. Moodie,

Commissioner of Police for Hudson Bay and Territories to the North thereof.

Fullerton is in N. Lat. 63° 59′, W. Long. 89° 20′.

August 24th, 1906.

Copy of document found on Whaler Point, Port Leopold, by the officers of the C.G.S. *Arctic*:—

To the Leader of the 'Gjoa' Expedition:

In the year 1902, the Danish Literary Greenland Expedition: Mylius Eviksen Rasmussen went (as is known) to the west coast of Greenland. In 1903 the Scotch whalers met this expedition in different circumstances. Having heard nothing from the 'Gjoa' expedition, and thinking, therefore, that it had not started, or had had no use for the provisions, the whalers directed the Danish expedition to seek provisions at the depot of the 'Gjoa' expedition, at Dalvynysle Rock. In case this should have been done the Danish Government, in March, 1904, has caused a helping depot to be laid down for the 'Gjoa' expedition, by Mr. Ferguson, Dundee, and Captain Cooney, S.S. *Windward*, who have promised to bring this depot to the region through which the 'Gjoa' expedition intended to pass, and lay down at Leopold Harbour, or nearest available land in this region.

The depot contains:—

100 kilo pemmican, 40 per cent fat, in 4 wooden boxes.
700 " butter, in 32 wooden boxes.
500 " boiled 'Aeneri' oats, in 10 wooden boxes.
800 " wheat flour, in 10 wooden boxes.
500 " dried cod, in 20 wooden boxes.
2 barrels petroleum.
500 kilo bread, in 10 wooden boxes.

(NOTE.—For want of space on board there were: 10 cases of codfish, 5 cases of groats, 5 cases of wheat flour, left in Dundee. No petroleum was taken on board. Those stores were received on board weight, quantity and contents unknown, and I land them in the same order. John Cooney, Master of S.S. *Windward.*)

Information of this depot will be laid down, by other whalers, at suitable places in the district. To this moment there has been no news of the Danish literary expedition, and it must be feared that the expedition is in want of help. It was last seen south of Cape York, and it is probable that it has wintered at this place. For this reason the Danish Government will try to make a Scotch whaler go to Cape York, and has offered a reward for bringing the members of the expedition back.

CHRISTIANIA, NORWAY,
March 23rd, 1904.
(Signature as well as can be made out.) SOPHUS SOVRYS.

August 24th, 1906.

This island, Griffiths Island, was graciously given to the Dominion of Canada by the Imperial Government in the year 1880, and being ordered to take possession of it in the name of the Dominion of Canada, know all men, that on this day the Canadian Government Steamer *Arctic's* officers landed here, and I planted the Canadian flag and took possession of Griffiths Island in the name of Canada. We built a cairn to commemorate and locate this point, which we named 'The Honourable Richard R. Dobell,' after and in honour of the Hon. Richard R. Dobell, for his work and help in claiming these northern islands.

From here the *Arctic* will proceed to Sherringham Point, Cornwallis Island, where we will build another cairn, and take possession of Cornwallis Island.

Witnessed thereof under my hand this 24th day of August, 1906 A.D., in the fifth year of the reign of His Most Gracious Majesty King Edward VII.

J. E. BERNIER, *Commanding Officer.*
FABIEN VANASSE, *Historiographer.*
JOSEPH RAOUL PEPIN, *M.D.*
JAS. DUNCAN, *Customs Officer.*
WINGATE H. WEEKS, *Purser.*
GEO. R. LANCEFIELD, *Photographer.*
GEORGE HAYES, *Chief Mate.*
O. J. MORIN, *2nd Mate.*
MICHAEL RYAN, *Carpenter.*

We took a photograph of the place and went on board the steamer.

We shaped our course for Sherringham Point, on Cornwallis Island. After reaching those islands we anchored close by and landed. We built a cairn and hoisted the Canadian flag on the said Cornwallis Island, and took possession of it and all the adjoining islands on behalf of the Government of the Dominion of Canada, and deposited a copy of the document of formal taking of possession of the said island, which is printed hereunder. The area is 2,700 square miles.

August 24th, 1906.

This Island Cornwallis, was graciously given to the Dominion of Canada, by the Imperial Government in the year 1880, and being ordered to take possession of it in the name of the Dominion of Canada know all men that on this day the Canadian Government Steamer *Arctic* landed here, and I planted the Canadian flag and took possession of Cornwallis Island in the name of Canada. We built a cairn on Sherringham Point, in which was left a copy of this record.

From here the *Arctic* will proceed westward to Cockburn Point on Bathurst Island, calling on the way, if possible, at Lowther Island, where we will take possession.

Witnessed thereof under my hand this 24th day of August, 1906 A.D., in the fifth year of the reign of His Most Gracious Majesty King Edward VII.

J. E. Bernier, *Commanding Officer.*
Fabien Vanasse, *Historiographer.*
Joseph Raoul Pepin, *M.D.*
Jas. Duncan, *Customs Officer.*
Geo. R. Lancefield, *Photographer.*
John VanKoenig, *Chief Eng.*
Wingate H. Weeks, *Purser.*
George Hayes, *Chief Mate.*
Michael Ryan, *Carpenter.*

We left Sherringdon Point for Cockburn Point on Bathurst Island. We took several soundings during the night, and we steered between Browne and Sommerville Islands, and crossed Macdougall Bay. On Saturday, 25th August, at 8 a.m. we encountered heavy ice; went into this ice, pushed our way towards Point Cockburn, but at 10 a.m. the ice closed in on us, and we were beset. The wind increased from the eastward; we drifted along to the westward with the ice. At 2 p.m. we saw a bear, which paid a visit to His Majesty's ship the *Arctic*. The 2nd Officer, O. J. Morin, and two natives went over on the ice to capture the animal, but the ice was in a very bad condition, and I am sorry to say, that after wounding the bear, he succeeded in escaping us, as we could not follow him on account of the large openings in the ice. We took several soundings during the day, and found 50 fathoms with a muddy bottom. The ship drifted to the westward at the speed of about a half mile per hour. Sunday, August 26. Wind N.E., light breeze. We took soundings in 38 fathoms of water. Lat. 74° 53′ N., Long. 99° 10′ W. We were still ice-bound and drifting to the west. The natives on board shot a seal, but he sank before we could get at him.

Monday, August 27th. Weather clear and fine, easterly breeze, light. Ice is more loose to-day. We got up steam and started ahead towards Cockburn Point. On the 28th of August we landed on the above mentioned point, and took possession of Bathurst Island and all other islands adjoining it. We built a cairn and hoisted the Canadian flag over it. We left a copy of the document of the possession of this place. While some members of the party were building the cairn, other members who were searching on the point, found three copies of records in sealed metal boxes, which had been left there by Lieut. McClintock, M. Walter May, Lieut. of *Assistance*, Capt. A. B. Beleher and A. B. Bradford, surgeon. The records read as follows:—

The area of Bathurst Island is 7,000 square miles.

RECORD.

Deposited by a party under command of Lieutenant McClintock, proceeding in search of Sir John Franklin Expedition from *Resolute*, *Assistance*, steamers and *Intrepid*. Left at winter quarters between Griffith's Island and Cornwallis Island; at the latter. Expedition under Sir John Ross and Captain Penny; provisions and boat Port Leopold, small depot and boat, Cape Spencer, 25th June, 1851.

Party all well.

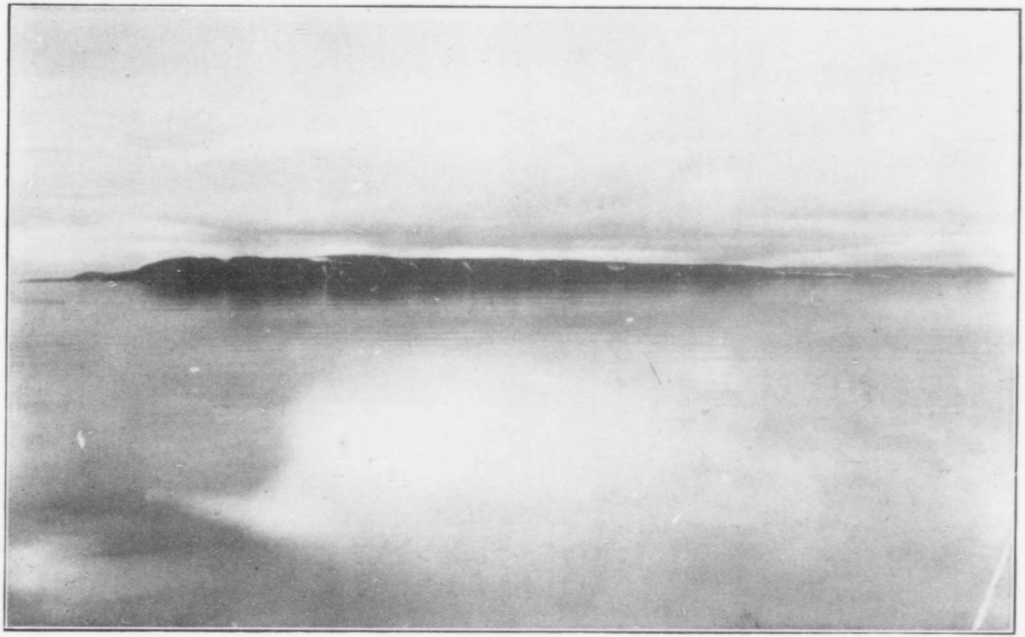
Lieut. McClintock.

Resumed work, placed everything in order, deposited the document of possession in the cairn and left the point. The following is a reproduction of the document concerning the taking of formal possession of Bathurst Island:—

August 28th, 1906.

This island, Bathurst Island, and all islands adjacent to it, was graciously given to the Dominion of Canada by the Imperial Government, in the year 1880, and being ordered to take possession of the same, in the name of the Dominion of Canada, know all men that on this day the Canadian Government Steamer *Arctic* landed on Cockburn

Cache, Port Leopold.

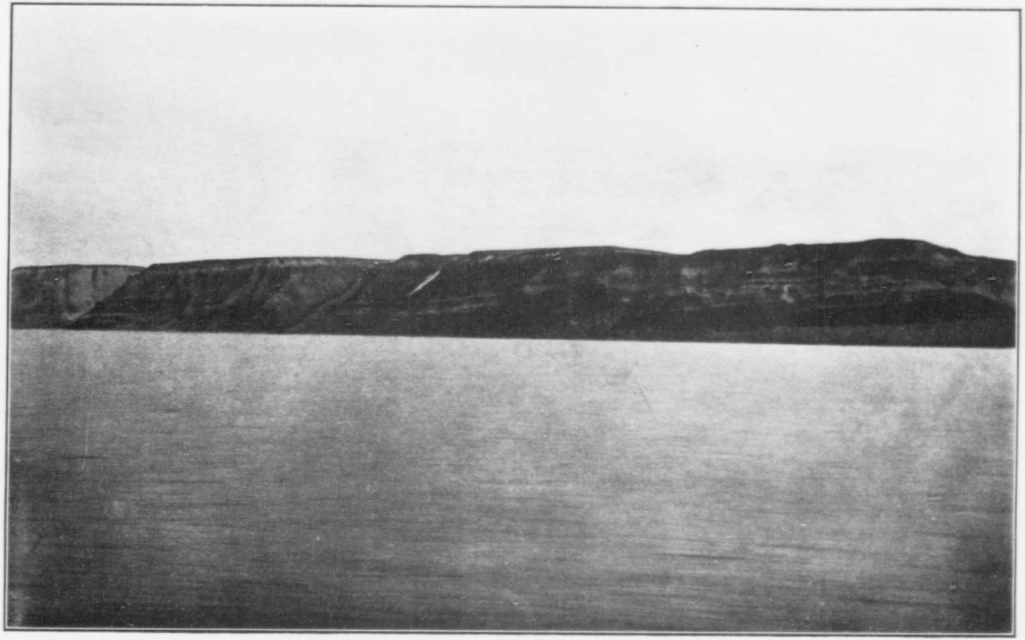


Griffith Island.

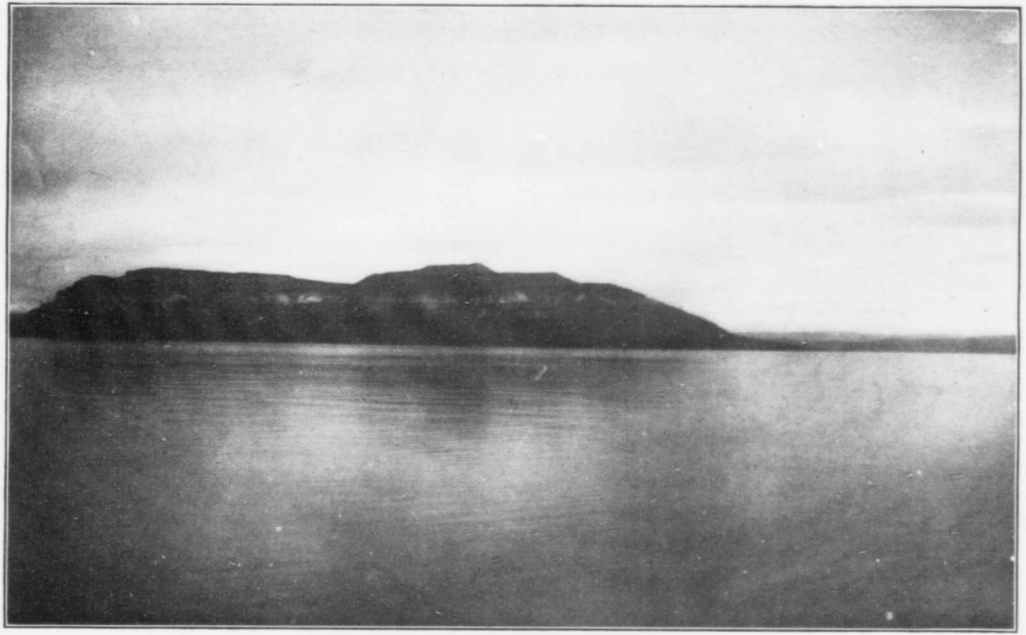
Byam Martin Island.

Cockburn Point, Bathurst Island, 1906.

Dobell's Point, Griffith's Island, 1906.



East side of Admiralty Inlet, Sept. 2, '06.



Island Entrance to Arctic Bay.

KEKEETOS PEAK.

Point and planted the Canadian flag and took possession of Bathurst Island and all islands adjacent to it, in the name of the Dominion of Canada. We built a cairn on this point on which will be found a record. We have been beset in the ice for two days.

On the 21st August we landed on a point of Bylot Island which we named Canada Point, being the most westerly point on Navy Board Inlet, and took possession of the island. On the 23rd inst., we landed a cache at Port Leopold, a copy of articles in which is inclosed. At the same time we found the cache left by the 'Gjoa,' which being in an open condition we placed in a shelter house built by us, a tarpaulin separating the two.

On the 24th instant we landed on the northeast point of Griffiths Island, which we named The Hon. Richard R. Dobell Point; the same day we planted the flag and took possession of Cornwallis Island, building a cairn on Sherringham Point. From this point the *Arctic* will proceed to Byam Martin Island where we will take possession also, while on our way to Melville Island.

Witnessed thereof under my hand this 28th day of August, 1906 A.D., in the fifth year of the reign of His Most Gracious Majesty King Edward VII.

J. E. Bernier, *Commanding Officer.*

Fabien Vanasse, *Historiographer.*

Joseph Raoul Pepin, *M.D.*

Jas. Duncan, *Customs Officer.*

Wingate H. Weeks, *Purser.*

John VanKoenig, *Chief Engineer.*

Geo. R. Lancefield, *Photographer.*

August 28th. At 7 a.m. we left Point Cockburn for Byam Martin Island. Wind from the N.E., light breeze. We met some very heavy ice during the night; it was drifting down through Austin Channel. We took soundings and found 60 fathoms of water. At daylight on the 29th of August we sighted Byam Martin Island. At 7 a.m. we landed on a sand point, a quarter of a mile west of Cape Gillman, where we built another cairn and took formal possession of Byam Martin Island. The area is about 200 square miles.

August 29th, 1906.

This island, Byam Martin Island, was graciously given to the Dominion of Canada by the Imperial Government, in the year 1880, and being ordered to take possession of the same, in the name of the Dominion of Canada, know all men that on this day the Canadian Government Steamer *Arctic* landed on this island, planted the Canadian flag and took possession of Byam Martin Island, in the name of the Dominion of Canada. We built a cairn on this island in which will be found a record.

On the 21st August we landed on a point of Bylot Island which we named Canada Point, and took possession of the island, being the most westerly point on Navy Board Inlet. On the 23rd instant we landed a cache at Port Leopold. At the same time we found a cache left by the 'Gjoa,' which being in an open condition we placed in a shelter house built by us, a tarpaulin separating the two. On the 24th instant we landed on the northeast point of Griffiths Island which we named the Hon. Richard R. Dobell Point. The same day we planted the flag and took possession of Cornwallis Island, building a cairn on Sherringham Point.

On the 28th instant we landed on Cockburn Point, Bathurst Isle, where we planted the flag and took possession. From here the *Arctic* will proceed to Melville Island.

Witnessed thereof under my hand this 29th day of August, 1906 A.D., in the fifth year of the reign of His Most Gracious Majesty King Edward VII.

J. E. Bernier, *Commanding Officer.*
Fabien Vanasse, *Historiographer.*
Joseph Raoul Pepin, *M.D.*
Jas. Duncan, *Customs Officer.*
Wingate H. Weeks, *Purser.*
John VanKoenig, *Chief Engineer.*
Geo. R. Lancefield, *Photographer.*

From here we proceeded towards Melville Island. The wind was strong from the N.E., we had all sails set. The Byam Martin Channel was clear of ice; only a ridge of ice along the Melville Island. We landed at 1 p.m., 29th of August, on a point in Lat. 75° 06′ N., Long. 106° 02′ W., which we called Arctic Point, in honour of our little boat. We built a cairn and left a record of taking possession of Melville Island, Eglinton Island, Prince Patrick Island and all adjoining islands to it; about an area of 24,000 square miles.

August 29th, 1906.

These islands, Melville Island, Prince Patrick Island, Eglinton Island, and all adjacent islands were graciously given to the Dominion of Canada, by the Imperial Government, in the year 1880. And being ordered to take possession of the same in the name of the Dominion of Canada, know all men that on this day, the Canadian Government Steamer *Arctic* landed on Melville Island, planted the Canadian flag and took possession of Melville Island, Prince Patrick Island, Eglinton Island and all adjacent islands in the name of the Dominion of Canada. We built a cairn on Arctic Point, Lat. 75° 6′ N., Long. 106° 2′ W., Melville Island, in which will be found this record.

On the 21st of August we landed on a point of Bylot Island which we named Canada Point, and took possession of the island, being the most westerly point on Navy Board Inlet.

On the 23rd instant we landed a cache at Port Leopold, at the same time we found a cache left by the 'Gjoa,' which being in an open condition we placed in a shelter house built by us, a tarpaulin separating the two.

On the 24th instant we landed on the northeast point of Griffiths Island, which we named the Hon. Richard R. Dobell Point, the same day we planted the flag and took possession of Cornwallis Island, building a cairn on Sherringham Point.

On the 28th instant we landed on Cockburn Point, Bathurst Island, where we planted the flag and took possession.

On the 29th instant we landed on Byam Martin Island, where we planted the flag and took possession.

From here the *Arctic* will return to Erebus Bay, to finish our work there, seeing the state of the ice it is not prudent to go any further.

Witnessed thereof under my hand this 29th day of August, 1906 A.D., in the fifth year of the reign of His Most Gracious Majesty King Edward VII.

J. E. Bernier, *Commanding Officer.*
Fabien Vanasse, *Historiographer.*
Joseph Raoul Pepin, *M.D.*
Jas. Duncan, *Customs Officer.*
Wingate H. Weeks, *Purser.*
Geo. R. Lancefield *Photographer.*

The ice was not much heavier in this coast than what we have seen since our entrance in these waters. There were openings all along the land of Melville Island as far west as we could see. We took soundings and found about 8 fathoms of water about a mile from shore. There was no snow on the land. The height of the land did not exceed 150 feet, it was almost flat up to the northern end of the island, where it is a little higher. As we had to return to issue licenses to the whalers, we decided to go to Pond's Bay.

CHAPTER III.

RETURNING FROM MELVILLE ISLAND TO POND'S INLET.

August 30th, 1906. Taking into consideration the state of the ice at this time of the season, it was decided that the best we could do was to take advantage of the present wind, to retrace our steps towards Pond's Inlet, and keeping to the southward, so as to annex the islands on that route. At 5 p.m., on the 29th August, we steered a little to the south of east, and by 8 o'clock we passed Byam Martin Island. We could see a heavy stream of ice to the southward; we had all sails set; the wind was to the northward. At daylight on the 30th August we passed a small stream of ice of this year's formation. We could see the Bathurst Island just at the horizon, bearing due north. At 12 o'clock, noon, we were in Lat. 74° 45′ N., and Long. 99° 30′ W. Wind about N.N.E., light, we shaped our course for Lowther Island. At 2 p.m. we sighted Davy Island, which is a small and low island, discovered by Captain Edward Parry. We landed on the most southern point of Lowther Island at 4 p.m. We called it 'Gourdeau Point,' in honour of the Deputy Minister of Marine and Fisheries. We built a cairn and caused the flag of the Dominion of Canada to be hoisted on this point as a token of taking of the formal possession. We left the flag on the mast; we also left a copy of the document that was drafted for the taking possession of the island. Weather perfectly calm and clear. The following is a copy of the document heretofore mentioned:—

August 30th, 1906.

This island, Lowther Island, was graciously given to the Dominion of Canada, by the Imperial Government, in the year 1880, and being ordered to take possession of the same; know all men that on this day the Canadian Government Steamer *Arctic's* officers landed here on the most southern point of Lowther Island, which I named Gourdeau Point, in honour of Lieut.-Col. F. Gourdeau, Deputy Minister of Marine and Fisheries; where we planted the Canadian flag, and took possession in the name of Canada, it was our intention to have landed here before, but owing to the state of the ice we delayed it to this date.

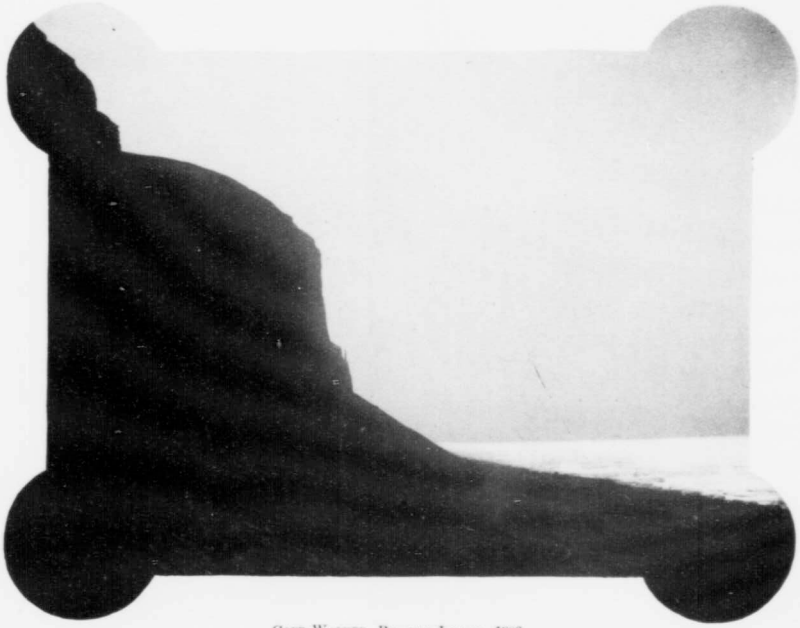
On the 21st instant we landed on Canada Point, on Bylot Island, where we took possession. On the 23rd we landed a cache at Port Leopold, on the 24th we landed on the northeast point of Griffith's Island, which we named the Honourable Richard R. Dobell Point. On the same day we landed on Sherringham Point, Cornwallis Island, where we planted the Canadian flag and took possession. On the 28th instant we landed on Cockburn point, Bathurst Island, where we planted the flag and took possession. On the 29th instant we landed on Byam Martin Island, where we took possession and planted the flag, the same day we landed on Arctic Point, Lat. 75° 06′ N., Long. 106° 02′ W., Melville Island and the adjacent islands, Prince Patrick, Eglinton, Emerald Islands.

From here the *Arctic* will proceed to Russell Island, Cape Walker, and from thence to Prince of Wales Land.

Witnessed thereof under my hand this 30th day of August, 1906 A.D., in the fifth year of the reign of His Most Gracious Majesty King Edward VII.

J. E. Bernier, *Commanding Officer.*
Fabien Vanasse, *Historiographer.*
Jas. Duncan, *Customs Officer.*
Joseph Raoul Pepin, *M.D.*
Geo. R. Lancefield, *Photographer.*

Cairn on Gourdeau's Point on Lowther Island, Barrow Strait, 1906.



Cape Walker, Russell Island, 1906.

We thence steamed for Cape Walker, on Russell Island, it is a remarkably large cape. At 9.30 p.m. we landed on Russell Island, at the foot of Cape Walker. We took formal possession of the island in the name of His Most Gracious Majesty the King, on behalf of the Government of the Dominion of Canada. I caused the flag of the Dominion of Canada to be hoisted and left floating on the point as a token of taking possession of the said island and all islands adjoining it. The ice was jammed here solid on to Prince of Wales Island as far as we could see. We built a cairn and deposited the copy of the record after hoisting the flag of the Dominion of Canada.

Copy of the document deposited in the cairn after taking formal possession of the Russell Island:—

August 30th, 1906.

This island, Russell Island, and the adjacent islands, were graciously given to the Dominion of Canada by the Imperial Government, in the year 1880, and being ordered to take possession of the same in the name of the Dominion of Canada; know all men, that on this day, a party of the Canadian Government Steamer *Arctic* landed at Cape Walker, Russell Island, and we landed and took possession of Russell Island and the adjacent islands in the name of the Dominion of Canada. We built a cairn in which will be found this record.

On the 21st instant we landed on Canada Point, Bylot Island, where we took possession. On the 23rd we landed a cache at Port Leopold. On the 24th we landed and took possession of Griffith's Island on the northeast point, which I named the Hon. Richard R. Dobell Point. On the same day we landed on Sherringham Point, Cornwallis Island, where we planted the flag and took possession. On the 28th we landed on Cockburn Point, Bathurst Island where we planted the flag and took possession. On the 29th we landed on Byam Martin Island, where we planted the flag and took possession. The same day we landed on Arctic Point, Melville Island, in N. Lat. 75° 6′, and W. Long. 106° 2′, where we planted the flag and took possession of Melville Island and the adjacent islands, Prince Patrick, Eglinton and Emerald Islands.

From here the *Arctic* will proceed to Prince of Wales Land.

Witnessed thereof under my hand this 30th day of August, 1906 A.D., in the fifth year of the reign of His Most Gracious Majesty King Edward VII.

J. E. Bernier, *Commanding Officer.*
Fabien Vanasse, *Historiographer.*
Joseph Raoul Pepin, *M.D.*
Jas. Duncan, *Customs Officer.*
Geo. R. Lancefield, *Photographer.*

Seeing we could not land on Prince of Wales Island at night, we followed the edge of the ice all night. The fog came down at midnight, and after this we were only guided by the edge of the ice, as the ship's compasses were of no use, there being several points difference between one another on the ship. At daylight on the 31st August, Limestone Island was bearing a little to the north of east; we were then steering into Peel Sound, and there was an immense field of ice resting on Prince of Wales Island. At 10 o'clock in the forenoon we were off Cape Whitehead, on North Somerset, and we followed the coast of North Somerset towards Limestone Island. At noon on the same day we were in latitude 73° 54′ N., Long. 95° 34′ W. Strong breeze from the eastward. At one o'clock in the afternoon we passed Cape Bunny, on Limestone Island, which is a remarkable island. The wind increased to a hard blow, and we took in our light sails, and continued on with the wind across the Barrow Strait. There was no ice whatever and we made up our mind to take shelter in Resolute Bay, Cornwallis Island, as the weather was threatening. At 10 p.m. we anchored in 14 fathoms of water at the entrance of Resolute Bay. The wind blew hard during part of the night. Saturday, 1st September, at 2 a.m. a stream of drifting ice came from the eastward, and we were obliged to pick up our anchor and move farther in the

harbour. At 8 a.m. the wind veered to the southeast and the ice started to come in; we were obliged to get under way and proceed to sea. The fog set in and we shaped our course towards Erebus Bay. During the day we met several pieces of ice, and although it was foggy we kept in and took different casts of the lead, and found 100 fathoms. At 6 p.m. the fog lifted and we could see the land of North Devon, Beechy Island, which we reached at midnight, the wind having moderated and there being no ice in sight. On Sunday, 2nd September, at 2 a.m., dropped anchor in Erebus Bay; no ice in the vicinity.

At 9 a.m. strong breeze from the eastward; cloudy weather. After Sunday service we landed on Beechy Island, and found a record which had been deposited by Mr. A. P. Low. Took a copy of the same and of a letter accompanying it, and signed by the same party. I attach these papers herewith.

PROCLAMATION.

In the name of His Most Gracious Majesty King Edward VII., and on behalf of the Government of the Dominion of Canada, I have this day taken possession of the Island of North Devon and of all islands adjoining to it.

And in token of such formal possession I have caused the flag of the Dominion of Canada to be hoisted upon the land of North Devon, and have deposited a copy of this document sealed in a metal box in a cairn erected at Beechy Island.

(Signed) A. P. Low,
Officer in charge of Dominion Expedition to Hudson Bay and Northward.

On board Dominion Steamship *Neptune*,
Beechy Island, North Devon,
15th August, 1904.
Dominion Steamship *Neptune*.

SACRED TO THE MEMORY OF W. BRAINE, R.M., OF H.M.S. 'EREBUS.' DIED APRIL 3RD, 1846. AGED 32 YEARS.

Choose ye this day whom ye will serve.—Joshua, c. 24, part of 15 v.

SACRED TO THE MEMORY OF JOHN HARTNEL, A.B., OF H.M.S., 'EREBUS.' DIED JANUARY 4TH, 1846. AGED 25 YEARS.

Haggai, c. 1, v. 7.—Thus saith the Lord of Hosts, Consider your ways.

SACRED TO THE MEMORY OF JOHN TORRINGTON, WHO DEPARTED THIS LIFE, JANUARY 1ST, A.D. 1846, ON BOARD THE H.M.S. 'TERROR.' AGED 20 YEARS.

These are copies of the epitaphs on the monuments erected to the memory of the men who died while in search of Sir John Franklin's expedition.

DOMINION STEAMSHIP 'NEPTUNE,'
BEECHY ISLAND, August 5th, 1904.

To whom it may concern:

The *Neptune* arrived here at 11 o'clock this morning, after a successful trip northward to Cape Sabine, Ellesmereland, where a landing was made at Commander Perry's old quarters, which were found in good repair.

At the time the ice was coming in heavy shoots out of Smith' Sound, and almost closed the ship in on the land.

A landing was made at the point immediately north of Herschel Bay, and the flag was hoisted there, and formal possession taken, a record being left in a cairn on the point.

There are only a few scattered sheets of ice in sight to the westward of this and nothing to prevent the ship going to Cornwallis Island.

From here we intend crossing to North Summerset, and a landing will probably be made at Port Leopold. Then the intention is to proceed eastward and go south

by Navy Board Inlet, and out through Pond's Inlet, by so doing the new whaling station will probably be found.

From Pond's Inlet the west coast will, if possible, be followed to Cumberland Gulf.

We have had a lot of dirty weather, with southeast winds and much fog.

All well on board.

(Signed) A. P. Low.

We surveyed all round the harbour in search of traces of those who had died while with the late Sir John Franklin's expedition, and we found the headstone commemorating the death of three men who had perished at that place in 1845-46. We took a copy of the inscription on the marble tablet which had been left there by Lieut. McClintock, R.N., who had landed here from the *Fox*, in 1858. As follows:—

To the Memory of

FRANKLIN, CROZIER, FITZJAMES

and all their gallant brother officers and faithful companions who have suffered and perished in the cause of science and the service of their country

THIS TABLET

is erected near the spot where they passed their first Arctic winter, and whence they issued forth to conquer difficulties or

TO DIE

It commemorates the grief of their admiring countrymen and friends, and the anguish, subdued by faith, of her who lost in the heroic leader of the expedition, the most devoted and affectionate of husbands.

'And so He bringeth them unto Heaven where they would be.'

This stone has been entrusted to be affixed in its place by the officers and crew of the American expedition commanded by Lieut. H. J. Hartstein, in search of Mr. Kane and his companions.

This tablet having been left at Disco by the American expedition, which was unable to reach Beechy Island in 1855, was put on board the discovery yacht *Fox*, and is now set up here by Captain McClintoch, R.N., commanding the final expedition in search of Sir John Franklin and his companions, 1858.'

We decided to build a cement foundation for this tablet, which was flat on stone sills. We started the work on September 3rd. Monday we landed three-fourths of the crew with six barrels of cement for this work. We set the tablet in this cement in an upright position. We also painted the headstone that had been erected at that place in memory of three men, members of the crew of the *Erebus* and the *Terror*. While this work was in progress, employing some of the party, the other members were busy searching for other relics of those expeditions. In a cairn, built by the crew of the *Northern Star*, in 1854, I caused the following records of the movements of the C.G.S. *Arctic* to be deposited therein, close to the tablet, and on Beechy Island, 642 feet above the sea level.

Hereunder is a copy of the record of the *Arctic's* movements, which paper I deposited in the cairn on Beechy Island:—

DOMINION STEAMSHIP 'ARCTIC.'

To whom it may Concern:

The *Arctic* arrived here yesterday morning, September 2nd, after a successful trip westward, having taken possession of Bylot Island, Bathurst Island, Byam Martin Island, Cornwallis Island, Melville Island, Eglinton Island, Prince Patrick Island, Lowther Island, Griffith's Island and Russell Island, and having made a depot at Port Leopold, in case of need.

We intend to sail this afternoon for Admiralty Inlet to intercept the whalers and probably winter in Arctic Bay; so that we will be in a favourable position to survey

Cockburn Island on the west side from Cape Kater down to Cape Hallowell, and if possible cross over to take charge of Prince of Wales Land, of which we have made three unsuccessful attempts.

From Admiralty Inlet we will proceed to Pond's Inlet next spring, and from thence to Port Burwell.

All hands are well on board.

We have this day erected the tablet of Sir John Franklin, Crozier, Fitzjames; with stones and cement; and we have painted the names of the crew who died in different ships, on their headstones.

Commanding Officer,

J. E. BERNIER.

On board the Steamer *Arctic*, Beechy Island.

To-day we also raised the yacht *Mary*, that had been left on this island, Union Bay, by Sir John Ross, in 1852. We placed this yacht so that it would not be destroyed by the sea, and could serve in case of any ship wreck in the vicinity. We picked up some coal, which had been left here by the crew of the *North Star*, in 1854, and we brought it to the ship to see if there was any combustible matter left in it. The wind blew very hard from the S.E. It was foggy all day and the men that were ashore to work were all wet to the bones. They were very glad to get back on board, after having done a good day's work, and having done our duty to those that we had learned to love and respect, we were on board in time for supper and to take a well-earned rest.

Tuesday, September 4th. At 4 a.m. we got under way and proceeded towards Admiralty Inlet; wind to the south, light. At noon Cape Hurd was bearing N.N.E., about 9 miles off. There was no ice in sight; there was a little fog until midnight. At daybreak we could see Cape Crawford.

SACRED TO THE MEMORY OF JOSEPH RENNE BELLOT, LIEUTENANT OF THE FRENCH NAVY.

Who was unfortunately drowned, by a sudden disruption of the ice, in a heavy gale of wind, on the morning of 18th day of August, 1853, whilst gallantly leading a small party of British Seamen from the 'North Star,' up Wellington Channel, with despatches for the Arctic Searching Expedition.

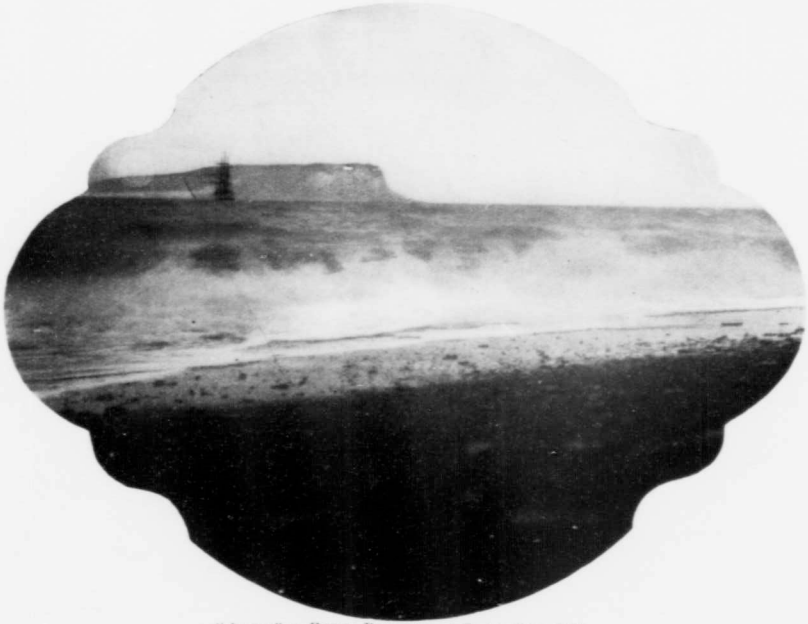
We entered Admiralty Inlet. Cape Crawford is bounded at its extreme shore by a reef which is very dangerous for vessels keeping too close to this coast in foggy weather. There were several pieces of ice aground on this reef. At noon we were in Lat. 73° 37′ N., Long. 83° 50′ W. We passed a new inlet, which I called 'Baillargee Inlet,' in honour of the late Chevalier Baillargee, who was president of the Quebec Geographical Society, and had rendered me some valuable services. During the afternoon we went into a long inlet, which was not named on the chart; I called it 'Lord Strathcona Inlet.'

The land in this neighbourhood is about 600 feet high, and resembles table land on both sides of the sound, coming out of Lord Strathcona Inlet. Going to the southward we saw a long reef running out from the western point of Victor Bay.

This reef is very dangerous, as it is not marked on the chart. I gave this point a very wide berth, and sailed along the eastward shore which is very low. By 9 p.m. went into Adams Sound.

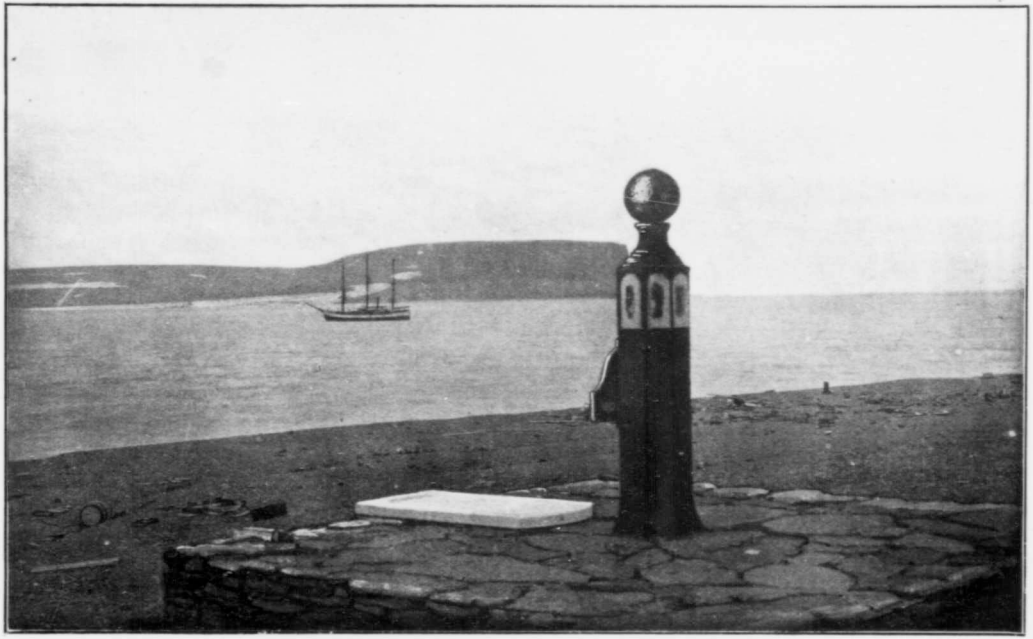
I sent the 2nd officer of the *Arctic* into the Arctic Bay to see if there were any natives in this bay, as we expected to find some Eskimos here, according to information received. During this evening there was a large number of seals and narwhales swimming close to the ship. After the officers returned and reported that there were no natives in the bay, we proceeded towards the south. On Tuesday, September 6th, we passed to the westward of Richard Islands; I noticed that instead of one island, as indicated by the chart, there are two islands at this place.

The smaller of the two islands was not on the chart, it bears N.W. from the large island; and there is apparently a passage between the two. We proceeded to the

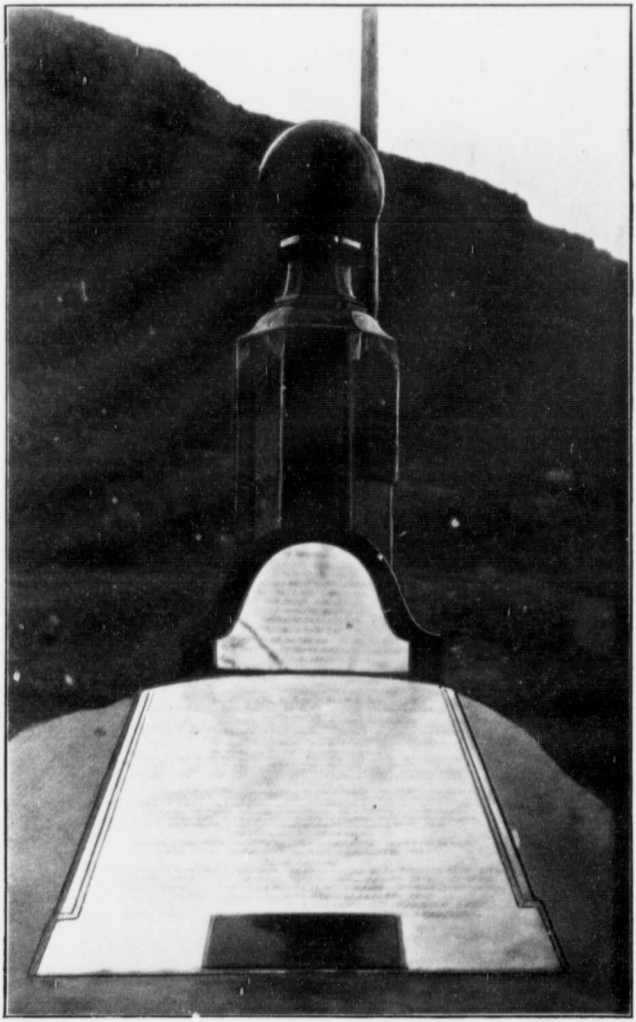


"Arctic" in Erebus Bay during a Storm, Sept. 1906.

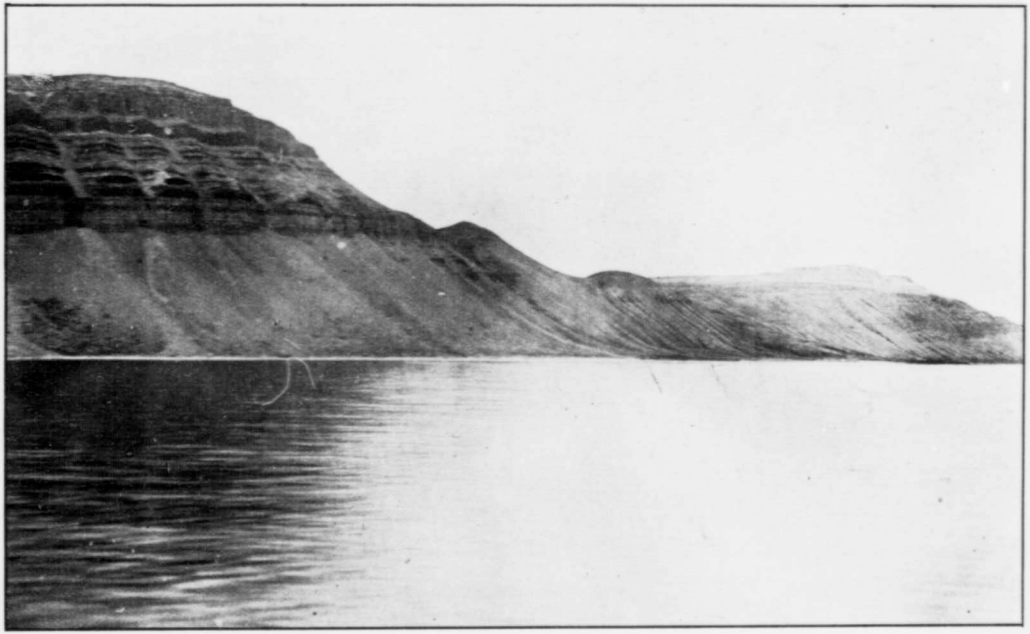
416—52



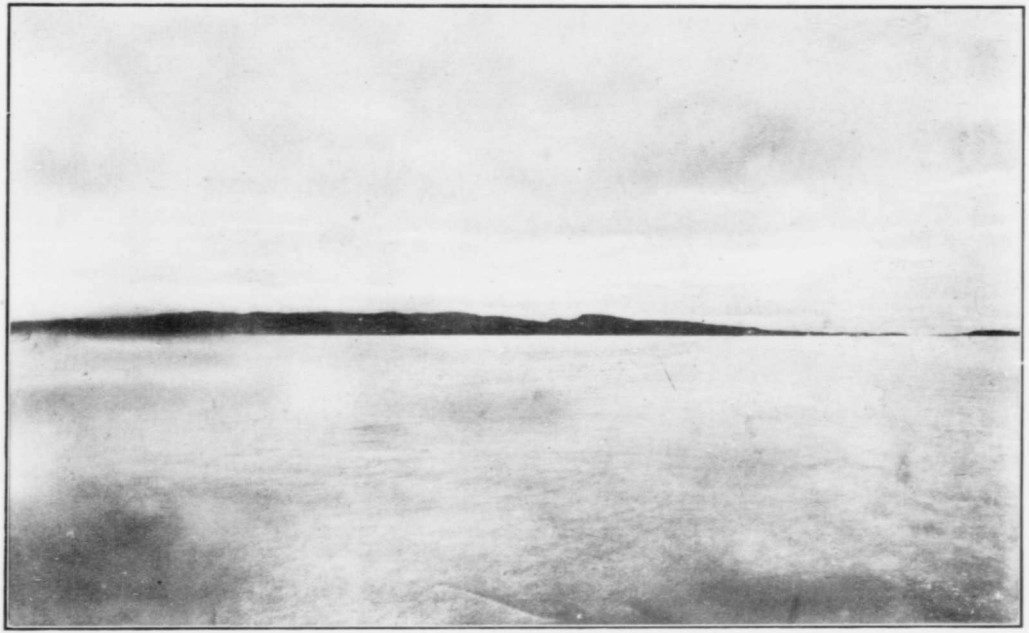
Sir John Franklin's Memorial Tablet as we found it, Sept. '06.



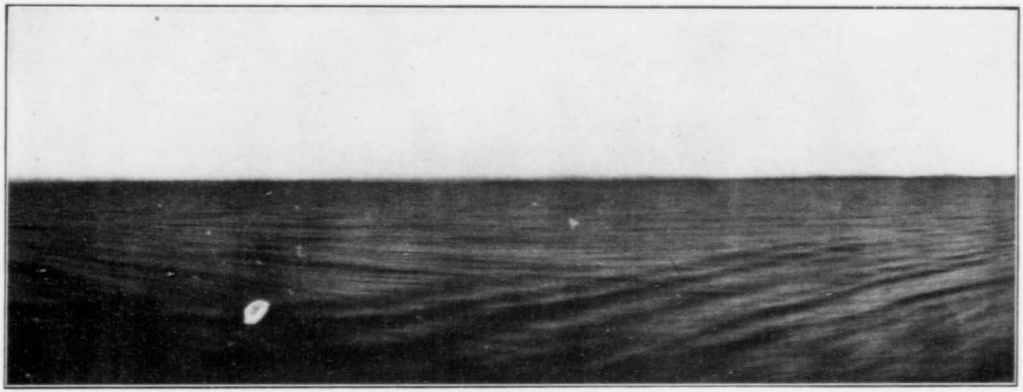
Sir John Franklin's Tablet as we left it Sept. '06.



Cape Lord Strathcona.



Yeoman Island.



Brodeur Peninsula.

Male Bear killed at entrance of Admiralty Inlet (Sept. '06.)

south, and we passed to the westward of Yeoman's Islands, and we noticed that there was another island to the N.W. of Yeoman's Island; we kept going on to the south, which channel was marked as land on the chart that we have on board.

At noon we were in Lat. 72° 00′ N., Long. 85° 20′ W. We saw an immense body of water to the S.S.E., true direction. We kept going at full speed all day in that direction. This body of water is from ten to twelve miles wide. There are several islands along the eastern shore; on the west shore there is a high peak which we called 'Kackitoo,' in the Eskimo language.

At 6 p.m. we passed another peak, but not so high as Kackitoo, it was bearing S.W. from us; we called it 'Ekertoo,' the Eskimo word meaning not high. At 9 p.m. we noticed that the low land was closing together and the water was discoloured; we took soundings at 25 fathoms of water, and having run a few more miles in the direction of the covering lands, we stopped for three hours, during the darkness.

We called that opening 'Sassilook,' which means bad water in the Eskimo language. And gave the name of 'Berlinguet Bay' to a bay which was opening to the eastward, this name was given in honour of Mr. Berlinguet, President of the Quebec Geographical Society.

We decided to call the western shore 'Brodeur Peninsula,' in honour of the Minister of Marine and Fisheries. All this land was very free from snow, and it was quite a relief to us from the land that we had previously seen all the way in. This land was more uniform in height.

Having no steam launch at my disposal I did not attempt to go further into the inlet. I decided to return northward again, as we had not met any whalers or natives. On Friday, September 7th, at 2 a.m. I proceeded a little farther to S.S.E., looking for an opening in that direction; from the crow's nest we could see a large lake over the low point, and as there was not sufficient depth of water for our ship we turned to the northward.

Our Lat. being 70° 12′ N., Long. 84° 10′ W. We saw a small bay to the N.E. of us, and we named it 'Vanasse Bay,' in honour of our historiographer. The wind being light from ahead, ship was going full speed with the engine. We passed a small inlet, to the east of us, which I called 'Prud'homme Inlet,' in honour of Mr. O. Prud'homme, who was the first man to help me when I arrived in Ottawa. At noon we were in Lat. 71° 55′ N.

At 5 o'clock in the afternoon we passed a large inlet to the northward of Yeoman's Island, we named this inlet 'Moffet Inlet,' in honour of Mr. F. Moffet, editor of the newspaper *Le Temps*, of the city of Ottawa. We kept our course to the northward and passed some high lands on the eastern shore.

About 8 o'clock we passed another inlet, which I named 'Levasseur Inlet,' in honour of Major Levasseur, ex-president of the Quebec Geographical Society, who has rendered me several valuable services in connection with northern expeditions. We kept our course at night towards the end of Admiralty Inlet. At daylight, on Saturday, September 8th, there was a heavy fog, and we met some loose ice outside of Baillargee Inlet. At 8 a.m. we were obliged to stop for a short time. At noon we were abreast of Ellwin Inlet, four miles off. At 1.50 p.m. we saw a polar bear swimming close to the ship; we fired six shots at him, we killed him and sent the men to take him on board. The photographer took a photograph of the animal on board. This is the first bear that was killed by members of this expedition.

Fine calm and clear weather. We shaped our course outside of Cape Charles York, where the shore runs far out into the water, and on which there were several pieces of ice aground. At 9 p.m. passed Adams Island, it is a small low island, about one mile in length. There were large icebergs in sight, when we entered the Navy Board Inlet channel.

At midnight we passed Canada Point; no ice in sight, except a few small icebergs. The flood tide runs northward at this place and the ebb tide runs southward. On Sunday morning, September 9th, we entered Eclipse Sound; fine, clear and cold weather; several icebergs in sight. We had the regular Sunday service on board at 10 a.m. At noon we could see the high lands of Albert Harbour.

At 5.30 p.m. we anchored in Albert Harbour, in 20 fathoms of water. Mr. Cameron, the agent of the station, came on board and had supper with us. We heard that the whalers had not come as yet, and that they evidently had been detained in the middle pack.

After hearing the report of Mr. Cameron, we decided to winter here, so as to be able to meet the whaling fleet, which was due to arrive here any day.

CHAPTER IV.

WINTERING IN ALBERT HARBOUR, POND'S INLET, ON BOARD THE C.G.S. 'ARCTIC.'

September 10th.—At anchor in Albert Harbour. The chief officer sends one of his boats for fresh water, from a brook which runs down a little to the east of our anchorage ground. Mr. James Duncan, Customs Officer on board, Mr. Lancefield, photographer, and myself went up to Earjwack station, to meet Capt. Mutch, who is in charge of the station, to transact business with him relative to customs and fisheries; the photographer came up to take some views of the station. We spent the greater part of the day arranging different matters as to duties and whaling, and we came back on board in time for tea.

To-day, 11th September, the chief engineer emptied the ship's boilers and filled them with fresh water. Snow squalls during the day; the weather is much colder than yesterday.

September 12th.—We commenced to cover the main deck with some lumber that we have brought with us, so as to make a good shelter for the men to take exercise during the winter. I went, for the first time since our arrival, to take soundings in the harbour; I expect it will take a few days to sweep the harbour properly. Natives came on board to-day to see the doctor; he had to perform a surgical operation on one of them, to extract a bullet from the fleshy part of his breast; the operation was successful. This bullet had been fired wilfully by another native, named Snider, during a hunting expedition.

Sunday, September 16th.—We held the regular church service at 10.30 a.m. Mr. Fred. Cameron, the representative of Capt. Mutch, had dinner on board, with some of the natives in his employ. We played the graphophone for the natives; they were much amazed and amused by this music.

Monday, September 17th.—We took steam off from the main engine, and dismantled the ship's funnel. The crew are working at the deck covering, and the Eskimos are out hunting.

September 18th.—The mountains are all covered with snow and the winter is making its appearance. We removed twenty-eight tons of coal from the after hold and placed it in the bunkers. Our natives are gone out to lay some traps for hares. Fire regulations and other orders to the crew for the ship's safety were posted up. The two quarter-masters are keeping watch night and day. Mr. Fred. Cameron moored his schooner, the *Albert*, for the winter, in the western side of the harbour.

We took observation for latitude, and it places this harbour in Lat. 72° 40′ N. and Long. 77° 58′ W.

Sunday, September 23rd.—The wind is very strong from the west. Service was held at 10.30 a.m., it was well attended by the crew and some natives. Half of the crew were given permission to go ashore for the day.

Monday, September 24th.—Chief officer and his men commence to take in stone for ballast. The doctor and myself went ashore to collect stones or other specimens of interest, but we did not find anything interesting to bring back.

September 26th.—We completed taking the twenty-eight tons of ballast that were needed to fill up the space that had been made by taking out the coal of the after hold. Mr. Vanasse, historiographer, Mr. Duncan, customs officer and Mr. Lancefield, photographer, went ashore during the day. The wind is blowing very hard from the S.W. A large iceberg came into the east side of the harbour, by the eastern entrance,

and grounded in forty fathoms of water. It is a fine sight to see the iceberg with the dark shore behind it. We killed the remaining sheep that we had brought out with us from Quebec, and we hung the quarters of meat in the rigging, so that they would be kept fresh and out of reach of the dogs.

Went up on top of the mountain, from where can be seen a good deal of floating ice in Pond's Inlet.

September 28th.—Light breeze from S.E. We took advantage of this breeze to take the turns off our chain, and while unheaving the anchor chain we broke off the pieces of the foundation under the windlass. The two natives came on board with the first hare caught this season.

Sunday, September 30th.—At 9.30 a.m. steamer *Eclipse* came in the harbour. I went on board in company of Mr. Duncan, customs officer; we met Capt. W. F. Milne, master of the steamer.

Monday, October 1st.—Went again on board the steamer *Eclipse*, to transact business for customs and fisheries. After having notified Mr. James Mutch, the business representative of the Dundee firm, that the new law regarding whaling called for payment of fifty dollars ($50) as license fee, he immediately gave me an order for this payment by the owners of his ship. And prepared to make an inventory of all the dutiable goods on board so as to make a list of the same for payment of duties. Both captains had dinner on board the *Arctic*. Captain Milne was kind enough to offer to bring our mail and send it to Canada from Dundee, Scotland, we immediately accepted the offer and prepared the mail for the evening. At 8 p.m. took the mail on board the *Eclipse*. Captain James Mutch went to the station to replace Mr. Fred. Cameron, who was returning on board the *Eclipse*, to Dundee, Scotland.

Wednesday, October 3rd.—*Eclipse* sailed at 4 a.m. Fine, clear weather; light ice floating about in the harbour.

Thursday, October 4th.—It is snowing to-day; we are mooring the ship for the winter. The windlass was again defective while unheaving the starboard anchor; the engineer went to work to repair it. We picked up a good deal of fresh water ice from floating pieces in the harbour. Saturday, the deck house is well under way; the ship is properly cleaned. The doctor and myself made a thorough inspection of all quarters, and found everything in good order. The men are given a half holiday, with permission to go ashore, to take exercise and hunt; but very strict orders were given that they should return on board before the dusk of the evening. The quarter-masters attended to the boats for landing the men.

Sunday.—We had service on board. Captain Mutch came on board for dinner. I was given much useful information by this gentleman, about the country, the natives and their customs; Mr. Mutch has spent twenty years in this country.

Monday, 8th October.—The carpenter has completed the work of covering over the deck of the ship, and we are now under good shelter. One of the quarter-masters went to hunt and brought back nine eider ducks. There is, however, not much game in this vicinity; as the large number of natives who live here hunt it and it keeps more in the bottom of the bay, where it cannot be so easily hunted.

On October 9th we landed all our spare boats in case of fire on board during the winter.

October 10.—Weather being fine, we unbent some of the sails, and stored them away for the winter. The carpenter is making some windows for the deck house. The officers and crew are busy repairing sails, making sledges and storing away the ship's gear for the winter.

Saturday, 13th.—Wind very strong from the west. There is very much ice in Pond's Inlet. The iceberg that had grounded on the east side of the harbour drifted away to-day. One of the quarter-masters was lucky enough to kill a seal; we had the meat of this large seal for supper and the men enjoyed it very much; they were very glad to eat fresh meat. This kind of meat is absolutely necessary in this climate, because the crew get tired of canned meat, and constantly ask for fresh meat. It became necessary to induce the members of the crew to go hunting for seals whenever convenient. The western entrance of the harbour is closed by the ice.

High Land, Albert Harbour.

Cameron's Schooner in Winter Quarters.

Ice Jam, Albert Harbour, (Oct. '96.)

Northwest Entrance of Albert Harbour.

King's Birthday Nov. 9, 1906. Baffin Land Possession.

Sunday, 14th.—It is blowing strong wind from the westward, with snow. We had the regular Sunday service at 10.30 a.m. Half of the crew went ashore on leave.

Monday, October 15th.—Our men are repairing sails and making wind coats for the crew during the winter.

October 16th.—The harbour is full of ice to-day. The wind is blowing strong from the southward. We are now fully surrounded by heavy ice coming from the middle pack, which is about eighteen feet in thickness. The young ice is making between the heavy ice, but it is only six inches in thickness.

October 19th.—We hove short our anchors at low tide and, when the tide rose again we got both our anchors and moored the ship to the ice. Took several photos.

Saturday, October 20th.—Warm clothing was issued to the men. The temperature is getting colder. The first fox was taken to-day in a trap.

Sunday, October 21st.—Fine, clear day. Westerly wind. There is a large quantity of floating ice outside the harbour. As usual, on Sunday, one-half of the crew went ashore for the day. It was very nice to hear the music from the pianola during the evening; the members of the expedition appreciate the music very much when far from home.

October 22nd.—After making the general daily inspection, I went ashore with one of the natives. We saw the track of a bear; we followed it for some time, but finally lost it over the ice; the animal had gone towards Pond's Inlet. We did not see any other trace of game during the day, although we walked nearly ten miles before returning to the ship in the evening.

October 23rd.—The strait of Pond's Inlet is jammed with ice to-day, and no ship will be able to pass after this date. The natives went on the ice to-day, and built their first snow-house 'igloo.' The carpenter built a gangway from the ship to the ice, to allow the members of the expedition to go ashore more easily.

October 25th.—Light wind from the westward, but the weather is fairly cold. The hogs remaining on board were killed and the meat was hoisted in the rigging. Our dogs were let loose on the ice, they appeared to be very glad to be free and at ease to run about. The natives killed three seals which were welcomed by the crew, as it furnished them good fresh meat.

Saturday, 27th.—I commenced to take measurements of the ice in this harbour. It is seven feet in thickness to-day. I intend to take these measurements every Saturday, and I will annex a complete statement to this report at the end of the winter.

Sunday, 28th.—Sunday service at 10.30 a.m.; Eskimos attended besides the members of the expedition. The temperature is about 10° above zero. Fine weather. The greater part of the crew were taking exercise on the ice.

October 30th.—Some natives came on board, and I asked them to make a small map of the route to Igloolick, with information about Fury and Hecla Strait and the coast to Cape Kater. It is astonishing to see how the natives find their way without compasses in those barren lands. They place stones in different positions at several places and use these as marks; every native has his own marks, which are recognized by the others, who can tell who has passed on the route before, though they cannot understand the direction of the route indicated by the stones. Their distance is calculated by sleeps or days, every rest counting for one day, and means from 20 to 30 miles per day, according to the number of dogs they have and the load on the sledge.

November 1st.—To-day being a holiday the crew had permission to go ashore, after the service was held on board. Jack frost is making his appearance, and winter seems to have come for good.

During the past week we built a snow wall round the ship. The carpenter was working at sledges; the Eskimos were hunting seals. The ice is now ten inches thick.

November 7th.—Built two cairns, one on Baffin Land and the other on an island to the east of us, and which is not marked on the chart. We will take possession and name this island on the 9th of November, which is the King's birthday.

November 9th.—King's birthday. We fired the Royal salute. The holiday was celebrated on board and on shore. Fifteen natives came to the ship, upon our invita

tion, to take part in the celebration. The party then went up on the mountain on the island, to take formal possession of the same in the name of the King, on behalf of the Government of the Dominion of Canada. We named this island 'Belocil,' after the name of the birthplace of Honourable L. P. Brodeur, Minister of Marine and Fisheries. We also took formal possession of Baffin Land and caused the flag of the Dominion of Canada to be hoisted and left floating at both places. A speech was made to the men and the natives, by myself; calling the attention of the natives that they had become Canadians, and that we expected them to live in peace and respect one another, and conform themselves to the laws of the Government of the Dominion of Canada. We held a rifle competition, which proved that there were some sharp-shooters on board and that the natives were good rifle shots. All the Eskimos were invited to have dinner on board; and they enjoyed the celebration very much.

Mr. O. J. Morin, 2nd officer on board the *Arctic*, in company with Ruben Pike, A.B., went on top of the highest mountain to the west of us, and planted the flag of the Dominion of Canada thereon; this mountain will hereafter be called Morin mountain. For that deed I issued two mentions of honour, as follows:—

PRESENTED TO O. J. MORIN, SECOND OFFICER OF THE C.G.S. 'ARCTIC.'

At Albert Harbour, Baffin Land, as a token of the efficient way in which he carried out the difficult and dangerous task of planting the flag pole on top of the mountain, which we shall now call Morin Mountain.

J. E. BERNIER,
Commanding Officer.

Reproduction of the documents of the formal taking of possession of Baffin Land and Belocil Island:—

DECLARATION.

To Whom it may Concern:

The Dominion Government Steamer *Arctic* wintered here 1906-7, between Baffin Land and this island which we called Belocil, in honour of the birth place of the Honourable L. P. Brodeur, Minister of Marine and Fisheries, where we also left a cairn with a flag and a record in the bottle therein, on a point on the northwest part of the island, visible from Pond's Inlet, east side of the northern entrance, Lat. 72° 41′ N., Long. 77° 55′ W.

We intend this spring to go to Jones Sound and take possession of King Oscar Land, Grant Land, Graham Island, North Cornwall Island, North Kent, Finlay Island, Table Land, Amund Ringnes Land, Ellef Ringnes Land, King Christain Land, North Lincoln Island, Coburg Island, Axel Heiberg Land, and all adjacent islands and dependences thereof. Then return to Port Burwell to finish our season's work, and return home in the fall of 1907.

We are forty-one souls on board, and all well. God Bless the King.

J. E. BERNIER, *Commanding Officer.*
G. HAYES, *Chief Officer.*
MICHAEL RYAN, *Carpenter.*
JAS. DUNCAN, *Customs Officer.*
FABIEN VANASSE, *Historiographer.*
WINGATE H. WEEKS, *Purser.*
GEO. R. LANCEFIELD, *Photographer.*
IAN HERON, *A.B.*
JOHN A. SIMPSON.

C.G.S. *Arctic*,
Albert Harbour, Pond's Inlet,
November 9th, 1906.

DECLARATION.

To Whom it may Concern:

The Dominion Government Steamer *Arctic* arrived here September 9th, 1906, having taken possession of the following islands: Bylot, Cornwallis, Byam Martin, Melville, Eglinton, Bathurst, Prince Patrick, Lowther, Young, Davy, Garrett, Griffiths and Russell Islands, and we have made three attempts to take possession of Prince of Wales Land, which we have not taken yet.

We left a depot of 5,718 lbs. of stores, in case of need, at Whale Point, Port Leopold. We went up Admiralty Inlet, as far as Lat. 71° 12′ N., and still saw an opening to the northeast, but we did not go farther as our time was limited to meet the whalers here.

After due consideration and having read Commander Wakeham's report of August 17th, 1897, we took possession of Baffin Land and all adjacent islands and dependencies adjacent to it, in the name of the Dominion of Canada, on a point on the west side of Albert Harbour, north entrance, Lat. 72° 41′, Long. 77° 55′ W.

And on this day being the King's birthday we planted the flag of the Dominion of Canada, built a cairn, and deposited this document which will attest that the Dominion of Canada has taken possession of this important island.

The Dominion Government Steamer *Arctic* wintered here 1906-7.

J. E. Bernier, *Commanding Officer.*
G. Hayes, *Chief Officer.*
Michael Ryan, *Carpenter.*
Jas. Duncan, *Customs Officer.*
Fabien Vanasse, *Historiographer.*
Wingate H. Weeks, *Purser.*
Ruben Pike.
Geo. R. Lancefield, *Photographer.*
John A. Simpson.

C.G.S. *Arctic,*
Albert Harbour, Pond's Inlet,
November 9th, 1906.

Saturday, November 10th.—Wind strong from the S.E., with snow. We banked the ship with snow. I sent some men on shore to deposit the copies of documents heretofore mentioned, in the cairns that we had prepared for these. The measurements of the ice to-day gave one foot in thickness.

Sunday, 11th.—Monkyshaw, our Eskimo interpreter, had the visit of his wife, who came from a hunting trip with her cousin. The photographer took photos of the couple.

I annex hereto a copy of the interesting and valuable information I have received from Capt. W. F. Milne, with regard to the best harbour on the east side of Baffin Land, and other matters, Navy Board and Milne's Sound.

There is fine anchorage for southerly gales inside Wollaston Islands, of which we have photos, but six or seven miles farther south, on the east side, there is a bay called after the Scotch Whaler Tay, where you can anchor in any water you like.

Going from here south keep in the middle of Navy Board Inlet, the points in the chart are too prominent, but keep well away from the low land on Bylot Island; no less than three miles, because it is shallow and extremely dangerous, when it is thick.

Going from here into Milne Inlet, steer between high island pass close to same, steer for two low islands, keep them on the port hand. Keep to the west all the way until you get to Milne Harbour, where you will find on the west side any amount of salmon in the river flowing from the west. This sound I called after Captain W. F. Milne, of the steam whaler *Eclipse*, who was master of the steam whaler *Esquimaux*, who went up as far as the head of navigation, about Lat. 71° 40′ north, and 83° west Long., but there is no connection with Admiralty Inlet for ships. The land is fairly high, and the ribs of a large whale were found on the west shore over one hundred feet high; deer are plentiful in summer.

Going north of Milne Sound, give the east outside islands a good berth, and then keep midway in Eclipse Sound, towards the Salmon River, where you can take salmon at high water, there is a pond eight miles up where salmon can be secured in winter.

The southern coast of Pond's Inlet is more or less broken land, with high peaks until you reach Eric Harbour, is about thirty miles. Cape Bowen should be surveyed for Lat. and Long., it ought to be further north, and not so far east.

Then to the south of Cape Bowen there are two islands with a ford running southwest by south.

The next place of importance is Coutts Inlet, where there are a few more fiords running west after you pass Cape Antrobus.

There is better anchorage in Dexterity fiord, eighteen miles north from Cape Adair, to the south of Cape Adair, which abounds with deer.

To the south of Cape Adair ten miles you enter Scots Inlet, where there is a fine harbour called Refuge Harbour.

There is a fiord south of Scots Inlet with two branches.

Then south of that there is a bay to the north of Cape Eglinton, where there is a fine harbour on the south shore.

From Austin to Agnes Monument, southwest Clyde Harbour, there is a pretty good harbour inside of Bute Island, natives are to be found and lots of salmon.

From Bute Island to Austin it is a low sandy coast, Austin Point is dangerous. Low land as far as Cape Raper. There is Isabella Bay and Antiliviag Harbour, which is a good harbour.

Keep the coast and from Cape Raper to harbour, west a quarter north, by compass, and anchor inside the hook. From there keep going south ten miles to Cape Kater, then go northwest into a large bight to the north of a small island.

Home Bay is rather dangerous and full of islands and reefs.

Don't attempt to go into the bay until you pass the 68th parallel. Kangeeakdjung. then steer, keeping the land aboard and anchor half way between the mainland and the island. The harbour is called Hooper, but not the Hooper on the chart.

And from there steer for Cape Broughton, there is a fine anchorage to the south of that island, and you can go in as far as you like, which is called Broughton Harbour, in Lat. 67° 27′ N., from there steer for Merchant Bay, Cape Seasle. There is a nice harbour in Merchants Bay, inside of Cape Seasle Island, on the west point, going by the entrance. There is a bar with two feet, and should not be attempted by the east side. In Dunbar Harbour there is a deposit of coal which might be looked into, it is considered the best harbour on the coast, in Lat. 67° 5′ N. From Dunbar Harbour to Cape Dier, there is a bight ten miles north of Cape Dier, where you can anchor in a southwesterly wind.

From Cape Dier steer west by south, passing two islands, then to the west northwest where there is a fine basin to the southwest part of the bay, called Exeter Bay.

After having passed Cape Mercy entering into Cumberland Sound, you can go into Nijadluk Harbour, recommended for large vessels. After passing that about eleven miles northwest there is a good harbour in Abraham Bay. There is fine salmon in both harbours. From there proceeding north northeast there is a fine harbour about fifteen miles from Abraham Bay.

From Abraham Bay to Kekerton is about forty miles, keep to the west of Kekerton about one mile, and anchor one mile abreast of the station.

From Kekerton to Brown's Harbour is about twelve miles, the harbour lays on the north side between islands and the mainland.

There is a fine harbour, at Niantilik Harbour, to the southwest of Black Lead, to the south of this harbour is a fine mica mine.

At Black Lead we anchor to the west near the station near a small island.

There is also a fine harbour, inside of two little islands, Karodliun.

J. E. Bernier.

Sunday, November 11th.—Usual church service was held to-day, and one-half of the crew was allowed to go on shore for exercise. In the evening the boatswain,

William Ross, was invited to have supper in the saloon, on the occasion of the anniversary of his birthday. I intend to keep up the practice of celebrating the anniversary of the birthday of each member of the expedition, as it creates good feeling and more intimacy amongst the crew, which is an essential point in an expedition in the Arctic regions.

Monday, November 12th.—The men are busy working at the snow wall round the ship; the natives are building a large igloo, in which I purpose to place some stores, in case of accident to the ship, either by fire or by the ice during the winter. It is 10° below zero to-day. The photographer and I are preparing some maps of Milne and Admiralty Inlets, for use in a proposed expedition. The carpenter, with Mr. Doyle, a quarter-master, are working at sledges.

Saturday, November 17th.—The large igloo for stores is finished and we placed stores in sufficient quantity to last three months to the whole crew, therein, then closed it up.

Sunday, November 18th.—After service Capt. Mutch came on board for dinner. The distribution of prizes won on the King's birthday, during the rifle competition, was made at three o'clock in the afternoon. A. Patenaude received first prize; Charles Lessard received second prize, and Napoleon Chassé received the third prize; consolation prize was given to William Condy, A.B. Five natives who made bulls' eyes were given a pound of tobacco each; everybody was well pleased with the results of the competition. Every Sunday half of the crew has permission to go on shore for exercise, but they must always return to the ship before the dusk.

Monday, November 19th.—General inspection on board, especially about the condition of the stoves, stove-pipes, lamps and everything pertaining to fire safety, such as pumps, hose, &c.

November 20th.—Weather fine and clear. Crew is again working at the snow inclosure round the ship; it is now of good proportions.

November 22nd.—Mr. Vanasse, the historiographer, the doctor and myself went to the station to see the natives and see how they are faring out in general. The sun has not been visible to us for some days past, but the light is fairly good from 10 a.m. to 2 p.m.

Friday, November 23rd.—Wind strong from southeast, with snow. The snow was very much needed to complete the embankment round the ship.

Sunday, November 25th.—After service our able cook, Mr. Jos. Thibault, made some good taffy for the celebration of St. Catharine's day, which is a French custom; all hands seemed to have enjoyed it very much. Weather is mild.

Monday, November 26th.—We finished the second igloo, and we had the balance of the stores for the crew for three months placed therein; the whole stock consists of 7,000 lbs. bread, flour and salt pork, and a box of medicine. The boats remaining on board were landed ashore with complete gear and accessories.

Saturday, December 1st.—The usual inspection was made and everything found in good order. The first Arctic sledge was finished to-day. We also terminated the work of the snow embankment round the ship. Measurements taken to-day proved the ice to be 20 inches in thickness.

Tuesday, December 4th.—The men are taking a good supply of fresh water ice for our refrigerating purposes in the ship below. The photographer is still helping me to complete two photo-map albums for the proposed expedition trip during the winter.

December 7th.—We commenced the inventory of the stores remaining on board. At the inspection everything was found to be clean and in proper order.

December 8th.—Is a holiday, Conception Day. We held service at 11.30 a.m. Capt. Mutch had supper on board to-day.

December 10th.—A report was brought to the ship to the effect that the natives from the station were far from being in a position to endure the winter, as they were without food and menaced by famine. I immediately made inquiries into the matter, and it was found out that it was absolutely without foundation.

Friday, November 14th.—Captain James Mutch came on board to see Doctor Pepin, to get some medicine for the natives of his station. I may mention here that the natives of this place are far from being well, and that Doctor Pepin had to render services every day either on board or at the station when they could not manage to come on board. I am very sorry to say that they do not pay much attention to cleanliness in their clothes nor habitations, and this is the cause of most of their unhealthy condition.

Monday, December 17th.—It was 28° below zero this morning and during the day. Doctor Pepin accompanied me to Salmon River to see a sick Eskimo, who was unable to come to the ship. We made the journey with our Eskimo guide and a good team of dogs. The distance to Salmon River is about ten nautical miles; we were back on board at 3 p.m. We found a good number of natives at this place; it is supposed to be one of the best hunting grounds during the winter. At present there are about 100 natives at Salmon River.

December 20th.—We put up a stove on the main deck, for the use of the carpenter and the quarter-master who are working there. When we come on board, from outside, where it is sometimes 30° below zero, we find that it is about 10° zero on deck, and we leave our over clothes there and then we go below in the cabin, it is about 60° above zero, which shows that this arrangement of stove on deck and below is correct; none of the members of the expedition have as yet been complaining of cold. The ship is dry and warm inside.

Saturday, December 22nd.—Wind west. Weather clear and cold. At ten o'clock in the forenoon it is still too dark outside to permit us to read ordinary type; it is almost eleven o'clock in the forenoon before it is bright enough to read outside, and at one o'clock in the afternoon it is again too dark outside to read ordinary type. This will give an idea of the length of daylight there is this day. I invited the men to arrange and decorate their cabins for Christmas. A large hole about 200 feet opened to-day in the ice, in the passage between the island and Baffin Land which was caused by the rush of water in this narrow passage. We had to put lines all around that hole, to prevent the men from falling in if they should happen to be around in the evening.

December 24th.—General inspection of the ship to-day; the main deck and cabin are perfectly clean; the living rooms and state-rooms have been properly washed and cleaned, and the officers have their state-rooms well decorated for Christmas; they have put up flags and family photos, and every one seems to be proud of his room. It is very pleasing for the members of the expedition and entices them to visit one another, which visits have the result of making time appear much shorter than otherwise. Our native Kanaka was instructed to tell the other natives that they were invited to spend Christmas day on board with their families. I gave orders to the steward to have dinner ready for about one hundred natives. Preparations were made to receive them; I also sent invitation to Captain Mutch to celebrate Christmas with us.

December 25th, Christmas Day.—There was Sunday service in the forenoon; it was well attended by the members of the expedition and some of the natives who had already arrived for the dinner. At 1 p.m. all the natives had arrived on board with their families; about 120 persons, they sat down to a good Canadian dinner. After dinner I addressed them a few words; telling them again that they were Canadians and would be treated as such as long as they would do what was right. At 7 p.m. tea and coffee were served to all the invited, and some candy was given to the children. A deputation of natives and some members of the crew came and asked my permission to dance on board. Knowing the pleasure it would afford them, I could not refuse the request and was glad to accede to their wishes and to see that they would amuse themselves. The natives behaved very well and there were no disturbances of any sort, but perfect good order reigned throughout. During the evening there were different tricks and acts done by the members of the expedition and natives. There were wrestling matches between Canadians and other matches of the same style between Eskimos; the men also performed acrobatic feats, juggling and other acts. Music selections from the pianola and the graphophone were given during the evening. The

Eskimos danced to the music of the accordeon. It was well on to 12 o'clock before the dance ceased and the natives left for their homes. Everybody seemed to have enjoyed himself immensely and was glad of the celebration.

December 26th.—Mild weather. The ship broke loose from the ice again; we gave a good cleaning all over the decks to-day. I have received the Doctor's report this morning and I am glad to note therein that all the men are in good health.

Saturday, December 29th—Measured the ice and found a thickness of 21 inches; it is not getting any thicker. I believe it is due to the current of about three knots per hour which is caused by the ebb and the flood tides and the wind outside of the bay. I may add here that it is about spring tide now, and that we see the moon nearly all day long.

December 31st.—General inspection on board to-day, the ship is in first-class order. Received the report from the following officers: chief officer, with regard to his department; the chief engineer, about the coal on board, it is 304 tons by the report; and the chief steward's report about the provisions on hand. Photographer, Mr. George Lancefield, handed me some of the photographs he has taken since our departure from Quebec. We have sifted 91 bags of coal from the ashes; it is quite a contribution for our deck stoves which burn this coal very easily. This year ends under very good conditions and it is to be hoped that the coming year will be as successful. Hereunder will be found the results of our different observations and measurements about weather, ice, harbour, &c.:—

The result of our observations of high water, full and change 11.45 a.m.

Measurements of Albert Harbour:

West entrance	482 feet.
Narrows	533 "
Length of harbour	5,100 "
Depth of water	15, 20, 25 fathoms.
Breadth abreast *Arctic* anchorage	1,933 feet.
Breadth of inside end	1,610 "
Length of Beloeil Island	4,820 "
East entrance of harbour (breadth)	3,842 "
Narrow part of entrance of harbour	3,000 "

There is a low split on the east side, it is not, however, dangerous. Keep in the middle and fear nothing. There is no anchorage by the northeast entrance, only when near the west entrance. The tides are irregular and of different strength, especially in the spring-tides; but it all depends on the strength of the wind.

This year the harbour was closed with heavy drift ice on the 16th day of October, and was frozen in heavy ice on the 23rd day of the same month. The *Arctic* was at anchor on the west side of the harbour, 700 feet from the shore and 1,233 feet from the east side of harbour.

I hereunder give also the different orders that were published for rules on board and out of the ship up to December 31st, 1906:—

ORDERS.

C. G. S. 'ARCTIC,'
ALBERT HARBOUR, POND'S INLET,
September 20th, 1906.

1. The Commander would remind both officers and men that there is a long winter before us and we shall be from necessity in close community, that this state of things may continue for one year or more. Under such circumstances little frictions are liable to occur, but all hands making the best of things and working together in harmony, such little frictions can be easily smoothed over, and the long winter months will then slip past quickly and pleasantly.

2. It is to be distinctly understood that all orders respecting every department

of the vessel are to be given by the first mate, through the officer or person in charge of such department.

All complaints are to be made through Mr. Hayes, the Chief Officer, who will afterwards report to the Commander.

Any officer or man believing himself unjustly treated can, if he so desires, request to be brought before the Commander.

It must be borne in mind that frivolous complaints will not be entertained, and that any person making such complaints is liable to punishment.

3. A half holiday will be given to all hands, except watchman, on Saturday afternoon.

By Order,

J. E. Bernier,
Commanding Officer.

FIRE REGULATIONS ON BOARD C.G.S. 'ARCTIC'

Every means should be taken to prevent fire from occurring.

In case of fire the following regulations shall be followed:—

Fire extinguishers are placed in the following places:

Below Decks.

One extinguisher is placed at the end of the passage running forward port-side.
One in the mess-room forward.
One inside the engine-room door.
One outside the mess-room north door.
One in the forecastle.
One in the starboard hall near the stove.

Should fire be discovered the officer on watch will at once be notified, and he will ring a general alarm on the ship's bell, and will also call the Commander and officers.

The chief engineer will have charge of the pumps, and he will at once make connections with the steam or deck pumps.

The chief officer and the port-watch will attend with all his available buckets. The stewards, the cooks, will pass water to the waiters.

The second officer will use the fire extinguishers, and the starboard watch and firemen will attend to the pumps.

The third officer will attend the powder magazine, the chart room and the instrument room, and will report to the Commander if danger arises in that quarter.

The boatswain will have charge of the hose and see that it is connected with the main pumps.

The carpenter will attend the fire-hole, and see that the water is at hand. The saloon passengers will make themselves generally useful.

By Order,

J. E. Bernier,
Commanding Officer.

ORDERS.

1. Commencing Monday, October 1st: Breakfast for the men at 8 a.m. Dinner for the men 12.30 p.m. Breakfast for the saloon, 8.30 a.m. Dinner for the saloon, 1 p.m.

2. Seeing that we have a long winter before us, I would request that all lights be put out when the person is not occupying his cabin. Every one will please be careful to see that no oil is wasted, otherwise an allowance will be served.

All lights out at 10.45 p.m. sharp. I will again remind both officers and men that we cannot be too careful about fire.

3. When on leave ashore or on the ice, two men must keep company, and we must know the direction they are taking, so that in case of need we may trace them

if necessary. A board will be put up on deck for that purpose. All hands on leave must return before dark. Every one must be careful not to get lost or frost-bitten. All firearms are to be discharged before coming on board the ship.

4. All oil-skin coats, gloves, clothes and furs will be kept on deck, where they will be both aired and dried. Nails will be put up with the name of each person attached.

By Order,

J. E. Bernier,
Commanding Officer.

C.G.S. 'Arctic,'
Albert Harbour,
September 28th, 1906.

NOTICE.

Commencing to-morrow, stewards, waiters and cooks, will be given liberty and must, if they value their health, go out for one hour's exercise every day, they can go after their work is done, say from 2 p.m. to 4 p.m., in pairs, during storms they can be about on upper deck.

By Order,

J. E. Bernier,
Commanding Officer.

C.G.S. 'Arctic,'
Albert Harbour,
November 23rd, 1906.

NOTICE.

Seeing that the ice is now getting dangerous, nobody is allowed to leave the ship without permission and without a companion. Every one must be on board the ship at 8 p.m. sharp, and report to the watchman.

By Order,

J. E. Bernier,
Commanding Officer.

C.G.S. 'Arctic,'
Albert Harbour,
June 15th, 1907.

ORDERS.

Coffee, 5.30 a.m.
Breakfast, 8 a.m.
Dinner, 11.30 a.m. and 12 p.m.
Supper, 5.30 and 6 p.m.

Persons not on duty must not make noise, while the officers and men are at rest after 8 p.m.

Every one who has a deck light will be responsible for its opening and closing. When the officer on duty orders it, it must be done at once.

By Order,

J. E. Bernier,
Commanding Officer.

C.G.S. 'Arctic,'
Albert Harbour,
July 22nd, 1907.

The following is a tabulated statement of the thickness of the ice in Pond's Inlet, at different dates, from October 16th to December 31st, 1906:—

ALBERT HARBOUR, POND'S INLET, 1906-7.

Arctic arrived on September 9th, 1906. Ice commenced to drift in the harbour from sea, October 9th.

October	16, 1906.—Heavy ice came in	18	feet thick.
"	17, 1906.—Ice stopped in harbour.		
"	20, 1906.—Ice	2	inches thick.
"	27, 1906.—Ice	7	"
November	3, 1906.—Ice	10	"
"	10, 1906.—Ice	1	foot thick.
"	17, 1906.—Ice	15	inches thick.
"	24, 1906.—Ice	19	"
December	1, 1906.—Ice	20	"
"	8, 1906.—Ice	20	"
"	15, 1906.—Ice	20	"
"	30, 1906.—Ice	21	"

Certified correct,

J. E. BERNIER,
Commanding Officer.

C.G.S. 'ARCTIC,'
POND'S INLET,
December 31st, 1906.

CHAPTER V.

From January 1st, 1907, to July 27th, 1907.

January 1st, 1907, New Year Day.—General holiday on board. I am glad to say that everybody is well and happy. The usual Sunday service was held at 11 a.m., quite a number of Eskimos were present. During the day we received the visits of many natives, who came to wish us the compliments of the season; we entertained them suitably for the occasion. They seem to be more assured than they were when we first came in the harbour, and they do not avoid us so much as they did then. Our way of living has evidently served as a good example to them, as they are not so wild and have better conduct all round. During the evening there were games and music on board. We hired four of these Eskimos, to serve as guides and to look after the dog teams on the expeditions that we intend to make inland during the winter. Their names are Kanaka, Muckatowee, Tomallo and Kacktoo. During the week they commenced to make some native sledges for those proposed explorations. Both the chief and the second officers selected their guides and commenced preparations for their voyages.

January 10th.—Mr. James Duncan, Customs officer, Jack Simpson, Customs clerk, and the Eskimo Monkeyshaw, left for Coutts Inlet. Weather fine and clear. The thermometer registers 32° below zero. This trip is undertaken with a view of ascertaining if any goods had been landed at Coutts Inlet, by the Scotch whaler *Balaena;* as was reported to us some time ago.

January 11th.—During the evening Mr. Duncan and his party returned to the ship, they were forced to come back as they had broken their sledge; they could not go farther than Erie cove.

January 12th.—Muckatowee and Tomallo, the two natives, and myself crossed to Bylot Island, to try a new Eskimo sledge and a team of dogs; they proved to be very satisfactory. We bored holes in the ice outside the harbour, to find the thickness of the same, we found it to be 30 inches thick, while in the harbour it was only 24 inches; the difference is due to the existing currents in the harbour, and which do not prevail outside.

January 14th.—To-day, James Ryan, A.B., was granted permission to walk on the ice round the ship for exercise, but at 4 p.m., when the roll call was taken, he did not answer to his name. Being anxious about his safety, I immediately sent two men to the village to inquire if he had been there; they left, taking hand lanterns with them, as it was already dark. They returned some time after with the report that the missing man had been to the village, that he was alone, and had left to come on board at 3.30 p.m., we then surmised that he was somewhere on the ice. I instantly organized some parties to search for him, and sent those parties in different directions on the ice. It was only at 11 p.m. that the man was found, half frozen, on the ice, by Joseph Goulet; he was about three miles from the ship, in a N.E. direction. He was brought back on board, and the doctor examined him at once; it was discovered that he had his ears, cheeks, nose and one of his eyes frost-bitten. Dr. Pepin took him under his care; he had a good deal of trouble to save his eye-sight. The man only recovered from the effects of this adventure about three months after. His mind was somewhat deranged at the time of this sad occurrence. I am of the opinion that Mr. Goulet should be rewarded for the way in which he conducted himself during the search, risking his own life to save that of one of his companions, for it is certain

that if we had given up the search at this time of the night and during such severe cold the poor man would have been dead before daylight.

January 18th.—Full inspection in every part of the ship to-day, everything is in very good order; the heating arrangement and the fire-hose are giving good satisfaction. I measured the distance from the ship to the village, to-day, it is 3 nautical miles and 3,000 feet.

January 29th.—There are 37 Eskimo dogs and four solid sledges ready for the coming expeditions inland; the dogs are well trained.

February 5th.—The photographer and myself went over to Bylot Island to see the sun over the high hills of Baffin Land, and to take some photos. At midday we were well rewarded for our undertaking by the view of the sun for the first time in four months. We returned back on board in time for tea, before darkness of the evening.

February 11th.—Frederick Brokenhauser, an oiler in the engine department, who had been sick for a few days, died, at 6 a.m. Dr. Pepin had reported that his case was serious, and everything possible had been employed to restore his life, but it was without avail. He died of heart failure. Dr. Pepin, S. Croteau, Jos. Goulet and myself were at his death-bed during the last moments of his life.

CERTIFICATE OF DEATH.

Frederick Brokenhauser.

By the present I certify that Frederick Brokenhauser died this day, February 11th, 1907; the cause of the death being heart disease. (Mitial insufficiency.)

(Signed) J. R. PEPIN, M.D.,
Physician and Surgeon on board C.G.S. 'Arctic.'

C.G.S. 'ARCTIC,'
February 11th, 1907.

February 12th.—Frederick Brokenhauser, who died yesterday, was buried with all the services of burial possible, and due honour. He was buried in a grave that we had prepared for this purpose and that we afterwards decorated with some stones and a large cross with epitaph.

We had a visit from some natives from Cape Adair, about 200 miles to the east of Baffin Land; they reported that some whales had been seen near that Cape in the month of October, but that there were no whalers at that time.

February 14th.—Mr. George Mays, chief officer left to-day, with his natives and dog team for an exploration voyage inland, in order to ascertain how far south the Milne Inlet runs, and, if possible, to see the natives of Egloolik and learn of the state of the ice in Fury and Heela Strait. Mr. O. J. Morin, 2nd officer also left to-day, for a voyage inland, with his two native guides and dog team. He is to go to Navy Board Inlet, to ascertain the state of the ice, and, if possible, to go as far as Prince of Wales Island. I went with him to a point five miles from the ship, and I returned on board for supper.

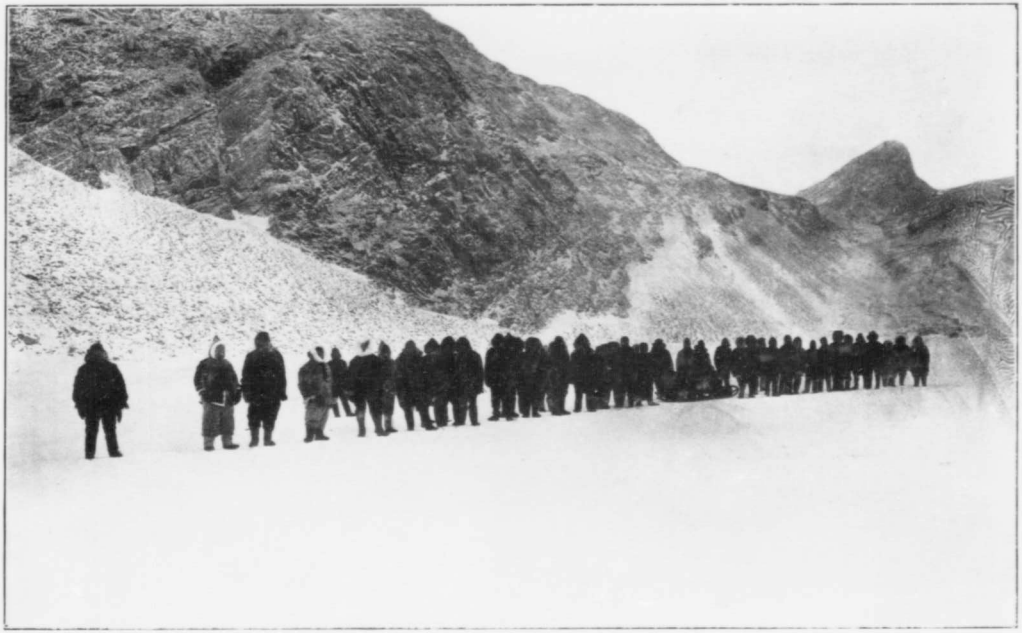
During the present week we expect to take a series of photographs of the harbour and the surrounding country.

When the weather is fine, the men are employed at taking some stone ballast and fresh-water ice for our fresh water on board.

March 5th.—At 11 p.m. Mr. George Hays, chief officer, and his party returned, all well, from his exploration voyage to Milne Inlet, which runs as far as Lat. 71° 30′ N. He went up a few miles inland, but was forced to return, having lost some of the dogs, which died. He brought some specimens of stone gathered at several places round the inlet. Mr. O. J. Morin, 2nd officer, arrived to-day, all well; they were absent during twenty-one days while on their voyage of exploration. They received some good information about Navy Board Inlet from the natives; they also brought some specimens of rock and other minerals.

March 9th.—Mr. James Duncan, Customs officer, and his party, who had left

Fred Brokenhauser buried with Stones until Speing.



Fred Brokenhausser's Funeral, 1907.

Bottom part of Erick Harbour.

Reception from the Eskimos at Button Point, Pond's Inlet.

Esquimaux Drawing Boats over Ice.

some time ago to go to Coutts Inlet, returned to-day. He reports that no goods were left in that inlet by the whaler *Balaena*.

March 31st.—This being Easter Monday, the ship was well decorated with the flags and bunting. Sunday service was held as usual at 11 a.m., it was well attended. We had a guessing competition as to the width of Pond's Inlet from shore to shore near our anchorage. This had been the topic of conversation all the past week. Joseph Lessard, quarter-master, was the nearest guesser, with 35,324 feet; the distance being actually 35,684 feet across to Bylot Island, measured over the ice. I issued an order for a box of cigars to be given to the winner of the competition, who so ably found the approximate distance by practice of the route over the ice.

April 11th.—Mr. Green, 3rd officer, Mr. George Lancefield, photographer, and two natives left to go to take measurements of Eric Harbour, and take photographs of the coast and harbour.

April 13th.—The ice is 61 inches thick in the Pond's Inlet Harbour.

April 14th, Sunday.—After the Sunday service the men went on the ice to play foot-ball for exercise. The snow is melting on the sheltered hills, and the men have to wear snow goggles. Kanaka came for a walk round the island with me to see about the effects of the change of temperature on the ice and land on this island.

April 16th.—Mr. George Lancefield, photographer, and party returned to-day, all well. They brought much information concerning Eric Harbour. When the dogs sighted the ship they turned round and ran wild, upsetting the sledge and throwing the photographer, who was hurt in the fall. The doctor was obliged to attend to him, but he was not seriously injured. Mr. Green did not return at the same time as Mr. Lancefield, but remained at Button Point, and gathered some specimens of stone, &c.

April 21st.—Mr. Charles Green, 3rd officer, arrived from Button Point, to-day, and brought a good many samples of stones, and some birds; he also received much information about Bylot Island, from the natives. His report confirms my opinion that the whalers first go to that point when they arrive, at the beginning of the season; and that they go there to trade with the natives, and to exchange their merchandise for furs and other products of hunting and fishing that these people may have on hand. With the knowledge of these facts I have planned that I should send some parties to Button Point, at the first part of June, to meet the whaling fleet.

April 22nd.—Amawalick, Ooming and Ictoosamjoa, a one-eyed man, all natives of Igloolik, came on board to-day. We invited them to dinner. During the afternoon and the evening they were with myself and the interpreter, and they gave us very valuable information about the state of the ice and other local conditions of Fury and Hecla Strait. From this information I am led to believe that the strait of Fury and Hecla opens every year in the month of September, and that ships could go through from Prince Regent Inlet to Fox Bay. The water rises about 8 feet with the tide in Fury and Hecla Strait. From Cape Hallowell to Cape Kater, on Brodeur Peninsula, the ice moves the greater part of the year off and on the shore. There are a good number of walruses in the strait and in Fox Bay, also a large number of seals. It took the natives thirteen days to come from Igloolik to Albert Harbour. The following are the names of the natives at Igloolik, which they gave me and I kept for further reference: Men, Otoocooshow, Coatickcoo, Agotinno, Atajoha, Panceja, Otacootoo, Majotoo, Ogaloolah, Paone, Tuketuke, Ekskealoo, Oloolecjana, Okote, Okago, Atogoleega, Pojah, Otokee, Acotoaloo, Atotaaloo, Ototoon, Neveatea, Kegaelah, Kamojo, Covoga, Natee, Aga, Atagoajogoee, Nosato, Cenoka, Ogoyloava, Natee, Hisagacoto, Motao, Oleelick, Tabasonoa and Aleegay; women, Atoa, Seeacoloo, Nakoteeve, Aveegaoja, Nasa, (Coonie) Kaawna, Panctoo, Anaooga, Anatia, Tapatia, Ota and Sieto. I also received other information, which I will be able to use later on. These natives also say that they have not seen a ship in the Fury and Hecla Strait for a good many years; they have food and furs in abundance. I am very much obliged to Capt. James Mutch for the valuable assistance he has rendered me in acting as interpreter between the natives and myself, not only on this occasion, but on many other instances, during the winter.

April 26th.—I have installed a tidal apparatus, to register the different heights of

the tide at spring tide, the time has proved to be 11.45 a.m. for all our observations. Mr. James Duncan, Customs officer, and Mr. Jack Simpson, Customs clerk, with natives and dogs arrived from Erik Harbour, where they had gone to see about some goods which it was supposed had been landed there by the whalers. During the present month the crew was employed stitching and repairing the sails, and everything was put in good order in the sail locker.

May 3rd.—We took all our boats from their winter quarters and brought them alongside the ship, to have them properly painted and cleaned.

I am sorry to say that the Eskimo Snider, who had returned some time ago from a hunting trip, died to-day. He is the native whom I have already mentioned in this report as having shot another native during a hunting expedition about two years ago, and from whose breast the doctor on board had extracted a bullet last fall. It was my intention to hold an inquest about this affair, but as the guilty native was sick ever since his return, and seeing that the other native did not make a charge against him, I did not conduct such inquest. Snider died some time after, and we buried him on the floe ice, as he had requested before dying.

May 4th.—The propeller and the rudder are well clear of ice. The ice is 61 inches in thickness.

May 8th.—Temperature 14° above zero, weather fine. The natives hired by us have been sent to Button Point to catch some seals.

May 9th, Ascension Day.—We held service at 11 a.m. Mr. W. H. Weeks, purser, and myself went up to the station to get some more information from the natives before they leave for Igloolik. It is a nice treat to be able to stretch our legs on such fine smooth ice; for the ice in Pond's Inlet and Eclipse Sound is wonderfully smooth at present; an automobile could go hundreds of miles on this ice.

May 15th.—We commenced a regular inventory of stores and provisions on board. Mr. Michael Ryan, the carpenter, and Mr. William Doyle, a quarter-master, commenced to calk outside the ship to-day; the rest of the crew is getting the ship in first-class order before we sail.

May 18th.—The thickness of the ice is 63 inches to-day, it is the thickest we have measured this winter inside the harbour.

May 21st.—We embarked the depots of provisions that we had left last fall, in the igloos, in case of accident to the ship during the winter. The ship is undergoing thorough cleaning in every department.

May 23rd.—Mr. George Hays, chief officer, went on Baffin Land and enlarged the cairn we had made last fall, and he deposited some more documents of our past work and our future movements. Mr. O. J. Morin, 2nd officer, went on Belocil Island and he also enlarged the cairn we had made last fall, and he deposited some more records of our past works and our future movements.

May 24th. Victoria Day.—I gave a general holiday to all the members of the expedition for the occasion. Ship was properly decorated with flags and colours of all sorts. The first seagull made its appearance to-day. There was some entertainment in the saloon in the evening for the occasion; Captain Mutch, of the station, was a guest on board during the day.

June 1st.—The temperature is 45° above zero to-day. Captain Mutch left to go to Button Point, with two of his whale boats.

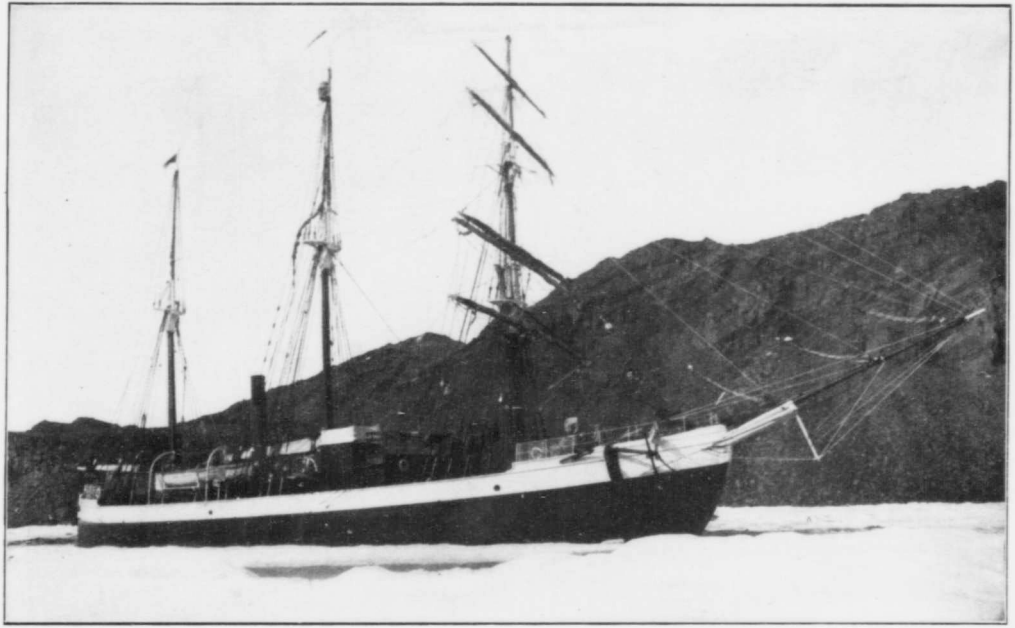
The idea of leaving at present is that he wants to be ready to fish as soon as the whales make their appearance in the spring.

June 3rd.—Mr. James Duncan, Customs officer, and Mr. Jack Simpson, his clerk, went down to Button Point, with some natives, to be on hand when the whaling fleet arrives from outside; they will thus be ready to collect the Customs dues.

June 4th.—The carpenter, two sailors, one fireman and myself went to the cemetery to dig a hole to lower the coffin of Brokenhauser, which was buried in the snow during the winter. We also built a stone wall around the cemetery and we afterwards placed the coffin in the grave. The natives are leaving the seal hunt for the deer hunt.

June 7th.—The wind was from S.E. all day. It rained for the first time since last

Whaling Boat leaving for Button Point.



"Arctic" in Albert Harbour, Ready for Sea, June, 1907.

summer. The thermometer registers 32° above zero. The carpenter is starting to do the repairs and general overhauling of the boats.

June 11th.—Mr. Charles Green, 3rd officer, Mr. W. H. Weeks, purser, were authorized to go down to Button Point to meet the whaling fleet and issue some whale-fishing licenses to the whalers, and also bring back our mail, which is expected to arrive on those whalers from Canada via Dundee. The licenses are to be issued on consideration of $50 each. Mr. James Duncan, Customs officer, was authorized by the Customs Department, to collect the dues on all dutiable goods brought on board the whalers.

June 15th.—Captain Mutch again left for Button Point for whale fishing.

June 18th.—I received a letter from Mr. W. H. Weeks, to-day, in which he states that the steamer *Diana* had arrived outside the floe edge, some 15 miles from Button Point, and that he had gone on board that vessel with Mr. Duncan, Customs officer; he adds that he issued a whaling license to the master of this whaler, and that Mr. Duncan collected the customs dues. The temporary winter roof was removed from over the ship's deck, by the carpenter, to-day. We now enjoy more light and fresh air from outside in the cabin below.

June 20th.—Mr. W. H. Weeks, purser, returned from Button Point, he reports that he has issued three more whaling licenses, since writing, one to the whaler *Eclipse*, one to the whaler *Balaena*, and one to the *Morning*. Mr. Duncan reports that he has collected several hundred dollars of Customs dues on board those ships. Captain Mutch also returned from Button Point to-day, and he brought us one-half bag of fresh potatoes; they were very much appreciated by the officers, men and myself.

June 24th.—Messrs. O. J. Morin, 2nd officer, George Lancefield, photographer, Napoleon Chassé, quarter-master, A. Bolduc, 2nd engineer, and Ruben Pike, A.B., with a native Monkeyshaw, went up on the Morin Mountain and they put up a bottle containing a record, on the highest point of the mountain, 1,210 feet above the sea level. Mr. George Hays, chief officer, and myself adjusted our compasses on board. We found 90° westerly variation; we are in Lat. 72° 42′ 32″ N. and Long. 77° 50′ W. This being the longest day of the year here, we celebrated with the usual festivals.

June 27th.—At 3.30 a.m. our dear little *Arctic* cut loose from the hands of 'Jack Frost,' and it was quite a sensation to members of the expedition on board to know that we were again free from the ice. Her draught of water aft was 19 feet, and forward 17 feet 1 inch; 2° list to port side.

June 29th, Saturday.—At the full inspection of the ship it was found to be in very good order, both below and on the deck. Fine, clear weather. I commenced to paint a solar dial on the upper bridge.

July 1st, Confederation Day.—Wind light from the S.E. Beautiful weather; the flags and all colours are floating in honour of the day. At noon I addressed a few words to the crew, who were assembled in the saloon. On the occasion of this day, I hoped that Newfoundland would in the near future be annexed and form part of the Dominion, and wished to take more islands in the north before the year is over. During the evening there were different amusements and music in the saloon.

July 3rd.—All the rooms below deck are cleaned and ready to receive a coat of paint. Mr. O. J. Morin, 2nd officer, left to go to Salmon River, he was accompanied by three natives.

July 4th.—We received 500 fine salmon from Salmon River, they had been caught by Mr. Morin and the natives, who left here yesterday. We prepared all this fish for further use. To-day I received several certificates that the following departments were ready and in good order to proceed to sea: one from the chief officer about his department; the chief engineer, chief steward, the electrician, about their respective departments, and one from Mr. W. H. Weeks, about general stores and provisions.

July 12th.—Capt. Mutch has taken out his license for this year for whale fishing; the total number of licenses issued is ten, and at $50 per license it makes the sum of $500, this is for two years, 1906-7. There are, however, not many whales this season at Button Point, and I am afraid it will be a poor season.

July 14th.—Mr. James Duncan, Mr. J. Simpson, and the native Ogelley, arrived

from Button Point, where Mr. Duncan collected several hundred dollars of dues from the whaling fleet.

July 17th.—I went around Beloeil Island with Quarter-master Chassé, to see about the state of the ice.

July 21st.—After service, Quarter-master Chassé and I went up on top of Beloeil Island, and from there we could see a good deal of clear water in Pond's Inlet.

July 26th.—There was a strong gale from the S., and a large pan of ice came in the harbour, caught the schooner *Albert* and drove her ashore; there was nobody on board at the time of this drift. We immediately despatched two boat crews, and boarded the schooner. I gave orders to haul her off the shore. After she was hauled off the shore we put one of her anchors out, and we returned to our ship.

Before leaving for sea I beg to submit the following statement, which is the result of our observations during the winter, and of the information received from the natives and the agent at the Dundee station:—

ALBERT HARBOUR—POND'S INLET.

STATEMENT of the measurements of the ice in the harbour from January 5th to July 27th, 1907:—

Date of measurements of the ice in harbour. 1907.	Thickness near ship.
January 5	20¼ inches.
" 12	24 "
" 19	29 "
" 26	30 "
February 2	33½ "
" 9	39 "
" 16	41 "
" 23	42 "
March 2	43 "
" 9	44 "
" 9 (1,000 feet out of harbour)	58 "
" 16	48 "
" 23	52 "
" 30	60 "
April 6	61 "
" 6 (outside of the harbour)	65 "
" 13	61 "
" 20	61 "
" 27	61 "
May 4	61 "
" 12 (snow commenced to melt)	61 "
" 18 (snow embankments are getting rotten and are melting away fast)	60 "
" 25	60 "
June 1	59 "
" 8	59 "
" 15	59 "
" 22	58 "
" 29 (ship ranging on her berth)	
July 6	56 "
" 13 (ice is bad)	50 "
" 20. Ice broke in the harbour and is moving with the tide.	
" 27. Left harbour for sea.	

J. E. BERNIER,
Commanding Officer C.G.S. 'Arctic.'

Albert Harbour is the best harbour in Pond's Inlet; the only inconvenience that there is about it is that the land is exceptionally high, the highest is 1,200 feet on Morin Mountain, and Beloeil Island is about 950 feet high and its length is 8,200 feet, which makes good shelter for ships from easterly and S.E. winds. The island is of solid rock, with no vegetation; a few hares live on it. The length of Albert Harbour is 5,100 feet, the N.E. entrance is 3,842 feet in width, the west entrance is 482 feet, with no less than 7 fathoms of water in the shallowest place, while in the eastern entrance there are 40 fathoms of water. Currents are irregular; their irregularity is caused by the varying winds. The best place to anchor is at about 1,000 feet near the western entrance, where we get good holding ground in 20 fathoms of water. There is a brook of fresh water on the eastern entrance, on the south side; this brook runs only in June, July, August and September; in October there is no more water, the stream is practically dry. The natives have adopted a place on the S.W. corner of the bay for their station, from there they have a good connection with the Dundee whaling station, which is about three miles from it.

Pond's Inlet ice comes into the harbour about the 5th of October, freezes and remains solid until about the 10th of July. But the Salmon River was clear of ice by July 1st this year; the best time for fishing salmon in this river is about the 15th of June until the 10th of July, the salmon come in again during the latter part of July, they are all up in the lakes by the 1st of September. This lake is at a distance of 8 miles from the entrance of the river. There is a good deal of lignite coal along the river; this lignite burns readily, and would certainly be a great combustible article for those who know how to use it. There is also another fine salmon river on the west side of Milne Inlet, near its head. It has been reported that in Philipps Creek, in Milne Inlet, the most southerly bay with a low shore, the deer abounds. Pond's Inlet is a very fine sheet of water, having a depth of 460 fathoms, and its narrowest part, which is between Beloeil and Bylot Islands, is 35,324 feet, this has been surveyed by the members of the expedition and myself with a tape line, over the ice, during the winter. There is no other anchorage where ships could have shelter from the ice except at Erik Cove, which is 20 miles to the east of Albert Harbour; Erik Harbour is 25 miles to the south of Button Point. The measurements of Erik Harbour are as follows: 38,500 feet deep, 13,600 feet wide at the entrance; there are two good anchorage grounds, in about 9 or 10 fathoms of water, at the bottom of the bay, on the S.W. side, opposite a large glacier. Erik Harbour is not as safe as Albert Harbour on account of its very large mouth, which allows the ice to come in freely during heavy northeast winds, a vessel is then in danger of being driven ashore during a gale. There are no Eskimos living at Erik Harbour. The name given to the natives who live in the northern part of Baffin Land and Eclipse Sound is Tununirmuit, and the name of the natives living in Admiralty Inlet is Tununirusimuit. There are no Eskimos at the following places: North Devon, North Cornwallis Island, Bathurst Island, Byam Martin Island, Melville Island, Prince of Wales Island and North Somerset Island. There are about 160 natives, men, women and children, living at the Dundee whaling station, Albert Harbour and Button Point, Bylot Island. They travel inland towards Arctic Bay, Milne Inlet, and Navy Board Inlet, from Button Point in the spring, where they hunt for deer and fish salmon. They are sealing during the winter. Seven persons, natives, died during the past winter; two men, two women and three children. A good number of natives were attended by the doctor from the *Arctic* during the past winter. The Eskimo lives principally on seal meat, deer meat and salmon. Seal seems to abound here, especially at Button Point, during the early part of the spring. Narwhales come into Pond's Inlet and Eclipse Sound as soon as the ice breaks; probably a couple of hundred narwhales are killed during the summer. These narwhales have an ivory horn from six to eight feet in length projecting from the top of their head. The value of this ivory tusk is from ten to twelve shillings per pound; last year a shipment of these tusks sent to England amounted to about $4,000. About three hundred fox skins are shipped from here every year; this represents a value of about $900; there are also about 1,000 seal skins shipped from this place every year, these are sent to Scotland. Other shipments of polar bear

skins, walrus skins and walrus tusks are made from here annually. During the spring and the summer the natives capture quite a number of hares on the island. The natives trade with the whalers; exchanging their furs and skins for tea, molasses, biscuits, sugar, tobacco, matches, knives, cooking utensils, ammunition and clothing. The following is a statement of the population in three different places:—

NUMBER OF NATIVES IN HUDSON BAY, HUDSON STRAIT AND BAFFIN LAND.

Places in Hudson Bay and Hudson Strait—	Natives.	
Baker Lake (approximately)	200	
Churchill to Baker Lake	150	
Winchester Inlet	160	
Fullerton	100	
Repulse Bay	150	
Oglillik	200	
George's River	40	
Ungava Bay	200	
Wolstenholme to Fort Chime	200	
Wholstenholme to Churchill	300	
Total number of natives as per figures furnished by natives		1,700
Baffin Land—		
Earjuvat Station	160	
Button Point	100	
Cape Adair along the south coast	200	
Kekerton	150	
Black Lead	260	
Cape Haven and along the shore	100	
Total number of natives as per figures prepared by Capt. J. E. Bernier		970
		2,670

July 26th (continued).—The *Arctic* is ready for sea; we are waiting for the ice to get looser so as to permit us to leave the harbour and proceed to sea.

CHAPTER VI.

VOYAGE FROM POND'S INLET, ALBERT HARBOUR TO PORT BURWELL.

July 27th.—We got under way at 10 a.m. and proceeded to sea. At 2 p.m. we made ship fast to the ice, about five miles east of Albert Harbour. We took soundings and we found no bottom at 160 fathoms. The ice is not yet broken towards the sea.

July 28th.—At 4 a.m., wind S.E., the ice seems to be more separated than yesterday, and we started to break our way through it. We made the ship fast to the ice again and took more soundings, found 460 fathoms of water, with a mud bottom. Had service at 10 a.m.; it was St. Ann's day, and we had very good singing at the service to-day. At 3 p.m. we saw two whalers, the *Eclipse* and the *Morning*, they were about two miles to the eastward of us. The fog set in and we had to make the ship fast to the ice again, for the night.

Monday, July 29th.—Fine and bright day. The steam whaler *Morning* is working her way through the ice towards the south. We unmoored from the ice and made our way towards the south, where the ice seems to be lightest. At 7 p.m. Captain Cooney, of the late steamer *Windward*, came on board over the ice, and passed the night with us. He reported to us that he had lost his steamer, the *Windward*, on the Carey Islands, he gave us the details of the wreck, and of the hardships they had on their trip to Pond's Inlet, in life-boats. I offered to help him and his crew, but he thanked us, saying that at present he did not need any help. He slept on board, because of the wind and rain. On Tuesday morning, July 30th, after breakfast, Capt. Cooney left to go to his ship, on Carey Islands. The ice broke and we made another attempt to work our way through it. At 12 o'clock noon, we were trying to break what appeared to us to be the key between the two ice floes, and at 4 p.m. we came within hailing distance of the steamer *Morning*, Capt. Adams; this captain came on board and remained until 6 p.m. He intends to go to Salmon River, to fish for salmon. At 7 p.m. we left the steamer *Morning* and proceeded towards the east, through the ice and the fog that was prevailing for some time; we took soundings and got bottom with 260 fathoms of line.

July 31st.—At 2 a.m. the fog cleared off a little, and we saw Cape Grahamore, about 6 miles off. We took our course along the land of Bylot Island, meeting large pans of ice now and then. At noon we were in Lat. 73° 27′ N., and Long. 76° 15′ W. There was an immense glacier bearing west of us, in front of a high mountain. There are a good many icebergs about, but there is no more field ice. At 2 p.m. we passed Cape Byam Martin, three miles off.

At four o'clock we passed Possession Bay, where Sir John Ross had landed and taken possession of Bylot Island, in 1818. The wind being ahead we did not land. I intended to land and take possession of the record that had been deposited in a cairn in Possession Bay by Sir John Ross, but I could not land, on account of the heavy sea prevailing at the time. I shaped the course for Cape Horsburgh.

August 1st.—At noon we are in Lat. 74° 49′ N., and Long. 78° 36′ W. We met a good deal of ice through which we pushed our way, taking advantage of the openings in this ice. In the evening we sighted Cobourg Island, and steered for Lady Ann Strait.

Friday, August 2nd.—At 1 a.m. we are passing Cobourg Island. It is a very high and uneven island on the eastern part especially; near where there are two separate islands, one of which is like a cone.

At 8 a.m. we met the solid ice; the Jones Sound is covered with an immense mantle of ice, of one year formation. We are now in Lat. 76° 02′ N., Long. 80° 10′ W. From the crow's nest we could not see one iceburg in the sound, but the ice, which is perfectly smooth and scattered all over the sound, is covered with seals, basking in the sun. Having studied the programme before me and seeing that I could not go farther, I decided to go back, and shaped the course for Cobourg Island. At Cobourg Island we landed on a point that we named 'Edwards Point,' in honour of Senator Edwards. We took formal possession of the island with the usual formalities, I caused the flag of the Dominion of Canada to be hoisted and left floating on the island. We also built a cairn on that point, in which I had a copy of the proclamation, printed below, deposited:—

PROCLAMATION.

To Whom it may Concern:

On this day I landed on Cobourg Island at point, and annexed this island and all adjacent islands, to the Dominion of Canada, per instructions received from the Canadian Government.

We were going to Cone Island, and Havrefjord Inlet, to annex King Oscars' Land, and several other islands to the northwest of it, which were surveyed by Captain Sverdrup.

We found Jones Sound and Glacier Strait still full of ice of last year's formation.

I landed in North Lat. 75° 53′, and Long. 79° 25′ W., Point Edwards.

J. E. Bernier, *Commander.*
G. Hayes, *Chief Officer.*
O. Jules Morin, *2nd Officer.*
Geo. R. Lancefield, *Photographer.*

C.G.S. 'Arctic.'
August 2nd, 1907.

Cairn built on a point Lat. 75° 53′ N., Long. 79° 25′ W. August 2nd, 1907.
J. E. Bernier.

We returned on board and decided to proceed towards Port Leopold, to take back our cache, that we made there last fall. At noon we are in Lat. 75° 43′ N. and Long. 79° 02′ W., a lot of ice in sight. At 8 p.m. we passed Cape Horsburgh; the weather became a little foggy. We took soundings and found 420 fathoms of water.

August 3rd.—We met a great number of patches of ice, through which we had to work our way; the wind was from the east, and we proceeded under sail all day. At noon we are in Lat. 74° 10′ N., and Long. 87° 30′ W. We have to stop on account of the fog.

Sunday, August 4th.—Six a.m. the fog is clearing off, and we can see the high lands of North Devon; we proceed towards Port Leopold. At 4 p.m. we see the island, and I shape the course for the eastern edge. The fog sets in again. At 8 p.m. we are going slowly and taking soundings; we made the entrance of Port Burwell; the harbour was still full of ice, and we had to stop outside for the best part of the night.

August 5th.—At an early hour we landed and took our depot of stores from the cache at Port Leopold, and we brought it on board. We left a record of our past and future movements, in the cairn on the island, and we proceeded for Cape Kater, in Prince Regent Strait. The wind being fair, we had all the ship's sails set, and we were going at the rate of eight miles an hour; no ice visible along the eastern shore. At 8 p.m. we passed Port Bovin; we are sailing along the coast with a strong fair wind, keeping about six miles off the land.

August 6th.—At 4 a.m. we are abreast of Cape Hay. The land in this neighbourhood is about 400 feet high, but it diminishes in height as we go south.

We saw Cape Kater bearing S.S.E., and we shaped our course for the cape; we are abreast of it at 8 p.m., about 6 miles off; we closed in upon the land and we kept on a little more to the southward, where we met the pack ice. We hold up under the shore. In the S.S.E. direction, about 15 miles off, we can see a little high lump, which

Edward's Point, Cobourg Island.

I named 'Seneeal Mount.' The land is about 200 feet high and very straight; towards the point the ice is resting on the land. At noon we are in Lat. 70° 50′ N., and Long. 90° 25′ W.; in 30 fathoms of water. Seeing that the ice is close on the land and that I cannot go any farther at this time of the season, I have to return back to Port Leopold. It is calm, and the ice appears to be solid on the west side of us. We sail along the edge of this ice which is one year formation, and is in a decaying state.

August 7th.—Reached Port Leopold this morning. At 8.45 a.m. I despatched two officers to take soundings in the bay. Mr. W. H. Weeks, purser, Mr. Nap. Chassé, quarter-master, and myself went ashore and climbed on top of the hill to see the state of the ice, and we found that Barrow Strait was full of ice and that there were no passages opened in the ice in that direction. We also saw a large number of narwhales and white whales going along the bay, and especially to the westwards of where the *Arctic* is anchored, in a little stream that runs from the west, and from which we afterwards filled the ships fresh-water tanks. On the shore we saw the remains of several Eskimo huts and a large quantity of whale bones. The officers returned on board during the evening. The ice had just commenced to enter in the bay with a light S.E. wind. During the night the ice came in in large cakes; we got up steam on board and tried to escape, but we had to let go our second anchor to keep her from drifting in.

August 8th.—Thursday, in the morning we let go our stream anchor with a large steel wire. A large piece of ice was across the bow and the ship started to drift, then we let go the two kedge anchors and put the ship full speed ahead on her engine. We seemed to cant the large piece of ice. We got the two big saws out and commenced to cut this ice; we were still drifting, but after a while we started ahead, and in about one hour we were clear of that large piece of ice, and the ship was quiet. At noon the ice drifted out and we commenced to take in our wire and anchors.

August 9th.—Eight a.m. We leave Port Leopold and we go towards the north. Meeting an immense field of ice we shaped our course towards North Devon, but we remained close into the ice until 12 p.m., when the ice slackened, and we then worked our way through.

Saturday, August 10th.—We were going through clear water all forenoon. At noon we are in Lat. 73° 54′ N., and Long. 87° 43′ W., there are 11 points of westerly variation on the compasses on board. It is fine, clear weather and the land is visible on both sides of the sound.

Sunday, August 11th.—There is a large stream of ice into Croker's Bay as far as Cape Warrender. At 6 a.m. we are passing Cape Warrender, under sail, with west wind. We passed a small unknown island to the west of Cape Osborne, which is a low land. At noon we are in Lat. 74° 35′ N., and Long. 79° 50′ W., and are steering for De-Ross Island. Several large icebergs in sight, some of these are grounded on a shoal to the west of Cape Horsburgh, we had to give a clear berth.

Monday, August 12th.—At 1 a.m. we can see Cone Island, in a N.W. direction. Light breeze from S.W. with clear weather; there is more navigable water. We find that the ice is broken up and that there is open water as far as Cone Island. At 6 a.m. we are close to the island, and I sent the chief officer with instructions to build a cairn, leave a proclamation of possession and hoist the flag of the Dominion of Canada on the island. At 8 a.m. the chief officer returned on board, bringing some documents that had been left on that island by Capt. Sverdrup. After finding that the Jones Sound was still frozen and filled with ice of one year formation, we decided to proceed along Smith Island, towards North Lincoln Land. The wind starting, with snow, from the S.E. We effected a landing on North Lincoln Land, on a point which we named 'King Edward VII' Point. Two officers landed with a proclamation claiming North Lincoln Land, King Oscar's Land, and the adjacent islands, discovered by Captain Sverdrup, as part of the Dominion of Canada; the officers deposited a copy of our proclamation on the island, and returned on board. We proceeded through Glacier Strait, towards Greenland. We met a good deal of old ice

and icebergs coming down from Smith Sound; this part of North Lincoln Land is mostly covered with glaciers, and it has a very wild aspect so early in the season. We fought our way through the ice during the night.

PROCLAMATION.

C.G.S. 'ARCTIC,'
JAMES SOUND,
August 12th, 1907.

On this day we landed on this point, on North Lincoln, and annexed the following lands and islands: North Lincoln, Grinnell Land, Ellesmere Land, Arthur Land, Grant Land, King Oscar's Land, North Kent and several islands, namely, Axel Heiberg Land, Ammund Ringnes Land, Ellee Ringnes Land, King Christian Land, formerly named Finlay Land; *North Cornwall, Graham Land, Buckingham Island, Table Island, and all adjacent islands as forming part of the Dominion of Canada. And I hereby annex the above named lands as part of the Dominion of Canada.

J. E. BERNIER, *Commanding Officer.*
GEORGE HAYES, *Chief Officer.*
O. J. MORIN, Second *Officer.*
WINGATE H. WEEKS, *Purser.*

North Lincoln Point, name King Edward VII., Lat. 76° 19′ N., Long. 81° 24′ W. Bar 124° westerly inside east of Smith Island. Cairn on a small point red rock, solid. 12th August, 1907.

J. E. BERNIER.

RECORD.

C.G.S. 'ARCTIC,'
JONES SOUND, 1907.

To Whom it may Concern:

We landed on this island on this day and left this record. We are now going to annex North Lincoln and adjacent islands, in the name of the Dominion of Canada. From here we will return to Port Burwell, Labrador.

J. E. BERNIER, *Commanding Officer.*
GEO. R. LANCEFIELD, *Photographer.*

Cone Island, Lat. 76° 20′ N., Long. 81° 30′ W. Bar 125° westerly, 12th August, 1907.

J. E. BERNIER.

August 13th.—At noon we are in Lat. 75° 24′ N., and Long. 73° 20′ W. During the evening the fog set in, but we saw no more ice, we kept going under reduced speed. There was a strong breeze from the S.W. at that time, with a heavy swell, which indicated that there is more open water beyond our locality. We passed several icebergs during the day.

August 14th.—At noon we are in Lat. 74° 57′ N., and Long. 69° 32′ W. We could find no bottom with 200 fathoms of line. There is no ice in sight, but we cannot see very far on account of the fog.

Thursday, August 15th.—Thick fog, wind to the southward. We meet some ice now and then, and we are steering according to the leads in the ice, making as much east as possible; this ice is of this year's formation. At noon we are in Lat. 74° 24′ N., and Long. 65° 07′ W. It was raining and foggy during the greater part of the day. We took soundings at noon and had no bottom with 260 fathoms of line.

Friday, August 16th.—Wind variable from S. to S.W., light; thick fog. We had no sextant observation to-day on account of the fog. Our position by account was Lat. 73° 05′ N., and Long. 60° 45′ W., no bottom at 160 fathoms. We are steering according to the leads in the ice, and now and then we pass a large iceberg. During the evening took soundings and found 160 fathoms, with a mud bottom.

*North Cornwall was discovered in 1853, by Sir E. Belcher, and some coal was found on it.

Saturday, August 17th.—We have a strong breeze from the S.E., it is accompanied with rain and fog at times. There is a heavy sea from the southward. At noon we are in Lat. 72° 10′ N., and Long. 59° 53′ W. The wind is very much increased this afternoon and we are under storm sails. Most of the members of the expedition were sea sick; the ship was rolling and she was quite lively, and again proved herself to be a good sea boat.

Sunday, August 18th.—The wind was from the same quarters with thick fog and rain. At 10 a.m. the wind hauling more to the eastward, and we made sail towards the south. At noon we are in Lat. 77° 07′ N., and Long. 59° 30′ W., by account. At 2 p.m. we meet the ice pack and we have to steer more to the eastward, following the edge of the ice. Quite a heavy sea is coming from the S.E. There was no Sunday service held to-day, as the stewards and the waiters were sea sick. There was a heavy breeze during the night, and the ship tossed about a good deal.

Monday, August 19th.—The wind shifted to the northward this morning, it is accompanied with snow squalls; we, however, set sails, but the wind is baffling. At noon we are in Lat. 69° 49′ N., and Long. 58° 30′ W. The weather is bad and a heavy sea comes from the westward. The wind changes to S.W., but there is no ice in sight.

Tuesday, August 20th.—Wind towards the S.E. All the fore and aft sails are set, and we are steering along the edge of the pack ice, which is pretty much decayed; fog sets in. After breakfast we took soundings; we found 150 fathoms of water, with rock bottom. There was a beautiful sunset this evening; there is a lot of ice in sight.

Wednesday, August 21st.—Foggy weather this morning; we meet an iceberg now and then. At noon we are in Lat. 65° 30′ N., and Long. 59° 30′ W., by account. At 4 p.m. there is more fog appearing; it gets very thick and we are obliged to put the ship under half speed. We take several soundings, but we find no bottom with 260 fathoms of line.

Thursday, August 22nd.—We make sail just as the weather is clearing, and we follow a more westerly course through the pack. The leads in the ice are more open in the west, and we advance to take all possible advantage from those openings. At noon the sea is very smooth; we take soundings in 178 fathoms of water, mud bottom.

Friday, August 23rd.—At 8 a.m. we are in Lat. 64° 41′ N.; at 4 p.m. the ice is very thickly packed. We moor the ship to a large pan of ice, and we fill the tanks with fresh water.

Saturday, August 24th.—It is clearing up somewhat, and we make full steam towards Cobourg Island, which we make at noon, being N.W. by N., the pack is so close that we are obliged to stop and watch for the favourable openings in the ice.

Sunday, August 25th.—Weather foggy, with rain. We took soundings and found 81 fathoms of water, rock bottom. It is clearing up a little. Cobourg Island is bearing E.N.E., three miles off. The ice being a little more open, we proceeded into Cumberland Gulf. The whole of Cumberland Sound is full of ice, and is not enticing; we are, however, working our way through as best we can.

Monday, August 26th.—The ice slackened this morning and we proceed through the openings, after a good deal of squeezing and pushing, at 5 p.m., we were in the pack, about five miles from Kekerton, and no clear water was visible through the pack from the ship to the shore.

We are drifting to the northward with the ice which is carried that way, by the strong southerly wind.

Tuesday, August 27th.—Having been in the ice all night, we got up good steam and commenced the hard task of finding a passage. After four hours hard work the fog came on, and we were obliged to discontinue our task, at noon; Kekerton Harbour bearing east, four miles. Wind S.E. by E., strong, and we are going northward with the ice. We took soundings and did not have bottom with 260 fathoms of line. We bent three wires together, and we managed to get bottom at 605 fathoms, the bottom is of blue mud.

Wednesday, August 28th.—The wind having moderated the ice slackened, the fog

lifted, and we made all speed towards the harbour, we had a pretty hard encounter with the ice. At 2 p.m. I sent Mr. George Hays, chief officer, on shore to ask the agent of the station, Mr. W. F. Milne, some information with reference to fishing and the general state of the surrounding country. The officer returned on board with the news that Mr. W. F. Milne, the agent of the station, had died on the 13th of the present month, and from what he learned from the natives of that place the death occurred under suspicious circumstances. The wind increased from the southward, and not being able to enter the harbour, I was forced to steam out to the west again, to remain there all night. During the evening, after consultation with the officers on board, I decided to hold an inquiry into the death of Mr. Milne, and also into the death of the former agent, Mr. Davidson, who had also died rather suddenly, two years ago.

August 29th.—At 6 a.m. this morning several officers and the doctor left the ship, in two boats, and proceeded ashore to hold an inquest into the death of the two late agents, Mr. Davidson and Mr. Milne. The party went to Kekerton, about three miles from the ship, where they arrived at 8.30 a.m. They held the inquests and returned on board at 3 p.m. with the documents of both inquests, the results were both satisfactory, as we have discovered the cause of death in both cases. We then left for Blacklead. We took soundings and found 600 fathoms of water, three miles off the shore. We forced our way through the ice at night.

Friday, August 30th.—At 4 a.m. we are in sight of Blacklead Island Harbour. At 7 a.m. I landed on the island, and much to my surprise, I learned that the agent had left this station the year previous, in the fall. The natives came on board the *Arctic*, but we could not find anybody to give us the information desired, about the fisheries and other conditions of the surrounding country; these natives seem to have no knowledge of when the agent will come back to this station. At 8.30 a.m. we got under way and proceeded southwardly along the coast, with fine and calm weather. We obtained a lot of fine photographs of the coast during the day. The navigator in these regions must, like the pilots of Bermudas, carry their charts in their head.

At noon we are in Lat. 64° 52′ N., and Long. 65° 35′ W. There are many islands in this vicinity which are not marked on the chart. We took many photographs in this neighbourhood.

Saturday, August 31st.—Weather calm. We proceed along the coast, which is studded with islands. At noon, by observation, we are in Lat. 63° 30′ N., and Long. 63° 45′ W., near an island which is not marked on the chart and which we named St. Joachin Island. We shaped our course for Lady Franklin Island. At 8.15 p.m., after having passed a very heavy belt of old ice, we passed Lady Franklin Island; the ice that we encountered before passing this island was the last ice in sight. At 10.50 p.m. we passed Monumental Island. There were a few scattered icebergs in sight.

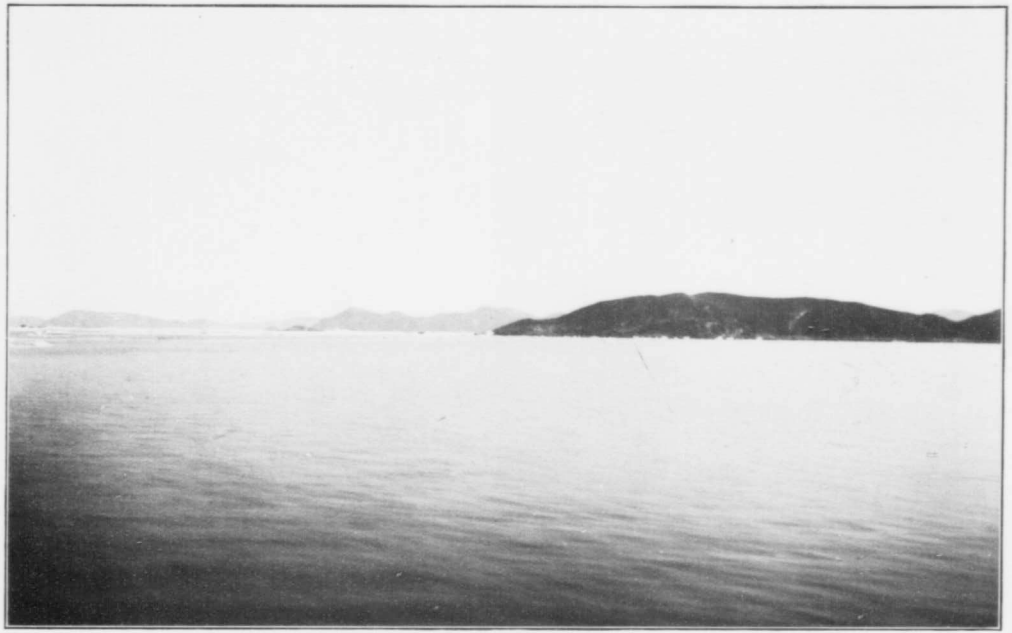
Sunday, Sptember 1st.—At 6 a.m. we are passing an island which is surrounded by a lot of icebergs on its shore. At noon we are in Lat. 61° 50′ N., Long. 64° 01′ W. There are eighteen icebergs in sight.

We are going towards Hudson Strait. At 8 p.m. we are passing Cape Best, 6 miles off. Course is shaped for Button Islands. The fog set in, and while crossing the strait, during the night, we took the following soundings: 208, 405, 450, 490, 425 and 420 fathoms. When the fog cleared off the Button Island was bearing S.S.E.

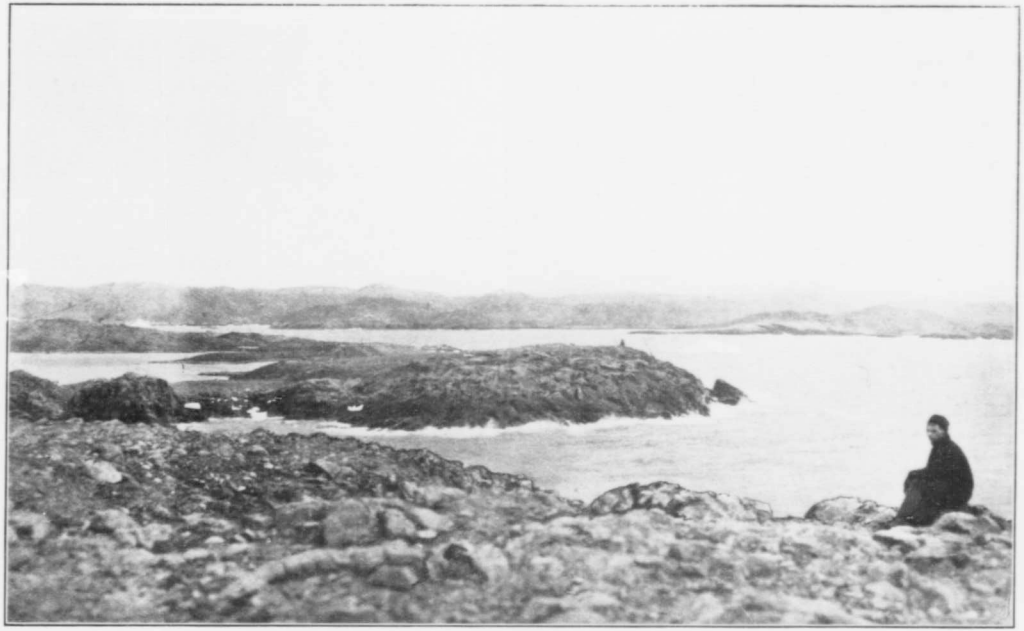
Monday, September 2nd.—At 10 o'clock the last sounding we took was 401 fathoms. At 12 o'clock noon the fog cleared off; we steamed full speed towards Port Burwell, where we arrived at 5.30 p.m. We dropped anchor in the outer harbour in 15 fathoms of water. The Moravian Brothers came on board, and brought a lot of newspapers and illustrated papers, for which the members of the expedition were very thankful to them. We were somewhat disappointed, as we expected to receive some mail from home at this place. Everybody was very glad to be safe in the harbour and to enjoy a sound rest, which was certainly well earned after the ship was under way since July 27th last, and the officers and crew had to watch and watch. The ship was at anchor all night and everything was quiet on board; the quarter-masters keeping the watch in turns.

Ice Packs, Cumberland Sound.

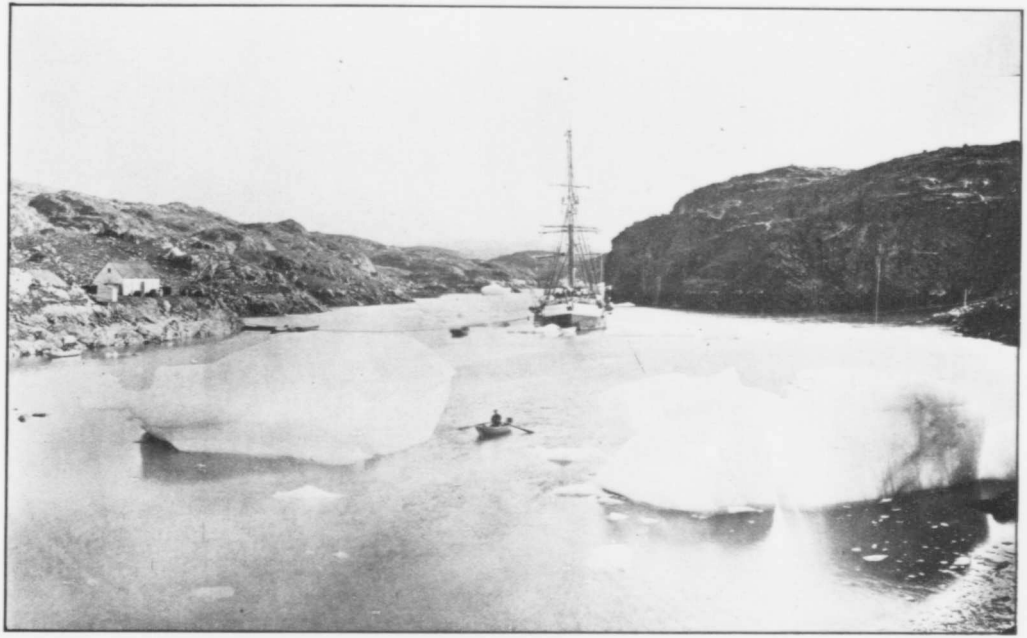
Blacklead Harbour.



Coast near Blacklead.



Port Burwell Outer Harbour

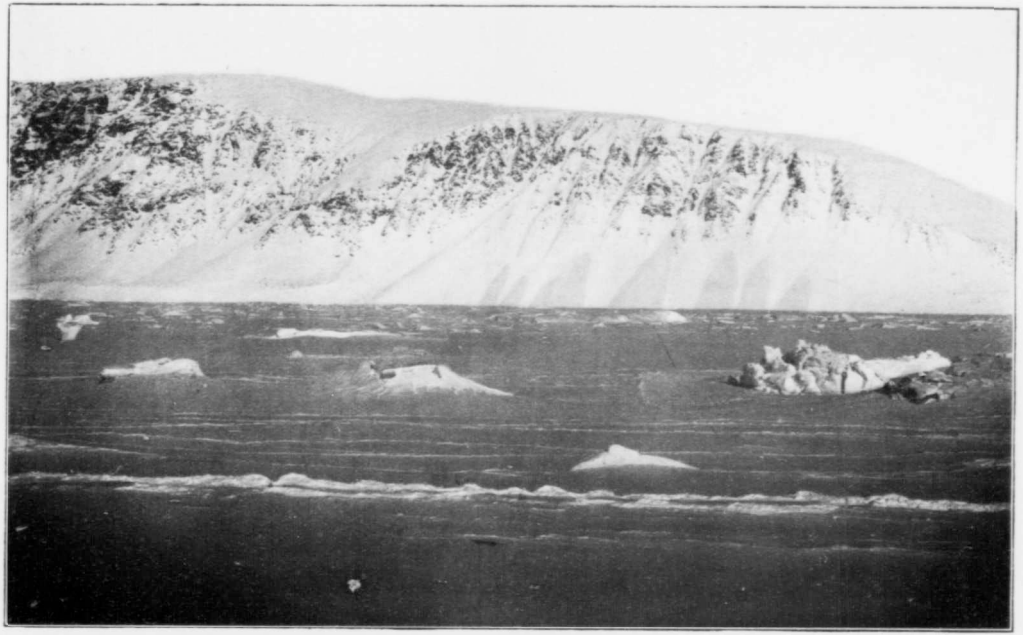


Port Burwell, Inner Harbour.

NATIVES, PORT BURWELL.

Missionary Group and Officers of "Arctic."

THE NORTHERN PART OF BAFFIN LAND.



Erick Harbour, North part of Baffin Land.

CHAPTER VII.

WORK CARRIED ON WHILE AT ANCHOR IN INNER PORT BURWELL.

Tuesday, September 3rd.—After having matured our plans for the work to be done while we remain in this harbour, the second officer, some men and myself went to take soundings in the inner harbour of Port Burwell, which is a snug little harbour for three ships when properly moored. We took some red and some black buoys with us; we placed these buoys at the entrance of the inner harbour. After having completed taking the soundings and our work in the inner harbour we returned on board. Got under way at 11 a.m. and entered in the inner harbour. At noon we made the ship fast to some ring bolts that had been set in on the large stones by the Moravian Brothers. We let go an anchor ahead and one astern, and the ship was then as well secured as in a dock. We now only require some ballast before proceeding to sea. In the afternoon I paid my official visit to the Moravian Brothers. The natives of the place, which consists of 17 families, came on board to see the ship, during the evening. There is quite a contrast between the natives of this place and the natives from Pond's Inlet. The former are more civilized than the latter. This is the result of the good teachings they receive from the Moravian Brothers, who have been on this coast since 1771. This year they have built a fine church; this building includes the school-room and the living apartments of the missionaries; it has been erected at a cost of about $4,000. The missionaries have been kind enough to allow me to take some notes from the report of the official visit of the Governor of Newfoundland, in Labrador, and in this part of the country, in 1905. I herewith give an exact copy of the information extracted from the report, as follows:—

EXTRACT FROM REPORT OF THE OFFICIAL VISIT OF THE GOVERNOR OF NEWFOUNDLAND TO LABRADOR.

Extracts from the Report of His Excellency the Governor of Newfoundland, regarding Port Burwell and its Vicinity.

Page 7.—Two other whaling stations were at work on the Labrador coast during the season now closed. Their catch has been respectively:—

——	Messrs. Bowering.	Messrs. Job.	Labrador Company.	Total.	Value, Estimated.
Sulphur Bottoms	3	2	....	5	
Fin Backs	20	24	57	101	
Hump Backs	14	16	13	43	
	37	42	76	149	$42,318

During the 1904 season there were only the two first companies at work on the Labrador coast. They captured in that year 153 whales, valued at $73,440, approximate. The great difference in value for the last season is due to the poor quality of the whales and to the fall in price of whale oil. From these figures it would appear that the average value of a whale in 1904 was in round numbers $480; in 1905 it was only $280.

Page 13.—On the 14th, in company with Commodore Paget, we had examined the northwest half of the Grenfell Channel or Tickle. This is a passage that leads through from the east coast, starting south of Cape Chidley, to the bay that lies on the east side of the Chidley Peninsula, opening some two or three miles south of Port Burwell. It is about two or three hundred yards wide, and supposed to be sufficiently deep to permit of the passage of large ships through it, thus avoiding the necessity of doubling the Chidley Peninsula. Mr. Reinold, Navigating Lieutenant of the *Scylla*, has, however, after traversing the channel twice, reported one spot in it where the depth did not exceed two and a half fathoms. It is, therefore, necessary that it should be more fully examined before it can be considered safe for large vessels. Strong tides pass through the Grenfell Tickle. It seems to be navigated by small icebergs with more draught than any ship could have. It runs all the way between steep hills of bare rock. Although we were in the channel at the warmest period of the summer season, snow fell when we were there in the middle of the afternoon. It is about 8 or 10 miles long and would, if proved to be safe, be a decided gain for vessels passing between the Atlantic and Port Burwell or Ungava and Hudson Bays. Unfortunately, the weather was so unfavourable that we were not able to make a complete examination of this important passage, which would take some time on account of the probability of its containing some great boulders in its bed.

Page 14.—The Rev. R. Waldmann and Mrs. Waldmann have been at Port Burwell about one year, but they have been fourteen years in Labrador in the service of the mission, without going on leave till this fall. The Rev. Mr. Stewart, of the Church of England Mission, laboured there for two or three years, but it was agreed between the two missions that the work at Killinek should be taken over by the Moravian Mission. This arrangement now leaves the whole population of the Labrador Innuit that are under the jurisdiction of Newfoundland, to the exclusive teaching of the Moravian Mission.

The Innuit about this station are all natives of the east coast, that is natives of the Newfoundland dependency, with the questionable exception of one woman, who is from St. George's River. They are about middle size as compared with Europeans; are strongly built, but look shorter than they really are on account of the cut and quantity of their clothes.

Page 15.—A half-breed couple, Mr. and Mrs. Lane, natives of Davis Inlet, reside at Port Burwell, where they have lived several years. They occupy the humble dwelling formerly tenanted by the Rev. Mr. Stewart. Mr. Lane arrived from Hudson Bay while we were in Port Burwell. He had been serving as interpreter on the Canadian Steamer *Arctic* with Major Moody, of the Canadian Mounted Police. They are a very intelligent and industrious couple and well acquainted with the country. Mrs. Lane makes very superior boots of seal skin, for which she manages to find a market. The foot consists of a kind of skin that is lighter in colour than the leg. The sewing is done with fine and strong threads of the sinew that is obtained from the loins of the caribou. Mrs. Lane, who is a resourceful and courageous women, has alone, killed more than one polar bear.

The natives looked healthy and in excellent condition. They were always, whether occupied or not, warmly clothed in garments half European half native. They were then living in canvass tents, but will occupy huts of earth and stone during the winter. They catch considerable quantities of codfish in the neighbourhood, but no salmon or trout. Caribou are rare in that part of the country. Seals are common. It appears that the seals are shot sometimes by Winchester rifles and then harpooned. The natives still use walrus bone for making some parts of their spears or harpoons, but the points are of steel. They trap a number of white and red foxes, but the black or silver varieties are rare. There are sometimes large numbers of partridges on the peninsula. It is said that they pass here in the fall and spring in their migrations to and from Baffin's Land.

The natives about Port Burwell retain more of their original manners and habits than do those about the other stations farther south. There is some approach towards individual or family rights to exclusive trapping or fishing over certain defined

localities, but they very frequently fish or hunt in common. For example, a man named Kuber claims the Button Islands, the group that forms the southern side of the entrance to the wide channel that leads from the Atlantic to Hudson's Bay. They are utterly bare and barren, and are now unoccupied, and are rarely visited by natives. On the other hand, in more than one case, three or four men hunt together over the same land. A father may or may not divide his rights among his sons. The eldest son is recognized as the head of the family. Women have no hunting or fishing rights. Unmarried sisters are provided for by their brothers. An intending bridegroom has to pay the father and mother for their daughter. No attempt whatever is made at any cultivation. There is no soil and if there were the climate would be prohibitive.

An intending bridegroom has to pay the father and mother for their daughter. It has been ascertained that the payment in one case had been enough seal skins to make a tent. The bridegroom in this particular instance, however, obtained his bride on credit, and refused to pay afterwards. The natives are not very willing, it appears, to give information on such matters as these.

But it seems that at Killinek payment is always made, at least among those not yet well under missionary influence. It was not found that any very distinct trace of totemism exists among them.

One man had abandoned his wife and two children, and had gone to live with his half sister instead. But such a connection as this was said to be rare among the Innuit. This man had been forbidden by Mr. Waldmann to come to the station. One woman was seen there that had given birth to nine children. She has been twice married. Only one man in the community had two wives.

Page 17.—I was informed by Mr. Lane that the first cape westward from Port Burwell, some four or five miles is called Akkivut, and that the second cape is called Oivuk, and is perhaps some fifteen miles from Port Burwell. These were both visible from the bridge of the *Scylla* in Port Burwell. The Innuit of Killinek hunt and trap up to Cape Oivuk, and for about five miles beyond it. Mr. Lane asserted positively that no people other than the Killinek natives hunt or trap there. The traditions of the natives and the presence of a large number of graves on the Button Islands seem to show clearly that the group was formerly inhabited. These islands, varying in size from probably twenty or thirty square miles down to mere isolated rocks, rise to several hundred feet in height, and are divided apparently into a northern and southern group. They are merely detached patches of the Chidley Peninsula. The Killinek people do still occasionally hunt there, but they cross over but seldom, on account of the dangerous nature of the intervening passage. The whole Chidley Peninsula seems to consist of a number of islands separated by a number of channels or tickles of deep water.

It, like the Button group, appears to belong exclusively to the natives now about the Killinek station of the Moravian Mission.

The Moravian station at Port Burwell is called Killinek, there are 48 natives, men, women and children in six families.

Port Burwell is a good harbour, but is the only safe and easily accessible one, so far as is generally known on that part of the coast. The Honourable Captain Blandford, of St. John's, who spent several seasons about the Chidley Peninsula, says there are a few good anchorages in the channels on this part of the coast; but they would require very careful examination before they could be used by a stranger. We certainly saw no other place than Port Burwell that could be called a harbour. Captain Blandford established himself on the Chidley Peninsula and at Port Burwell some dozen or more years ago. He transferred his interest in the latter place to Messrs. Job Brothers, of St. John's, three or four years since, and that firm in turn made over the station to the Moravian Mission.

During that occupation, and up to only a few months ago, the Newfoundlanders living at Port Burwell believed themselves to be in the unquestioned jurisdiction of this colony; but the present dwellers there inform me that they have been told by Canadian officers that they will in future be called on to use the postage stamps of the Dominion and to pay Custom's dues to Canada.

Page 18.—The Moravian Mission does not pay any duty on goods imported by them into Labrador. I am informed by Mr. LeMessurier that this privilege was allowed to them at first under an arrangement with the Imperial Government when Newfoundland was a Crown Colony. It is now permitted among the exceptions from Customs' dues under section 210 of the 'Customs Act,' as follows: Supplies, stores and donations for the Moravian Mission on Labrador and for the Deep Sea Mission under such rules and regulations as may be made by the Governor in Council. Even if Port Burwell were under any arrangement with this Government to pass into the possession of the Dominion, it is very improbable that the Canadian Government would really compel the mission to pay them Customs dues under the circumstances of the case. It is quite clear that the use of Port Burwell is required by each of the two governments for the development of their fisheries in those seas.

Page 26.—The pay of an unmarried missionary begins at £11 a year. A married couple gets £18, and for each child £3 a year till the child is about seven years, when it is sent to school in Europe. Some slight increment is given after service extending over a certain number of years, so that a married couple may, I understand, receive as much as £22 to £25 a year. They collect no fees for marriage, baptism, funerals, &c. Out of this stipend the missionary has to find his clothes and other small necessaries, and has to purchase his breakfast, all except the bread. On this remuneration, cut off from the civilized world for two-thirds of the year; separated from their children; until lately all of them, and even now most of them beyond reach of a doctor; exposed to the most rigorous climate in the world; deprived of such luxuries as change of society or of food; unable to procure such things as fresh vegetables or fruit; they remain at their posts, it may be, ten or twenty years without going on leave. These missionaries perform their work so quietly and unostentatiously that probably only very few people have the opportunity of according to them the respect and admiration that are due to their devoted labours, given with such remarkable self abnegation to a remote, isolated and decaying race, that seems to have before it only a doubtful earthly future.

Page 28.—The mission is a large landed proprietor on the coast, at least nominally. In 1769 the King in Council granted in trust to the Unitas Fratrum (the Moravian Mission) 100,000 acres in Esquimaux Bay, at such places as the society might select, to occupy and possess during His Majesty's pleasure. In 1774 the mission was permitted by order of the King in Council, to extend their settlement to the southward and northward of Nain, their first establishment, and to select 100,000 acres at Hopedale, and apparently a similar area at Okak. In 1903 a grant was issued to the mission for 1,000 acres of land in fee-simple at Founder's Bight, Makkovik Bay. An application has been made recently for a grant at Hebron Ramah, or Killinek, although they have purchased rights at the last named place, as mentioned above. The object of the mission in obtaining these grants has been obtained, to settle the natives there, and to be in a position to keep at a distance undesirables of any class or colour. Judicial powers have not been granted to the mission, as seems to have been contemplated in connection with the original grants, and consequently the missionaries can only expel evildoers from the stations for which they hold grants; or in the case of church members, exclude them from communion or church ceremonies. Expulsion from a station, though rare, has not been quite unknown.

Page 35.—The Moravian establishments for the coast was at the time of my arrival as follows: At Nain, founded 1771, President Bishop Martin and Mrs. Martin, Trade Inspector Schmidt, natives 270. At Okak, founded 1776, Mr. Simon, Mr. Martin, Mr. Hilbig and their wives; Dr. and Mrs. Hutton, (a trained nurse on the way from England), natives 350. At Hopedale, founded 1782, Mr. Hettasch and Mr. Lens with their wives, and Mr. Guleby, store agent; natives 250. At Hebron, founded 1834, Mr. Asboi, Mr. Schmidt, Mr. Bohlman and their wives, natives 183. At Ramah, founded 1871, Mr. Gericke and Mr. Filschke (not visited by me). At Makovik, founded 1899, Mr. and Mrs. Townley, natives 150. At Port Burwell, founded 1899, Mr. and Mrs. Waldmann and Mr. Voisey, a settler; natives 48.

This gives a total population of 1,251 under missionary care, without including

Nachvak. This number comprises settlers, but not the thirty heathen, who would belong to the Nachvak district.

It would appear from the records of this colony that the Moravian Mission was invited to Labrador by Governor Hugh Palliser, of Newfoundland, who in the proclamation of 8th April, 1765, says: 'I have invited interpreters and missionaries to go amongst them (the Indians on the coast of Labrador) to instruct them in the principles of religion, and to improve their minds and to remove their prejudices against us.' The name of the Moravian Mission probably presented itself in this connection from the fact, no doubt well known to the Governor, that the Moravian John Christian Ehrhardt, who 'wished to commence a mission among the Eskimos in Labrador,' had, with five companions been murdered by the natives in 1752. It would also seem from the proclamation of 30th April, 1765 (Appendix D) that the mission was under the special protection of the King. By the Royal Proclamation of the 7th October, 1763, issued in conformity with the terms of the Treaty of Paris, the coast of Labrador was put 'under the care and inspection of our Governor of Newfoundland.' It is evident from this that the British Government lost no time in concerting the wise measure of settling the mission on that coast.

The attitude of the government towards the mission, and the terms on which they receive protection and grants of land, is sufficiently well shown in Governor Shuldham's proclamation of 17th March, 1774 (Appendix F).

Page 36.—Of the many proclamations of that period connected with the coast of Labrador that cast light on the relations that existed between the Governor of Newfoundland and the mission, perhaps one of the most interesting and significant is that which emanated from Governor Shuldham on the 3rd August, 1774 (Appendix G), in an order addressed by His Excellency to the officer then in command of the garrison of twenty men at York Fort at Pitt's Harbour, in Chateau Bay, where a detachment was kept all the year round in a strong blockhouse, erected in 1766, by command of the King, the principal object of which was the 'securing such boats and fishing craft as the fishers may leave there in the winter from being stolen or destroyed by either savages or banditti crews resorting to that coast from the colonies.' The extract given in Appendix G shows that when the coast of Labrador was transferred from Newfoundland to Quebec, there still remained on the officer who was Governor of Newfoundland the official obligation 'that I do also countenance and protect, as much as in me lies, the establishments formed under the King's authority by the Society of the Unitas Fratrum to the west of the straits of Belle Isle.'

From this it appears that the *de facto* control and protection exercised by the Government of Newfoundland over the Moravian Mission and their charges on the coast of Labrador, were not interrupted by the temporary *de jure transfere* of the coast to Quebec, a transfer which was thus manifestly not made on considerations connected with the native inhabitants of the Labrador coast.

It would seem, therefore, that from its first arrival on the coast to this day, the Moravian Mission, has, without break or interruption had 'the countenance and protection' of the Government of Newfoundland. It is a pleasant duty to record that the present government has recently given practical effect to this traditional policy, by grants of land, by exemption from Customs dues, and by a subsidy to the hospital at Okak.

Total exports from Labrador for 1905:—

Dry codfish—		
Direct shipments to market, qtls.	342,219	
Shipped to Newfoundland,.. qtls.	392,393	
Total Labrador catch.. .. ..qtls.	734,612, at $4 =	$2,938,448
Salmon, tierces, 1,698..		36,638
Trout, barrels, 159½..		914
Cod oil, tuns, 67..		4,840
Whale oil, tuns, 11,016..		11,018

Whalebone, tuns, 269½	$ 3,180
Furs	32,976
Seal skins	47
Lumber, feet, 4,593	48,823
Old junk	15
Seal oil, tuns, 25	1,500
Feathers, lbs., 1,432	187
Laths, M.	4,120
	$3,082,503

It may, therefore, be said that the exports from the Labrador coast amounted in 1905, in round numbers to three million dollars. It has, however, to be pointed out that the Labrador fishery was last season exceptionally good. The above figures would seem to show that practically, in round numbers, the Labrador coast will, this season at least, yield about half the export of dry cod from the colony. There need be no doubt that this fishery could be made more productive still by providing greater facilities for the prosecution of that important industry, and by pushing it further towards the north. In the above total there are included the

EXPORTS of the Moravian Church and Missionary Agency from Labrador, for the years 1885, 1895 and 1905.

ARTICLES.	1885.		1895.		1905.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
		$		$		$
Codfish	2,689 qtls.	7,140	2,994 qtls.	8,135	4,035 qtls.	21,149
Trout	578 brls.	2,870	785 brls.	3,720	798 brls.	4,788
Skin boots	632 prs.	490	230 prs.	437	3,224 prs.	5,849
Seal oil	313 cks.	11,185	194 cks.	6,120	353 pns.	7,200
Cod oil	3 "	35	3 "	118	41 "	910
Cod liver oil	7 "	640	6 "	375	3 "	96
Furs	16 "	2,925	6 pgs.	1,750	11 pgs.	7,000
Dry seal skins	13 "	200	.....	.....	5 "	100
Salted seal skins	14 "	425	8 pgs.	190	7 "	200
Reindeer skins	36 pgs.	1,625	72 "	1,000	5 "	800
Straw work and curios	.....	200	202 "	60	15 "	150
Feathers	.....	.....	4 "	15	12 "	150
Salmon	37 tcs.	407	5 tcs.	84	6 tcs.	50
Totals	.....	28,142	.....	22,024	.....	48,442

Page 41.—1. Improved steam communication.
2. Improved telegraphic communication.
3. Facilities for navigation.
4. The regulation of the river fishery.
5. The observance of close time for game and fur animals.
6. The prevention of forest fires.
7. More school accommodation, and more teachers for Europeans and 'settlers' in the south.
8. Vaccination.
9. A legal prohibition against the removal of the aboriginal natives from their own country.
10. Improved locomotion.

Page 47.—In 1891 the question of the introduction of reindeer into Alaska was raised by Dr. Sheldon Jackson. The Esquimaux were threatened by extinction from want of food. White men had driven away the game or destroyed it, and had depleted the salmon fishery by netting the rivers. It was found that the residents of Eastern Siberia derived their subsistence chiefly from the reindeer, even to a greater extent than do the Laps. It was, therefore, deemed desirable that the reindeer should be introduced for the use of the Alaskan Esquimaux. Congress having refused to grant an appropriation for the purpose in 1891, $2,146 was raised by private subscription for the purchase of reindeer. With this sum 187 deer were brought from Siberia, with regular herdsmen, to whom a certain number of Alaskan Esquimaux were apprenticed as herdsmen and teamsters. From 1892 to 1904, 1,280 deer were imported from Eastern Siberia to Alaska, and in 1904 the total number of fawns surviving was 10,267. In the official report of the Commissioner for Education, published 1905, it is stated: 'It is perfectly safe to predict, from the inspection of the annual per cent of increase, the doubling of the herd every three years.' All the female deer are preserved. The males are used as food or trained to harness. Allotments of 50 deer are made to those natives who underwent apprenticeship. Seven Lap families, on account of being more civilized than Siberians, were, in 1894, employed to take charge of the Siberian deer in Alaska, and to teach the Esquimaux. Between December, 1899, and May 31, 1900, the United States ran a mail by reindeer, under contract, three round trips from St. Michael, at about 60° 30′ north, across the Seward Peninsula to Kotzebue, which is inside the Arctic circle about 66° 50′ north. Each round trip of 1,240 miles was successfully accomplished through an unbroken wilderness without a road or trail. Several relief expeditions to the far north have been successfully carried out by United States officers in Alaska by means of reindeer, when such expeditions would have been impossible by other means. A contract has lately been entered into to carry a regular winter mail over the 650 miles from Kotzebue to Barrow, the most northerly point of Alaska, about 71° 20′ north. It is said that on these journeys 'when used in relays 50 miles apart, reindeer can transport the mails at a rate of 200 miles a day.'

In 1898 the United States Government imported from Lapland 538 head of choice reindeer trained to harness, 418 sleds and 411 sets of harness, a few herding dogs and 50 drivers, some of whom had families making in all 113 emigrants. These Lapland deer were not for breeding purposes, but only for harness. More than half of them died of starvation after reaching Alaska, as no moss had been provided for them. From 1894 to 1903 Congress has appropriated no less than $158,000 for the introduction into Alaska of domestic reindeer from Siberia. It has been found that 'with careful training the Eskimo make excellent herders.' It is thought that in 35 years there may be 35,000,000 reindeer in Alaska, with an export of 5,000 carcases a year. The deer purchased in Siberia from the Chunchus, cost $4 a head, from the Tunguse, $7.50 a head. It is stated by Mr. Gilbert H. Grosvenor that 'the tame reindeer of Siberia is practically the same animal as the wild caribou of Alaska, changed by being domesticated for centuries.' This corresponds with the general view of English zoologists, that there is but a single species of reindeer, but presenting local peculiarities. It appears that the Alaska deer is not equal to the Lapland deer in strength or speed. A pair of the latter can pull a load of 500 or 700 lbs., at the rate of 35 miles a day, and keep this up for weeks at a time. Mr. Armstrong states that a single deer can draw 600 lbs., on a sled 30, 50 and even 90 miles a day. It is said the Lapland deer can in point of speed do 150 to 200 miles a day, and sometimes 20 to 25 miles down hill in one hour. The Alaskan reindeer express has been driven at a rate of 95 miles a day. Reindeer can travel as well at night as in the daytime. In Siberia a caravan of 160 sleds is managed by ten men. In summer a reindeer can carry as a fair load, a pack of 150 lbs. A good deer can easily carry a fair sized man. The reindeer cow gives about one teacupful of very rich milk, nearly as thick as the best cream, which makes delicious cheese.

Labrador seems to be so favourably situated for this animal that the introduction of the domestic reindeer there would hardly partake the nature of an experiment. The caribou is at home on Baffin Land to the north and is found even up to Grinnel Land

and Grant Land, in 82° north, and it is a native of the whole Labrador coast from Chidley to Chateau Bay, and as far south as 47° north, in Newfoundland. There need, therefore, be no doubt that either the Lapland or Siberian reindeer would thrive either in Newfoundland or on the Labrador coast. There can hardly be any question that both climate and food are suitable. It would be an easy matter for natives or residents of Labrador who are accustomed to handle dog sleighs, to learn to handle reindeer. American experience would seem to leave the question open as to whether reindeer should be imported from Siberia, from the Tunguse, or from Lapland. They might not be procurable from Alaska. But it seems clear that the teachers should be Laps. The Americans found that deer stand a sea journey remarkably well. Immense herds of reindeer could be run on the Labrador territory, enough to supply the population of that coast with food, to provide them with a means of travel, and to furnish a valuable export. By means of a reindeer post communication could be kept up easily all winter from one end of Newfoundland to the other, and along the whole length of the Labrador coast.

Appendix F.

By His Excellency Molineux Shuldham, Esq., Governor and Commander in Chief.

A Proclamation.

Whereas His Majesty in Council has been pleased to grant unto the Unitas Fratrum and its society, for the furtherance of the Gospel among the heathen, a parcel of land on the coast of Labrador for the establishment of a mission among the Esquimaux savages; and whereas it has pleased His Majesty in Council to permit and allow the missionaries of the said Unitas Fratrum to extend their said settlements to the southward and northward of their present location and occupy and possess during His Majesty's pleasure such tracts of land as may be found necessary for the purposes of the undertaking; provided such tracts of land shall not exceed one hundred thousand acres to the southward of Nain, and one hundred thousand acres to the northward of Nain, and the spots so to be chosen by the said missionaries for their settlements be such as may in no respects interrupt any of the fisheries carried on upon the said coast of Labrador. Therefore be it known unto all men that their said settlements are under His Majesty's immediate protection, and I do hereby strictly enjoin all His Majesty's subjects to live in amity and brotherly love with the said settlers and the native savages inhabiting that country, in no wise whatever molesting or disturbing the said mission or those who shall settle with them. And I do require that all His Majesty's subjects who shall come upon the coast of Labrador do act toward the Esquimaux Indians agreeable to the proclamation signed at St. John's the 24th June, 1772, respecting the savages inhabiting the aforesaid island and coast.

Given under my hand at London, 17th March, 1774.

M. Shuldham.

By His Excellency's command,

Edward Braggs.

Appendix G.

And whereas the Right Honourables, the Lords Commissioners of the Admiralty have been pleased to signify to me that the Earl of Rochford, one of His Majesty's Principal Secretaries of State, hath acquainted them by his letter of the 16th of June last, that a Bill hath been under the consideration of and has passed both Houses of Parliament, by which the coast of Labrador (made part of the Government of Newfoundland by the Royal Proclamation of the 7th of October, 1763), is re-annexed to the Government of Quebec, in consequence of which regulation, when the Act shall have passed all authority on that coast given to me in my capacity as Governor will cease; but that it is His Majesty's pleasure that I do, as commander of the ships employed

for the protection of the fisheries, superintend those on the Labrador coast as well as those of Newfoundland. And that I do in a particular manner give all possible encouragement and protection as well to the seal and seal cow fisheries, as to the cod fisheries carried on by the King's subjects from Great Britain on such parts of the coast as are not claimed as private property under regular Canadian titles, and that I do also countenance and protect as much as in me lies, the establishments formed under the King's authority by the Society of the Unitas Fratrum to the westward of the Straits of Belle Isle. You are hereby required and directed to take particular care that His Majesty's pleasure in regard to the several particulars aforementioned be strictly complied with as far as is dependent on you as Commander of York Fort.

M. SHULDHAM,
Governor.

3rd August, 1774.

Page 43. *Facilities for Navigation.*

The navigation of the coast would be very considerably facilitated by the erection of a certain number of beacons at prominent points, and by marking some of the cliffs and rocks with paint, &c. The services of a small steamer for a single season could do much in carrying this out. At present some half dozen to half a score of harbours have been surveyed on the coast.

It would be of much advantage if these could be connected by a surveyed or marked track. It appeared also that good photographs of the coast outline at certain places would be of much use, especially to the stranger.

APPENDIX O.

TEMPERATURE Observations at Port Burwell, taken by the Rev. M. Waldmann, from 8 to 9 a.m., from 1st December, 1904, to the 17th August, 1905. Fahrenheit Scale.

Day of Month.	Dec., 1904.	Jan., 1905.	Feb., 1905.	March, 1905.	April, 1905.	May, 1905.	June, 1905.	July, 1905	August, 1905.
1.	5·0	1·0	—15·0	18·0	15·0	29·0	43·0	48·0	46·0
2.	8·0	—15·0	— 9·0	18·0	21·0	29·0	35·0	48·0	63·0
3.	8·0	— 4·0	7·0	15·0	16·0	34·0	38·0	45·0	48·0
4.	10·0	—20·0	1·0	— 9·0	15·0	27·0	36·0	44·0	50·0
5.	10·0	—17·0	.....	—11·0	28·0	25·0	35·0	38·0	45·0
6.	8·0	0·0	— 8·0	— 9·0	31·0	32·0	.....	52·0	51·0
7.	— 1·0	— 8·0	—10·0	— 8·0	35·0	29·0	28·0	54·0	39·0
8.	— 3·0	5·0	— 4·0	.....	34·0	30·0	32·0	60·0	39·0
9.	—12·0	0·0	3·0	.....	32·0	31·0	35·0	40·0	39·0
10.	—28·0	— 1·0	20·0	.....	37·0	33·0	39·0	35·0	38·0
11.	—21·0	— 2·0	19·0	.....	32·0	31·0	30·0	42·0	41·0
12.	— 8·0	—12·0	11·0	.....	30·0	24·0	28·0	45·0	41·0
13.	— 8·0	—12·0	0·0	.....	31·0	23·0	39·0	38·0	34·0
14.	— 8·0	—12·0	5·0	— 4·0	31·0	25·0	31·0	38·0	40·0
15.	— 2·0	—10·0	10·0	3·0	33·0	20·0	33·0	38·0	39·0
16.	— 1·0	—12·0	0·0	— 8·0	30·0	30·0	33·0	58·0	42·0
17.	— 1·0	—20·0	— 8·0	—12·0	33·0	35·0	32·0	51·0	34·0
18.	— 2·0	—10·0	5·0	—15·0	29·0	32·0	47·0	51·0	.....
19.	— 9·0	— 3·0	5·0	—12·0	18·0	27·0	40·0	45·0	.....
20.	—10·0	— 7·0	— 8·0	—12·0	18·0	27·0	40·0	50·0	.....
21.	0·0	— 8·0	—15·0	—12·0	31·0	35·0	34·0	54·0	.....
22.	—11·0	—13·0	13·0	3·0	29·0	33·0	35·0	44·0	.....
23.	—19·0	—20·0	— 8·0	5·0	31·0	36·0	32·0	39·0	.....
24.	—20·0	—17·0	— 2·0	10·0	30·0	34·0	34·0	45·0	.....
25.	—12·0	—10·0	8·0	24·0	33·0	45·0	39·0	48·0	.....
26.	— 6·0	—10·0	15·0	21·0	31·0	34·0	36·0	57·0	.....
27.	— 5·0	—17·0	28·0	18·0	34·0	36·0	41·0	60·0	.....
28.	—11·0	0·0	18·0	19·0	34·0	50·0	46·0	70·0	.....
29.	— 5·0	1·0	.....	18·0	31·0	.....	50·0	38·0	.....
30.	— 1·0	4·0	.....	24·0	29·0	32·0	38·0	62·0	.....
31.	— 9·0	— 5·0	.....	27·0	.....	34·0	.....	63·0	.....
Mean	— 5·3	— 8·2	1·6	4·4	28·7	31·4	37·1	48·6	42·9

RESULTS of Temperature Observations taken by Mr. Holwatscheck, Missionary of the Moravian Mission, at Eebron, during the year 1891. Centigrade and Fahrenheit Scales.

Month.	Mean Temperature, Centigrade.	Mean Temperature, Fahrenheit.
January	-20·5	-4·9
February	-26·5	-15·7
March	-13·5	7·7
April	-8·5	16·7
May	0·6	30·9
June	4·3	39·7
July	9·2	48·5
August	8·2	46·7
September	3·5	38·3
October	-3·2	26·2
November	-7·0	19·4
December	-14·9	5·2

Wednesday, September 4th.—Fine, clear day, with west wind. We went up on the high hills and we looked towards the strait; we could see no ice but an iceberg. We had a general view of the bay to the west of the harbour; there is a rocky bar in this bay, and this bar dries up at half tide. This place was formerly an open channel, but the old pioneers of the place say that the ice has carried and deposited stones which now bar the entrance of this little channel. Mr. Joe. Lane, a native of the place, who has been employed by the N. W. M. P. for the last three years, says that it would be very much more convenient to the natives if the stones were removed from this bar and thus allow them to cross with their boats, and communicate from side to side according to the tide. I noticed that the tide rises quicker in the harbour than it does on the west side; there is a difference of about one foot in the level of the water on the other side of the bar and that in the harbour, this creates a current running to the west during the last quarter of the flood tide. Some of the crew was employed taking ballast from the bar. The chief engineer emptied the ship's boilers, to clean them while we are in the harbour. The chief officer has been directed to go up on one of the high hills in order to see, occasionally, about the condition of the ice in the strait, and report on board. I have engaged Mr. Joe. Lane, the native, as a guide and to help me to explore this port and its surroundings and to look for a suitable harbour on the west side of Cape Chidley. Mr. James Duncan, Customs officer, Mr. Jack Simpson, Customs clerk, went to the Moravian Brothers' Mission to collect the Customs dues on dutiable goods landed there for the missionaries; I was led to believe that these missionaries are not subject to pay the Customs dues. The Customs officer took an inventory of what goods there were at the mission. The ship's draught to-day is 16′ 2″ forward and 18′ 6″ aft.

Thursday, September 5th.—Beautiful day with light wind from the S.W. At 8 a.m. Mr. W. H. Weeks, purser, Mr. George Lancefield, photographer, Mr. Nap. Chassé, quarter-master, and myself went to mark a place for the proposed lighthouse on the S.W. corner of the entrance of Port Burwell. After having gone some distance we selected a place on which we erected a cairn on the spot where it is our intention to ask the Government to build a light, on our return.

After dinner we went to inspect the bay which we call the S.E. Bay, where the steamer *Adventure* has landed some coal for the use of the N. W. M. P., in 1906. We found about forty tons of coal at this place.

Friday, September 6th.—Weather bad, squalls accompanied by rain. The crew is taking in some ballast from the rocky bar; Rev. Mr. Schmidt, the General Superintendent of the Moravian Brothers, asked me if I would take all the stone ballast possible from this passage, which if cleared would be very useful to the natives. The

weather cleared up during the afternoon, the wind changed to the northward, the remainder of the day was fine and clear. Two members of the expedition went fishing and brought back about 180 fine codfish, which were very much appreciated by crew and all officers of the expedition, who were very glad of the change of diet it furnished. I have given orders for two members of the crew to be sent fishing every day for codfish while we are in this harbour.

Saturday, September 7th.—Made the general inspection of the ship, every part of the vessel was found in good order, the machinery and boilers are also in good order. We want some more ballast on board, to make up for the coal that we will use hereafter. It was high water full and change, to-day, at 9.22 a.m., the tide rose about 16 feet. I gave the men a half holiday, so that they could go ashore and take some exercise.

Sunday, September 8th.—Heavy fog prevails outside of the harbour. We held service on board at 10.30 a.m. I was invited to dinner at the Moravian Mission. Rev. Mr. Waldmann is the local minister, Mr. Schmidt is the general superintendent, and Rev. Mr. McKillin is the traffic manager. Rev. Mr. Waldmann has his wife with him at the Mission. I was given a good deal of information from the Moravian Brothers about the Labrador coast and about the natives and their customs. I invited the ministers to tea on board, and they passed the evening with us; we all spent a very sociable hour together.

Monday, September 9th.—Thick fog, with light rain at intervals; we sent down the royal yard. At 10 a.m. the fog lifted somewhat. I went with two men to take soundings in the inner harbour and to place some buoys to indicate the rocky patches; came back on board for supper. The chief officer reports that no ice can be seen from the high hills, but that there are two large icebergs in outer Port Burwell. The pieces of ice breaking off these two icebergs are carried in this harbour with the flood tide.

Tuesday, September 10th.—After breakfast I went out with Mr. Joe. Lane and four members of the crew, to take soundings in Munroe Harbour, which is about one mile from Port Burwell; it is a narrow inlet, with good depth of water, where one or two ships could be well secured to winter in there if necessary. Some Newfoundland steamers moor in that inlet during the month of August, when they come to fish for codfish. The fishermen have been very successful lately, as there was a large supply of fish this year. The abundance of fish is due to the absence of ice; this year the place has been exceptionally clear of ice. Several photographs were taken for future reference.

Wednesday, September 11th.—I went out with the two quarter-masters, to locate the place where to build some day beacons for the entrance of the outer and the inner harbours. We took soundings in the outer harbour, in line with the proposed day beacons, and we found from 8 to 15 fathoms of water.

Thursday, September 12th.—We had an early breakfast. Messrs. W. H. Weeks, George Lancefield, Joe. Lane, two sailors and myself went out in the big boat at 5.30 a.m., to take soundings in McLean Strait, and we went right through to the east side of Cape Chidley. Only one rock where a ship could ground was found; it is about two-thirds of the way, in the middle of the strait. There is a tide ripple which rises over this rock. A range of beacons on the opposite shore would mark its place very well. The tide is very strong on the western entrance, but is more regular on the eastern side. The day was beautiful, and Mr. Lancefield took many photographs during the trip.

We ran about 45 miles during the day. We arrived back on board at 7.30 p.m.

Friday, September 13th.—Wind N.W., weather fine and clear. There is no ice visible from the high hills. I went with the quarter-masters, the carpenter and two waiters, to build a wooden range for direction to the best anchorage in the outer harbour. The N.W. wind had the effect of raising the water about 18 feet to-day. We returned on board after having built the two cairns.

Saturday, September 14th.—Rain with wind from the S.W. At 11 a.m. general weekly inspection of the ship, everything was found clean and in good trim. I received the meteorological observations for the year 1906-7, from the Moravian

Brothers, as taken during that time in Port Burwell. From the information I can gather, this port is open for navigation from about the 13th of July to the 15th of November, each year.

Sunday, September 15th.—There was a little snow with S. wind to-day. Service was held both at the mission and on board at 10.30 a.m. I am informed that all the natives go to the mission every Sunday. The Moravian Brothers deserve much credit for the way they look after the natives. They are taught to be clean, they have better houses, they live more like civilized people, and follow the teachings of Christians. Several of the members of the expedition went ashore during the afternoon to take exercise.

Monday, September 16th.—The wind has changed to the N.W. The chief officer reports that no ice is yet to be seen from the high hills, on top of which he goes regularly for this purpose. I went out with the carpenter and three of the sailors to build another cairn in the outer harbour; after building this cairn we applied a coat of white paint to it. Quarter-master Chassé killed some ducks which he brought on board. I gave leave of absence to some of the men to go and help to finish the building of the Moravian Church, the other men on board were employed taking some ballast.

Tuesday, September 17th.—Wind from the eastward, weather clear, but from the top of the high hills it can be seen that the strait is full of fog. I went ashore with the carpenter and two men to build a cairn in line with the steeple of the Moravian Church, thus forming a range of marks to come inside of Port Burwell. We loaded this cairn with stones and gave a coat of red paint to it. We returned on board for dinner.

Wednesday, September 18th.—Wind from W.N.W., we are preparing to go to Port Harvey.

Thursday, September 19th.—Strong S.E. wind and snow during the night. At 8 a.m. the wind is still stronger and it is raining. We trimmed the ballast in the hold to-day, and different other works were carried on by the crew. The day was very dark, and we could not see at any distance from here.

Friday, September 20th.—At 6 a.m. left with Joe Lane and three men, in boat No. 3, and we took soundings inside of the island forming Port Harvey. The tide is very strong at this place, about 6 knots an hour with the flood tide and about 7 knots with the ebb tide, and for this reason Port Harvey is not a suitable harbour to shelter vessels, though there is a good anchorage in the inner part of the harbour, in about 15 to 20 fathoms of water. I, however, built some cairns as leading marks to go into this harbour. We took several photographs during the day.

We arrived on board at 8 p.m., having done a good day's work.

Saturday, September 21st.—Strong gale from the S.E. Three heavy icebergs came in and grounded in the outer harbour. I consider this dangerous for ships which should be lying outside of the harbour when these floating icebergs are drifting about. Mr. W. H. Weeks, purser, and myself made a list of the goods which we are to land at this place, in case of shipwreck in the vicinity. At 1 p.m. the general inspection of the ship was made; all quarters are in perfect order and tidy.

Sunday, September 22nd.—Weather fine and clear. At 10 a.m. the service was held on board and at the Mission. It was very pleasant to hear the church bell this morning, it reminded us of home; it is very impressionable to see the natives and everybody hurrying to the service, to pray in community once a week, to thank God for the favours He has bestowed upon us during the week. Some of the members climbed on top of the high hills to see if there was a vessel coming, as it was expected to come with some mail for the expedition. In the afternoon I paid a visit to the Moravian Brothers and remained there for tea. I returned on board at 8 p.m.

Monday, September 23rd.—Fine and clear weather. At 7 a.m. we left to survey the Eskimo passage, which we found to be only five miles in length. There are two small brooks running at its head; they run from two lakes, which are about one-half mile in length. A chain of mountains, about 1,000 feet high run N. and S., these mountains start from Cape Chidley. We took several soundings in this vicinity. We

were lucky to kill some ducks during the day, we also killed a few pigeons. There is quite a tide running in and out of this passage.

Thursday, September 24th.—Strong gale from the S.E., with rain. I have made arrangements with the Moravian Brothers to take care of the provisions which we intend to land before our departure. After inspecting the upper part of the church, I concluded that it was a very suitable place to leave the provisions in.

Wednesday, September 25th.—Wind blowing hard from the S. The men are getting ready to land the stores, the preparation took the greater part of the day.

Thursday, September 26th.—Wind still to the south, with rain; the barometer is very low, indicating that there is a gale raging not very far from this port. Four of the men have rheumatic attacks and influenza. I have engaged Joe Lane to replace one of the sailors, whom the doctor said, will not be able to go on duty for about one month.

Friday, September 27th.—Wind is changed to the north this morning. Snowing. We are landing the stores, which we are leaving here in case of shipwreck in this neighbourhood, and placing them in the upper part of the Moravian Church. The total weight of this cache is about 12,000 pounds.

Saturday, September 28th.—It is snowing and the wind is from the north. At inspection the ship was found to be in good order. I went ashore to see Rev. Mr. Schmidt, with regard to some information about this port. The men were off for a half holiday this afternoon.

Sunday, September 29th.—There is a strong breeze from the north, the weather is clear and cold. Ice is making in the harbour. Sunday service was well attended this morning. In the afternoon I went on shore, on the request of Rev. Mr. Waldmann and Rev. Mr. Schmidt, to see about the case of a native who has two wives. I told the native that I would be glad to meet him to-morrow about this matter, after telling him that it was contrary to the laws of the Government of the Dominion of Canada to have two wives.

Monday, September 30th.—Strong wind from the west. There is no ice visible from the high hills. Filled the fresh-water tanks on board, and the ship is ready to go at any moment. At 10 a.m. I went to the mission to meet the Eskimo to whom I referred yesterday as having two wives. After consultation with the mother and the two brothers of the last adopted wife, I informed him that his second wife's parents were willing to provide for her if he would let her free, he agreed to do this on the condition that her mother would provide for her as long as she did not get married; the mother promised to do this. A written contract of this was made by Rev. Mr. Waldmann and Rev. Mr. Schmidt; this agreement was signed by the husband, the two wives, the mother and brother of the last wife, and the two missionaries. Everybody was satisfied except the first wife, who cried when she saw the other one leaving her.

KILLINEK, LABRADOR,

September, 1907.

J. E. BERNIER, Esq.,
Commanding Officer, C.G.S. *Arctic*.

DEAR SIR,—As we have an Eskimo here who has taken to himself lately a second wife, we have endeavoured to persuade him to separate again from his second woman, but without avail. As we possess no lawful jurisdiction and are therefore unable to proceed further in the matter, we ask you kindly to attend to the same, and we should be very glad if the matter was cleared up during your stay here, as we fear that if nothing is done the pernicious example may induce other natives of our community to act similarly.

Hoping that this may not give you much trouble,

I am, your obedient servant,

(Signed) CHS. SCHMIDT.

KILLINEK, LABRADOR,
September 30th, 1907.

An agreement made this 30th day of September, between Captain J. E. Bernier, of the S.S. *Arctic*, and Panjinge, native Eskimo, resident at Port Burwell, that he undertakes to leave Lucy, his second unlawful wife. The mother of the said Lucy agrees to keep her daughter henceforth, she being in this manner fully provided for. The two brothers, Kalasen and Pangortor, also agree to supply, if necessary, and furnish sustenance to the said second wife.

As Lucy, the woman in question, is expecting a child, the said man Panjinge, as well as the woman's brother, agree to look after and furnish it with all the necessaries of life until she should marry again.

Ikiage, the mother of the said woman, Lucy, agrees to look after and to keep custody of her daughter the said Lucy as well as her child as long as she does not marry again.

(Signed)

PANJINGE. X
LUCY. X
IKIAGE. X
Brothers of Lucy. KALASEN. X
PANGORTOR. X

Witnesses:

J. E. BERNIER,
Commander S.S. 'Arctic.'

CHS. SCHMIDT, } *Missionaries.*
T. WALDMANN, }

S. VOICEY.

Tuesday, October 1st.—Wind from the S.W., with rain. I sent some of the men to take some codfish, but they returned without any, saying that the fish had evidently left the locality as they could not catch any after fishing for some time; it is to be hoped that the absence of the fish is only temporary, as it is well liked on board. At 6 p.m. wind veered to the north and there was a little snow for some time.

Wednesday, October 2nd.—Weather calm, fine and clear. I gave orders to raise steam, to get to the outer harbour. At 2 p.m. we went out and anchored in 11 fathoms of water, in line with the range built by us for this harbour. At 4 p.m. we went to lift the inner harbour buoys, we placed them on shore, and left them in charge of Rev. Mr. Waldmann.

Thursday, October 3rd.—Strong southerly wind, with cloudy weather. Snow fell and covered the hills inland, the country has a winter appearance. We again filled the fresh-water tanks on board. We left our mail in charge of the Missionaries. The wind increased to a gale and we were obliged to drop both anchors, we rode out the blow during the night.

Friday, October 4th.—The wind is still blowing from the south, but more moderate. Hove one anchor. Rev. Mr. Waldmann and Rev. Mr. Schmidt came on board to say good bye. They gave us their mail to be mailed by us on our arrival at Quebec.

We are now ready to leave. Some of the members of the expedition went fishing this afternoon, and they brought back a few codfish, but they say that they had to go farther off the shore to catch these fish.

The following is a copy of the memorandum prepared by Mr. James White, Government Geographer, with reference to the jurisdiction of Canada at Port Burwell:—

MEMORANDUM *Respecting the Jurisdiction of Canada in Port Burwell, N.W.T.*

The charter of the Hudson's Bay Company granted the sole trade and commerce of all the seas, straits, bays, rivers, lakes, creeks and sounds, in whatsoever latitude

they shall be, that lie within the entrance of the straits, commonly called Hudson's Straits, together with all the lands and territories upon the countries, coasts, and confines of the seas, bays, lakes, rivers, creeks and sounds aforesaid, that are not actually possessed by or granted to, any of our subjects, or possessed by the subjects of any other Christian Prince or State.

Act 49, George III., Chap. 27, A.D. 1809, enacts that the coast of Labrador, from the river St. John to Hudson Strait and the Island of Anticosti and all other small islands annexed to the Government of Newfoundland by the proclamation of October 7th, 1763 (except the Islands of Madeleine) shall be separated from Lower Canada and reannexed to Newfoundland.

Act 6, George VI., Chap. 59, A.D. 1825, in general terms, re-transferred the north shore of the Gulf of St. Lawrence and Anticosti to Quebec.

From the foregoing it is evident that Canada, in acquiring the rights of the Hudson's Bay Company acquired all the territory draining into Hudson Bay and Straits; that is, all inside the entrance to Hudson Strait. On the other hand, the Imperial Act of 1774 (Quebec Act), 1809 and 1825, and the Royal Proclamation of 1763 all refer to the coast of the mainland from Cape Chidley southward, showing the legal advisers of the Crown were advised that the territory covered by these Acts and the Proclamation of 1763, did not include any territory to the west of Cape Chidley—the entrance to Hudson Strait.

As Port Burwell is inside the entrance to Hudson Strait, it is undoubtedly in Canadian territory and is to the west of the extreme claim of Newfoundland, which does not include any territory to the west of the watershed of the rivers that fall into the Atlantic between Cape Chidley and the Strait of Belle Isle.

(Signed) JAMES WHITE,
Geographer.

It is high water full and change at 9.25 o'clock. The water rises 19 feet in spring tides, and 14½ feet in neap tides. It is the best sheltered harbour in the neighbourhood, it is also the easiest of access. With a light at the mouth of the entrance, there would be no difficulty for a stranger to find the harbour, and it would make a fine place of call for vessels coming in or going out. At present the eastern part of Ungava Bay has not been surveyed; it is studded with unknown islands, even the Button Islands are more numerous than what they are on the chart. It requires skilful navigation on account of the strong tide coming in and out of the strait, the soundings are very deep even close to the shore; a sharp look-out has to be constantly kept and the position very accurate. There is only one strait that runs out of Ungava Bay to the ocean; it is called McLelan Strait, in which a very strong current runs during the latter part of the tide. No vessels should attempt to go through this strait without the aid of a local pilot. There is a rock about three-fourths of the way eastward on which a vessel would be liable to touch, but there is sufficient room to pass on either side. There are two places where a vessel can safely anchor. In Gray Strait there are three harbours: Port Harvey, St. Lawrence O'Brien and Lady Job Harbours, the last named is inside of Cape Chidley Island. When the ice is running it is very difficult to enter in these harbours, and Port Burwell is far safer than any of them. The codfish abounds on this side of Ungava Bay during the months of August, September and the first part of October; seals are plentiful in the fall and the spring; no whales have been caught here for some time; no herring has ever been seen here; salmon trout is reported to be existing at the mouth of the river. The best time to leave Port Burwell to go eastward is to leave one hour before high water, and to go westward half ebb tide. This port has been visited by several steamers, the Dominion Government steamers, the Newfoundland Government steamers, the Moravian steamer *Harmony*, Revillon Brothers' steamer, Hudson Bay Company's steamers, Newfoundland sealing steamers and Dr. Grenfelt's steamer *Strathcona*. In 1904 the Moravian Brothers have bought from Messrs. Job Brothers, of Newfoundland, their fishing and trading establishment. This year the missionaries have built

a church in which the school room and the living apartments of the Moravian Brothers have been made, it is quite a credit to the missionaries. The fishing and trading establishment which was purchased by the missionaries was formerly conducted by Mr. Joe Lane, as agent for Messrs. Job Brothers, of Newfoundland; Mr. Joe Lane is now employed by the government. By having a wireless telegraph station at this place or in the neighbourhood it would be very useful for vessels entering or going out of the strait; to know the state of the ice before entering, because the ice is much influenced by the wind, and vessels should know which is the clearest side to enter.

There are seventeen families of natives at this place. They are under the direction of the Moravian Brothers, with whom they exchange their fish and skins for food and other necessaries of life. They receive medical assistance from Rev. Mr. Waldmann, who has followed some courses of medicine. Port Burwell is not so isolated as it may appear, because the mail reaches the Mission monthly, during the summer, by the coast of Labrador, and twice during the winter overland with dog sledges.

Saturday, October 5th.—Julisu alias Joe Lane, the native engaged to replace one sick sailor on board has brought his effects on board to-day.

CHAPTER VIII.

VOYAGE FROM PORT BURWELL TO QUEBEC.

Saturday, October 5th.—Wind light, from the S.E. Hove anchor and proceeded in the strait.. At 10 a.m. we are abreast of Button Islands and are going across the strait towards Resolute Island. Took a few soundings; there is no ice in sight. We kept going in the same direction all day. Wind from the south, afterwards increased to a strong gale and we hove with her head to the eastward. She rolled very much on account of the cross sea, which is actuated by the current.

Sunday, October 6th.—Blowing a heavy gale from the S.W. There is no ice field, but there is an iceberg in sight. We take soundings and find 260 fathoms of water, but we cannot do any accurate sounding with such rough weather as is now prevailing. It rained most of the day. The greater number of the members of the expedition are sea sick and we find that this is the most miserable day that we have experienced since our departure. During the night the wind shifted to the westward, and we put her head to the westward by the wind.

Monday, October 7th.—Chief engineer reports that there are only 75 tons of coal left on board, and that it is not prudent to remain here any longer with such a small quantity of coal at this time of the year. We took more soundings, but we could not get the bottom on account of the ship drifting so fast that we could not pay out the line quick enough to prevent it trailing. At noon we are in Lat. 60° 15′ N., and Long. 62° 52′ W. The wind veered to the southwest. We steamed against the wind during the night.

Tuesday, October 8th.—We saw a few icebergs along the coast. The wind has moderated and is holding more to the westward. We set some fore and aft sails, to keep the boat steady. During the night the wind changed to the northward.

Wednesday, October 9th.—At daylight it is blowing a strong gale, with snow, from the northward. We are running under top sails and fore sails. There is thick snow falling. At noon our position by observation is Lat. 54° 22′ N., and Long. 58° 51′ W. Weather cleared up by 2 p.m. We set our gallant sail and the main storm sail to keep the ship steady. We passed a good many icebergs during the day.

Thursday, October 10th.—The wind is from the N.W., and the sea is quite smooth. There is no ice in sight. Took observation of the sun at noon and it placed us in Lat. 54° 22′ N., and Long. 55° 40′ W. At 6 p.m. we passed abreast of Wolf Island. At 7.30 p.m. we see a light flashing every minute, in the direction of Indian Tickle. It is the first light that we have seen since we left Belle Isle and the members of the expedition are very much rejoiced at this change in the monotony of the voyage.

Friday, October 11th.—Weather fine and calm. We are much surprised to see two schooners at daylight. They are going towards the west. We are about 6 miles from the shore, and we are steaming in a S.S.W. direction. The chief engineer reports that there are only 50 tons of coal left on board. At noon our position by observation is Lat. 52° 24′ N., and Long. 55° 21′ W. We can see Double Island bearing to the S. of W. about 10 miles off. The day is very fine and is like a summer day for us, after being in cold regions for so many months. We shaped the course to enter the north side of Belle Isle, and we steered all night through the strait.

Saturday, October 12th.—Weather calm. At 6 a.m. we signalled to Forteau Lighthouse, and exchanged signals with the guardian of the station. At 9 a.m. we are passing Greenly Island. At 12 o'clock noon we stopped in Lat. 51° 11′ N., Bonne Esperance Bay bearing N.N.E., 11 miles off. I went on board of the British steamer *Port Saunders*, in charge of Captain Anderson, who reported that they had just killed a whale. The captain produced his clearing papers, which were dated 17th of May,

1907, at Bay of Islands; the number of his whaling license is 38. This whaler has killed five whales during the past week, each of these whales yielding about $700 to $800. At the rate that the whaling industry is carried it will not be long before the whales are all exterminated. At 1 p.m. we proceeded up the river, weather fine and warm.

Sunday, October 13th.—Wind S.W., light, with fog. We saw St. Mary Island before the fog came on. Took soundings and found 60 fathoms. At noon we are in Lat. 50° 04′ N., and Long. 59° 44′ W., in 62 fathoms of water, gravel bottom. The weather was foggy all day, with variable airs.

Monday, October 14th.—Light wind from the S.W. We are off Hunting Island, in 58 fathoms of water. At noon our Lat. by observation is 50° 01′ N., and Long. 63° 07′ W. Anticosti Island was in sight when the fog lifted from the land. A steamer that we supposed to be the *King Edward*, was going in an eastward direction. At 9 p.m. we passed Perroquets Island light. At midnight the west end of Anticosti Island is bearing S.W., 15 miles off. Light wind from the N.N.E., clear weather.

Thursday, October 15th.—Fine and light air from the north. Very smooth sea. Seven Island bearing N.W. by N. ½ N., 13 miles off. We shaped our course for Pointe-des-Monts; at 9 p.m. we passed Seven Islands. At midnight we were at Pointe-des-Monts light N.W. by W.

Wednesday, October 16th.—Strong breeze from the westward; we are steaming along the north coast. At 8 a.m. we pass Cape St. Nicholas. We shaped our course for the buoy off Manikuagan shoal, which we reached at 12 o'clock noon. We then shaped our course for Father Point.

Thursday, October 17th.—At 1 a.m. we sighted the Father Point light, and at 9 a.m. we took Mr. Guenard as pilot; we received a lot of newspapers, but no mail. At 4 p.m. we are abreast of Mille Vaches Point; there is a strong wind from the west, and we are obliged to anchor near Apple Island at the beginning of the ebb tide; dropped anchor in 17 fathoms of water. It blew a strong gale from the S.W. at night.

Friday, October 18th.—At 9 a.m. the wind changed to the W.N.W., and we got under way. We set the fore and aft sails to proceed up the river. At noon we are abreast of Green Island; the wind is more to the north, and we put up all sails; at 4.30 p.m. we are passing abreast of Kamouraska Island; at 11 p.m. we are in the St. Roch Traverse.

Saturday, October 19th.—At 1 a.m. we are passing along Crane Island. At sunrise we are opposite St. Joseph-de-Lévis. At 7 a.m. we cast anchor in the stream abreast of the King's wharf, about 1½ cable from the wharf. After breakfast I left the ship to go ashore to report our arrival to the Department of Marine and Fisheries, Ottawa, and at the agency of this department in Quebec.

Sunday, October 20th.—The crew went to church at 8 a.m.

Monday, October 21st.—Officers and all members of the crew were paid the balance of their wages and salaries due, and they were all discharged; the pay amounted to $15,000.

On the following days the ballast was unloaded from the ship and deposited on the King's wharf. All the remaining stores and provisions were landed and placed in the Marine and Fisheries Department stores on shore.

Saturday, November 2nd.—Steamed from the King's wharf and went into the Louise Basin, where we moored the steamer alongside the wharf.

In the afternoon I left by the Intercolonial Railway, for Ottawa, to make a full report of the expedition which we have just completed, to the Department of Marine and Fisheries.

CHAPTER IX.

Fisheries.

Re *Whales.*

The fishing capacities of the northern portion of Canada, during the years 1906-7:—

Lancaster Sound, its bays and inlets.—The whale fishery is still on the decrease (see the Dundee Whale Reports for 1905-6), which speaks for itself. Most of the whales are taken on the Greenland side. We have met no American whalers in the northern waters. The Scotch whalers do not go farther west than Lancaster Sound. They generally remain on the Baffin Land side, and as a rule call at Pond's Inlet and Button Point or Salmon River, where they obtain fresh supplies of fish. During our passage to Pond's Inlet, Navy Board Inlet, Admiralty Inlet, Prince Regent Strait, Barrow Strait, Peel Sound, Austin Channel, Melville Sound, Jones Sound and Baffin Bay, only one whale was sighted during these two summers. By the report of Capt. Adams, of the *Morning*, in 1907, he fastened to one large whale, on the Baffin Land side, and lost it; he had no whales up to the 28th of July. Captains Milne, Cooney, Guy, and Mutch report that no whales had been captured up to the 26th of July, when we left for Jones Sound.

WHITE WHALES.

White whales were first seen by us in Navy Board Inlet, Admiralty Inlet, Prince Regent Strait, Port Leopold. It was reported to us that large numbers are taken at Batty Bay, 40 miles south of Leopold Harbour. We also saw a large number at Erebus Bay. The white whale is generally found in the neighbourhood of small streams; it is easily captured.

NARWHALES.

Narwhales were first met by us in Pond's Bay, Eclipse Sound, Navy Board Inlet, Admiralty Inlet, Peel Sound, Erebus Bay. A large number come in Pond's Inlet, when the ice begins to break, in the spring, they return to the ocean in the fall.

The natives at Pond's Bay capture a large number of narwhales for their ivory and oil; they are also used as food by the natives. About three hundred narwhales' horns were taken in Pond's Inlet station alone.

WALRUSES.

The walrus, like the seal, goes north in the spring and returns south in the fall; they are not so numerous as in previous years. Very few are taken in the neighbourhood of Pond's Inlet; a few are taken on the Baffin coast by the whalers. Their skin has increased very much in value during the last years.

SEALS.

Seals are plentiful in Pond's Inlet, Eclipse Sound, Navy Board Inlet; but they abound in Admiralty Inlet, especially at Adams Sound; they are not so plentiful in Barrow Strait, Wellington Channel, Austin Channel, Byam Martin; they are scarce in Melville Sound.

Seal meat is the principal food for the Eskimo in Baffin Land. The seal skin is used in the manufacture of the native's clothing and kayacks, in fact the seal is indispensable to the natives.

HERRING.

No herring were caught in our nets while fishing for salmon. Natives have not reported them, and it looks as if they did not frequent the northern waters. We did not see any while in Hudson Bay.

CODFISH.

We have seen no large codfish in Pond's Inlet nor in Lancaster Sound. But we have caught some tommy-cod in the ice cracks in Pond's Inlet; they were also several species of flat fish in the ice cracks in this inlet.

SALMON.

Salmon is found in all the rivers in Baffin Land, Cockburn Island, North Somerset. They are especially plentiful in Salmon River, Pond's Inlet, Arctic Sound, Milne Inlet and Admiralty Inlet. The whalers capture a good number every year.

SALMON TROUT.

There are large numbers of Salmon Trout in all the streams; they live upon little white fish and tommy-cod.

OTTAWA, February 21st, 1908.

R. W. VENNING, Esq.,
Assistant Commissioner of Fisheries,
Marine and Fisheries Department,
Ottawa.

SIR,—Inclosed herewith, I beg to submit my fishery report with regard to the northern waters of Canada, according to your letter of July 24th, 1906, with reference to whaling licenses given by me in territorial waters of Canada, north of 55th parallel of north latitude. Annexed to this report you will please find some tabulated statements of information relative to the whaling fishery in the same regions, and also in Hudson Bay.

I have the honour to be, sir,
Your obedient servant,

J. E. BERNIER,
Fishery Officer and Commanding Officer of the C.G.S. 'Arctic.'

FISHERY REPORT.

LIST of the whaling licenses that were issued to the Scotch whalers, during the expedition to Arctic regions and Hudson Strait, in 1906-7.

Whalers.	Licenses.	Year for.
Diana	2	1906-7
Balaena	2	1906-7
Eclipse	2	1906-7
Morning	2	1906-7
Albert	2	1906-7

Windward, lost on the 26th June, 1907.

Scotia and *Snowdrop* were not in our neighbourhood and we did not collect licenses from them.

I am very sorry to have to report that on the 26th of June the steam whaler *Windward*, from Dundee, Scotland, was totally lost on the Carey Islands. Captain Cooney and his crew had to sail from the place of the wreck to Pond's Inlet, in the ship's life boats. They were taken on board of another Dundee whaler, in Pond's Inlet.

No licenses were collected from Kekerton, and Blacklead stations for the following reason:—

On August 28th, being outside of Kekerton, in Cumberland Gulf, I sent the chief officer on shore to communicate with the agent of that station, Mr. W. F. Milne. This officer returned on board with the news that Mr. Milne, the agent of the station, had died on the 13th of the same month, under suspicious circumstances. I sent Doctor Pepin with some officers ashore to hold an inquest into this death. The result of this inquest proved that the late agent had shot himself with a gun in a moment of despair, caused by nostalgia, as shown by some letters written by him some time before committing the deed, and which had been left on his desk.

We also landed at Blacklead, on the 30th of August, but we found no agent at this place. He had left the year previous, as we learned from the few natives at this station; there were no representatives from whom we could collect the license. We proceeded and arrived at Port Burwell on September 2nd.

WHALING.

TABULATED statement of information concerning the whale fishery in Baffin Bay and in Hudson Bay.

Year.	Steamer.	Sail.	Whales.	Oil.	Bone.
				Tons.	Cwt.
1865	11	12	65	742	710
1866	15	11	81	848	933
1867	17	11	24	228	60
1868	18	12	134	1,228	1,164
1869	16	10	22	266	207
1870	14	8	79	962	1,111
1871	15	6	152	1,348	1,544
1872	17	5	138	1,392	1,486
1873	18	4	172	1,426	1,475
1874	16	3	190	1,602	1,680
1875	18	2	98	975	970
1876	17	3	82	1,115	1,132
1877	13	.....	80	955	850
1881	11	.....	48	514	495
1882	9	.....	79	670	560
1883	6	.....	17	524	196
1884	9	.....	79	755	780
1885	12	.....	28	359	260
1886	8	.....	15	375	240
1887	8	.....	.....	496	140
1888	7	.....	6	308	43
1889	3	.....	8	125	110
1890	5	.....	11	403	265
1891	5	.....	6	167	70
1892	5	.....	7	228	78
1893	4	.....	30	391	410
1894	5	.....	15	218	250
1895	5	.....	3	233	36
1896	3	.....	3	60	15
1897	3	.....	8	102	110
1898	4	.....	8	235	100
1899	7	.....	26	419	390
1900	7	.....	17	290	230
1901	6	.....	15	260	164
1902	6	.....	13	212	187
1903	6	.....	14	145	175
1904	6	.....	11	110	107
1906	10	.....	23	290½	339
1905	9	.....	7	111	73
1907	8	.....	3	97	32½
40 years.	382	87	1,817	21,244½	19,051

The returns from 1865 to 1877, inclusive, are from the report of the U. S. Consul at Dundee, 1877. The returns from 1881 to 1904 have been furnished by Capt. W. F. Milne, of the British whaler 'Eclipse.' The returns from 1904 to 1907, inclusive, have been prepared by Capt. J. E. Bernier, Commander of the C. G. S. 'Arctic.

The details of the season's catch for 1907 are as follows:—

Ships.	Black Whales.	White Whales.	Walruses.	Seals.	Bears.	Foxes.	Oil.	Bone.
							Tons.	Cwts.
Active		32	374	185	65	650	28	
Diana	1	1	13	5	33		4½	½
Balaena			3	26	43		1	
Eclipse			13		11		2½	
Morning		3	7	45	28		1	
Snowdrop			184	190	23	50	10½	
Scotia	2		19	10	27		32½	32
Albert			21	560	28	40	17	
Windward	Lost on the 26th of June.							
	3	36	634	1,021	258	740	97	32½

The results accruing to the work of the Dundee whaling fleet during the season of 1907 are expressively tabulated in the above statement, which has been compiled by Mr. James Mitchell, shipbroker, Dundee. The season was opened with, in some cases, the burden of the loss incurred by the comparative failure of the previous season to be cleared off; but the work of the past year has proved even less profitable than that of its predecessor. Only three black whales, yielding an aggregate of 32½ cwts. of bone, were caught, and of these two, representing 32 cwts. of the total bone produce, were taken by Captain Robertson of the *Scotia*. The 'scraps,' however, compare more favourably with former catches. Calculating on the basis of the revenue in a moderately successful season, the monetary loss to the shareholders is estimated at about £50,000. The unproductiveness of the season is reflected in the scarcity of bone on the market, and the consequently rising prices. A regrettable feature of the year was the wreck of the *Windward*, which itself represents a large material loss to the owners.

The following returns, given in tabular form, will show the results of the last six seasons of Arctic fishing and trading with natives:—

Years.	1902.	1903.	1904.	1905.	1906.	1907.
Ships	6	7	7	10	9	9
Black whales	12	14	11	23	7	3
White whales	632	79	163	37	8	36
Walruses	118	107	45	122	534	634
Seals	1,984	3,229	1,135	408	1,264	1,021
Polar bears	168	157	109	200	189	258
Foxes		127	211	471	817	740
Oil (tons)	212	175	113	339	73	32½

WHALING INDUSTRY BY AMERICAN WHALERS IN HUDSON BAY AND CUMBERLAND GULF.

The following is a short account of the whaling industry as pursued by the American whalers in Hudson Bay and Cumberland Gulf, from information received from Capt. Comer:—

1846-52.—One ship yearly to Cumberland Gulf; yielding 350 tons of oil and 2·5 tons of bone.

1853-58.—Five ships yearly to Cumberland Gulf; 750 tons of oil, 5·75 of bone.

1860.—First two ships to winter in Hudson Bay; value of catch, $60,000.

1863.—Fourteen ships in Hudson Bay and Cumberland Gulf.

1864.—Fifteen ships in Hudson Bay.

1865.—Two ships in Repulse Bay.

1866.—Four ships wintered in Repulse Bay.

1889.—Schooner *Antarctic*, Capt. Gifford; no whales.

1890.—

1891.—Bark *A. A. Tucker*, New Bedford, Mass., Capt. Fisher, wintered at Marble Island; 4 whales, 4,500 lbs. of bone.

1891.—Bark *Perseverance*, Capt. Murray, H. B. C., wintered at Repulse Bay; 2 whales, 1,800 lbs. of bone. Returned home in 1893.

1893.—Two ships; 8 whales, 18,500 lbs. of bone. Bark *Canton*, Capt. Fisher, New Bedford, Mass. Wintered at Depot Island; returned home in 1894; 5 whales, 6,000 lbs. of bone. Bark *A. A. Tucker*, Capt. West, New Bedford, Mass.; wintered at Depot Island; returned home in 1894; 3 whales, 4,500 lbs. of bone.

1894.—Bark *Perseverance*, Capt. Murray, H. B. C.; first winter at Depot Island, second winter at Chesterfield Inlet, third winter at Repulse Bay; catch very small; 5 whales, 2,500 lbs. of bone.

1895.—Bark *Canton*, Capt. Peel, New Bedford, Mass; wintered at Cape Fullerton; returned home in 1896; 2 whales, 2,000 lbs. of bone. Bark *A. A. Tucker*, Capt. West, New Bedford, Mass.; wintered at Cape Fullerton; 1 whale, 1,600 lbs. of bone. Schooner *Era*, Capt. Comer, New Bedford, Mass.; wintered at Cape Fullerton; returned home in 1896; 3 whales, 6,700 lbs. of bone.

1896.—*Desdemona*, Capt. Willard, New Bedford, Mass, lost before winter; crew returned home in *Era;* 2 whales, 2,000 lbs. of bone. *Platina*, Capt. MacKenzie, New Bedford, Mass.; wintered at Repulse Bay; returned home in 1896; 2 whales, 1,000 lbs. of bone.

1897.—Bark *A. A. Tucker*, Capt. Nichols, New Bedford, Mass.; wintered at Cape Fullerton; returned home in 1898; 1 whale, 1,750 lbs. of bone. Schooner *Era*, Capt. Comer, New Bedford, Mass.; wintered at Cape Fullerton, returned home, 1899; 16 whales, 18,000 lbs. of bone. Schooner *Francis Allyn*, Capt. Gibbons, New Bedford, Mass.; wintered at Repulse Bay; returned home, 1898; 2 whales, 2,000 lbs. of bone.

1898.—

1899.—Schooner *Francis Allyn*, Capt. Gibbons, New Bedford, Mass.; wintered at Cape Fullerton; returned home, 1900; 6 whales, 4,500 lbs. of bone.

1900.—Schooner *Era*, Capt. Comer, New Bedford, Mass.; first winter at Cape Fullerton; second winter at Repulse Bay; returned home in 1902; 8 whales, 8,000 lbs. of bone.

1901.—Schooner *Francis Allyn*, Capt. Santos; wintered at Depot Island, was burnt in 1902, to the south of Cape Fullerton; no whales.

1902.—

1903.—Schooner *Era*, Capt. Comer, New Bedford, Mass.; wintered at Cape Fullerton; 3 whales to date; 1,800 lbs. of bone.

Eight vessels have been lost at the whale fishery during the last thirty years, to the knowledge of Capt. Comer; they are: the *Omay Taft*, *Albert Lawrence*, *A. E. Hanton*, *Ellen Rodman*, *Isabel*, *Desdemona*, *Francis Allyn* and the *Polar Star*. Capt. Comer does not state that all were lost in Hudson Bay, but leads to that inference.

Since 1904 Capt. Comer has taken 7 whales (1904-5), with the schooner *Era;* went home to New Bedford, Mass., where he wintered. Left New Bedford for Hudson Bay in June, 1906, on board the schooner *A. T. Gifford*, to spend two years in Hudson Bay; probably in Repulse Bay; it is to my knowledge that he was there in October, 1907. He has not paid any license for the last year. No other vessels have been whaling in this inland sea this year, except the steam whaler *Active*.

The steam whaler *Active*, Capt. Murray, Dundee, Scotland, has visited Hudson Bay annually since 1898, and being assisted by a large number of natives from Savage Islands, has succeeded in capturing some whales and a goodly number of walruses.

In 1899 the *Active* brought out materials for a small station, which is erected on the south shore of Southampton Island. This venture was a commercial failure, and

the place was abandoned in 1903. In the meanwhile the owners of the *Active* sent two fishing smacks to Hudson Bay, to remain in those waters, to act as tenders to steamships. One, the *Ernest Williams* (1903 and 1904) has wintered in Repulse Bay, being used as a trading station; with the expectation of securing from the natives some whale bone as well as musk-ox skins and other furs. The second smack *Queen Bess*, is stationed on the north shore of Hudson Strait, near Icy Cove, where her owners are working a mine for mica.

The following conclusion may be drawn from the above information: In the height of the whaling industry there were from 600 to 630 whaling vessels in active service, in the Atlantic, Pacific and Arctic oceans, hailing from the United States and from ports of the United Kingdom; now the number scarcely reaches fifty. There has not been and there cannot be a revival of this industry until there is first a renewal of the supply of whales, and at the present time there appears to be no prospect of this. As will be inferred from the above reports, this year has been a total failure in the Arctic sea; only three whales having been caught. It must, therefore, be admitted that, at least for the present, the whaling fishery is exhausted. Taking into consideration the state of things at present a closed season should now be enforced and remain so for ten to fifteen years; so as to give the whale time to multiply. The whaling industry will soon be a thing of the past if no enactment is passed for its temporary restriction.

J. E. Bernier,
Fishery Officer.

Appendix I.

FULLERTON, ICE FORMATION, 1904-5.

On arrival, October 16, ice was		4	inches.
Last Saturday, November 20, ice was		22	"
December	3, 1904	24	"
"	10, "	28	"
"	17, "	31	"
"	24, "	32	"
"	31, "	34	"
January	7, 1905	36	"
"	14, "	37	"
"	21, "	38	"
"	28, "	40	"
February	4, "	42	"
"	11, "	45	"
"	18, "	48	"
"	25, "	51	"
March	4, "	54	"
"	11, "	57	"
"	18, "	59	"
"	25, "	62	"
April	1, "	65	"
"	8, "	67	"
"	15, "	67	"
"	22, "	66½	"
"	29, "	66	"
May	6, "	66	"
"	6, " Another piece of old ice	72	"
"	13, "	65	"
"	20, "	64½	"
"	27, "	62½	"
June	3, "	61	"
"	10, "	60	"
"	17, "	56	"
"	24, "	49	"
July	1, "	38	"
"	4, "	36	"

Ship had to be sawed, and with the help of steam we broke through the ice by butting at it. We sailed from Fullerton on the 5th of July, 1905, for Churchill, and we met the packed ice, and sailed through about 150 miles of ice of this year's formation. We could have reached Churchill by keeping along the land, which is reported clear of ice, with west wind.

J. E. Bernier,
'Arctic.'

Appendix II.

Albert Harbour, Pond's Inlet.

Statement of the ice formation during the winter, and other conditions of the ice and the harbour.

Arctic arrived in the harbour on September 9th, 1906. Ice commenced to drift in the harbour from the sea on October 9th.

Date.			Thickness.
1906—October	16th.	Heavy ice came in	18 feet.
"	17th.	Ice stopped in the harbour	
"	20th.	Ice formation	2 inches.
"	27th.		7 "
November	3rd.		10 "
"	10th.		1 foot.
"	17th.		15 inches.
"	24th.		19 "
December	1st.		20 "
"	8th.		20 "
"	15th.		20 "
"	30th.		21 "
1907—January	5th.		20½ "
"	12th.		24 "
"	19th.		29 "
"	26th.		30 "
February	2nd.		33½ "
"	9th.		39 "
"	16th.		41 "
"	23rd.		42 "
March	2nd.		43 "
"	9th.		44 "
"	9th.	(1,000 feet outside of harbour)	58 "
"	16th.		48 "
"	23rd.		52 "
"	30th.		60 "
April	6th.		61 "
"	6th.	(Outside of the harbour)	65 "
"	13th.		61 "
"	20th.		61 "
"	27th.		61 "
May	4th.		61 "
"	12th.	(Snow commenced to melt)	61 "
"	18th.	(Snow embankments are getting rotten and are melting away fast)	60 "
"	25th.		60 "
June	1st.		59 "
"	8th.		59 "
"	15th.		59 "
"	22nd.		58 "
"	29th.	(Ship ranging on her berth)	
July	6th.		56 "
"	13th.	(Ice is bad)	50 "
"	20th.	Ice broke in the harbour and is moving with the tide	
"	27th.	C. G. S. "Arctic" left harbour for sea	

J. E. Bernier,
Commanding Officer, C.G.S. 'Arctic.'

On board C.G.S. *Arctic*,
July 27th, 1907.

Appendix III.

Abstract of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of August, 1906.

AT SEA.

Day.	Temperature Air.			Temperature Sea Water.	Barometer.			Prev. Winds.	Prev. Weather.	Remarks.
	Max.	Min	Mean.	Surface.	Max.	Min.	Mean.			
1	.....	.....	...	... .	.....	.....	.....	S.W.	Fine and dry	Sun shining.
2	.....	.....	...	... .	.....	.....	.....	N.W.	" ..	Warm.
3	.....	.....	Left Chateau Bay		.....	.....	.....	N.E.	" ..	"
4	50	...	...	39	30·00	.....	..	Variable	" ..	Fog.
5	48	40	44	39	29·90	...	.....	S.S.W.	Thick fog	"
6	42	40	41	39	29·95	...	.....	S.E.	"	Thick fog.
7	38	38	...	39	30·00	...	.....	Light & variable	.....	Fog and smooth sea.
8	38	32	35	32½	30·5	30·5	.....	N.N.E.	.....	Dull, clouded.
9	28	32	30	29	29·90	29·92	29·91	N.E.	Gr. Dull sky....	Thick fog on high.
10	38	32	30	35	30·00	30·5	30·2	S.S.W.	Fine	Sun shining.
11	36	32	30	35	30·6	30·5	30·2	Variable	Clouded	Light rain.
12	30	42	40	36	30·6	30·5	30·2	Southerly.	Fine clear sky ..	Clear sky.
13	37	38	37½	35	30·2	30·6	30·4	"	Rainy	Light fog.
14	35	37	36	35	30·4	30·6	30·4	S.W.	"	Clouded sky.
15	30	37	26	26	29·95	30·30	...	Westerly.	Light fog	Fog and rain.
16	24	30	28	26	30·20	30·10	30·15	"	"	Rainy.
17	35	55	35	51	30·00	29·60	29·85	"	"	"
18	34	34	34	32	29·60	29·60	29·85	Southerly.	Rain and fog	Rain and fog.
19	34	34	34	31	29·90	29·90	29·85	"	"	"
20	35	34	34	32	29·60	29·60	19·85	Calm	Clear sky	Clear sky and warm.
21	32	.....	...	30	29·70	29·60	29·85	N.E.	Clouded	Very cold.
22	32	.....	...	29	29·80	29·60	29·85	"	"	"
23	28	8	34	27	29·80	29·60	42·85	"	"	Wet snow.
24	28	30	29	27	29·85	29·60	29·85	"	"	Cold.
25	27	30	28	25	29·90	29·60	29·85	W.S.W.	"	Very cold.
26	28	30	29	25	30·15	29·60	29·85	S.W.	"	"
27	28	30	29	25	30·20	29·60	29·85	"	"	"
28	28	30	29	25	30·5	29·60	29·85	W.S.W.	"	"
29	29	29	29	25	30·5	29·60	29·85	"	Fine	Sun shining.
30	30	29	29	27	30·9	29·60	29·85	"	"	"
31	30	32	31	27	30·00	29·60	29·85	"	"	"

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of September, 1906.

AMONGST THE ARCTIC ISLANDS.

Day.	Temperature Air. Max.	Min.	Mean.	Temperature Sea Water. Surface.	Barometer. Max.	Min.	Mean.	Prev. Winds.	Prev. Weather.	Remarks.
1	30	32	31	28	29·96			S.E	Fog	Very cold.
2	30	32	31	28	29·90			"	Clouded sky	Rain.
3	32	32	31	28	30·00			"	Strong breeze	
4	36	36	33	29	30·00			Easterly	"	
5	34	36	35	29	30·00			"	G.V.	
6	34	36	35	30	30·00			N.W.	Fine	Sun shining.
7	32	34	33	30	30·00			"	"	"
8	30	32	31	29	30·00			Light, variable	Fog and cold	
9	32			30	30·00				Fine, clear sky	
10	32				29·80			"	G.V.	Snow showers.
11	32				29·80			"	"	"
12	32				29·50			"	Fine clear sky	
13	34				30·00			"	"	
14	35				30·30			Westerly	G.V.	Clear sky.
15	35				30·15			S.E	"	"
16	34			31	30·10			"	"	Light rain.
17	34			31	30·20			"	"	"
18	32			30	30·5			Westerly	Light frost	Snow.
19	30			29	29·95			"	"	"
20	29			29	29·92			N.W	G.W	Strong breeze.
21	28	30	29	29	29·90			"	"	"
22	28	30	29	29	29·80			"	"	"
23	25	27	26	29	29·90			Northerly	Fine clear sky	
24	26	28	27	29	29·92			"	G.W.	
25	30	32	31	29	29·90			S.W.	"	Very cold.
26	30	32	31	29	29·80			"	"	"
27	30	34	32	29	29·70				Stormy gale	Snow.
28	32	36	33	29	29·60			Southerly	Calm	"
29					29·70			"	"	"
30					29·15			"	"	"

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of October, 1906, Albert Harbour.

Day.	Temperature Air.			Temperature Sea Water.	Barometer.			Prev. Winds.	Prev. Weather.	Remarks.
	Max.	Min.	Mean.	Surface.	Max.	Min.	Mean.			
1	33	36	33	29	29·50	29·60	29·85	S. W.	G. W.	Light snow showers
2	33	36	33	29	29·60	29·60	29·85	"	"	Strong breeze.
3	32	36	33	29	29·40	29·60	29·85	"	"	"
4	31	36	33	29	29·50	29·60	29·85	Calm	"	"
5	31	36	33	29	29·30	29·60	29·85	S. W	"	Light breeze & snow
6	31	36	33	29	29·40	29·60	29·85	2 S. W.,	"	" "
7	30	28	29	29	29·40	29·60	29·85	2 Northerly	"	Light snow.
8	27	29	28	29	29·30	29·60	29·85	"	"	"
9	25	28	27	29	29·35	29·60	29·85	"	"	"
10	23	25	24	29	29·40	29·60	29·85	2 Southerly	"	"
11	23	25	24	28	29·90	29·60	29·85	"	B. C. M	Clear sky.
12	24	26	25	28	30·00	30·00	30·15	3 Easterly	"	"
13	24	26	25	27	30·00	30·00	30·15	"	"	"
14	26	28	27	28	29·90	30·00	30·15	"	"	Snow showers.
15	27	29	28	28	29·90	29·70	29·80	"	"	"
16	27	29	28	25	29·60	29·80	29·70	Southerly.	"	Clear sky.
17	19	29	28	24	29·70	29·80	29·70	Calm.	"	"
18	19	29	28	22	29·70	29·80	29·75	Variable.	"	"
19	16	29	28	21	30·00	29·80	29·75	Calm.	"	"
20	16	29	28		30·00	29·80	29·75	Westerly.	G. W.	Dark sky.
21	16	29	28		29·70	29·80	29·75	S. W.	"	Snow showers.
22	16	29	28		29·75	29·80	29·75	"	B. C. M	Clear sky.
23	16	29	28		29·80	29·80	29·75	1 East.	G. V.	Light snow.
24	18	29	28		29·80	29·80	29·75	"	B. C. M	Clear sky.
25	16	29	28		29·90	29·80	29·75	"	"	"
26	16	29	28		29·30	29·70	29·40	"	"	"
27	14	29	28		29·80	30·10	30·00	2 West	"	"
28	12	29	28		30·10	30·10	30·00	4 "	"	"
29	12	29	28		30·40	30·10	30·00	6 "	"	"
30	10	12	11		30·20	30·10	30·00	3 "	"	"
31	8	12	10		30·00	30·10	30·00	3 "	"	"

Appendix III—*Continued.*

Abstract of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of November, 1906, Albert Harbour.

Day.	Temperature Air. Max.	Min.	Mean.	Temperature. Sea Water. Surface.	Barometer. Max.	Min.	Mean.	Prev. Winds.	Prev. Weather.	Remarks.
1	14	above zero.			30·00	30·10	30·00	2 Easterly	G. V.	Snow shower.
2	14	22	18		30·00	30·10	30·00	4 "	"	"
3	22	22	18		29·90	30·10	30·00	4 S. E.	"	"
4	22	26	24		30·00	30·10	30·00	Light; variable.		"
5	24	26	24		30·35	30·00	30·17	3 Westerly	G. V.	"
6	24	22	20		30·35	30·60	30·45	Variable.	Heavy sky.	
7	22	18	20		30·60	30·90	30·75	3 Westerly	"	Snow shower.
8	16	12	14		30·90	30·90	30·75	3 "	"	"
9	15	12	14		30·90	30·60	30·75	2 Easterly	"	"
10	15	12	14		30·60	30·60	30·75	2 "	"	
11	15	12	14		30·30	30·60	30·75	3 "	"	
12	12	12	14		30·30	30·60	30·75	5 "	"	
13	6	below zero.			30·30	30·60	30·75	1 Westerly	Clear sky	B. C. M.
14	10	5	7		30·00	30·60	30·75	1 "	"	"
15	8	16	12		29·95	30·60	30·75	Easterly	"	"
16	18	10	14		30·00	30·60	30·75	Southerly	Dark sky (heavy)	
17	0	2	1		30·10	30·60	30·75	Westerly	Clear sky	B. C. M.
18	6	2	1		30·00	30·00	30·15	"	"	"
19	13	8	10		30·00	30·00	30·15	"	"	"
20	6	7	6½		30·20	30·00	30·15	"	"	"
21	12	7	6½		30·00	30·00	30·15	"	"	"
22	13	10	12		29·90	30·00	30·15	4 Easterly	Clouded sky	Snow showers.
23	3	10	12		29·80	30·00	30·15	7 " gale.	"	"
24	2	above zero.			29·70	30·00	30·15	8 " "	"	"
25		"			29·70	30·00	30·15	Light; variable.		"
26	3	below zero.			29·70	30·00	30·15	1 Westerly	Clear sky	B. C. M.
27	8	"			28·70	30·00	30·15	1 "	"	"
28	14	"			29·90	30·10	30·00	5 "	"	"
29	14	"			30·10	30·10	30·00	5 "	Clouded sky	
30	12	"			29·90	30·10	30·00	2 "	"	

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of December, 1906, Albert Harbour.

Day.	Temperature Air. Max.	Min.	Mean.	Temperature Sea Water. Surface.	Barometer. Max.	Min.	Mean.	Prev. Winds.	Prev. Weather.	Remarks.
1	2	...	...	Below Zero.	29·90	...	...	1 Easterly.	Snow	Showers.
2	3	...	...		29·48	...	...	Light & variable.	"	"
3	10	14	12		29·45	29·55	29·50	7 S.E. G. V.	V. G. sky	
4	20	22	21		29·55	29·75	29·47	Calm.	Hazy sky	
5	4	22	21		29·46	29·90	29·23	Westerly	Clear sky	Snow, showers.
6	10	22	21		29·29	29·00	29·23	1 Westerly	"	B.C.M.
7	16	22	21		29·10	29·00	29·23	1 "	"	"
8	18	22	21		29·10	29·00	29·23	2 "	"	"
9	25	22	21		29·30	29·00	29·23	1 S. W.	"	"
10	18	22	21		29·30	29·00	29·23	1 "	Dark sky	(Hazy.)
11	16	22	21		29·30	29·00	29·23	1 "	"	B.C.M.
12	24	23	23½		29·30	29·60	29·45	1 "	Clear sky	"
13	25	29	27		29·60	29·85	29·73	1 Westerly.	"	"
14	26	29	21		29·90	29·85	29·73	1 "	"	"
15	29	29	21		29·90	29·85	29·73	2 "	"	"
16	27	29	21		30·00	29·85	29·73	5 "	"	"
17	28	26	27		29·90	29·85	29·73	2 "	"	"
18	26	26	27		29·80	29·85	29·73	2 "	"	"
19	26	26	27		29·80	29·85	29·73	2 "	"	"
20	27	26	27		29·90	29·85	29·73	Calm	Hazy sky	B.C.M.
21	26	20	23		30·00	29·85	29·75	7 Westerly.	Clear sky	"
22	24	20	23		30·20	29·85	29·73	6 "	"	"
23	22	20	23		30·20	30·80	30·50	1 "	"	"
24	20	24	22		30·70	30·80	30·50	1 "	"	"
25	22	18	20		30·60	30·80	30·50	7 Easterly.	Hazy sky	Snow, showers.
26	10	6	8		30·55	30·80	30·50		"	"
	above zero.							9 "		
27	8	8	...		30·50	29·30	30·10		"	"
	below zero.							9 S.R.		
28	6	4	2		29·30	29·70	29·50	Calm.	Clouded sky	
29	2	4	2		29·70	30·00	29·59	"	"	
30	6	9	8		29·70	30·00	29·85	6 Westerly	"	
31	8	...	8		30·00	30·00	29·85	Westerly.	"	"

Thickness of ice on December 29, 1906, 1 ft. 8 in.

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of January, 1907, Albert Harbour.

Day.	Temperature Air. Max.	Min.	Mean.	Temperature Sea Water. Surface.	Barometer. Max.	Min.	Mean.	Prev. Winds.	Prev. Weather.	Remarks.
1	8	....	10	.....	30·20	.....	.....	6 Westerly....	Clear sky.....	B. C. M.
2	21	.....	.....	.....	30·26	30·50	30·55	4 "	Hazy sky.....	
3	22	.....	.....	.....	30·50	30·70	30·60	6 "	Clear sky. ..	
4	21	26	24	.....	30·10	30·30	30·30	6 "	"	
5	21	26	24	.....	30·10	30·30	30·40	2 "	"	
6	21	26	24	.....	30·10	29·96	30·00	1 "	Clouded sky	
7	19	21	20	.....	29·90	29·90	30·00	1 Light & variable.....	clouded sky..	
8	19	20	19½	.....	29·90	29·90	30·00	1 "	" "	
9	20	24	22	.....	29·85	29·90	30·00	1 Easterly.....	" "	
10	20	24	23	.....	29·85	29·90	29·85	1 "	" "	
11	24	26	25	.....	29·60	29·85	29·72	1 Westerly..	Clear sky.....	
12	26	26	25	.....	29·80	29·85	29·72	1 "	"	B. C. M.
13	26	26	25	.....	29·90	29·80	29·85	3 "	"	"
14	26	26	25	.....	29·95	29·80	29·85	6 "	"	"
15	28	26	25	.....	29·80	29·95	29·85	6 "	"	"
16	28	31	35	.....	29·85	29·70	29·77	6 "	"	"
17	29	31	30	.....	29·85	29·70	29·77	6 "	"	"
18	28	31	30	.....	29·55	29·70	29·77	4 "	"	"
19	34	37	25½	.....	29·60	29·70	29·77	2 "	"	"
20	38	37	25½	.....	29·80	29·60	29·70	2 "	"	"
21	32	35	33½	.....	29·60	29·60	29·70	4 "	"	"
22	27	35	33	.....	29·90	29·60	29·75	8 "	"	"
23	24	18	21	.....	30·30	29·90	30·10	6 "	"	"
24	24	18	21	.....	30·30	30·30	30·40	5 "	Hazy sky & little snow..	
25	18	18	21	.....	30·30	30·50	30·40	2 "	Fine clear sky..	B. C. M.
26	22	18	21	.....	29·90	30·50	30·20	1 "	"	
27	24	18	21	.....	30·20	30·00	30·10	4 "	"	
28	22	18	21	.....	30·10	30·30	30·20	1 "	Hazy sky	
29	30	18	21	.....	30·41	30·30	30·20	3 Clear sky.....	B. C. M.....	
30	32	18	21	.....	30·00	30·20	30·10	3 "	"	
31	27	18	21	.....	29·85	30·20	30·10	3 "	"	

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of February, 1907, Albert Harbour.

Day.	Temperature Air.			Temperature. Sea Water.	Barometer.			Prev. Winds.	Prev. Weather;	Remarks.
	Max.	Min.	Mean.	—	Max.	Min.	Mean			
1	24	20	22	.....	30·	.....	 4	N.W.	Clear sky.	
2	26	20	22	.....	30·20	30·00	30·10 6	"	"	
3	38	20	22	.....	30·30	30·20	30·25 3	West	"	
4	40	20	22	.....	30·30	29·90	30·20 2	"	"	B. C. M.
5	38	34	36	.....	29·90	29·60	29·75 2	"	"	"
6	28	19	25	.....	30·00	29·60	29·75 7	"	"	"
7	28	26	27	.....	29·90	29·60	29·75 1	"	Hazy, dull, little snow.	
8	35	28	31	.....	29·90	29·60	29·75 5	N.W.	Clear sky	
9	38	35	36½	.....	30·00	29·90	29·95 2	West	Clouded sky.	
10	38	35	36½	.....	30·00	30·00	30·15 2	"	Clear sky	
11	38	35	36½	.....	30·30	30·00	30·15 3	"	"	
12	40	35	36½	.....	30·20	29·80	29·90 5	"	Hazy sky	
13	40	36	38	.....	30·20	29·60	29·90 5	"	"	
14	41	36	38	.....	29·60	29·50	29·55 6	"	Clear sky	B. C. M.
15	42	40	41	.....	29·80	29·60	29·70 7	"	"	"
16	40	40	41	.....	29·80	29·60	29·75 1	"	"	"
17	40	40	41	.....	29·90	29·85	29·87 3	"	"	"
18	42	40	41	.....	29·90	29·75	29·82 1	"	Clear sky, hazy sky.	
19	34	40	41	.....	29·70	29·50	29·60 7	S.E.	Dull sky, little snow.	
20	18	12	15	.....	29·80	29·40	29·60 2	S.W.	Dull sky.	
21	13	12	12½	.....	29·80	29·60	29·70 6	N.W.	"	
22	25	12	12½	.....	29·75	29·60	29·78 5	"	Hazy sky.	
23	35	33	34	.....	29·65	29·60	26 78 5	West	Clear sky.	
24	34	33	34	.....	29·90	29·60	29·75 3	"	"	
25	32	30	31	.....	30·20	30·00	30·10 3	"	"	
26	31	30	30½	.....	30·30	30·20	30·25 2	"	"	
27	34	30	30½	.....	30·20	30·00	30·25 2	"	"	
28	38	34	36	.....	30·16	29·90	30·00 2	"	"	B. C. M.

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of March, 1907, Albert Harbour.

Day.	Temperature Air. Max.	Min.	Mean	Temperature. Sea Water. Surface.	Barometer. Max.	Min.	Mean	Prev. Winds.	Prev. Weather.	Remarks.
1	38	34	36	.....	29·90	29·90	30·00	1	Clear sky.....	B. C. M.
2	34	32	33	.....	29·90	29·60	29·75	5 N.W.	Hazy, dull sky..	
3	34	32	33	.....	29·75	29·65	29·70	2 N.E.	Clouded sky...	
4	30	26	28	.....	29·85	29·70	29·78	2 S.E.	Heavy dull sky..	
5	32	30	31	.....	30·30	29·85	29·97	1 West.....	Clear sky.....	
6	32	30	31	.....	30·30	30·00	30·15	2 "	"	
7	30	30	31	.....	30·40	30·30	30·35	1 "	"	
8	30	30	31	.....	30·35	30·30	30·35	7 Easterly....	Snow shower....	
9	27	30	31	.....	30·15	30·30	30·35	5 West	Clear sky.	
10	25	30	31	.....	30·15	30·30	30·35	3 S.W.....	Clear sky. ...	B. C. M.
11	24	30	31	.....	30·15	29·90	30·30	3 West	"	"
12	25	13	19	.....	29·90	29·60	29·75	4 S.W.	"	"
13	22	13	17	.....	30·00	29·60	29·75	4 S.E.	Variable.....	
14	15	8	11	.....	29·70	29·60	29·75	8 S.E.	Clear sky.....	B. C. M.
15	25	22	23½	.....	29·70	29·60	29·75	0 Calm	"	"
16	18	17	17½	.....	29·70	29·60	29·60	2 S.W.....	Dull, clouded sky	
17	15	2	8	.....	29·50	29·60	29·60	1 S.W.....	Clouded sky.....	
18	23	14	19	.....	29·80	29·70	29·75	4 Westerly.....	"	
19	24	11	17·30	.....	29·78	29·70	29·75	2 Variable....	Clear sky..	
20	32	24	28	.....	29·95	29·78	29·86	2 West	"	
21	25	24	28	.....	30·08	30·04	30·00	1 "	"	
22	25	24	28	.....	30·00	30·04	30·00	1 "	"	
23	32	24	28	.....	30·00	30·04	30·00	6 "	"	
24	24	19	21	.....	30·10	30·00	30·05	6 Easterly.....	Snow showers...	
25	14	19	21	.....	30·00	29·90	29·95	7 S.E.	Clouded sky....	
26	21	20	18	.....	29·75	29·90	29·95	6 "	Clear sky.....	
27	21	17	19	.....	29·70	29·90	29·95	5 West.....	"	
28	20	18	19	.....	29·90	29·86	29·87	2 N.W.	"	
29	18	18	19	.....	29·80	29·86	29·87	2 Variable....	Clouded sky....	
30	25	21	22½	.....	29·90	29·80	29·85	1 Westerly	Clear sky.....	
31	26	30	28	.....	29·90	29·80	29·85	3 "	"	

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of April, 1907, Albert Harbour.

Day.	Temperature. Air.			Temperature Sea Water.	Barometer.			Prev. Winds.	Prev. Weather.	Remarks.
	Max.	Min.	Mean.	Surface.	Max.	Min.	Mean.			
1	24	23	24	.....	30·20	30·00	30·10	Strong breeze...	Clear sky.	
2	21	23	24	.....	30·20	30·25	30·23	Light breeze.....	"	
3	24	20	22	.....	30·20	30·25	30·23	"	"	
4	25	22	23·30	.....	30·10	30·25	30·23	"	"	
5	22	20	21	.....	30·10	30·25	30·23	"	"	
6	24	14	21	.....	30·10	30·25	30·23	Strong breeze...	"	
7	15	10	13	.....	30·30	30·20	30·25	"	"	
8	15	10	12	.....	30·20	30·20	30·25	Light breeze ...	"	
9	17	14	16	.....	30·20	30·20	30·25	"	"	
10	16	6	11	.....	30·50	30·20	30·35	Light air.....		
11	2	.....	.....	Above zero .	30·70	30·68	30·89	Gale.....	Hazy sky.	
12	11	4	8	Below.....	30·60	30·68	30·89	Light air.....	Clear sky.	
13	7	3	5	.....	30·50	30·40	30·45	"	"	
14	2	3	5	....	30·35	30·40	30·45	"	"	
15	2	3	5	....	30·35	30·25	30·20	Light breeze...	Hazy sky.	
16	11	8	9½	.....	30·25	30·25	30·20	" and variable	Clear sky.	
17	10	4	7	....	30·20	30·10	30·15	Light air " ..	"	
18	2	4	7	....	30·00	29·80	29·90	" " ..	"	
19	2	1	0	....	29·76	29·80	29·09	" " ..	"	
20	6	1	0	Above zero .	29·73	29·80	29·90	Strong breeze...	"	
21	6	2	4	....	29·60	29·80	29·90	Light, variable..	Hazy sky.	
22	4	2	4	....	29·65	29·80	29·90	" .	"	
23	2	2	4	....	29·80	29·15	29·72	Strong.....	"	
24	2	2	4	....	30·15	29·90	30·02	"	Clear sky.	
25	2	2	4	....	30·40	30·30	30·20	"	"	
26	5	2	2	....	30·25	30·15	30·20	"	"	
27	4	0	2	....	30·30	30·15	30·20	Light.....	"	
28	8	0	4	....	30·30	30·15	30·20	"	"	
29	6	2	4	....	30·30	30·15	30·20	"	"	
30	16	6	10	....	30·25	30·20	30·22	Calm.	Clouded sky.	

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of May, 1907, Albert Harbour.

Day.	Temperature. Air. Max.	Min.	Mean.	Temperature Sea Water. Surface.	Barometer. Max.	Min.	Mean.	Prev. Winds.	Prev. Weather.	Remarks.
1	6	4	5	Above zero	30·30	30·25	30·27	Light, variable	Snow showers	
2	3	2	1	.....	30·30	30·25	30·27	Fresh	Clouded sky	
3	9	8	3	.....	30·32	30·25	30·27	N. gale	Snow showers	
4	15	8	12	.....	30·30	30·25	30·27	Strong	Clear sky	
5	7	8	12	.....	30·30	30·25	30·27	Light	"	
6	12	2	7	.....	30·50	30·40	30·45	"	"	
7	8	6	8	.....	30·75	30·60	30·67	"	"	
8	9	6	8	.....	30·73	30·60	30·67	"	"	
9	12	8	10	.....	30·75	30·55	30·65	"	"	
10	14	6	10	.....	30·40	30·30	30·35	"	"	
11	16	12	14	.....	30·30	30·30	30·35	"	"	
12	17	15	16	.....	30·40	30·30	30·35	" and variable	"	B. C. M.
13	15	12	13½	.....	30·50	30·45	30·47	Light	"	
14	14	12	13	.....	30·57	30·45	30·47	"	"	
15	16	10	13	.....	30·50	30·45	30·47	"	"	
16	20	18	18	.....	30·40	30·30	30·35	"	"	
17	28	20	24	.....	30·20	30·07	30·13	Light, variable	Clouded sky	
18	10	20	24	.....	30·20	30·10	30·15	"	" snow	
19	28	22	25	.....	30·20	30·10	30·15	"	" "	
20	19	16	18	.....	30·40	30·30	30·35	"	" "	
21	25	17	21	.....	30·50	30·43	30·47	.....	Clear sky	
22	20	17	21	.....	30·50	30·43	30·47	Light	"	
23	22	20	21	.....	30·50	30·30	30·40	Strong	"	
24	22	20	21	.....	30·30	30·30	30·46	"	"	
25	22	19	20·50	.....	30·53	30·30	30·42	"	"	B. C. M.
26	25	22	23·30	.....	30·77	30·80	30·79	"	Clouded sky	
27	28	25	26·30	.....	30·85	30·80	30·83	"	Clear sky	B. C. M.
28	31	28	29	.....	30·95	30·80	30·83	Light	"	
29	31	28	29·30	.....	30·85	30·80	30·83	Strong	"	
30	38	35	36·30	.....	30·85	30·70	30·75	"	"	
31	...	...	...	.....	30·55	30·30	30·42	Variable, light	"	

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of June, 1907, Albert Harbour.

Day.	Temperature Air. Max.	Min.	Mean.	Temperature. Sea Water. Surface.	Barometer. Max.	Min.	Mean.	Prev. Winds.	Prev. Weather.	Remarks.
1	40	34	39	Above zero.	30·25	30·15	30·20	Light.	Dark clouded sky	
2	38	34	30	.....	30·30	30·25	30·20	"	Clouded sky.	
3	32	29	31	.....	30·30	30·25	30·27	Gale.	"	
4	30	29	31	.....	30·35	30·25	30·27	Fresh	"	
5	28	29	31	.....	30·25	30·20	30·22	Strong.	"	
6	31	29	30	.....	30·15	30·20	30·22	"	"	
7	32	30	31	.....	30·00	30·20	30·22	"	Snow showers.	
8	34	32	33	.....	30·00	30·20	30·22	Fresh	Clouded sky.	
9	40	39	39½	.....	30·00	30·20	30·22	Light.	"	
10	44	38	41	.....	30·00	30·20	30·22	Fresh	"	
11	38	38	41	.....	30·05	30·20	30·22	Light air	Clear sky.	
12	44	36	39	.....	30·00	30·20	30·22	"	"	
13	44	36	41	.....	30·00	30·20	30·22	"	Wind. Variable.	
14	41	36	38	.....	29·95	30·20	29·22	"	Opening detached clouds	
15	39	36	38	.....	29·92	30·20	29·22	"	Hazy sky.	
16	34	30	32	.....	29·80	30·20	29·22	Strong.	Clouded sky.	
17	34	32	33	.....	29·75	29·60	29·68	"	Hazy sky.	
18	23	32	33	.....	29·50	29·40	29·45	"	Clear sky.	
19	32	32	31½	.....	29·45	29·40	29·45	"	"	
20	37	32	34½	.....	29·65	29·55	29·60	Fresh	"	
21	36	42	39	.....	29·83	29·70	29·76	Light.	Clouded sky.	
22	29	25	27	.....	29·86	29·70	29·76	Strong.	Clear sky.	
23	26	25	27	.....	29·87	29·70	29·76	Light air.	"	
24	34	28	31	.....	29·87	29·70	29·76	"	"	
25	32	28	31	.....	29·90	29·70	29·76	S 9 .M.	Strong breeze.	
26	33	32	33	.....	29·87	29·70	29·76	Mod. gale.	Clouded sky.	
27	30	32	33	.....	29·90	29·70	29·76	"	Clear sky.	
28	34	30	32	.....	29·98	29·85	29·91	"	"	
29	34	29	31 30	.....	29·99	29·93	29·96	Strong.	"	
30	36	32	34	.....	29·90	29·85	29·82	"	"	

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of June, 1907, at Button Point.

Day.	Temperature Air. Max.	Min.	Mean.	Temperature Sea Water. Surface.	Barometer. Max.	Min.	Mean.	Prev. Winds.	Prevailing Winds. Dir.	Force.	Remarks.
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12									West...	2	Clear sky.
13									S. E....	2	Light fog.
14									" ...	4	Thick fog.
15				At Button Point, 25 miles east of Albert Harbour.					West..	4	Fine and clear.
16									South ..	3	Thick fog.
17									East....	5	"
18									S. E	4	"
19									S. W...	2	Clear sky.
20									West...	2	Thick fog.
21									S. E . .	3	"
22									" ...	3	"
23									East....	2	"
24									West...	2	Clear sky.
25									N. E...	6	Dull sky and fog.
26									East....	4	Light fog.
27									S. E....	5	"
28									"	3	Thick fog.
29									West....	2	Fine and clear.
30									" ...	1	"

(Sgd.) C. W. GREEN,
3rd Officer.

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of July, 1907, Albert Harbour.

Day.	Temperature. Air. Max.	Air. Min.	Air. Mean.	Temp'rat're. Sea Water. Surface.	Barometer. Max.	Min.	Mean.	Prevailing Winds. Dir.	Force.	Remarks.
1								West	2	Fine and clear.
2								N.E.	6	Snow all day.
3								East	4	Heavy dull sky.
4								N.E.	7	Heavy rain.
5								S.W.	3	Clouded sky.
6								S.W.	5	" "
7								S.W.	4	Rain, light fog.
8								East	2	Clear sky.
9								S.W.	2	" "
10								West	2	Fine and clear.
11								East	3	Light fog.
12								N.E.	4	Thick fog.
13								West	6	Fine and clear.
14								West	3	" "
15										
16										
17										(Sgd.) C. W. GREEN,
18										3rd Officer.
19										
20										
21										
22										
23										

At Button Point.

Remarks:

I found the ice to be working with the tide—inward with the flood and outwards at ebb. The flow is also greatly influenced in its course by direction of the wind. S.W. wind breaking the ice most on the North shore, and N.E. breaking on the S.W. side. The state of the ice at the present time according to natives' advice is similar to other years.

I measured the ice at different places getting from 6 feet 4 ins. down to 2 feet 3 ins.

(Sgd.) CHAS. W. GREEN,
3rd Officer, D.G.S. "Arctic."

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of July, 1907.

Day.	Fahrenheit's Thermometer			Barometer.			Prevailing Winds.		Prevailing Weather.	Remarks.
	Max.	Min.	Mean.	Max.	Min.	Mean.	Dir.	Force.		
1	38	32	35	29.90	29.80	29.85	S.E.		Light clear sky	B.C.M.
2	38	34	36	29.87	29.67	29.87	S.E.		Mod. Gale, dark threatening sky.	
3	40	34	37	29.65	29.67	29.87	S.E.		Fresh breeze, clouded sky.	
4	36	34	35	29.62	29.50	29.56	S.E.		Strong breeze, clouded sky.	
5	36	34	35	29.92	29.83	29.88			Calm. Dark sky with rain.	
6	36	34	35	30.03	29.83	29.88	West'ly.		Light air, clouded sky and rain.	
7	39	34	35	30.32	30.25	30.28	N.W.		Brisk breeze, clear sky.	
8	39	36	37	30.37	46.25	30.28	N.W.		Light breeze, clear sky.	
9	40	36	38	30.35	30.25	30.30			Variable and light, clear sky.	
10	45	38	41	30.28	30.25	30.30	S.W.		Light air, clear sky.	
11	34	32	33	30.23	30.15	30.18	S.E.		Strong breeze, clear sky.	
12	36	32	33	30.23	30.15	30.18	S.E.		Light air, clear sky.	
13	40	32	33	30.13	30.15	30.18	N.W.		Light air, clear sky.	
14	41	39	40	30.15	30.15	30.18	N.W.		Brisk breeze, clear sky.	
15	47	39	40	30.00	30.00	30.00			Variable. Clear sky noon, clouded sky	
16	45	44	43	30.18	30.10	30.12	S.W.		Fresh clear sky opening detached cloud	
17	44	40	42	30.15	30.10	30.12	S.W.		Fresh clouded sky with rain.	
18	48	46	47	30.10	30.00	30.05	S.W.		Moderate gale, clouded sky, rain.	
19	34	32	33	30.05	30.00	30.05	South		Light gale, clouded sky.	
20	40	38	39	30.02	30.00	30.05	East		Strong, clear sky	B.C.M.
21	34	38	39	30.02	30.13	30.10	S.E.		Strong, clear sky.	
22	32	29	30.30	30.08	30.13	30.10	East		Strong, clear sky.	
23	32	29	30.30	30.17	30.13	30.10	E.S.E.		Light gale, clear sky	B.C.M.
24	35	29	30.30	30.17	30.15	30.16	E.S.E.		Stormy gale, clear sky	B.C.M.
25	38	36	37	30.17	30.20	30.18	E.S.E.		Fresh gale, clouded sky, with fog.	
26	40	38	39	30.27	30.25	30.26	East		Moderate gale, clouded sky.	
27	32	30	31	30.32	30.27	30.30	East		Strong breeze, clear sky, fog on land.	
28	31	27	29	30.34	30.27	30.30	East		Strong breeze, clear sky, fog on land.	
29	36	29	33	30.57	30.35	30.36	East		Brisk breeze, clear sky, fog on land.	
30	30	29	33	30.36	30.35	30.36	S.E.		Strong. Clouded sky, thick fog.	
31	31	29	34	30.40	30.35	30.37	East		Strong, light breeze.	

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of August, 1907, amongst the Arctic Islands.

Day.	Fahrenheit's Thermometer.			Barometer.			Prevailing Direction.	Wind force.	Prevailing Weather Sky.	Temperature of Water.
	Max.	Min.	Mean.	Max.	Min.	Mean.				
	°	°	°	°	°	°				°
1	40	32	36	30·37	30·22	30·29	North	Strong	Light clouded sky	30 above.
2	.....	.....	.....	30·35	30·25	30·27	East	Light	Clouded sky	28 "
3	35	28	32·30	30·37	30·30	30·53	S.E.E	"	"	30 "
4	32	28	30·00	30·27	30·10	30·18	South	Strong	Thick fog	28 "
5	32	28	30·00	30·07	29·62	29·64	S.E	"	"	29 "
6	32	30	31	29·77	29·62	29·69	S.E	"	"	30 "
7	40	30	35	29·84	29·82	29·80	N.E.	Light air	Clear sky	29 "
8	32	.....	.....	29·80	29·62	29·71	W.S.	Fresh	Clouded sky	29 "
9	32	.....	.....	29·70	29·62	29·66	East	East	"	28 "
10	30	.....	.....	29·80	29·75	29·77	.....	Calm	"	28 "
11	32	29	30·30	29·80	.....	.....	North	Light	Clear sky	29 "
12	32	29	30·30	29·92	29·89	29·90	.....	Calm	Clouded sky	29 "
13	38	34	36	29·92	29·80	29·86	South	Strong	"	34 "
14	35	33	34	29·80	29·78	29·79	S.S.W.	"	"	36 "
15	32	.....	.....	29·80	29·68	29·74	S.W.	Light	"	37 28·32
16	32	28	30	29·74	29·68	28·75	South	"	"	29 above.
17	36	31	32·30	29·74	29·22	29·79	.....	Calm	Thick fog	31 "
18	35	31	33·00	29·5	29·60	29·45	Westerly	Gale	Clouded sky	36 "
19	34	32	.....	30·03	29·92	29·98	.....	Calm	Thick fog	32 "
20	34	.....	.....	29·60	29·92	29·98	N.W.	Fresh	Hazy sky	32 "
21	35	33	34	29·72	29·44	29·58	S.S.W.	Light	"	34 "
22	35	.....	.....	29·60	.....	.....	S.W	"	Thick fog	37 "
23	32	30	32	29·78	29·62	29·70	South	"	Fog and rain	37 "
24	34	30	32	29·98	29·80	29·84	S.E	"	Thick fog	37 "
25	35	31	33	30·12	30·00	30·06	South	"	"	37 "
26	35	.....	.....	30·20	30·14	30·17	"	"	"	37 "
27	35	30	32·50	30·54	30·20	30·14	"	"	"	37 "
28	35	30	.....	30·45	30·36	30·40	"	"	"	37 "
29	.....	29	32	30·45	30·58	30·40	"	"	Clear sky	38 "
30	33	31	32	30·40	.....	.....	"	"	"	37 "
31	32	30	31	30·50	30·48	30·49	.....	Calm	Thick fog	38 "

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of September, 1907, at Port Burwell.

Water.	Day.	Fahrenheit's Thermometer.			Barometer.			Prevailing Direction.	Wind Force.	Prevailing Weather.
		Max.	Min.	Mean.	Max.	Min.	Mean.			
		°	°	°						
31	1	36	30	35·	30·25	30·15	30·20	West	Light	Clear sky.
29	2	36	32	34·	30·12	30·00	30·06	"	Brisk breeze	Clouded sky.
30	3	36	32	34·	30·12	30·00	30·06	"	"	"
30	4	39	35	37·	30·00	...	...	"	Light	Clear sky, B.C.M.
31	5	42	36	39·	29·92	29·64	29·42	S.W.	Fresh	"
31	6	36	32	34·	29·68	29·64	29·66	"	Strong	Clouded sky.
31	7	33	29	31·	29·90	29·70	29·80	"	Fresh	"
31	8	33	29	31·	29·98	29·88	29·93	East	Light air	Thick fog.
32	9	33	29	31·50	29·98	29·88	29·93	West	Fresh breeze	Clouded.
32	10	34	30	32·	30·00	29·84	29·92	N.W.	"	Rain.
32	11	34	30	32·	30·00	29·84	29·92	"	"	Clear sky.
32	12	36	36	33·	30·10	...	...	N.W.W.	"	"
32	13	36	32	34·	30·04	29·95	30·00	East	"	Clouded sky.
31	14	33	.....	...	30·00	29·84	29·92	S.W.S.	Light	Clouded sky with rain.
30	15	30·	28	29·	29·84	29·58	29·71	East	Strong	Passing snow showers.
31	16	32	29	30·	30·30	29·84	29·58	N.E.	Light	Clear sky, B.C.M.
32	17	29	29	....	30·5	30·7	30·18	"	"	"
31	18	30	.....	....	30·48	30·30	30·39	S.W.	"	Clouded sky.
31	19	38	34	36·	29·98	...	...	South	Fresh	"
32	20	38	36	37·	29·98	30·08	30·03	S.E	Light	Clear sky.
32	21	42	37	40·	29·67	29·50	29·58	South	Gale	Clouded sky.
32	22	43	35	39·	29·56	29·44	29·50	"	Light	Heavy rain.
32	23	36	34	35·	29·85	29·70	29·78	...	Calm	Clear sky, B.C.M.
32	24	42	38	40·	29·80	29·64	29·72	S.E	Light	"
32	25	36	33	34·30	29·50	29·23	29·27	"	Strong	Clouded sky.
31	26	34	32	33·	29·20	29·4	29·40	N.E.	Light, fresh	Rain.
31	27	32	.....	.....	29·50	29·30	29·40	N.W.	"	Clouded, rain.
31	28	31	29	30·	29·93	29·60	29·76	"	Fresh	" snow.
31	29	29	.....	.....	30·03	30·00	30·01	West	Strong	Snow showers.
31	30	31	33	32·	29·90	29·74	28·86	S.W.	"	Clouded sky.

APPENDIX III—*Continued.*

ABSTRACT of the Meteorological Journal kept on board the C.G.S. *Arctic* during the month of October, 1907, at sea and up St. Lawrence River.

Day.	FAHRENHEIT'S THERMOMETER.			BAROMETER.			Prevailing Direction.	Wind force.	Prevailing Weather.
	Max.	Min.	Mean.	Max.	Min.	Mean.			
	°	°	°	"	"	"			
1	33	31	32	29·90	29·74	29·82	South	Strong	Clouded sky and fog.
2	30	29	32	30·10	30·20	30·20	"	Calm	"
3	29	29	32	30·24	29·76	30·00	S.E.	Gale	Clear sky B.C.M.
4	36	29	32	29·75	29·71	29·75	"	Fresh	Clouded sky.
5	32	29	32	29·75	29·60	29·67	South	Strong	"
6	33	29	29	29·63	29·33	29·48	"	"	"
7	33	30	31	30	29·74	29·55	29·54	S.W.	"	Clear sky.
8	32	30	31	30	29·74	29·55	29·64	"	"	"
9	30	30	31	30	29·73	29·33	29·64	"	Variable st'ng.	Clouded sky and snow.
10	38	32	35	30	30·20	29·85	29·42	West	Strong	Clear sky.
11	39	32	35	30	24	30	16	29·20	S.S.W.	"
12	36	42	39	29·20	29·16	29·18	"	Variable light.	"
13	40	42	39	29·16	29·10	29·13	S.S.W.	Light	Clouded sky and rain.
14	41	42	39	30·10	30	6	30	8	N.E.	"	Clear sky B.C.M.
15	40	42	39	30·14	30·12	30·13	N.N.W.	Fresh	"	"
16	40	42	39	30·19	30·00	30·12	West	Light	"	"
17	42	42	39	30·10	29·80	29·95	"	Strong	Gloomy dark sky.
18	40	42	39	30·10	29·63	29·81	W.S.W.M.	Gale	Clear sky B.C.M.
19	34	42	39	30·20	30·12	30·16	N.W.	Strong	Clear sky.
20	At Quebec.								

APPENDIX IV.

METEOROLOGICAL Observations taken at Killinek, Port Burwell, during 1906-7, by Rev. Mr. T. Waldmann, Superior of the Moravian Mission.

NOTE.—The observations of Mr. Waldman were not included in the manuscript.—W.W.S.

Appendix V—*Continued*

Meteorological Observations taken at Hebron, by Mr. Hlowatscheck, Moravian Missionary—Centigrade and Fahrenheit Thermometers—in 1891.

Day of Month.	January.		February.		March.		April.	
	Cent.	Fah.	Cent.	Fah.	Cent.	Fah.	Cent.	Fah.
1	-26·0	-14·8	-30·0	-22·0	-24·1	-11·4	-19·2	-25·0
2	-15·1	4·9	-30·2	-22·3	-24·3	-11·7	-18·0	-0·4
3	-12·3	9·9	-30·5	-22·9	-23·2	-9·7	-14·6	-5·7
4	-19·0	-2·2	-33·8	-28·9	-18·5	-1·3	-14·6	-5·7
5	-13·2	8·3	-31·8	-25·2	-20·5	-4·9	-15·5	-4·1
6	-14·8	5·3	-28·4	-19·1	-8·9	-15·9	-16·6	-2·1
7	-7·6	18·4	-30·3	-22·5	-0·3	-31·4	-17·8	-0·4
8	-18·2	-0·7	-25·1	-13·2	-5·2	-22·6	-14·2	-6·4
9	-22·2	-7·9	-28·0	-18·4	-11·0	-12·2	-5·2	-22·6
10	-14·3	6·2	-30·8	-23·4	-3·9	-24·9	-14·6	-5·7
11	-22·6	-8·6	-27·5	-17·5	-5·2	-22·6	-2·7	-27·1
12	-21·7	-7·0	-26·6	-15·9	-11·4	-11·5	-6·7	-19·9
13	-6·4	20·4	-28·7	-19·7	-6·2	-20·8	-7·1	-19·2
14	-21·9	-7·4	-29·9	-21·8	-9·1	-15·6	-4·1	-24·6
15	-22·9	-9·2	-24·5	-12·1	-7·8	-17·9	-14·7	-5·5
16	-30·2	-22·4	-26·4	-15·5	-18·2	-0·7	-5·6	-22·1
17	-34·9	-30·9	-29·2	-20·5	-18·8	-1·8	-6·2	-20·8
18	-29·5	-21·5	-25·4	-13·7	-12·9	-8·8	-15·2	-4·6
19	-29·8	-21·6	-25·1	-13·2	-18·2	-0·7	-14·9	-5·2
20	-29·3	-20·7	-29·6	-21·3	-19·8	-3·6	-11·7	-16·9
21	-29·6	-21·3	-24·5	-12·1	-16·2	-2·8	-7·5	-18·5
22	-25·0	-13·0	-22·1	-7·8	-9·6	-14·7	-5·2	-22·6
23	-16·1	3·0	-31·1	-23·9	-12·4	-9·7	-5·0	-23·0
24	-11·4	11·5	-26·9	-14·8	-17·4	-0·7	-0·7	-33·2
25	-19·9	-3·8	-23·5	-10·3	-7·2	-19·0	-6·5	-20·3
26	-22·3	-8·1	-8·2	-17·2	-12·5	-9·3	-0·1	-32·2
27	-19·9	-3·8	-15·5	-4·1	-19·5	-3·1	-0·3	-32·5
28	-19·0	-2·2	-18·9	-2·0	-17·9	-1·4	-2·2	-35·9
29	-23·7	-10·6	.....	.....	-7·6	-18·3	-3·4	-31·8
30	-19·6	-3·3	.....	.....	-24·6	-12·3	-2·4	-36·3
31	-18·6	-1·5	.....	.....	-6·6	-20·1	.....	.....
Mean per day	-20·5	-4·9	-26·5	-15·7	-13·5	-7·7	-8·5	-16·7

APPENDIX V—*Continued.*

METEOROLOGICAL Observations taken at Hebron, by Mr. Hlowatscheck, Moravian Missionary—Centigrade and Fahrenheit Thermometers—in 1891.

Day of Month.	MAY.		JUNE.		JULY.		AUGUST.	
	Cent.	Fah.	Cent.	Fah.	Cent.	Fah.	Cent.	Fah.
1	4·8	46·0	- 0·4	31·3	3·6	38·5	3·4	38·1
2	3·8	38·8	1·9	35·4	12·2	53·9	4·2	39·5
3	1·0	33·8	2·5	36·5	20·5	68·9	5·4	41·7
4	1·5	34·7	1·2	34·1	5·2	41·3	8·0	46·4
5	0·5	32·9	2·7	36·8	6·8	44·2	7·7	45·8
6	0·1	32·2	1·6	34·9	7·3	41·5	18·4	65·1
7	1·2	29·8	1·9	35·4	4·8	40·6	4·6	40·3
8	1·3	29·6	0·8	33·4	8·1	46·6	6·5	43·7
9	0·3	32·5	3·1	13·0	55·4	10·5	37·6	50·9
10	2·6	36·7	2·9	37·2	10·2	50·3	7·9	46·2
11	2·5	27·5	3·6	38·5	9·7	49·5	6·7	44·0
12	- 1·5	29·3	5·1	41·1	8·3	46·9	9·9	49·8
13	- 2·4	27·7	5·5	41·9	8·7	47·6	13·2	55·7
14	- 4·1	24·7	5·0	41·0	10·4	50·7	7·9	46·2
15	- 4·6	23·7	4·4	39·9	8·7	47·6	12·0	53·6
16	- 5·8	21·5	3·4	38·1	10·2	50·3	16·0	60·8
17	- 2·8	26·9	6·3	43·3	7·5	45·5	5·8	42·4
18	- 0·1	31·8	5·3	41·5	9·1	48·4	8·2	46·7
19	1·9	35·4	3·8	38·8	10·8	51·4	8·4	47·1
20	0·9	33·6	5·3	41·5	3·8	38·8	6·9	44·4
21	6·5	43·7	7·1	44·8	9·5	49·1	6·5	43·7
22	0·3	32·5	3·3	37·9	13·9	57·0	9·1	48·4
23	0·9	33·6	9·5	49·1	18·4	65·1	3·2	41·3
24	0·7	33·2	6·3	43·3	21·9	71·4	16·7	51·2
25	- 0·5	31·1	6·8	44·2	6·5	43·7	8·4	47·1
26	- 1·9	28·6	5·9	42·6	6·5	43·7	5·1	41·2
27	- 1·4	29·5	4·5	40·1	9·8	44·2	12·2	53·9
28	- 2·9	26·8	9·1	48·4	3·1	41·4	8·5	47·3
29	- 3·4	25·9	6·9	42·8	4·1	39·4	5·5	41·9
30	- 5·6	21·9	3·5	38·3	5·9	42·6	3·9	39·0
31	- 3·0	26·6	.....	.....	7·2	44·9	7·5	45·5
Mean per day	- 0·6	30·9	4·3	39·7	6·2	48·5	8·2	46·7

Appendix V—*Concluded.*

Meteorological Observations taken at Hebron, by Mr. Hlowatscheck, Moravian Missionary—Centigrade and Fahrenheit Thermometers—in 1891.

Day of Month.	September.		October.		November.		December.	
	Cent.	Fah.	Cent.	Fah.	Cent.	Fah.	Cent.	Fah.
1	14·4	57·9	3·8	25·1	10·4	13·3	11·2	11·0
2	7·4	45·3	2·0	28·4	1·8	28·7	13·1	8·4
3	4·1	39·4	4·0	28·8	4·2	24·4	15·9	3·4
4	3·1	37·6	4·6	23·7	8·7	16·3	6·5	20·3
5	1·9	35·4	2·5	27·5	11·0	12·2	8·8	16·1
6	3·2	37·7	2·0	28·4	7·5	18·5	1·3	29·6
7	5·7	42·2	0·4	31·3	7·8	17·9	12·3	9·8
8	6·2	43·1	0·4	32·7	33·0	26·0	13·4	7·9
9	4·9	40·8	0·6	33·1	3·4	29·9	16·5	2·3
10	6·7	44·0	1·9	35·4	1·5	29·3	16·0	3·2
11	4·1	39·4	0·5	31·1	0·4	32·7	18·5	1·3
12	1·9	49·8	0·5	31·1	0·3	32·5	17·0	1·4
13	1·9	49·8	4·5	23·9	3·1	26·4	19·8	3·6
14	2·4	36·3	2·7	27·1	6·1	17·4	13·2	8·2
15	1·3	34·3	6·5	43·7	7·8	17·9	10·6	12·9
16	5·5	41·9	4·5	23·9	11·3	11·6	13·9	6·9
17	0·8	33·4	5·3	22·4	1·3	29·6	22·0	5·8
18	1·2	34·1	0·5	32·9	1·3	29·6	11·5	11·3
19	1·6	34·7	4·1	30·9	14·0	6·8	19·2	2·5
20	0·3	31·4	5·7	21·7	13·6	7·5	19·2	2·5
21	0·9	33·6	6·9	44·4	13·3	8·0	15·9	3·4
22	1·8	35·2	26·6	8·9	15·9	16·6	3·0	22·1
23	3·1	37·6	4·2	24·4	12·0	10·4	11·7	10·9
24	3·7	38·6	7·2	19·0	6·3	20·6	13·3	8·0
25	7·9	44·6	2·3	27·8	1·1	30·0	17·7	0·1
26	3·8	38·8	7·1	19·2	13·1	7·7	23·1	9·6
27	0·9	33·6	8·5	16·7	14·2	6·4	23·0	9·4
28	5·2	41·3	8·5	16·7	2·2	28·0	18·9	2·0
29	1·7	35·0	9·6	14·7	6·0	21·2	16·6	2·1
30	0·3	31·4	9·5	14·9	11·6	5·7	6·5	20·3
31			11·3	11·6			21·1	5·9
Mean per day...	3·5	38·3	3·2	26·2	7·0	19·4	14·9	5·2

Appendix VI.

Geological Survey of Canada,
Department of Mines,
A. P. Low, Deputy Minister,
Ottawa, January 10th, 1908.

Dear Capt. Bernier,—The rock and mineral specimens collected by you during the cruise of the *Arctic*, in 1906-7, have been submitted to examination with the following results:—

(*a*) Sand and fragments collected in the bed of Salmon River, Baffin Land. The sand is made up of fine grains of quartz, garnet, hornblende and magnetite. The fragments consist of lignite.

(*b*) Several large masses of rock from Albert Harbour, Baffin Land. These consist in general of two types: the first is a garnetiferous hornblende-schist consisting of a moderately even distribution of almandine garnet, black hornblende and white

quartz; the garnet individuals commonly attain a diameter of half an inch, are highly fractured and perfectly translucent, and have a wine-red colour; the hornblende is black, has a bright vitreous lustre and occurs in grains and in crystals up to a quarter of an inch in length; the quartz is white and translucent and occurs for the most part in granular form; the second type resembles the first except that it is modified by the presence of biotite in coarse scaly aggregations; the individual minerals, too, are not so uniformly or evenly divided as in the first type and commonly are found in much larger individuals.

(*c*) Rock specimen from Dog River, Erik Harbour, Pond's Inlet, Baffin Land. This consists of a moderately fine grained ferriginous quartz sandstone.

(*d*) Some small specimens from Milne Inlet, Pond's Inlet, Albert Harbour, Baffin Land. These consist of grains and thin sheets of native copper associated with pale apple-green subtranslucent prehnite.

Most sincerely yours,

(Signed) ROBT. A. A. JOHNSTONE,
Mineralogist.

Capt. J. E. Bernier,
Dept. of Marine and Fisheries,
Ottawa, Ont., Canada.

Appendix VII.

List of articles collected from different places in Hudson Strait and Arctic regions, by Capt. J. E. Bernier, during the expedition of the C.G.S. *Arctic*, 1906-7.

1. Box found on Cockburn Point, containing some of the records deposited on that point by Lieut. McClintock, 1851.
2. Pieces of plank from a boat found in Erebus Bay, 1906.
3. Piece of a pick found on Cockburn Point, near the spot where box marked '35' was found.
4. Stones found inland of Cockburn Point.
5. Lead bullets and small nails found inside of box marked '35,' on Cockburn Point.
6. Sample of sand from Cockburn Point, Bathurst Island.
7. Piece of rope found on summit of Beechy Island, 642 feet above the sea level, it was taken from Sir John Franklin's monument, in September, 1906.
8. Volcanic stone found on top of Beechy Island, September 8th, 1906.
9. Stones, wood, jars, rope and crockery found about Sir John Franklin's monument on Beechy Island, September 3rd, 1906.
10. Pieces of wood from Capt. John Ross' yacht *Mary*, which was abandoned at Erebus Bay, September 3rd, 1906.
11. A walrus tooth found near Cumberland House depot, Erebus Bay, September 3rd, 1906.
12. Two pieces of rope cut from Sir John Franklin's monument on top of Beechy Island.
13. One piece of soapstone found on Beechy Island, September 2nd.
14. Old Eskimo pipe found on Beechy Island, September 3rd, 1906.
15. Shot gun cartridge shell found on Beechy Island.
16. One stone shell and two small shells and some stones found on Beechy Island.
17. One piece of bone found at Port Leopold, and marked 'William Sanderson, 1888, August.'

18. Bottle found at Port Leopold, containing news from Capt. Jeffrey, steamer *Esquimault*, July, 1891. There was also a record from Capt. P. Walker, dated 5th August, 1888, included in the same bottle.

19. Stones found at Cape Walker, Russell Island.

20. Sample of rock from Cobourg Island, King Edward Point, August 2nd.

21. Sample of rock from Cone Island, North Lincoln, August 12th, 1907.

22. Glass found on Whaler Point, Port Leopold. Stone, piece of narwhale ivory, implements and soapstone, also found on the same island.

23. One piece of stone found at Port Leopold, August 8th, 1907.

24. Piece of spear used by the Eskimos for killing seals, it was found in Pond's Bay, 1907.

25. Shell found at Pond's Inlet, 1907.

26. A star fish caught at Pond's Bay.

27. Stones from dry river bed at Albert Harbour.

28. Stones from bottom of Hudson Strait, in 15 fathoms of water, Port Burwell, Ungava.

29. Specimen of lignite coal found at Salmon River, Pond's Inlet.

30. Piece of plate found at Beechy Island; it was from the *North Star* expedition, 1854.

31. Mr. A. P. Low's record box found on Beechy Island, September 3rd, 1906.

J. E. Bernier,
Commanding Officer, C.G.S. 'Arctic.'

On board C.G.S. *Arctic*.

Appendix VIII.

orders.

C.G.S. 'Arctic,'
Albert Harbour, Pond's Inlet,
September 20th, 1906.

1. The Commander would remind both officers and men that there is a long winter before us and we shall be from necessity in close community, that this state of things may continue for one year or more. Under such circumstances little frictions are liable to occur, but by all hands making the best of things and working together in harmony such little frictions can easily be smoothed over, and the long winter months will then slip past quickly and pleasantly.

2. It is to be distinctly understood, that all orders respecting every department of the vessel are to be given by the first mate, through the officer or person in charge of such department. All complaints are to be made through Mr. Hayes, the chief officer, to the commander.

Any officer or man believing himself unjustly treated can, if he so desires, request to be brought before the commander.

It must be borne in mind that frivolous complaints will not be entertained, and that any person making such complaints is liable to punishment.

3. A half holiday will be given to all hands except watchman, on Saturday afternoon.

By Order,

J. E. Bernier,
Commanding Officer.

ORDERS.

1. Commencing Monday, October 1st: Breakfast for men, 8 a.m. Dinner for men, 12.30 p.m. Breakfast for officers, 8.30 a.m. Dinner for officers, 1 p.m.

2. Seeing that we have a long winter before us, I would request that all lights be put out when not occupying the cabins. Every one will please be careful to see that no oil is wasted, otherwise an allowance will be served.

All lights out at 10.45 p.m. sharp. I would again remind both officers and men that we cannot be too careful about fire.

3. When on leave ashore or on the ice two men must keep company, and we must know the direction they are taking, so that in case of need we may trace them if necessary. A board will be put up on deck for that purpose. All hands on leave must be on board before dark. Every one must be careful not to get lost or frostbitten. All firearms are to be discharged before coming on board the ship.

4. All oil-skins and furs will be kept on deck, where they will be both aired and dried. Nails will be put up for that purpose, with the name of each person attached.

By Order,

J. E. BERNIER,
Commanding Officer.

C.G.S. 'ARCTIC.'
ALBERT HARBOUR,
September 28th, 1906.

FIRE REGULATIONS ON BOARD C.G.S. 'ARCTIC.'

Every means should be taken that no fire occurs, and it is very important that no fire shall happen.

In case of fire the following regulations shall be followed:—

Fire extinguishers are placed in the following places:

Below decks: One extinguisher is placed at the end of the passage running forward port side.

One in the mess-room forward.

One inside the engine-room door.

One outside the mess-room north door.

One in the forecastle.

One in the starboard hall near the stove.

Should fire be discovered the officer on watch will at once be notified, and he will ring a general alarm on the ship's bell, and will also call the commander and the officers.

The chief engineer will have charge of the pumps, and will at once make connections with the steam or deck pumps.

The chief officer and the port watch will attend with all his available buckets.

The stewards and cooks will pass water to the waiters.

The second officer will use the fire extinguishers, and the starboard watch and firemen will attend to the pumps.

The third officer will attend the powder magazine, the chart-room, the instrument-room, and will report to the commander if danger arises in those quarters.

The boatswain will have charge of the hose and see that it is connected with the main pumps.

The carpenter will attend to the fire hole and see that the water is at hand.

The saloon passengers will make themselves generally useful.

By Order,

J. E. BERNIER,
Commanding Officer.

ORDERS.

C.G.S. 'Arctic,'
Albert Harbour, July 2nd, 1907.

Coffee, 5.30 a.m.
Breakfast, 8 a.m.
Dinner, 11.30 a.m. and 12 p.m.
Supper, 5.30 p.m. and 6 p.m.

People not on duty cannot make any noise while the officers and men are at rest after 8 p.m.

Every one who has a deck light will be responsible for its opening and closing. When the officer on duty orders it, it must be done at once.

By Order,

J. E. Bernier,
Commanding Officer.

NOTICE.

Commencing to-morrow, the stewards, waiters and cooks, will be given liberty, and must, if they value their health, go out for one hour exercise every day, they can go after their work is done, say from 2 p.m. to 4 p.m., in pairs. In storms they can be about the upper deck.

By Order,

J. E. Bernier,
Commanding Officer.

C.G.S. 'Arctic,'
Albert Harbour,
November 23rd, 1906.

Appendix IX.

INFORMATION WITH REFERENCE TO LABRADOR COAST.

Answers given by Rev. Chas. Schmidt, Inspector of the Moravian Mission, Labrador Coast, Killinek, in reply to questions submitted to him by Captain J. E. Bernier, Referring to the above information.

Q. Native Innuits and population?

A. The Eskimos or Innuits on the Labrador coast in charge of the Moravian Mission amount to about 1,200 souls. These people derive their living from hunting and fishing seals, trout, codfish, foxes, bears, wolves, martens, otters, minks, &c., the hunting of which affords them part of their living. As above Mission has been established more than 150 years, these natives are no longer heathen, but have adopted Christian manners and customs.

Q. Native Indians?

A. Some native Indians live in the interior of Labrador. These are not stationary nor settled, but travel about continually; they come out to the coast of Labrador to trade at intervals, at Northwest River and Davis Inlet.

Q. White people?

A. There are quite a number of white people or settlers on this coast; some of them are half-breeds, having mixed either with Indians or Eskimos. The half-breeds of Eskimo origin are more numerous.

Q. Traders from outside?

A. The Hudson Bay Company have four posts on the coast of Labrador (one at Cartright, one at Northwest River, one at Rigolet, one at Davis Inlet). The French-Canadian Fur Company has one post at Northwest River. Besides these traders and ourselves who stay on the coast all the year round, we have a number of Newfoundland people coming regularly to the coast in the summer. The main object is to prosecute the codfishery, but many of them do more or less trading.

Q. What evils could we remedy?

A. We regret that things in Labrador are not similarly managed as in Greenland by the Danish Government. There the Government has the monopoly of the trade; the Mission is supplied by the State and has no need to resort to the trade.

Q. The resources of the eastern part of Ungava Bay from George River to Cape Chidley?

A. The resources of the eastern part of Ungava Bay consist, as far as we know, in seals, codfish and trout. These, when in season, may be found in abundance, and are yet very little reduced, as the population of the Eskimos is so limited. We have not heard of any minerals being found on this coast.

Q. General diseases of the natives, and proper remedy?

A. The natives are, as a rule, a healthy race, but since they have come in contact with outside people, either through fishermen coming here or natives being taken away for exhibition purposes, they have contracted various diseases. Measles, typhoid fever, pneumonia, pleurisy and syphilis have occurred amongst them. We have done all to remedy the mortality in consequence of the above diseases; a mission doctor and hospital are established in the centre of our Labrador Mission.

Q. What regulations would you suggest for the prohibiting of bigamy? Any other suggestions which in your opinion would lead to the bettering of things in general, would be gladly received by me.

A. In regard to bigamy we should suggest the following: If a heathen Eskimo has more than one wife previous to settling down on a mission station, same may be tolerated, but he should not be allowed to take more wives. A man living at a station should not be allowed to take more than one wife. Should he persist in taking more than one wife he may be fined and compelled to pay his fine by the Government, and if this be of no avail he may be imprisoned. We think, moreover, that a small fine would suffice to bring him into line with law and order. With our Eskimos on the Labrador coast we have had no difficulty in this direction. All our church members have but one wife. We think it, however, important that at Port Burwell or Killinek the heathen Eskimos should be impressed with the rules and laws of civilized countries, as we fear that if this is not done, many of these people would continue and even develop their heathen and pernicious practices still for many years to the detriment of the community and all concerned.

(Signed) CHAS. SCHMIDT.

INFORMATION WITH REFERENCE TO PORT BURWELL.

Answers given by Rev. T. Waldmann, Superior of the Moravian Mission at Port Burwell, Killinek, in reply to questions submitted to him by Capt. J. E. Bernier, commanding Officer of the C.G.S. 'Arctic.'

Q. What are the advantages of this place for commercial purposes?

A. The advantages of this port for commercial purposes would perhaps mainly consist in its prominent position, as it is so near the straits and in the main thoroughfare for ships navigating these waters.

Q. What are the resources of this place and neighbourhood that you know of since your arrival here?

A. The resources of Port Burwell are good as far as seals, codfish and trout are concerned. We have not been here long enough to say that this is all that may be secured, and we hope to learn of other resources later on.

Q. Do you consider this place will become more important?

A. Port Burwell would become more important if the codfishery were prosecuted in summer. We believe that fishing schooners could come here in fleets and get a load of fish in about two weeks. We have had steamers here from Newfoundland, and they got all they wanted in a short time.

Q. If this port is chosen for a calling place for ships, do you think it will be to the advantages of the Innuits and others about this coast?

A. Should this place become a port of call we do not think that it will make any difference to the natives.

Q. What is the permanent population of Innuits, male, female, children?

A. The permanent population here is 20 males, 22 females and 37 children, total 78 souls.

Q. Can the mail reach this place during the winter, and at what time during spring, summer or fall overland?

A. A mail reaches in January via Newfoundland and the Labrador coast. There is only one reliable opportunity for mails to reach in summer, i.e., by our mission vessel the S.S. *Harmony*.

Q. What fresh water can a vessel procure, and what quantity during the summer?

A. There is very good fresh water supply in the small bay south of our port near your coal depot, with about 80 yards of piping Capt. Bartlet was able to have it right aboard his vessel.

Q. Could a water pipe be laid for water during the summer from that small lake near the land?

A. With about 80 yards of piping, Capt. Bartlet was able to have the water right on board of his vessel.

Q. When do the codfish arrive in the summer, and what time do they leave in the fall?

A. The codfish arrive here early in the summer (August), and do not leave before the middle of October.

Q. What other fish visit this part of Hudson Bay, and when?

A. Besides codfish we have trout here. We do not know whether salmon can be secured at George River and Fort Chimo.

Q. Would you please give us a rough estimate of the value of your property in Killinek?

A. The property at Killinek may roughly be estimated at $10,000.

Q. What suggestions could you give the Department of Marine and Fisheries for the bettering of this port? The opening of navigation for one or more years? The closing of navigation for one or more years?

A. Navigation opens from the middle to the end of July, and closes about the middle or the end of November.

(Signed) T. Waldmann.

THE HUDSON BAY ROUTE.

A short compilation of facts and conclusions, taken from different reports since 1861, by Capt. J. E. Bernier, Commanding Officer of the C.G.S. 'Arctic,' 1908.

1861.—October 17th, Capt. Buddington, on board the *George Henry*, was closed in Rescue Harbour.

1879.—November 4th, Capt. Spicer, on board the whaler *Era*, was closed in New Gummuite Harbour, just inside of North Foreland.

Capt. Adams, who has been in these regions with several ships, during his experience of 35 years, says that the Strait of Hudson is navigable in round numbers for about four months per year.

1884 and 1885.—Commander A. B. Gordon, S.S. *Alert*, is of the opinion that the Strait is navigable during four months each year, i.e., from July to October, inclusively.

1885.—November 4th, Capt. Glisby, on board the whaler *Era*, was beset in New Gummuite Harbour.

October 15th, Capt. Chas. Smith, of Dundee, Scotland, on board the S.S. *Esquimaults*, left Cumberland Sound, homeward bound, and he had to go through about 150 miles of pack ice, which he had met near the head-land, before he could shape a course for the north of Scotland.

1897.—October 30th, Commander Wakeham, on board the steamer *Diana*, at the mouth of the Hudson Strait, reports that at this date the mouth of the Strait was clear of ice, but he adds that it was snowing and that the ice was not far off.

1897.—Capt. E. B. Fisher states that he has visited the strait and the bay several times on board of several vessels since 1864, and in his judgment the strait can be navigated from three to three and a half months each year by steamers for commercial purposes.

1904 and 1905.—Commander A. P. Low, in command of the S.S. *Neptune*, says that the period of safe navigation for ordinary iron steamships through Hudson Strait and Hudson Bay to Port Churchill may be taken to extend from July 20th to November 1st. This period may be increased without much risk by a week in the beginning of the season and by perhaps two weeks at the close.

1905 and 1906.—Mr. Beach, who has lived at Churchill for two years, and who has recently returned there, after a visit to Winnipeg, states that he knows for a fact that in 1905 a steamer left Port Churchill on the 24th of October, and made the trip to St. John's, Newfoundland, in 11 days. The straits were wide open until that date. The bay is open all the year round, and was still open when he left, on January 3rd.

1905, 1906 and 1907.—October 16th, Capt. J. E. Bernier, of the C.G.S. *Arctic*, arrived at Fullerton on this above date; he saw no field ice in the strait but a couple of icebergs were seen. There was no ice in the bay, and the ice in the harbour of Fullerton was only four inches thick. In the spring of 1905 he left Fullerton about the 5th of July, and he encountered the field ice outside of Churchill, 60 miles north; a strong steamer could have passed through and have entered Port Churchill.

During the month of October, 1907, no ice was visible in the strait at Resolution Island, we saw this place on the 7th of October. The average date of the closing of navigation at this place is about the 1st of November; while the opening at Port Burwell is about July 15th. A ship could certainly navigate the strait while the land ice is still firm in the bays and the harbours.

Deductions.—The average date of the closing of navigation for the eastern entrance of Hudson Strait, when considered from the above opinions, is about the last days of October each year.

The reason and cause of the closing of navigation is due to the pack ice drifting on the coast at the entrance of Hudson Strait. The drift is caused by the northern current which partly enters the north side of the strait and partly closes on the Labrador coast; this fact is well established by the filling up with ice of the northern harbours and Port Burwell at the entrance of the strait, while the western part of the strait and the bay are free of ice. It is a well known fact that Hudson Bay itself never freezes, except a certain margin of ice a few miles along the land around the bay.

Port Churchill is often still open in the first weeks of November, and could easily be kept open with an ice-boat if desired. With the proper aids to navigation the dangers would not be so great during the fall. With wireless telegraphy in a station at the entrance of Hudson Bay the opening of navigation could be made in the first week of July; by informing the steamers which side of the strait to pass on so as to find clear navigable water. In this way much detention would be saved in the first

part of the month of July. There is no doubt that the strait is navigable during four months each year, with suitable steamers, and that Hudson Bay is navigable for one month longer, though there is a large field of ice in the bay, which is the output of the land ice, and is of the year's formation, through which a suitable steamer would have to pass to reach Port Churchill.

J. E. Bernier,
Commanding Officer, C.G.S. 'Arctic.'

SCALE OF RATIONS ISSUED TO MEMBERS OF THE EXPEDITION.

	Lbs.	Oz.
Beef	2	4
or		
Bacon or corn beef	1	4
Flour or biscuits	1	9
or		
Bread	1	14
Butter		3
Apples or other dried fruit		4
Jam		2
Syrup		2
Potatoes	1	
or		
Beans		4
Evaporated vegetables		2
or		
Canned vegetables (tomatoes, peas or corn)		2
Coffee		$\frac{3}{8}$
Tea		$\frac{5}{8}$
Pepper		$\frac{1}{56}$
Salt		$\frac{5}{8}$
Rice or barley		$1\frac{1}{2}$
Sugar		5
Oatmeal		2

Pickles, one quart per man per month.

Baking powder in the proportion of 1 lb. to 100 lbs. of flour.

Lime juice and vinegar to be issued when and in such quantities as recommended by the surgeon.

MEMORANDUM FOR CAPTAIN J. E. BERNIER—LIST OF PHOTOGRAPHS TAKEN DURING THE CRUISE.

Nos.

1 Steamer 'Arctic' leaving Sorel.
2 Steamer 'Arctic' with bowsprit broken.
3 Steamer 'Arctic' leaving Quebec.
4 Steamer 'Arctic' at anchor at Father Point.
5 First fair wind to the steamer 'Arctic.'
6 Chateau Bay.
7 Chateau Bay inside harbour.
8. Greenland coast several photographs.
9 Icebergs.
10 Greenland coast, several icebergs.
11 Disko island, 12 miles off.
12 'Arctic' replenishing with fresh water.
13 'Arctic' going through the middle pack ice.
14 Midnight sun, 16th August, 1906.
15 Bylot island.
16 Wallaston islands.
17 Four glaciers in Navy Board inlet.
18 Navy Board inlet.

LIST OF PHOTOGRAPHS—*Continued.*

Nos.
19 Canada Point.
20 Approach of Albert Harbour.
21 Captain James Mutch's station and house.
22 Albert Harbour, 8 different views.
23 Erio harbour.
24 The most northern land of Baffin land.
25 Pond's inlet.
26 View of Bylot island.
27 View of Bylot island from the south.
28 View of glacier on Bylot island.
29 Button point.
30 Cape Grahammore.
31 Baffin Land coast of Albert Harbour.
32 Taking possession of Baffin Land.
33 Beloeil island.
34 Beloeil island mountain.
35 Rifle competitors on November 9, 1906.
36 'Artic' winter quarters.
37 Several harbour views.
38 Approach of harbour from outside.
39 Dundee whaler 'Albert.'
40 Dundee whaler 'Eclipse.'
41 Dundee whaler 'Diana.'
42 Dundee whaler 'Balaena.'
43 Capt. W. F. Milne.
44 Capt. Adams.
45 Capt. James Mutch.
46 Navy Board inlet.
47 Cape Crawford.
48 Port Leopold.
49 'Gjoa' cache.
50 'Arctic' depot.
51 Cape Clarence.
52 Limestone island.
53 Griffith's island.
54 Cairn on R. R. Dobell point.
55 Cairn on Sherrington point.
56 View of ice while 'Arctic' is beset.
57 Cornwallis island at a distance.
58 Cape Cockburn point.
59 Byam Martin island cairn.
60 Melville island land.
61 Our photographer off Melville island.
62 State of the ice outside of Melville island.
63 Lowther island.
64 Gourdeau point and cairn.
65 Cape Walker and cairn.
66 Russell island at a distance.
67 Cape Bunny, Limestone island, August 30th, 1906.
68 Peel sound clear of ice.
69 Coast of North Somerset.
70 Beechy island.
71 Cape Rieley.
72 Tombstone of men of 'Erebus.'
73 Sir John Franklin's monument, as we found it.
74 Sir John Franklin's monument, as we left it.
75 Northumberland house as it is now.
76 Bay of Erebus.
77 Land to the east of Bay of Erebus.
78 Entrance of Admiralty inlet.
79 Land about Cape York.
80 Ten photographs of Admiralty inlet.
81 The head of Admiralty inlet.
82 Six photographs of the western side of Admiralty inlet.
83 One small iceberg in Admiralty inlet.
84 Navy Board glacier.
85 Mr. Cameron's whale boat.
86 View of the station from the west.
87 Eskimo Cameo and his tupick.
88 Our native Moneyshaw and his wife.
89 Arctic cove where we landed our boats.
90 Views from Morin mountain (6 photographs).
91 'Arctic' amongst the ice blockade (3 photographs).
92 Sledge and dogs
93 Our igloos.

LIST OF PHOTOGRAPHS—*Continued.*

Nos.

94 View of the 'Arctic' ready for sea, 2 photos, bow and stern.
95 View of whale boats.
96 View of 'Arctic' boats.
97 View of our 'Arctic' launch.
98 'Arctic' dorey.
99 Ashes on the ice.
100 Ash avenue.
101 Albert Harbour view with three ships in port.
102 First bear killed.
103 Bear swimming.
104 Bow of 'Arctic.'
105 Death of the Eskimo Snider.
106 First burial of Snider (temporary).
107 Coffin of Snider on top of ice again.
108 Snider's final burial.
109 Boxes of cheese and pemmican.
110 Fred. Brokenhauser's funeral.
111 Fred. Brokenhauser's burial (three views).
112 View of large garnet rock in Albert Harbour.
113 Fixing tarpaulins on board.
114 Carpenter at work.
115 Water hole at stern of 'Arctic.'
116 Departure of George Hays for Milne's inlet.
117 Departure of Mr. O. J. Morin for Navy Board inlet.
118 Departure of Mr. James Duncan for Coots inlet.
119 Departure of Mr. Charles Green for Button point.
120 Departure of Mr. W. H. Weeks for Button point.
121 Departure of Mr. O. J. Morin for Salmon river.
122 Capt. J. E. Bernier shooting ducks.
123 Eskimo kayacks.
124 Eskimo uniacks.
125 Capt. James Mutch's sledge.
126 Sir John Ross' yacht 'Mary.'
127 Boat abandoned by the 'North Star.'
128 Sir John Franklin's cairn on Beechy island
129 Capt. J. E. Bernier at the mast-head.
130 Mr. George Lancefield, photographer, going up to the mast-head.
131 Adams island.
132 Doctor Boas charts, three plates.
133 Mr. C. J. Morin at the mast-head.
134 Mr. William Ross, boatswain.
135 'Arctic' bow in dock.
136 'Arctic' stern in dock.
137 Hon. L. P. Brodeur.
138 Capt. J. E. Bernier, Commander of C. G. S. 'Arctic.'
139 Mr. Fabien Vanasse, historiographer.
140 Dr. J. E. Pepin.
141 Chief Officer, Hayes.
142 2nd Officer, Morin.
143 Igloolik Eskimos.
144 Pond's inlet Eskimos.
145 The crew of the steamer 'Eclipse.'
146 The crew of the steamer 'Eclipse' dancing.
147 View of Albert Harbour, looking from the N.W.
148 Capt J. E. Bernier looking for ice movements.
149 Cairn on Cone island.
150 North Lincoln.
151 Cobourg island, two views.
152 Edwards point on Cobourg island.
153 Remains of Eskimo house on Cobourg island.
154 The entrance of Cumberland sound.
155 The state of the ice in Cumberland sound.
156 Kekerton island.
157 Kekerton harbour.
158 Blackhead harbour.
159 Blackhead island.
160 Blackhead mission.
161 Mr. Crawford Nable's house.
162 Eskimo from Blackhead.
163 Several views of islands along Baffin Land.
164 Resolution island.
165 The Buttons island.
166 Port Burwell from outside.
167 Port Burwell from the south.
168 Entrance of McLelan straight.

LIST OF PHOTOGRAPHS—*Continued.*

Nos.
169 Entrance of Munroe harbour.
170 Inside of port Munroe.
171 View of inside of inner port Burwell.
172 The Moravian Brothers church and station.
173 'Arctic' moored in inner port Burwell.
174 Two views of 'Arctic' moored in port Burwell.
175 Several views of McLelan strait.
176 Several views of Eskimo pass.
177 Several views of port Harvey.
178 James Duncan, Customs officer, looking at Mr. Lancefield going up the mast-head.
179 One view of Button island.
180 Mr. Geo. Lancefield, after ducking near Melville island.
181 'Arctic' beset off Bathurst island.
182 A native in shirt sleeves
183 Native dance on New Year day.
184 Natives Canaca, Muckatowee, Tomallo and Cacktoo.
185 New Year's dinner in saloon.
186 Singing and playing the manola in the saloon.
187 Thirty-six panoramic and other views:—Cape Grahamore, east side of Bylot island, Possession Bay, Cape Fanshawe, Cape Warrander, Cape Osborne, Cape Horsburgh, Cape Parker, four glaciers, Reaper point, Cape Fritty, North Devon Glacier, Lady Ann strait, Smith's island, East side of North Somerset, North side of Somerset, Prince of Wales island, cairn on Beloeil island, Capt. Mutch's house, Capt. Cooney, range going in port Burwell, Joe. Lane and family, 'Arctic' off Melville island, Cape Crawford, state of the ice in Jones sound, Smith's island, view of southern portion of Cobourg island, Dr. Boas' Eskimo route on Baffin Land, city of Quebec, city of Levis, Albert Harbour, east coast of Prince Regent inlet (5 views), Cape Kater land to the south of the cape, state of the ice in Regent strait, August 6, 1907.

METEOROLOGICAL OBSERVATIONS

AT

KILLINECK, UNGAVA

FOR THE YEARS 1906-1907

(FROM SEPTEMBER, 1906, TO OCTOBER, 1907)

KEY TO ABBREVIATIONS in Reports of the Meteorological Observations at Killinek, Ungava, from September, 1906, to October, 1907.

Aurora	⌓
Blue sky	b
Cloud detached	C
Dew	∴
Drifting snow	⁂
Drizzling rain	d
Dust haze	∝
Fog	≡
Glaced frost	⌒
Gloomy	g
Hail	⧋
Hoar frost	⌓
Ice crystals	→
Lightning	↯
Lunar corona	☋
Lunar halo	○
Mist	=
Overcast, dull	O
Passing showers	P
Rain	◍
Rainbow	⌒
Silver thaw	V
Snow	✳
Snow on the ground	[✳]
Soft halo	△
Solar corona	⊙
Solar halo	⊕
Strong wind	//
Squally	q
Thunder	T
Thunder storm	TK
Ugly	U
Wet	W

Clouds.

Cir.	= Cirius.
Cir. Str.	= Curo Stratus.
Cir. Cum.	= Cirno Cumulus.
Al. Cum.	= Alto Stratus.
Str. Cum.	= Strato Cumulus.
C.	= Cumulus.
C. N.	= Cumlo Nimbus.
Nimb.	= Nimbus.

METEOROLOGICAL OBSERVATIONS AT KILLINECK, UNGAVA (25 feet above mean sea level).

Date.	9 A.M.						9 P.M.						In the Day.			Remarks.
	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Max	Min.	Rain.	
1906.																
Sept. 1	28·9	42	40·9	N.E.	2	Nim. 10	28·9	42	39	N.E.	4	Nim. 10	52	38·2	0·17	Light rain clouds, N.E.—S.W.
„ 2	28·8	42	40·8	E.N.E.	5	„ 10	28·9	40	39·2	E.N.E.	5	„ 10	52·2	38	0·33	Nimb. rain through the day.
„ 3	29	48·8	41	S.E.	4	Str. C. 5	29·3	38	37	..	..	„ O	44	38·8	0·18	„ over day.
„ 4	29·2	36·1	35·4	W.N.W	3	10	29·3	33	33	S.W.	3	..	40	33·4	..	Foggy from ten a.m.
„ 5	29·2	35·3	35·3	..	..	F ≡	29·2	32·6	32·2	S.E.	2	10	35·6	29·6	..	Foggy and dull.
„ 6	29·1	35·2	34	S.E.	2	Str.C.10	29·2	35·8	33·8	S.E.	2	6 C. Str.	35·6	29·6	..	⌴ in the night, slight showers of rain in the day.
„ 7	29·2	38	36	E.	3	„ 10	29·3	35·3	33	E.	2	10	38·8	32·6	..	Between 8 and 8.30 a.m. ⌢ N., some light showers of rain.
„ 8	29·3	37·8	36·3	N.E.	2	„ 10	29·3	34	34	E.	2	10	43	34	..	Dull.
„ 9	29·2	36·3	35	..	..	„ 10 Cir.C „		32·2	31·2	E.	4	..	37·4	33·4	..	10 a.m ⊙.
„ 10	29·2	33·6	32·2	S.	2	10	29·2	35·	34·2	S.W.	4	10	34·	37·8	..	Dull and foggy.
„ 11	29·1	36·6	35·8	W.	2	10 Str. 29·		37·2	35·	..	..	10	37·5	34·8	..	
„ 12	29	34·3	33·6	N.	2	10 ✳ 29·2		34✳	33·8	N.	4	10	34·5	35·	..	Slight snow fall through the day.
„ 13	29·3	34	32·	N.W.	5	10	29·4	34	—0·5	N.W.	5	O	34·8	32	..	Between 10 and 11 p.m. △ W.E.
„ 14	29·4	33·6	32	S.E.	2	10 ✳ 29·4		33	32·4	..	..	10	33·8	33	..	7.30 and 9 a.m. ✳ △ E.W., sky nearly over-spread.
„ 15	29·5	34	33·2	N.	2	10 ✳ 29·6		33	—1	N.W.	5	O	36	32·5	..	9 p.m. ⌒ and about 10 clear sky and ⊙.
„ 16	29·5	34	33·6	N.W.	5	„ 2 ⊙ 29·5		34	33·6	N.W.	3	10	34	32	..	
„ 17	29·1	34	36·4	S.E.	4	„ 2 ⊙ 29		37·2	34·8	S.E.	5	2	38	32	0·16	During night ⌴, 4 p.m. mock sun and solar corona.
„ 18	28·8	36	35·6	S.E.S.	4	10	28·8	41·5	39·2	E.S.E.	3	10	◎ 42·2	36·	0·19	
„ 19	28·9	34	34	N.E.	2	≡	29·0	33	32·5	N.E.	2	≡	33·5	34	0·17	2 to 5 a.m. ✳ O; wet in the day.
„ 20	29·1	33·2	33·2	..	..	✳ O	29·2	36	35·8	S.E.	2	10	36·	32	..	
„ 21	29·3	36·2	35·5	N.E.	..	Str. 10	29·4	33	32·5	N.W.	4	Str. 4	33·8	34	..	
„ 22	29·3	33·2	33	N.	6	10	29·2	34	32·6	N.	6	10	34	32	..	Light fog.
„ 23	29·1	33·5	32·5	N.	5	10	29·1	34	33·8	N.	4	10	34	32	..	
„ 24	29·1	33·2	32·5	N.	3	10 Str. 29·2		31·8	31·8	N.	3	10	33·5	32·2	..	Misty.
„ 25	29·3	33	32·5	N.	4	10 ✳ 29·3		30·2	31·2	N.	2	10	33·5	32·2	..	„
„ 26	29·2	33·5	—08	S.E.	3	10	28·9	42	39·2	S.E.	4	10	42	2·2	0·66	Light snow fall during the night; 1.30 to 2 p.m. solar corona.
„ 27	28·6	39·5	39·5	..	..	◎ 2	29·	35	34	N.W.	4	10	35	38	0·60	
„ 28	29·1	34·6	34·6	..	..	≡ M	29·4	33·2	33	W.	3	10	34	34	..	
„ 29	29·2	37·5	35·6	S.E.	3	10 Cir.	28·8	42·6	40	S.E.	3	10	43	32·8	0·40	
„ 30	28·6	36	35·6	S.W.	2	≡ 10	28·4	33·8	33·8	S.W.	3	Cir. 10	35	34	..	5 p.m. mock sun.

Oct.	1	28·4	32·8	32·5	S.W.	4	10		28·6	32	−0·5	S.W.	6	10	35	32·5	..	Heavy snow storms through the day.
"	2	28·8	−2	−25	N.W.	5	10		28·8	32	−1	N.W.	5	Str.C. 10	32	−3	..	⫽ through the day.
"	3	28·8	−0	−0	N.W.	5	10	☩	39	−0·5	−1·8	N.W.	5	10	32	−3	..	☩ "
"	4	29·1	−1·1	−1·1	N.	5	10		29	−1	−1·2	N	2	10	32	−3	..	☩ " and ⊙.
"	5	29·1	−1	−1·4	..	..	10		28·5	33	33	E.N.E.	6	10	33	−25	..	From 5 p.m. ☩.
"	6	28·4	32	32·2	N.W.	5	10		28·8	−15	2·2	N.W.	6	10	33	32	..	
"	7	28·9	−32	−3·4	N.W.	5	10		28·8	2·2	2·6	N.W.	4	10	−2	−5	..	
"	8	28·4	−2·2	−1·2	N.W.	6	Str. 10		28·9	−4·8	−5	N.W.	6	10	−4·5	4·2	..	
"	9	29·3	−1·2	−2	W.	4	" 5		29·5	32	−0·2	S.W.	6	10	☩ −32	−5·4	0·10	⫽ through the day.
"	10	28·9	35·2	35	S.W.	4	10	⊙	29·1	34·8	33	S.W.	3	10	☩ 35·5	32	..	11 a.m. solar corona.
"	11	29·2	1·6	−1·6	S.W.	4	f ≡		29·4	−2·2	2·5	N.	3	10	−2	−2·3	0·08	Wet.
"	12	29·1	33·2	33	N.E.	5	☩		28·9	−1·8	−2	N.E.	6	☩ 2	34	−3	..	Afternoon clear.
"	13	29·2	−2	−3	N.W.	6	Str. 10		29·4	−4	−4·5	N.W.	6	10	32	−3·6	..	Wet.
"	14	29·6	−3·2	−3·8	W.	4	" 10		29·8	−4·2	−4	W.	4	10	−3	−4·5	..	Heavy snow storm in afternoon.
"	15	29·8	−3·2	−3·8	W.	4	" 10		29·8	−6·8	−7	N.W.	6	10	−2	−5	..	
"	16	29·5	−0·8	−0·8	S.W.	6	10		29·2	4·2	3	S.W.	6	10	4	7·5	..	Light in the afternoon.
"	17	29	+5·2	+5·2	S.W.	6	≡ F		28·9	4	4	S.W.	4	⊙ 2	7·5	3·5	0·50	Heavy rain shower through the day and strong ⫽.
"	18	29·1	0·2	0·	N.W.	5	F 5		29·4	−0·8	−0·8	N.	3	10	+2	−2	0·08	
"	19	29·1	+1·4	+1	S.W.	5	10	⊙	28·8	+ 5	+5	S.E.	4	⊙	+5·5	−2	1·61	⫽
"	20	28·4	+1	+1·2	S.W.	6	⊙	✳	28·4	6·2	6·2	N.W.	4	⊠	3	0·	..	Towards evening ✳ and wet.
"	21	29·2	−6	−5·8	N.	4	Cir. 8		29·4	−5	−5	N.	6	10	−4	−6	..	
"	22	29·4	−5·8	−5·8	S.W.	6	10		29·4	4·8	−4·8	N.W.	4	10	−4·5	−6·2	..	
"	23	29·1	−5·2	−5·8	S.W.	5	10		28·8	−4·5	−4·4	S.W.	4	☩ O	−3	−5·2	..	Solar corona and mock sun 10 a.m. to 3 p.m.
"	24	28·8	−5·8	−5·6	N.W.	5	10		28·9	−4·2	−4·7	N.W.	8	Str. 3	−3·4	−7·5	..	
"	25	28·8	−5·8	−8·5	N.W.	5	10		28·9	−7·6	−7·4	N.W.	4	10	✳ O 6	−12·6	..	
"	26	29	−7	−6·8	W.	4	✳		29·3	−9·5	−9·5	W.	1	" 4	−5	−9	..	Heavy snow showers in the afternoon.
"	27	28·4	−4·5	−5	W.	6	10		29·6	−9·5	−9·5	W.	3	10	−4	−12·5	..	Snow showers through the day.
"	28	29·5	−10·2	−10·2	E.	2	10		29·4	−7	−7·2	S.E.	6	10	−7	−14	..	
"	29	29·1	−3·8	−4	E.S.E.	8	10	☩	29·4	−7	−7·2	E.S.	6	10	☩ −2·5	−8·4	..	⫽, wet.
"	30	29	−7·8	−8	N.E.	5	☩		29·3	−7·2	−7·6	N.	5	10	−3	−8·5	..	
"	31	29·5	−6·2	−6	N.	6	Cir. 10		29·7	−9	−8·5	N.	4	10	−3	−9·5	..	Slight ☩.

METEOROLOGICAL OBSERVATIONS AT KILLINECK, UNGAVA (25 feet above mean sea level).—*Continued.*

Date.	9 A.M.						9 P.M.						In the Day.			Remarks.
	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Max.	Min.	Rain in the day.	
1906.																
Nov. 1	29·5	−6·2	−6·2	S.W.	6	10	29·4	−0·2	−0·8	S.W.	6	10	32	−12·2	..	Snow showers through the day strong ⛆.
„ 2	29·5	+0·4	+0·4	S.W.	4	10	29·5	+4	+3·4	S.W.	6	10	+3·6	−2·2	..	
„ 3	29·2	+1	+0·8	S.W.	6	10	29·6	4·5	4·5	N.W.	5	6	3	−2	..	
„ 4	29·8	−4·4	−4·2	N.W.	6	10 Str.	29·8	−5·8	5·8	N.W.	3	3	−2	−7·5	..	
„ 5	29·9	−5·4	−5·2	N.	3	6	29·8	−5·8	5·8	N.W.	2	10	−2	−7	..	From 1 p.m. ✳ and calm.
„ 6	30	−6·5	−6·5	N.	4	10	30·1	9·2	−9·2	N.	2	✳°	−5	−7	..	
„ 7	30·1	−11·6	−11·8	N.	2	10	30·1	11·8	11·9	N.	2	✳°	−9·5	13·5	..	
„ 8	30·1	10·8	10·9	N.E.	3	10	30·1	10	10·2	N.	2	4	8·5	−12·5	..	Slight △ W.—E.
„ 9	30	10·5	10·8	N.E.	3	10 Str.	29·9	9	9	N.	4	O △	−5	−9·5	..	△² W.—E.
„ 10	29·7	7·2	7·5	N.E.	3	„ 4	29·7	−10	−10	N.	2	10	−5	−14	..	
„ 11	29·6	−6	−6·2	N.E.	2	10	29·5	−8	8·2	N.W.	4	10 ⛆	−7	−11	..	
„ 12	2·4	−8	−8·2	N.	3	10	29·4	−9·5	9·5	N.W.	6	10	−8·4	−12	..	
„ 13	29·5	10·8	−11·4	W.	6	10	29·3	−10·2	10·8	S.W.	5	10	−10	13·5	..	
„ 14	29·3	11·4	11·6	S.W.	4	10	29·4	14·2	14·2	S.W.	4	10	−11·5	−17	..	
„ 15	29·4	−15	−15	S.W.	4	10	29·5	−12·2	−12·2	S.E.	3	10	−7·5	−13	..	From 10 a.m to 2 a.m. solar corona △ 2 W.E
„ 16	29·6	−9·5	−9·5	S.W.	3	10	29·7	−7·8	−8	S.E.	3	O △	−4	−14	..	In afternoon solar corona slight △ N.W.—S.E.
„ 17	29·6	−5·2	−5·6	S.E.	4	10 Cir.	29·6	−7·8	−8	..	..	O △	−4	−14	..	Slight snow fall in the afternoon.
„ 18	29·6	−3·4	−3·4	E.	3	10	29·3	−5·8	−6	E.	4	10	−4·5	−10	..	
„ 19	29·4	−6	−6	S.E.	4	10	29·3	−4	−4·2	S.E.	5	10	−4	−8·5	..	
„ 20	29·3	5·5	−5·5	S.E.	4	10	29·3	−6	−6·2	S.E.	5	10	−4·5	−6·2	..	Slight snow fall in afternoon and morning.
„ 21	29·4	−7·4	−7·8	S.E.	2	10	29·6	−9	−9	N.E.	3	10	−4·5	−6·2	..	
„ 22	29·4	−8·8	−8·8	..	..	10	29·3	−8	−8	N.W.	3	3	−6	−9·5	..	Slight snow fall in afternoon 9 △ W. E.
„ 23	29·2	10·5	10·6	..	..	10	29·1	−9	−9·4	S.E.	3	A 1 8 Str	−8	−13·6	..	
„ 24	29	−10	10·8	S.W.	6	⛆	29	−13·8	−14	N.W.	5	⛆	−7	−11	..	
„ 25	28·7	−11	−11	S.W.	3	10 Cir.	28·7	−14·6	−14·6	..	..	..	−10 C	−11	..	
„ 26	28·8	11·8	−11·8	N.	3	✳°	28·9	−10	−10·2	N.	8	⛆	−8	−17·5	..	
„ 27	29·1	10·8	10·8	N.	6	⛆	29·2	−13·8	−15	N.W.	10	✳¹	−10	11·4	..	
„ 28	28·9	−13	−13·8	S.W.	10	10	28·9	−13	−13·2	S.W.	3	⛆²	12	19	..	Wind in q in the afternoon.
„ 29	29·1	16·2	16·4	S.W.	6	10	29·2	−19	−19	W.N.W	10	..	−16	−17	..	⛆ in afternoon, wind q. Ice in the bay.
„ 30	29·3	−16	−16	S.E.	3	✳	29·1	−16	−16	S.E.	2	A 1 10 Cir.	−11	−23	..	▽ in the day nearly d.

Dec.	1	28·8	21·2	21·5	S.E.	2		8	Cir.	28·7	—8	—8·4	S.E.	3	10		8	—22·5		From 7 p.m. → nearly d.
,,	2	28·8	—15·2	—15·5	S.	2		10		28·7	—12·8	—13	N.	6	⊹		—7	—15·5		
,,	3	28·5	—10·5	—10·8	N.	8	⊹			28·6	—13·6	—13·6	N.	8	⊹		—8·5	—11		⟋ and heavy drift all day.
,,	4	28·9	—23·8	—24	N.W.N.	6	10	G		28·9	—27·5	—28	S.	2	×¹			—22		—24·9		7 a.m. M. with p snow showers.
,,	5	28·3	—18	—18·2	N.W.	10	⊹			29	—33·2	—33·2	N.W.	11	⊹²			—12		—28		⟋
,,	6	28·6	—36·5	—37	N.W.	10	⊹			29	—36·5	—37	N.W.	10	O			—36		—38·5		Wind q.
,,	7	29·3	—42·5	—43	S.E.	4	⊹			29·4	—41	—42	S.E.	4	⊹			—37		—43		⟋⟋
,,	8	29·1	—32	—32	S.E.	4	10	g		28·7	—36·5	—37	N.	8	⊹			—25		—40		⟋⟋
,,	9	28·6	—34	—34·5	N.W.	8	⊹²			28·9	—37	—37	N.W.	10	O		34·5	—34·5				⟋⟋
,,	10	29	—35·8	—36·4	W.	10	⊹²			29	—28·4	—29	W.	8	10			—37		—38		Wind q in the afternoon.
,,	11	29	—32	—32·8	W.	6	10	q		29·2	—34·8	—35·4	W.	6	10	g		—32		—34·4		Partly in the day.
,,	12	29	—29	—39·5	W.	6	10			29·8	—36·8	—37	W.	4	O	⚠		—34		—39·2		
,,	13	29	—35	—35·4	W.	6	10			29	—43·2	—44	W.	6		⊙		—37		—42		⚠ W.E.
,,	14	29·2	—39	—39·5	W.	5	10	G		29·4	—4	—41	W.	6	O	⚠		—37		—39·2		Partly ⊹ in the day.
,,	15	29·4	—38	—38·3	W.	3	10			29·3	—34	—35·2	S.E.	3		×⁸		—34		—39·5		Partly in ⊙ the day.
,,	16	29·1	—38	—38·3	S.E.	2	10			29·1	—36	—36·5			O	⚠		—34		—39·3		⚠ Lightly spread all over the sky.
,,	17	29·1	—36·2	—36·8			10			29·2	—32·3	—32·8	N.	6	10			—30		—39		
,,	18	29·2	—39·2	—39·8	W.	5	10	g		29·3	—4·44	—4·44	W.	4	O			—32		—39		
,,	19	28·8	—40	—34	S.E.	4	10	g		28·9	—38·8	—38·8	N.W.	6	O	⚠		—20		—44		⚠ N. W. ⥽ S. E.
,,	20	28·8	—40	—41	N.W.	8	10	g		28·9	—33·5	—34·2	N.W.	8	O	⚠		—32		—42		⚠ in all directions.
,,	21	29·8	—40	—41	N.W.	4	10	⊹		30·1	—40·5	—42	S.E.	2		×		—33		—42·5		
,,	22	29·9	—34·2	—34·8	E.	2		×		29·8	—24	—23·8	E.	6		⊹		—24		—44		
,,	23	29·9	—23·4	—23·8	E.	4	10	g		29·7	—18·2	—18·4	E.	4		⊹		—18·2		—26		
,,	24	29·8	—26	—26·4	E.	2	10			30	—26·2	—26·6	N.	2	10			—25		—26·5		
,,	25	30·1	—31·4	—31·6	E.	2	4			29·8	—15·8	—15·8	E.	8		⊹		—15		—31·4		⚠ in the day.
,,	26	29·0	—33	—4	E.	2	4			29·8	—15·8	—16	E.	8		◎		—7		—16		Rain in the afternoon.
,,	27	29·1	—17·5	17·8	S.W.	4	10			29	29	—30	N.W.	2		4		—9		—17·5		⊙ in the day.
,,	28	28·8	—10·8	—11	N.	8	⊹²			29·2	28	—28·4	W.	10	10	A. C.		—7		—12		⟋ in the day.
,,	29	29·2	—30·2	—30·6	W.	2		3	Str.	29·2	29	—28·4	W.	2	O,	W.		—24		—30·4		⊙ in the day.
,,	30	29·3	—28·8	—29	N.W.	6	10	m		28·8	—42·8	—44	N.W.	6		5		—41		—43·2		

METEOROLOGICAL OBSERVATIONS AT KILLINECK, PORT BURWELL, UNGAVA (25 feet above mean sea level).

Date.	9 A. M.						9 P. M.						In the Day.			Remarks.
	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Max.	Min.	Rain in the day.	
1907.																
Jan. 1	29·7	—46	—46	N. W.	4	5 Cir. C	29·7	—47·8	—49	N. W.	2	8 Cir. C	—44	—45	..	9 p. m. ☾.
" 2	29·8	—41	—42	N. W.	4	10 M.	29·9	—36·6	—37	N.	4	10.	—37	—47	..	
" 3	29·7	—34·8	—35·2	N.	4	10.	29·6	—36	—36·5	N.	5	10.	—34	—37	..	
" 4	29·2	—42·4	—43	S.	4	10.	29·0	—37·8	—38·2	S. W.	4	M.	—36	—43·7	..	
" 5	—·1	—36·6	—37	..	..	10.	—·2	—35	—35·5	N.	2	☀°.	—34	—39	..	
" 6	—·3	—41·6	—41·2	W.	5	10.	—·3	—46·8	—48	W.	5	O. △	—36	—41·6	..	△ W. — E.
" 7	—·2	—39·5	—40·2	W.	2	10.	—·3	—43	—43·8	..	..	☀°.	—39	—48·5	..	
" 8	—·8	—43·8	—44	W.	5	∴	—·3	—42·8	—43·2	W.	6	O.	—39	—43·5	..	
" 9	29	—39·3	—39·8	N.	2	10.	28·8	—38	—38·2	..	..	☀°.	—36·5	—42	..	10 a. m. to 1 p. m., O. and mocksun.
" 10	28·7	—42·8	—43	S.	4	10. M.	28·6	—40·8	—41·5	W.	6	∴	—37	—43	..	
" 11	—·7	—52·8	—53·4	S.	8	∴ ?	29	—53·4	—54·2	W.	6	O.	—45	—53	..	
" 12	29·3	—54	—54·6	N. W.	4	10.	29·4	—49	—50·4	N. W.	6	O.	—49	—54	..	∴ in the day.
" 13	—·6	—54	—54·8	N. W.	6	O.	—·6	—53·4	—54	N. W.	6	O. △	—48·8	—52	..	N. W. and S. E. △.
" 14	—·5	—52·4	—53	W.	3	10. M.	—·4	—53·6	—55	W.	5	O.	—50	—52	..	M. in the day.
" 15	—·2	—57·6	—58·2	S. E.	3	0. M.	—·2	—48	—49	N. E.	4	O. M.	—48	—55	..	
" 16	—·2	—43·6	—44	N.	4	10. V.	—·2	—43·6	—44·2	N.	6	10 V.	—43·6	—56	..	
" 17	—·1	—45	—46	N.	6	M.	—·1	—43	—43·8	N.	6	∴ O.	—43	—44	..	
" 18	28·9	—48	—49	S. E.	3	10.	28·9	—43	—44	S. E.	4	O △	—39	—49·4	..	M. in the day 9.30 a. m., and noon O.
" 19	29·1	—47·8	—49	N. W.	6	4. C. N.	29·3	—47·8	—49·2	N. W.	6	O.	—44	—47	..	
" 20	29	—42·6	—43·2	E.	4	10.	28·4	—33·2	—34	E.	8	∴	—33	—51·5	..	
" 21	28·3	—40·8	—42	N. W.	8	∴ ?	29·1	—46·8	—48	N. W.	8	O	—33	—41	..	⁄.
" 22	29·5	—53·2	—55	N. W.	4	C. N. 2	—·8	—55·5	—57	W.	6	O △	—47·5	—55	..	
" 23	30	—57·8	—59	S.	4	☉	30·2	—59	—60	S.	4	O △	—57	—56	..	△ W. — E.
" 24	30·1	—59·2	—60	E.	2	O.	29·9	—41·8	—42·2	E.	4	10. C.	—43	—60	..	2 p. m., to 3 p. m., mocksun.
" 25	29·1	—30·8	—31·2	E.	8	∴ ?	28·4	—27	—28	E.	8	∴ ?	—27	—46	..	Strong drift.
" 26	29·5	—33	—36	N.	6	∴	29·2	—37·8	—39	N.	6	∴	—35	—35·5	..	Strong drift.
" 27	29·6	—47	—47·6	W.	6	∴	29·7	—43·6	—44·2	W	3	O	—39	—47	..	
" 28	29·5	—35·8	—36·2	E.	2	10. C.	29·4	—42·2	—43	E.	2	☿ & ☿	—29	—47	..	12 and 2 p. m., mocksun.
" 29	29·2	—42·8	—43·2	S. E.	2	10. C.	29·2	—50·6	—52	W.	4	☿ M.	—42	—44·5	..	9 p. m., lunar corona hale.
" 30	—·1	—55	—56	S.	5	10. M.	—·4	—51	—52	W.	8	M.	—52	—54	..	
" 31	29·5	—57·2	—59	W.	6	☉	29·7	—61·5	—62·5	S. E.	4	O	—56	—56	..	

Feb.	1	29·6	—60·2	—62·		S.	4	☉	29·7	—66·5	—61·2		S.	3	O	—59	—62	..	
"	2	—·6	—60·	—61·2		S.	3	☉	—·4	—43	—45		S. E.	3	O. M.	—43	—66	..	
"	3	29·1	—37	—28·2		E.	8	16. ☩	28·4	—25·5	—26		E.	..	☩2	—25	—43	..	1 p. m., to 2.30 p. m., mocksun.
"	4	28·2	—33·5	—34		E.	11	☩ 2.	28·7	—26·5	—26		N. E.	6	☩2	—26	—34	..	
"	5	29·2	—41·2	—42		N.	8	☩ ?.	29·6	—51·5	—53		N. W.	6	⌓	—37	—41	..	After 6 p. m., clearing.
"	6	—·5	—48	—49		S. E.	4	10. C.	—·4	—46	—47		W.	4	O	—44	—52	..	Afternoon solar corona.
"	7	—·2	—47	—48		S.	4	10. C.	—·2	—50	—51·5		W.	4	O ⌓	—46	—49	..	Solar corona in the day.
"	8	—·3	—57	—58·4		W.	6	4. C.	—·4	—60	—61		W.	8	O	—52	—57	..	9 a. m., mocksun.
"	9	—·5	—61·5	—62·4		S.	6	☉ M.	—·5	—62	—63·4		S.	4	O ⌓	—59	—62	..	
"	10	—·1	—40	—41		S. E.	10	10. M.	—·2	—36	—37		S. E.	5	M.	—36	—39	..	Till noon strong drift.
"	11	—·2	—33·5	—34		S. E.	3	10. M.	—·1	—30·5	—31		S. E.	6	☩	—30·5	—36	..	
"	12	28·9	—33·5	—34		S. E.	3	10. M.	28·7	—30	—30		N. E.	8	☩	—29	—32	..	
"	13	28·9	—42·5	—42·2		N.	6	10.	28·9	—46	—47		N. W.	8	O ☩	—36	—44	..	
"	14	28·9	—55	—56		W.	6	0. O.	28·9	—56·5	—58		S. E.	2	O	—55	—55	..	
"	15	28·9	—50	—51		W.	3	8. C. 5.	29·	—51	—52		W.	5	O ⌓	—47	—56	..	
"	16	29·1	—52·6	—54.2		W.	4	C. 6.	29·3	—55	—56·3		W.	2	O	—52	—52	..	Sunshine in the day.
"	17	—·4	—57	—58		S.	3	M.	—·5	—56	—57·8		W.	6	O	—53	—57	..	
"	18	—·4	—48·6	—49·4		W.	6	10. C.	—·3	—27	—28		S. W.	4	O. M.	—27	—60	..	
"	19	—·1	—27	—26		S. E.	4	C. M.	—·2	—20	—21		S. E.	3	C. M.	—10	—28	..	
"	20	2·	—15	—15·6		S.	4	M.	28·9	·9	·8	—10·2	N. E.	4	☀°	—6	—25	..	9 a. m., solar corona.
"	21	29·2	—40·5	—41·6		W.	6	10. C.	29·2	—36	—36·8		N. E.	3	☀	—10	—40	..	
"	22	28·9	—38	—38·5		N.	6	☩.	—·2	—44·5	—45·6		N.	6	☩.	—31	—37	..	
"	23	29·3	—54	—54·6		N. W.	8	10. M.	—29	—36·4	—37		O.	..	C. 10	—44	—43	..	
"	24	29·2	—54	—54·6		N. W.	8	10. M.	—29	—36·4	—37		O.	..	10 C. ☿	—34·5	—5.6	..	8 a. m., lunar corona.
"	25	—·0	—35	—35·5		E.	6	M. ☩.	—·2	—40	—41		E.	6	10 ☿	—33	—36	..	Snow drift in the day.
"	26	—·3	—39·8	—40·4		N. E.	4	10. O.	—·3	—41	—42·6		N. E.	2	10 C.	—37	—40	..	
"	27	—·3	—39·8	—44		N. W.	4	10. C.	—·2	—45	—46		N. W.	4	10 C.	—44	—44	..	
"	28	—·2	—47·5	—48		N. W.	4	10. C.	—·4	—48·2	—49·5		N. W.	6	10 C.	—46	—47	..	

METEOROLOGICAL OBSERVATIONS AT KILLINECK, UNGAVA (25 feet above mean sea level)—*Continued.*

Date.	9 A.M.						9 P.M.						In the Day.			Remarks.
	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Max.	Min.	Rain.	
1907.																
Mar. 1	29·2	—47·6	—48·6	W.	6	⊙ C	29·0	—46·5	—47·2	W.	4	C.M.	—47	47	..	
" 2	28·9	—45·8	—46·8	N.W.	6	A. C. 8	—·0	—52·0	—53·0	N.W.	6	M	—46	—46	..	
" 3	29·1	—53·0	—54·2	N.W.	8	M	—·2	—52·5	—52·4	N.W.	6	O	—44	—52	..	Drift in the day.
" 4	—·1	—41·0	—46·5	W.	4	10	—·1	—39·4	—40·2	W.	4	O	—36	—50	..	
" 5	—·4	—47·5	—48·5	W.	6	Str. C. 5	—·6	—49·5	—50·5	W.	3	O	—40	—47	..	
" 6	—·7	—44·8	—45·5	W.	4	O.C.	—·8	—45	—46	W.	4	O ☆	—43	—51	..	Solar corona from morning to afternoon.
" 7	1·8	—39·2	—40	S.	4	10 00	—·5	—26	—26	S.E.	4	10	—25	—49	..	
" 8	—·1	—29·8	—23·4	S.E.	4	10·	29·0	—18	—19	N.W.	5	M	—18	—28	..	
" 9	—·1	—32·2	—32·3	S.E.	3	☼	—·2	—37·2	—38	S.E.	4	M	—19	—31	..	
" 10	29·0	—42·0	—42·8	W.	5	☆	29·0	—44	—45	N.	6	☆	—38	—42	..	
" 11	28·8	—43·8	—44·8	N.W.	6	C. S. 5	—·1	—44·2	—45	N.W.	2	M	—37	—40	..	
" 12	29·3	—39	—39·4	N.W.	4	10	—·2	—28·2	—21·5	S.E.	8	☆	—37	—40	..	
" 13	28·5	—7	—7·2	S.E.	4	10	28·3	—21·5	—21	S.E.	8	O	·5	—29	..	
" 14	28·6	—32·2	—33·	N.W.	8	☆	28·8	—41	—42	N.W.	6	O	—22	—32	..	
" 15	29·0	—44·5	—45·4	N.W.	8	M	29·1	—43·2	—44	N.W.	6	O	—42	—44	..	
" 16	—·2	—44·2	—44·8	W.	6	A. C. 6	—·2	—42	—44	N.W.	4	O ☆	—42	—45·5	..	☆ W. E.
" 17	—·2	—41	—42	W.	6	M	—·3	—48	—47	W.	2	O	—37	—48	..	
" 18	—·3	—45·8	—42	S.	5	A. C. 6	—·4	—47	—48	N.W.	6	O	—40	—48	..	
" 19	—·3	—45·8	—47	N.W.	8	10· M	—·4	—49·7	—51	S.	3	O ☆°	—41	—47	..	
" 20	—·4	—44	—44	S.	4	☉ b	—·4	—47·5	—48·5	S.E.	2	10	—19	—47	..	☆ W. E.
" 21	—·2	—25·5	—25	S.E.	2	☉ b	28·9	—19·5	—25	S.E.	3	10	—19	—24	..	1 to 3 p.m. Solar corona.
" 22	28·7	—17·5	—17·5	E.	4	☼°	28·9	—24·5	—25	E.	2	O ☆°	—16	—24	..	
" 23	29·2	—25·4	—26	N.E.	3	10	29·6	—34	—34	N.E.	3	10 O ☆°	—15	—34	..	
" 24	—·1	—37·5	—37·5	S.E.	4	☉ b	—·5	—36	—37	N.	2	C. S. 8	—30	—51·5	..	In afternoon solar corona.
" 25	—·2	—20	—21	S.W.	4	☼°	28·4	—11	—11	E.	4	☼°	—11	—36	..	
" 26	28·6	—33	—33·2	N.	8	☆	29·0	—42	—43	N.W.	8	A.S. 10	—25	—32	..	9 p.m. ☿
" 27	29·2	—39·8	—40·5	N.W.	6	10	—·04	—36	—37	W.	5	Str. 4	—35	—44	..	
" 28	—·2	—26·8	—27	S.	4	Cir. C 10	29·0	—26	—26·5	S.E.	2	☼°	—20	—39	..	
" 29	—·1	—25	—25·5	S.	4	" 4	—·2	—17	—18	S.E.	4	10 Str.	—17	—34	..	
" 30	28·9	—11	—11	E.	4	10·0	28·8	—15	—15·5	E.	8	☆	—10	—18	..	
" 31	28·9	—22·5	—24	N.E.	3	10	29·4	—32	—32·5	N.	6	☆	—15	—25	..	

N.B.—Up and here — and — from 32 degrees instead of zero.

Apr.	1	29·7	−3·2	−38	S.W.	8	C.N.	29·8	−06	−1	N.W.	6	10 M	0	8·	..	..	..	..	..	..	..	·5 in the day.
"	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
"	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
"	4	29·1	−4	−3·5	S.W.	2	10	29·3	−4	−1	N.	2	10 M	·7	−8	..	..	..	..	..	..	..	Light snow fall in the day.
"	5	29·3	−3	3	N.W.	4	10	29·4	−2·5	−3	N.W.	4	O ⌓	5·	−2	..	..	..	..	..	..	..	
"	6	29·4	−2·6	−3	N.W.	4	Str. C 10	·6	−1·2	−2	N.W.	4	O	·4	−5	..	..	..	..	..	..	..	
"	7	−6	−6·2	−6	W.	6	C. 8	−6	−5·5	−6·2	S.	2	⌓ O	·4	−5	..	..	..	..	..	..	..	
"	8	−5	17·5	18	S.W.	2	⊙ b	−4	15·5	16	S.E.	6	O ⌓	20·	−7	..	..	..	..	..	..	..	
"	9	−3	25·5	27	S.E.	3	⊙ b	−4	13·	13	S.E.	2	O ⌓	28·	−8·5	..	..	..	..	..	..	..	
"	10	−4	30	−29	S.E.	2	⊙ b	−3	18·	18	S.	4	O ⌓	32	10·5	..	..	..	..	..	..	..	
"	11	−2	19	18·5	E.	6	10	−2	15·5	15	E.	6	⌓	29·	10	..	..	..	..	..	..	..	
"	12	−2	20	20	N.E.	8	⌓	−4	13·8	13·2	N.E.	6	⌓	29·5	14	..	..	..	..	..	..	..	
"	13	−4	17·5	17	N.E.	4	10 C.	−5	15·	14·2	N.E.	4	O ⌓	30	11·8	..	..	..	..	..	..	..	
"	14	−4	20·2	20·2	N.E.	4	10	−4	17	16·8	E.	4	O ⌓	33	14·6	..	..	..	..	..	..	..	In the afternoon light solar corona.
"	15	−4	21	21	N.	.	10 C.	−3	14	13·8	N.	2	..	25·5	13·5	..	..	..	..	..	..	..	
"	16	−3	18·3	18	N.E.	4	10 C.	−3	13·8	13	E.	4	10 ⌓ d	19·5	10	..	..	..	..	..	..	..	
"	17	−1	18·6	17·8	N.E.	2	10	−1	9	8·8	N.E.	2	10 ⌓ d	18·8	9·5	..	..	..	..	..	..	..	
"	18	29·1	19	18·8	N.E.	2	10	29·1	11·9	10·8	W.	3	4 C	31	3·5	..	..	..	..	..	..	..	
"	19	−1	11	10·8	W.	4	10	−2	8·5	8	W.	4	10	12	8·5	..	..	..	..	..	..	..	
"	20	29·0	8	8	S.	2	10 C.	29·1	2·8	2	S.	2	⌓ d	10·7	7	..	..	..	..	..	..	..	
"	21	29·0	4	7	N.W.	4	10	29·8	2·2	6·8	S.E.	4	10 C	11	1·5	..	..	..	..	..	..	..	
"	22	28·9	7·8	7·8	W.	4	10	28·8	5·5	2	W.	3	10	8·5	1	..	..	..	..	..	..	..	
"	23	28·8	13·8	13·8	S.E.	4	⌓ 10 b	·2	12·	11·8	S.E.	2	10	22·8	2	..	..	..	..	..	..	..	Snow in the day.
"	24	29·1	15·4	16·2	S.E.	2	10	·2	13·8	13·5	W.	2	10	21	2	..	..	..	..	..	..	..	Sun shine a.m. Snow showers p.m.
"	25	−3	21·8	22	S.E.	2	10	..	12	11·8	S.E.	2	10	22·8	2	..	..	..	..	..	..	..	
"	26	−4	11·2	11	W.	7	10	−6	12	11·6	W.	8	10 C.N.	14	−10	..	..	..	..	..	..	..	
"	27	−8	10	10	W.	6	10	−7	5·	4·4	W.	2	..	17	2	..	..	..	..	..	..	..	·5 in the day.
"	28	−4	16·8	17·	E.	4	10	−5	−4·4	5	W.	8	10	21	3	..	..	..	..	..	..	..	
"	29	−5	10·8	10	N.	6	10	−6	−6·5	6	W.	3	10	11	7	..	..	..	..	..	..	..	
"	30	29·5	9·6	10	W.	2	10	29·6	11·	11·	N.	4	10	12·5	5	..	..	..	..	..	..	..	

METEOROLOGICAL OBSERVATIONS AT KILLINECK, UNGAVA (25 feet above mean sea level).

Date.	9 A.M.						9 P.M.						In the Day.			Remarks.
	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Force, miles.	Cloud.	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Force, miles.	Cloud.	Max.	Min.	Rain.	
1907.																
May 1	29·7	10·6	10·2	N.	4	Str. 10	29·7	17·6	11·	S.E.	3	10	13·5	6·5	..	
" 2	29·7	18·4	18·4	S.E.	3	Str. C 10	29·4	21·8	21·2	S.E.	3	10	25·	10·5	..	At noon solar Corona.
" 3	—·3	11·6	11	N.	6	" C 10	—·4	14·	13·5	N.	2	10	23	11·5	..	
" 4	—·4	13·8	13·2	W.	3	" C 10	—·5	10·5	9·6	W.	3	Str. 8	29	7·	..	⟋ in the day.
" 5	—·5	19	19	S.E.	2	10	—·5	10·5	9·6	W.	3	" 8	38	10	..	
" 6	—·5	22·4	22·4	E.S.E.	3	10	—·5	17·8	17·2	E.	C.	10 V	24	13·5	..	
" 7	—·4	22·8	22·2	E.	3	10	—·4	22·8	22·	E.	8	⚐	24	12·2	..	
" 8	—·2	29·6	29·2	E.	10	⚐ 2	—·1	30·5	29·8	E.	4	10	31	29·5	..	Very strong drift in the day.
" 9	—·1	33·4	32	E.	6	d ⚐	—·1	27·	26·	E.	10	⚐	35	30	..	
" 10	—·1	33·4	30	S.E.	8	d	29·0	27·5	26·5	S.E.	8	10	30	22	..	Heavy snow shower through the day.
" 11	28·6	32·5	31·4	S.E.	8	d ⚐ 2	28·9	30·	29	S.E.	4	C 10	34	24	..	Partly over in the day.
" 12	29·0	32·8	32·4	S.E.	3	Str. 6	28·9	30	29	S.E.	3	⚐	33	29	..	⊙ in the day.
" 13	28·9	33	32	S.E.	10	◎ & ✳	29·3	30·2	29·5	S.E.	8	10	34·5	26	..	⟋ in the day.
" 14	29·6	31	30	S.E.	5	⊙ h	29·6	23·9	28·4	S.E.	2	Str. C. 4	32·5	22·5	..	
" 15	—·6	30·2	30·2	S.E.	3	10	—·6	23·	23	S.E.	2	O	31	18	..	⊙ in the afternoon.
" 16	—·5	30	19·4	S.E.	6	10	29·0	24·4	24·4	S.E.	5	O	31	11	..	
" 17	28·9	29·8	29·5	S.E.	3	C 5	—·3	24·4	28·5	S.E.	8	10-	31·5	12	..	Rain in the day.
" 18	29·1	35·2	35·5	S.W.	3	A.S. 10	29·2	30·5	30	S.W.	2	O	37·5	22	..	At noon light snow showers.
" 19	29·3	36	35·6	W.	2	10	29·3	30	29	S.E.	3	O	38	22·5	..	
" 20	29·2	35·2	35	E.	2	≡	29·2	31·	30·5	E.	3	10	39	28	..	
" 21	29·3	34·2	35	E.	4	10	28·8	32·5	32·2	E.	4	10	35·4	28	..	≡ in the day.
" 22	29·1	34·8	34	E.	4	⊙ ✳	28·8	32·5	32·2	E.	4	◎ & ✳	35·4	28	..	
" 23	28·4	33·2	33	E.	2	⊙ ✳	28·7	30	30	N.	6	◎ d	34·	30	..	
" 24	29·0	29·2	28·8	W.	6	⚐	29·3	29·2	29·	W.	6	10	30	29	..	
" 25	29·7	28	27·8	W.	6	10	29·8	29·2	29·2	S.E.	5	O	30·5	27	..	⊙ in the day.
" 26	29·8	34	33	S.	2	Cir. 10	29·8	32·	31·	E.	5	Str. C. 8	35·	27·5	..	
" 27	—·8	34	32·8	S.E.	6	Str. 8	35·2	34·2	34·2	S.E.	8	A.C. 6	39·	30·	..	
" 28	—·8	34·2	34·2	S.E.	8	A.C. 8	—·8	32·	31·4	S.E.	6	10	37·	30·4	0·16	
" 29	—·8	31·4	31	S.E.	5	≡	—·3	32·	31·4	S.E.	3	10	36·	30·4	..	
" 30	·19	34	33·2	S.E.	2	O	—·9	33·2	33·	S.E.	2	C. 4	44·2	32·5	..	
" 31	29.6	31·3	30·8	W.	3	Cir. 4	29·5	28	28	S.	2	O	34·	27·5	..	

June	1	29·4	34·5	33·8	S.E.	2		O	29·5	28·5	27·5	E.	4	10	38·5	37·4	..		
,,	2	29·5	34	33	S.E.	4		10	29·5	31	30	S.E.	4	O	38	26·8	..		Light snow showers in the afternoon.
,,	3	29·5	42·5	41	S.E.	4		⊙	29·6	35	33	S.E.	3	O	18·5	28·5	..		
,,	4	29·6	44	43	S.E.	3		⊙	29·6	37	35·6	S.E.	4	O	45	34	..		
,,	5	29·5	44·2	43	S.E.			⊙	—·5	35·8	34·6	S.E.	4	A str. 4	45	34	..		
,,	6	—·5	44·8	45·2	S.E.	4		⊙	—·5	34·5	33·5	W.	2	10	49	31	..		
,,	7	—·6	46·2	43·8	S.W.	2		⊙	—·6	39·2	35·	S.W.	2	10	49	31	..		
,,	8	—·5	42·	39	S.W.	2	10	⊙	—·6	42·	39	S.W.	3	10	47·5	34	..		
,,	9	—·6	39·8	39·8	W.	2	Str. 10	⊙	—·7	31·5	31·2	W.	2	Cir. 2	47·5	37	..		
,,	10	—·7	39	36	W.	3		⊙	—·5	35·	34·8	S.W.	2	⊙	41·5	25	..		⊔ in the night.
,,	11	—·4	35·8	35·6	S.W.	2		⊙	—·4	36	35·5	S.W.	2	⊙	41·5	27	0·25		
,,	12	—·2	36·6	36				⊙	—·4	35·	34	S.E.	4	10 d	58·0	35·4	0·35		
,,	13	—·1	36·4	34	S.E.	6	10	≡	—·3	30	29·2	S.E.	4	10	40	34	..		Light snow showers in the evening.
,,	14	—·3	29	29·2	S.E.	3	—3	≡	—·3	29·5	29·2	S.E.	3	≡	35	27	..		
,,	15	—·2	32·2	31·8	S.	4	10	≡	—·2	30·2	31·4	S.	3	10	39·8	30	..		
,,	16	—·4	32·2	31·8	S.	4	10	≡	—·3	30·2	31·4	S.	3	10	39·8	30	..		
,,	17	28·9	37·6	36	N.W.	4	10	≡	28·7	36·8	36	S.	2	≡	43·5	35·5	0·26		
,,	18	28·8	33·4	32	N.W.	4	10	≡	29·0	34·	34·4	N.W.	6	Cir. 10	37·	32	..		Snow falls in the night.
,,	19	29·1	36·5	34·2	N.W.	C 10	10	≡	29·1	34·4	34·4	N.W.	4	10	37·	30	..		
,,	20	29·1	34·6	34·4	N.	4	10	≡	29·2	30·2	30·2	N.W.	2	10	37·5	34	..		Light snow shower in forenoon.
,,	21	29·2	35·	34	W.	3	O	⊙	29·4	35·8	34·4	W.	2	Cir. 5	44·4	27	..		
,,	22	29·3	45·	43	S.E.	4	10	≡	28·9	41·	41·5	E.	2	⊙	51·5	36·8	..		
,,	23	29·1	36·	35	N.	4	10	≡	29·3	31·8	31·	S.	4	4 Cir.St.	42·5	32·5	..		
,,	24	—·4	33·5	33	S.	3	10	≡	—·6	32·4	32·	N.	2	O	38·	30·5	..		
,,	25	—·5	47·2	46·3	S.E.	3	Cir. 8	≡	—·4	47·2	46·5	S.E.	3	10	48·	30	..		Solar corona in the afternoon.
,,	26	29·1	36·8	36·5	E.	4	10	≡	28·9	34·	34·2	E.	8	≡ 2	47·5	34	0·31		
,,	27	29·	35·1	35·1	N.E.	4	W	≡	29·1	34·	33·5	E.	4	W. ≡	37·	34	0·09		
,,	28	29·1	36·8	36·5	N.E.	5	W	≡	29·1	32·5	31·6	N.E.	2	W. ≡	37·4	32·5	0·05		
,,	29	29·0	33·5	33·2	N.E.	5	W	≡	29·1	32·8	32·4	N.E.	2	W. ≡	37·4	31·5	..		
,,	30	29·1	35·8	53·8	E.	2	W	≡	29·4	34·5	34·	W.	1	O	38·5	32·5	..		

METEOROLOGICAL OBSERVATIONS AT KILLINECK, UNGAVA (25 feet above mean sea level).

Date.	9 A.M.						9. P.M.						In the Day.			Remarks.
	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles.	Cloud.	Max.	Min.	Rain in the day.	
1907.																
July 1	29·4	44·6	43	S.W.	6	10	29·6	50·6	49	S.W.	4	10	57·4	32	..	In the day.
" 2	29·3	35·8	33·8	N.	4	10	29·3	36	35	N.	2	10 Cir. C	52·5	34	..	
" 3	21·6	38	37·2	W.	2	10	—3	33	32·6	N.	3	10	43·5	33·5	..	Rain in the day.
" 4	—6	39·8	38·5	W.S.	5	O	—7	41	40	O.	..	Cir. 4	53·5	32		
" 5	—7	41	40	S.	3	10	—6	38·2	38	E.	3	◎	48	38	1·06	
" 6	—4	37·4	37·2	E.	4	≡	—4	38	37	E.	4	O ◎	51	35·6		
" 7	—4	37·4	47·2	E.	3	≡	—3	39	39	E.	4	O	49·8	35	0·36	
" 8	—2	43·2	42	E.	4	10	—2	38	37	E.	3	O	45	36	..	
" 9	—2	50	48·5	S.E.	4	10 Str.	—3	42	41·2	S.E.	5	Cir. 10	C. N.	48	38·5	..
" 10	—3	43	41·8	S.E.	8	10	—3	43·2	42·8	S.E.	4	10	C.M.	49	42	..
" 11	—4	44·5	43·2	S.E.	6	10	—5	43·2	41·2	S.E.	4	10	49	42	..	
" 12	—4	50	48·4	S.E.	5	8 Str.	—4	45·5	42·8	S.E.	4	O	54	39	..	
" 13	—4	45	43·8	S.E.	4	O	—4	43·5	42·8	S.E.	4	O	56·5	39	..	
" 14	—4	54	54	S.W.	3	B	—4	42	39	S.W.	4	O	57	39	..	
" 15	—4	49·8	48	W.	4	◎	—5	40	37	S.E.	6	O	35	38	..	
" 16	—5	43·5	42	S.E.	3	O ◎	—5	40	38	O.	0	O	57	40	..	
" 17	—4	42	40	N.	3	O ◎	—4	53	52	O.	0	O	—64·4	35	..	
" 18	—4	45	42	S.E.	2	O ◎	—4	47	45	S.E.	2	" 4	63·5	43	..	
" 19	—3	50·8	45	W.	4	Circle	—2	40·5	39	S.E.	7	O	54	40	..	Solar corona from 9 a.m. to 3 p.m.
" 20	—3	51·8	50	S.E.	4	O ◎	—4	43·4	41	O.	0	O	53	37·4	..	
" 21	—4	47	45	S.E.	2	O ◎	—4	43·4	41	O.	0	O	58	35	..	
" 22	—4	58·4	56	S.E.	2	O ◎	—3	41·5	40	S.E.	3	O	60	38	..	
" 23	—4	58·4	44	S.	4	10	—2	41	40	N.	2	10	51	38	0·20	
" 24	—1	44·2	44·2	S.W.		◎	—2	42	38	..	..	≡	58	40	..	
" 25	—1	64·5	63	S.	6	Cir. 8	29·0	49	46	S.	4	Str. C 10	65	39	..	
" 26	29·2	48	45·6	S.	4	◎	29·0	49·2	43	S.	6	" " 8	51	38	..	
" 27	—3	46·2	44·2	S.	8	Str. 8	—4	47	47	S.	8	" " 6	57	34	..	
" 28	—5	44·2	43·8	S.	8	◎ B	29·5	38	37	S.	8	" " 6	48	41	..	
" 29	6	43·5	41·5	E.	5	10	—6	42	41	E.	6	10 N	46	37	..	
" 30	6	47·2	43·5	S.E.	6	Str. 8	—6	44	49	S.E.	4	10	51	33·4	..	
" 31	29·6	46·5	44	S.E.	3	" 8	—6	42	39	S.E.	2	O	54	37	..	

Aug. 1	29·5	48	45·1	S.E.	2	Cir. 4	29·4	46	43	S.	6	Cir. 4	56·5	36	..	Light shower of rain at noon.
„ 2	—·3	43·3	41	S.	8	10	—·2	40·4	39·4	S.	3	10	45·5	38	..	
„ 3	29·0	48·2	46	S.W.	4	10	29·8	43·2	41	S.W.	6	Str. 8	53·4	38	..	Light shower of rain in the afternoon.
„ 4	28·8	49	48	W.	2	10	29·0	34	34	N.W.	8	◎	50	38	0·33	
„ 5	29·1	38·5	38·8	E.	4	W. 10	29·1	41·5	41	E.	2	10	52	34	0·09	Fog in the day.
„ 6	—·2	43·8	43	S.W.	2	◎	—·2	41·5	40	O	4	O	58	38	..	
„ 7	29·1	52·4	50	..	..	◎	—·1	58·8	54	S.W.	3	O	60	38	..	
„ 8	—·2	46·2	44·2	S.W.	2	10	—·2	46	42	—O	0	10	62	45	..	
„ 9	—·1	46·2	45·5	..	..	O	—·1	44	43	..	..	10	48	44·1	0·04	At noon rain.
„ 10	—·1	44·6	43	..	..	O	—·2	43·4	41·6	..	..	10 D	48	40·4	..	
„ 11	—·2	44	42·2	..	..	10	—·2	42	40·5	..	..	10	60	36·5	..	
„ 12	—·2	44·2	42·2	N.	2	10	—·1	43	41·2	S.E.	6	O	59	37·5	..	
„ 13	29·0	42·5	41	S.E.	4	10	29·1	42	40·8	N.E.	4	≡W	48	37	..	
„ 14	29·1	36	36	N.E.	2	W. ≡	29·2	33	33	N.E.	4	≡W	42·5	35	..	
„ 15	29·3	36·5	36·5	S.4	4	10	29·3	40	39·4	S.E.	2	Cir. 6	53	38	..	
„ 16	29·3	42·8	42	W.	4	Cir. 6	29·2	51·8	52	S.W.	4	6	40	32·5	..	
„ 17	28·9	53·5	60	S.W.	4	8	28·8	53	54	S.W.	3	„ 10	66	50	0·08	
„ 18	29	39	37·5	N.W.	8	10 W.	29·5	35	33·5	N.W.	6	O	57	39	..	Between 7 and 8 p. m., △
„ 19	29·6	39·8	37	N.W.	4	10	29·3	45·5	42	S.E.	6	W 10	52·5	34	..	
„ 20	28	46·2	43	S.E.	8	10 W.	28·7	42	40·4	S.E.	4	Str. 5	51	40	..	
„ 21	28·6	43·4	42·4	W.	7	10	28·7	37·3	35·8	W.	6	10	45	42	0·12	
„ 22	28·8	37·5	35·4	W.	..	10 W.	28·9	36	36·8	W.	3	◎	38	38	..	
„ 23	29·0	36·2	36·2	S.W.	..	≡	29·1	36·5	35·5	S.W.	2	10	45	35	..	
„ 24	29·0	44·0	43	S.W.	2	10 ≡	29·1	46·8	45	S.W.	3	10 N	51	35	..	
„ 25	29·1	46	45	S.W.	2	O	29·1	47·5	45·15	S.W.	4	O	60	42	..	
„ 26	29·2	61	40·4	S.E.	4	Cir. 8	29·3	55	53·4	S.E.	6	6	65	42·5	..	
„ 27	29·3	55·5	55·5	S.E.	5	O	—·5	47·5	45	S.E.	4	O △	59	39	..	
„ 28	28	29·5	40·8	S.	4	O	—·5	38	36·5	S.	0	O ≡	52	41	..	
„ 29	29·5	49·6	46	E.S.E.	6	10	—·6	36	34·5	E.	6	4 N	42·5	35	..	
„ 30	—·6	38·2	37	E.	6	10	—·7	36	35	E.	3	≡	40	35	..	
„ 31	29·7	40·5	39·6	E.	3	10	29·7	35	34	E.	2	O	45	35	..	

Geological Survey of Canada

ROBERT BELL, D.Sc., (Camb.), M.D., I.L.D., F.R.S., I.S.O., ACTING DIRECTOR

MAP

of the NORTHEASTERN PART of the

DOMINION OF CANADA

To illustrate the Report on the

Cruise of the D.G.S. "Arctic"

— to —

The ARCTIC ISLANDS

— by —

CAP. J.E. BERNIER

Officer in Command.

1906-07.

Scale: 50 statute miles to 1 inch = 1/3,168,000

Projected on Oblique Secant Cylinder
Mean length of 1 degree of latitude 69.33 stat. m.

C.O. Senécal, B.A.Sc., Geographer & Chief Draughtsman.

ARCTIC OCEAN

GRANT LAND

AXEL HEIBERG ISLAND

FOSHEIM PENINSULA

ARTHUR LAND

GRINNELL LAND

CROWN PRINCE GUSTAF SEA

PRINCE GUSTAF ADOLF SEA

BANKS ISLAND

PRINCE PATRICK ISLAND

EGLEY

RINNES ISLAND

ASMUND RINNES ISLAND

KING CHRISTIAN ISLAND

HAULTAIN BAY

GRIFFITH BAY

PARRY ISLANDS

NORWEGIAN BAY

BJORNE PENINSULA

NUNEMERE

NORTH LINCOLN

GREENLAND

JONES SOUND

Meteor Strait

NORTH DEVON ISLAND

MELVILLE SOUND

BARROW STRAIT

LANCASTER SOUND

BAFFIN BAY

PRINCE ALBERT LAND

VICTORIA ISLAND

NORTH SOMERSET ISLAND

PRINCE OF WALES ISLAND

M'CLINTOCK CHANNEL

BRODEUR PENINSULA

BYLOT ISLAND

COCKBURN LAND

BOOTHIA PENINSULA

GULF OF BOOTHIA

KING WILLIAM ISLAND

ADELAIDE PEN.

SIMPSON PENINSULA

COMMITTEE BAY

MELVILLE PENINSULA

Arctic Circle

Boothia Land

Melville Bay

Prince Regent Inlet

Admiralty Inlet

Barrow River

Lancaster Sound

Jones Sound

Wellington Channel

Nettilling Lake

Sources of Information

This map has been compiled from the British Admiralty Charts corrected by later information obtained by the Peary and Sverdrup Expeditions by the Surveys made on the Neptune in 1903-1904 and by the Surveys made on the Arctic in 1906-07.

Explanation of Colours and Signs

Arctic Ship Track Outward 1906 _____

" " Homeward 1907 _____

Eskimos Route _____

Heights in feet above sea-level 30

Soundings in fathoms 10

FULLERTON HARBOUR

Observation Point: Store Island
Lat. 63° 30' 0" N., Long. 92° 5' 26" West
H.W.F. & C. 2h. 50m. Springs rise 16 ft. Neap 11 ft.
From instrumental survey by C. Frank King

Scale: 1 mile = 1 inch

Major Island

Mag. Decl. 38° W.

Prev. Anch.

Store Island

Beacon I.

Dangerous Reef

Ship's course to Anchor

shoals

Survey of Canada

W. H. D., I.L.D., F.R.S., I.S.O., ACTING DIRECTOR

METEOROLOGICAL OBSERVATIONS AT KILLINECK, UNGAVA (25 feet above mean sea level).

Date.	9 A.M.						9 P.M.						In the Day.			Remarks.
	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles	Cloud.	Barometer.	Dry bulb.	Wet bulb.	Wind. Direct.	Wind. Force, miles	Cloud.	Max.	Min.	Rain.	
1907.																
Sept. 1	29·6	34	34	..	..	≡	29·6	33	32·5	N.	2	O ⌓	43	30	..	New ice on the bay.
" 2	—·6	36	35	N.	2	Cir. 5	—·5	34·2	33·5	N.	3	O	44	38	..	" "
" 3	—·4	34·	33·2	W.	4	10	—·4	35·	34·2	W.	3	Cir.4Str	38·5	30	..	
" 4	—·3	29·2	38·5	W.	6	Str. 4	—·3	38·4	37·8	W.	3	⌓	43·4	34·4	..	
" 5	29·1	42·6	40·5	S.	6	10	28·9	38	37	W.	6	10	42	42·8	0·09	Rain in the afternoon.
" 6	28·9	38	36	N.	7	10	29·6	36·5	36·	N.	8	10	39	36	..	
" 7	29	35·5	35·5	N.	6	≡	29·2	33	32·8	N.	4	O	37	30	..	
" 8	—·3	36	36	E.	2	≡	—·3	34	34	N.	2	≡ D	37	32·5	..	
" 9	—·3	35·2	35·	N.S.	..	≡ D	—·2	36·5	35·5	N.	2	◎	37·5	35·5	0·61	
" 10	28·9	38	38	W.	2	D ◎	..	35·	34·4	N.W.	4	O	40	34·2	0·06	Between 2 and 3 p m. ☆.
" 11	29·1	33·8	32	N.W.	6	Str.C.A	—·3	34	32	N.W.	8	O	37	30·5	..	
" 12	—·4	37·6	34·	N.W.	6	C	—·4	35·6	33·	N.W.	5	O ⌓	39	31·5	..	
" 13	—·2	37·	37·8	N.	3	10	—·3	33·8	33·8	N.	4	O ⌓	40·5	40·5	..	
" 14	—·2	36·4	35·	W.	6	10 W	—·3	31·8	30	N.W.	3	O	37·5	32	..	
" 15	28·9	32·4	32·6	E.	6	☆ W	29·3	32·	31·2	N.W.	4	3 Cir.	35	29·6	..	
" 16	29·4	30·2	30	N.W.	6	10	—·3	30·6	29·5	N.W.	4	3	32·8	29·5	..	
" 17	—·4	34·4	34·6	N.W.	4	C	—·4	31·6	30·5	N.W.	4	O ⌓ "	39·6	29·2	..	
" 18	—·8	30·6	30·6	N.W.	5	10	—·7	34·6	31·6	N.W.	4	O	33	29	..	
" 19	29·2	38	36·8	S.W.	6	10	—·3	37	36·5	S.W.	5	W	42	29·	..	
" 20	—·4	37·4	37·4	S.W.	4	⊙	—·3	36·4	36·	S.E.	8	Cir.5Str	48·5	32·	..	
" 21	28·9	42·	41·8	S.E.	10	10	28·9	36·	35·8	S.E.	8	10	46·	33·	0·40	
" 22	28·8	39·4	39·2	S.E.	2	10	28·8	38	38	S.E.	2	10 W	48	36	0·09	
" 23	29·0	37·	36	S.E.	3	10	29·2	35	34	S.E.	2	O	45	34	..	
" 24	29·1	41·5	42	S.W.	2	10	29·0	43	43·5	S.E.	8	10	43·5	34	..	
" 25	28·7	39·8	39	S.E.	10	10	29·5	37·6	35·	S.E.	10	◎	44	33	0·27	
" 26	28·3	36·4	36·2	E.	4	10 W	28·4	34·4	34	E.	2	☀ ☒ ◎	39	34	..	
" 27	28·6	32·8	32·4	N.	5	10	28·7	34	33·5	N.W.	6	10	40	34	..	
" 28	28·8	32·4	32·4	N.	5	☀ W	29·2	31·8	31	N.W.	6	C 3 Str.	34	29	..	
" 29	29·3	29·8	30	W.	6	C.N. 10	29·3	31·4	31·4	W.	8	☀	33	25	..	Snow showers through the day.
" 30	29·2	29·8	32·2	W.	8	C.N. 10	29·1	36·6	36·3	W.	6	10	36·6	25·4	..	

OTTAWA, April 3rd, 1908.

SIR,—I have the honour to inclose herewith photo of coal mine, watercourse ravine, with reflected image, near Franklin Bay, and before closing my report, I beg to lay on the map for further examination, the coal belt amongst the Arctic Islands on which coal was found at different times by the explorers during their stay in that part of our country. The following is the location of the coal seams which have been found:—

Coal areas in Arctic Islands, from Markman's Great Frozen North, 1878, page 391: Return of the *Alert* to Lady Franklin Bay.

'The most important news was that a large seam of lignite of the Miocene order had been discovered within about three miles of the winter quarters. They had not been able to utilize this coal, but several large specimens had been carried to the ship. The results of the experiments made 'being that it was for steaming purposes, equal to the best Welsh coal.'"

Page 394.—'The coal seam was also visited by different parties of officers. It exists in a visible seam on the northern side of a ravine, and is about three hundred yards long and twenty-five high. We were unable to ascertain its depth below the surface on the ground, or its thickness.'

This drift of bituminous coal starts from Kotzebue Sound on the mainland of Alaska, and appears next at Corwin coal mine and Thetic coal mine, from where the coal mines at Cape Nome, Alaska, receive their supplies.

Coal running in a northeast direction, was found by McClure on Bank Land at Bay of Mercy, 1851-2.

Coal was found by Sir Edward Parry in 1819-20, in six different places on Melville Island, following Bathurst Island in two different places, also on North Cornwall Island and North Devon Island.

In 1876, the *Discovery*, which wintered in Lady Franklin Bay, likewise discovered coal.

In 1881-2, General Greenly discovered coal at Port Conger. During Lieutenant Parry's exploration, he found and used coal in his winter quarters on the newly discovered islands on that last trip.

Supposing we did not avail ourselves of this immense wealth of coal for present use, it will no doubt be of great use to the future generations; and we are in duty bound to exercise the utmost care in protecting and handing down to our children, that which the Creater had, in his beneficence been so kind as to place in our trust.

It is of the utmost importance that the Dominion takes possession of all northern regions as far north as the Northpole. Those regions abound in valuable islands which contain vast quantities of coal and other minerals.

See description and map herewith.

J. E. BERNIER,
Commander of 'Arctic.'

NOTE.—The coal areas were omitted from the map referred to above, owing to the difficulty of locating them exactly in the absence of Capt. Bernier, who is now in the Arctic regions. The coal areas are in the carboniferous rocks of Melville, Bathurst, North Cornwall and North Devon Islands.