







PROCEEDINGS

OF

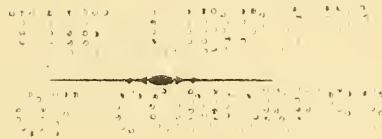
D. = Mac Day?
THE "PROTEUS" COURT OF INQUIRY

ON THE

GREELY RELIEF EXPEDITION

OF

1883.



G670

1882

G6

9482

'02

WALL ST

NEW YORK

MESSAGE

FROM THE

PRESIDENT OF THE UNITED STATES,

TRANSMITTING,

In compliance with a resolution of the Senate of February 6, 1884, records of the court of inquiry in relation to the loss of the steamer Proteus in the Arctic Ocean.

FEBRUARY 13, 1884.—Read and referred to the Committee on Naval Affairs and ordered to be printed.

To the Senate of the United States:

In compliance with the resolution of the Senate of February 6, 1884, directing—

That the President be requested, if in his judgment not incompatible with the public interest, to communicate to the Senate the record of the proceedings, testimony, and findings of the court of inquiry in relation to the events connected with the loss of the steamer Proteus in the Arctic Ocean,

I have the honor to transmit herewith a copy of the records, &c., called for in said resolution, together with the letter of the Secretary of War, dated the 12th instant, submitting the same to me.

CHESTER A. ARTHUR.

EXECUTIVE MANSION,
February 13, 1884.

WAR DEPARTMENT,
Washington City, February 12, 1884.

SIR: Acknowledging the receipt, by your reference, of the resolution of the Senate of February 6, 1884, directing—

That the President be requested, if in his judgment not incompatible with the public interest, to communicate to the Senate the record of the proceedings, testimony, and findings of the court of inquiry in relation to the events connected with the loss of the steamer Proteus in the Arctic Ocean,

I have the honor to inclose herewith a copy of the record called for by said resolution.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

The PRESIDENT.



Proceedings of a court of inquiry convened at Washington, D. C., pursuant to the following order:

[Special Order No. 249.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE.
Washington, October 31, 1883.

[Extract.]

* * * * *
3. The following order has been received from the War Department:

WAR DEPARTMENT,
Washington City, October 31, 1883.

By direction of the President of the United States a court of inquiry is hereby appointed to investigate the organization and fitting out of the Greely relief expedition partly transported by the steamer Proteus, having particular reference to the orders and instructions issued for the guidance and government thereof, and the arrangements made for assistance from the United States steamer Yantic.

The court will make a full and thorough investigation of all matters relating to the general conduct of the expedition, including, particularly, the failure of the Proteus to keep in company with the Yantic up to Littleton Island or its neighborhood, and the failure to establish a well-provided relief station at or near Littleton Island, and will take into consideration in their investigation such records and correspondence pertaining to the original Greely expedition as they may deem necessary, and will report the facts developed by their investigation and their opinion as to whether the conduct of any officer of the Army in the premises calls for further proceedings before a general court-martial, and the reasons for the conclusions which they may reach.

DETAIL FOR THE COURT.—Brig. Gen. S. V. BENÉT, Chief of Ordnance; Col. O. M. POE, aid-de-camp; Col. R. B. AYRES, Second Artillery. Maj. HENRY GOODFELLOW, judge advocate, United States Army, will act as recorder of the court.

The court will meet in the city of Washington on the 8th day of November, 1883.

ROBERT T. LINCOLN,
Secretary of War.

* * * * *
By command of General SHERMAN:

R. C. DRUM,
Adjutant-General.

NOVEMBER 8, 1883—10.30 a. m.

The court met. Present, all the members and the recorder.

The court and recorder were duly sworn according to law.

The court then proceeded with closed doors to consider the proper method of proceeding.

The recorder announced that immediately upon receiving notice of the appointment of the court he had telegraphed requesting the Adjutant-General to furnish the court with all the official correspondence and reports showing the history of the Arctic expedition under command of Lieutenant Greely, and of that recently sent to its relief. Since the recorder's arrival in this city the Adjutant-General had informed him that this telegram had been properly referred, with directions for a compliance therewith.

The court, after deliberation, directed a letter to be addressed to the Adjutant-General (a copy of which is annexed marked A).

A.

ROOMS OF COURT OF INQUIRY,
Washington, D. C., November 8, 1883.

SIR: The court of inquiry appointed by Special Order No. 249, A. G. O., C. S., has organized and is now in session, and has the honor to request to be furnished with certified copies of all instructions, reports, and correspondence to, from, and with the War Department, Adjutant-General's Office, Signal Office, and Lieutenant Greely and the officer in command of the expedition sent to his relief in the years 1882 and 1883.

In order to save time it is suggested that the instructions, any part or parts of which bear upon any plan of escape or rescue, be furnished at first.

It is also desired by the court that the originals (in addition to the certified copies requested) of the instructions to the commanding officer of the Signal Service relief expedition be sent to the court for inspection.

The court further asks that the Secretary of the Navy be requested to furnish the court with officially certified copies of all instructions, reports, and correspondence on record in the Department relating to the cruise of the Yantic in Arctic waters on the same errand; and to instruct the commander of the Yantic, who was charged with that duty, and Lieutenant Colwell of the Navy, who is understood to have accompanied the Army Signal Service expedition, to hold themselves in readiness to appear as witnesses before the court should their attendance be required, and to report their residence or address to the judge advocate of the court.

Very respectfully, your obedient servant,

S. V. BENÉT,

Brigadier-General, Chief of Ordnance, President of Court.

Brigadier-General DRUM,
Adjutant-General of the Army.

The court then, at noon, adjourned to meet to-morrow at 11 o'clock.

WASHINGTON, D. C.,
Friday, November 9, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and recorder.

The recorder laid before the court a number of copies (certified and transmitted to the court by the Chief Signal Officer of the Army) of the records and correspondence of the Signal Office relating to the Arctic expedition of 1883. These documents were read and directed by the court to be attached to this record as exhibits (to be properly arranged and numbered hereafter in chronological order according to their date and identified by the initials of the recorder).

First Lieutenant Ernest A. Garlington, Seventh Cavalry, presented himself before the court and asked that the privilege might be reserved to him to appear at any stage of the proceedings when he might deem it necessary, and introduce counsel to assist in his behalf in this investigation.

The president of the court directed him to put his request into writing, when it would receive due consideration.

The reading of the papers above mentioned having been concluded, the court was closed for deliberation, and after discussing the matters presented in the papers that had been read, at 3 o'clock p. m. adjourned until to-morrow at 11 a. m.

WASHINGTON, D. C.,

Saturday, November 10, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder.

The recorder announced that Mr. H. H. Alexander, appointed stenographic reporter of the court, with the approval of the court, was present and ready to be sworn.

By direction of the court Mr. H. H. Alexander was then duly sworn to the faithful performance of his duties as stenographic reporter.

The reading of the official copies furnished from the Signal Office was then proceeded with. A letter (annexed marked B) of Mr. Garlington, requesting permission to appear with counsel, if at any time in the course of the proceedings he should deem it necessary, was then read to the court.

Mr. Garlington, being present in court, was informed that his request was granted.

The court then, it being 3 o'clock, adjourned until Monday at 11 o'clock a. m.

B.

WASHINGTON, D. C., *November 10, 1882.*

To the President of the Court of Inquiry instituted by Par. 3, S. O. 249, C. S., A. G. O.:

SIR: I have the honor to ask the privilege of employing counsel, who shall appear before the court whenever it shall seem to me best for the purpose of arriving at the truth, or for my own interests. It occurs to me that it may be of great assistance to the court if there shall be present, acting in my behalf, counsel who has made a special study of that branch of the inquiry in which I am specially interested.

Although the story of the voyage of the Proteus, of the loss of the ship, and of my subsequent retreat is very simple, I do not feel myself competent, by reason of my inexperience in the examination of witnesses and of my personal interest in the matter, to present it so clearly to the court as it ought to be made appear. It is apparent to me, from much that has already been said, that patient study and thorough preparation can alone avail in dealing with occurrences in the Arctic regions. Grave injustice has already been done me by persons who have reached conclusions unsupported by the facts, and therefore I conclude that if to my own knowledge can be added the skill of counsel whose duty it shall be to devote all his time to the examination into the conduct of the expedition after its departure from Saint John, Newfoundland, the labors of the court will be greatly lightened and its counsels greatly assisted. I have secured the services of Mr. Linden Kent as my counsel, who, with the permission of the court, will appear before it to aid me whenever it shall appear necessary.

I am sir, very respectfully, your obedient servant,

E. A. GARLINGTON,
First Lieut. Seventh Cavalry, Acting Signal Officer.

WASHINGTON, D. C.,
Monday, Nov. 12, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder.

The reading of papers sent from the Signal Office was resumed.

The recorder presented a number of papers received from the Secretary of War, being the instructions to Lieutenant Garlington, commanding the relief expedition of 1883, and his report with inclosures and accompanying correspondence. These papers were read, and, the same belonging to the files of the War Department, copies thereof are hereto annexed as exhibits.

The court then, at 3 o'clock, was closed and proceeded to consider what witnesses, if any, should be summoned.

After deliberation, the court, at 3 o'clock and 30 minutes p. m., adjourned until 11 to-morrow.

WASHINGTON, D. C.,
November 13, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder.

The recorder presented to the court three volumes of certified copies of the records of the Navy Department, furnished by the Secretary of the Navy, and offered them in evidence. They were read, and are annexed to this record as exhibits. Whereupon

Lieut. ERNEST A. GARLINGTON was sworn and examined as follows:

By the RECORDER:

Question. You are a first lieutenant in the Seventh Cavalry?—Answer. Yes, sir.

Q. And have been in that regiment since you graduated in 1876?—A. I have.

Q. And served?—A. And served with the regiment continuously.

Q. Until you took charge of the Arctic matters submitted to your care?—A. Yes, sir.

Q. What time did you first become connected with the Arctic expedition?—A. I arrived here on the 20th of February, 1883.

Q. You had volunteered before that time, had you not?—A. Yes, sir; I volunteered during the month of December, 1882.

Q. And you were assigned to duty?—A. I was ordered to report here to the Chief Signal Officer during the month of February. I was ordered to Saint Paul during the month of January on this duty, but after arriving there the Secretary of War notified the department commander that it was too early to bring the officers and men intended for this duty East, and I was ordered back to my post at Fort Buford, Dakota Territory. During the month of February I received telegraphic orders to report again.

Q. You came on duty at what time?—A. I reported to the Chief Signal Officer for duty the 21st of February.

Q. How were you engaged from that time until you left St. John's in command of the expedition?—A. I was engaged in getting together the stores and materials for the expedition.

Q. You sailed on the Yantic from New York on what date?—A. The 12th of June.

Q. And arrived at St. John's on what date?—A. I arrived at St. John's on the 21st of June.

Q. You state in your report that when you arrived you found the Proteus had shipped her cargo and it had been stowed?—A. Yes, sir; General Hazen's instructions were for the Alhambra to discharge her stores into the Proteus. That was not practicable, because the Proteus could not go alongside the wharf where the Alhambra lay, and they were shipped from that storehouse down to the storehouse of the owners of the Proteus and loaded under the supervision of Captain Pike. The stores sent from New York were all on board when I arrived there, and they were loading the stores that had been left by the expedition of the year before.

Q. Was any representative of the Signal Service present?—A. No, sir.

Q. None of your party?—A. No, sir; a sergeant had been sent from New York on board the Alhambra in charge of the stores, by direction of General Hazen.

Q. But he had nothing to do with stowing them?—A. He left the ship at Halifax and returned to Washington City.

Q. None of your party was sent by the Alhambra?—A. This sergeant was of my party. He claimed to have met with an injury on the way up, and left the ship at Halifax and returned to the United States.

Q. He did not accompany you afterward?—A. No, sir.

Q. What report or statement of stores did you receive that were shipped on board the Proteus; what invoice?—A. I do not exactly understand you.

Q. Did you know what stores you were taking out with you?—A. I knew what stores left New York.

Q. In the Alhambra?—A. Yes, sir.

Q. Had you verified the stores yourself?—A. No, sir; I was present when the stores were loaded on the Alhambra, during the loading of the stores, and there was an agent there of the Quartermaster's Department verifying the stores as they were turned over to the ship. I was furnished with a copy of the bill of lading, and also an invoice of all the stores that had been furnished me, and these invoices were verified by the representative of the Government—a transportation agent.

Q. Do you know whether they were inspected, and by whom?—A. The commissary stores were inspected by General Hawkins; under his personal supervision. The medical stores were furnished me by the medical purveyor there—General Swift, I think.

Q. What was the aggregate strength of your own party as it left St. John's?—A. Thirteen men, including Lieutenant Colwell and myself.

Q. For what time were you rationed?—A. I had supplies for forty men for fifteen months from the 1st of July, 1883.

Q. That was the total amount of supplies you took for yourself and for Lieutenant Greely's colony?—A. Yes, sir.

Q. You stated in your report that your party was not supplied with arms; that is, in their personal possession. Will you explain how that was?—A. Two shot-guns were bought for the use of the expedition, and a certain number of carbines were shipped from the Signal Office here for the use of the expedition, and were stored with the rest of the property that

arrived at St. John's before my arrival there, and when I got to St. John's I had the stores in the main hold removed, and also some of the stores from the other portion of the ship—as many as I could get out without unloading the ship entirely. I spent one whole day in doing that and failed to find the arms and a good many other stores for which I was looking.

Q. You never saw the arms?—A. I never saw them at all. I searched for them again at Disko and still failed to find them.

Q. What fire-arms of any description had your party at the time of the wreck of the Proteus?—A. Lieutenant Colwell had a shot-gun of his own, Private Moritz had a repeating rifle of his own, Private Ellis, of the Signal Corps, had a Winchester rifle, and I had a Hotchkiss rifle which Lieutenant Colwell brought with him from the Yantic.

Q. How many rounds of ammunition had you?—A. Lieutenant Colwell had eighty-six cartridges, loaded, and there were about 1,500 rounds of carbine ammunition.

Q. Were there no pistols in the party?—A. Lieutenant Colwell had a pistol, and I think Ellis had a pistol.

By the COURT:

Q. A revolver?—A. Yes, sir.

By the RECORDER:

Q. And some ammunition?—A. Yes, sir; a small quantity.

Q. [Submitting a paper to witness.] I will ask you to look at this paper and see if it is your original report of the expedition, made at its date.—A. [After examining same.] That is not the original report that I submitted.

Q. It is signed by you, is it not?—A. Yes, it is a duplicate of the original report that I submitted in writing.

Q. And signed by you?—A. Yes, sir; and that copy was thoroughly compared with the original and is the same.

Q. [Submitting another paper to witness.] Those are your original instructions, are they not?—A. [After examining the same.] Yes, sir; those are my original instructions. I was furnished with several copies of those instructions. That is one of the copies.

(The papers identified by the witness were received from the office of the Secretary of War, and have been read, and copies of them are hereto attached as exhibits.)

Q. I will ask you if that report was prepared from original data or memoranda made by yourself at the time?—A. Yes, sir; the report was prepared by me from data made on the spot.

Q. And, so far as your recollection goes, it is correct in all its statements?—A. Yes, sir; the report is correct as I submitted it. I have never compared the printed copy with the original report.

Q. I wish you would state the history of the inclosure described as No. 4 and as instructions for the Yantic and the Proteus.—A. Between the 15th and 20th of May, 1883, I was in the office of the executive officer of the Signal Office, Lieutenant Caziarc, and he showed me the rough notes of a paper which he was preparing to be furnished the Navy Department as a basis of the instructions which the Signal Office was going to ask to have given the naval vessel which I was informed was to accompany me. In this conversation I learned that General Hazen, previous to his depart-

ure for St. John's, Newfoundland, which had occurred some days previously, had asked the Navy Department to detail a suitable vessel to go with us as a tender; but no one in the Signal Office knew that such a request had been made, nor was there any copy of the letter on file that he had sent to the Navy Department. A few days afterwards I learned from Lieutenant Caziare that this paper had been submitted to Captain Powell, who was then Acting Chief Signal Officer, and that that officer had declined to take any steps in the matter until the return of General Hazen. I remember nothing more of the memorandum until the 5th of June, I think. General Hazen in the mean time had returned from St. John's and I was furnished with my instructions. I was in the office of Lieutenant Caziare when I got the instructions. I opened them and found in the same envelope with the instructions this memorandum. It was not addressed, not numbered as an inclosure, and bore no official marks whatever except in the lower left-hand corner the initials (O. C. S. O.) of the office of the Chief Signal Officer, June 5, 1883. I had never seen it before, except in the rough notes; I went into General Hazen's office and told him that I had received my instructions, and among them I had found this paper, and called his attention especially to that clause relating to the landing of all my stores at Littleton Island on my way north, and also calling his attention to the fact that it conflicted with my instructions; he said that he did not know how that paper got in there, and I think I remarked that I knew how it got in: that it had been prepared by Lieutenant Caziare, and perhaps he had probably put it in; after he made the remark that he did not know how the paper got in among my other papers I of course thought that he had not even approved this memorandum, and that it was nothing more than a piece of paper that had accidentally got in among my instructions. We then had some conversation about the expedition, in the course of which he told me that he had the utmost confidence in me, and that while I should make the attempt to follow as nearly as possible the plan laid down in the letter of Lieutenant Greely, which had been written from Fort Conger, that I must be governed to a great extent by my own judgment on the spot. I do not think there was anything more of any importance in that conversation.

By the COURT:

Q. Did General Hazen state that the memorandum got in there accidentally or that he did not know how it got there?—A. His words were, "I don't know how that got in there."

Q. Did he make any effort to withdraw it?—A. No, sir. After that I paid no more attention to the memorandum at all and never regarded it as an instruction or suggestion in any light, nor did he in that conversation allude to it in any way as a suggestion or that I was to act upon it as a suggestion.

By the RECORDER:

Q. Did General Hazen say anything that would lead you to believe that he had known of that paper before?—A. No, sir.

Q. While this conversation was going on where was the executive officer, Mr. Caziare?—A. He was in his own office, I think.

Q. The adjoining office?—A. The adjoining office.

Q. Now, when you saw those rough notes had you any conversation

with Lieutenant Caziarc in reference to the projected additional instructions?—A. Yes, I think I talked with him about the instructions to the naval vessel; I remember distinctly telling him that I wished the instructions so drawn up that there would be no conflict between the commander of the Yantic and myself; that is, the commander of the naval tender and myself; and some other general conversation probably. I do not remember anything particular, though, except that; it was an unofficial conversation; I did not regard Lieutenant Caziarc as having really anything at all to do with my instructions, and from the conversation I had with him I inferred that he was drawing up this paper of his own accord; not from any orders he had received, but, as he thought, to facilitate matters and have the paper in readiness if called for. I looked upon it more as the expression of his private opinion than anything else.

By the COURT:

Q. Did you have any conversation with Lieutenant Caziarc after the interview with General Hazen upon that subject?—A. No, sir; I did not take the paper into consideration at all after my conversation with General Hazen.

By the RECORDER:

Q. Where was the agreement made with Commander Wildes in reference to the manner in which the vessels should proceed?—A. At St. John's, Newfoundland.

Q. Had you at that time seen the instructions to the Yantic?—A. No, sir; I did not see the instructions to the commander of the Yantic until my return to Washington.

By the COURT:

Q. After the expedition?—A. Yes, sir.

By the RECORDER:

Q. You were not furnished with any copy of them?—A. No, sir.

By the COURT:

Q. You did not know what the instructions were?—A. I did not know anything except that his orders were not to enter the ice, or to place his ship in no position where he would run the risk of having to remain a winter in the Arctic regions. That I gathered from conversation with Commander Wildes and the officers of the ship on the way up, and I knew that the letter that had been prepared in the Signal Office had made that a condition—that the ship was not expected to go into the ice or to place itself in any unusually dangerous position.

By the RECORDER:

Q. What letter was that?—A. The letter written by General Hazen asking that a naval ship be detailed for the duty.

Q. How were you informed of that?—A. I think by Lieutenant Caziarc, or in the Signal Office; it was the subject of general conversation in the Signal Office.

Q. Before you left?—A. Before I left; General Hazen never had any conversation with me about this naval vessel; I did not know that he

contemplated asking for it at all, and only heard of it incidentally after it had been asked for.

Q. You observed in your instructions that you were informed that a naval tender would accompany you to Littleton Island?—A. Certainly.

Q. Now, do you remember that Commander Wildes informed you that he had orders not to enter the ice, or was it not to enter the ice-pack?—A. Not to enter the ice-pack.

Q. Then that and the reasons you have stated in your report were your grounds for believing that he would not go to Littleton Island?—A. Yes, sir.

Q. All the grounds?—A. Yes, sir.

Q. In Lieutenant Greely's letter mapping out a plan of operations for his relief he states that the material for the depots at A and B should be prepared in St. John's before the vessel started. You had no opportunity to make them, I suppose, from what you have stated as to the time of your arrival?—A. The stores were all stowed before I got to St. John's, and in order to get out the provisions to make these depots I would have had to have broken out much more of the stores than I had time to do, and I knew that I was going to stop at Disko and could prepare these depots there just as well as I could at St. John's, and therefore put it off until then, and did prepare the depots after I arrived at Disko.

Q. How were the stores prepared for the depots?—A. They were all packed in barrels.

Q. On top of the rest of the cargo?—A. Yes, sir; they were stowed where they could be gotten at at once, right under the fore-castle.

Q. Had you any stores prepared in bags ready to be thrown overboard in an emergency; were you supplied with any canvas bags or tarpaulin bags?—A. No, sir; I had no canvas bags or tarpaulin bags except the boat bags. When I got to Disko I had such provisions as would be needed in case of emergency all put right under the main hatch. In the main hold the stores were all placed right under the main hatch, so that in a moment, by just lifting off the cover, the stores could be gotten out on the ice just as rapidly as if they had been on deck.

Q. They were in barrels?—A. No, they were not in barrels. These stores were miscellaneous cargo. But the depots that had been prepared to be established at different places were in barrels.

Q. How were the stores secured that you expected to take out in an emergency?—A. In boxes or barrels, just as it might be. Hard bread was in barrels and the canned goods were in boxes.

Q. With reference to this stowing of the cargo I desire to ask if you made an application to proceed by the Alhambra yourself from New York for the purpose of superintending the stowing?—A. I did. I sent a telegram to General Hazen from New York on the 7th of June strongly recommending that not only myself but the entire party be sent on the Alhambra to St. John's so that I might be there when the stores arrived, verify the bill of lading, and superintend the stowing of the cargo as I wanted. I got no reply to that telegram until after the ship had sailed, which was to send Sergeant Wall on board the Alhambra and that myself and party should go on the United States steamer Yantic. I had had orders to send Sergeant Wall on the Alhambra before I left here.

Q. And he went?—A. He went.

By the COURT :

Q. Is that the man who left the ship at Halifax and turned back?—A. Yes, sir.

By the RECORDER :

Q. How long was the Alhambra making the passage on that occasion ; what time did she arrive at St. John's?—A. I do not remember exactly.

Q. What is the average length of the passage?—A. About seven or eight days.

Q. And you left in the Yantic on what day?—A. On the 13th of June.

Q. And arrived when?—A. On the 21st.

Q. Now of these thirteen men constituting your party, how many, if any, had had any nautical experience or education?—A. Sergeant Kenney and Corporal Elwell had been in the merchant marine. Private Murphy had served an enlistment in the United States Navy as a seaman, and had been on board of the Juniata when it went north in 1873. Private Moritz had been a sailor on the lakes. Private Rogge had been with the expedition of 1882. The other men had had no sea experience.

Q. You state in your report that at a certain time only two men were able to assist in managing the boats?—A. That was in my own boat. Sergeant Kenney and Private Murphy were in my boat.

Q. And how many had Lieutenant Colwell in his boat who were capable of rowing or managing the sails?—A. He had three good sailors and Moritz, who had had some experience.

Q. What experience as an ice navigator had Captain Pike, the commander of the Proteus, had?—A. He had been a master of a steam sealer for a great number of years. I think he had commanded the Proteus for ten years, when he had made his trips to the ice in the spring catching seals. He had also commanded the Proteus when he took Lieutenant Greely to the Arctic regions in 1881, but his ice experience of that trip was limited, as they saw no ice at all until they got within fifteen or twenty miles of Discovery Harbor. He had had no ice experience in the Arctic regions whatever.

Q. You know that from his own statements, do you?—A. Yes, sir.

Q. You had no regular ice master on the Proteus?—A. No, sir ; he was an ice master.

Q. There was an ice master on the Yantic?—A. Yes, sir.

By the COURT :

Q. Who selected the crew of the Proteus?—A. The owners of the ship.

Q. Was Captain Pike a scientific, educated seaman?—A. I should say not.

By the RECORDER :

Q. Did he appear to have any knowledge of the use of nautical or astronomical instruments?—A. I do not know whether he could take an observation with the sextant or not. He would go through the operation every noon-day when he could see the sun, but he always went to a different part of the ship from where we were to work out his observations, and I have no personal knowledge as to whether he could successfully take a time-sight or not. I placed no dependence in his observations, however. Lieutenant Colwell always took the observation for position and I of course took his data.

Q. You personally visited the cache at Southeast Carey Island?—A. Yes, sir.

Q. What examination did you make of the stores there?—A. I opened two barrels of the bread and two cans of meat—New Zealand beef.

Q. In what condition were they?—A. One barrel of bread was considerably spoiled—molded.

Q. The ship's bread?—A. Yes, English ship biscuit. The other barrel, on the outer edges, was considerably molded, but on the interior of the barrel the bread was in good condition.

Q. How was the meat?—A. One can of meat had just begun to deteriorate; it was still eatable; and the other can was in perfect condition.

Q. How much do you suppose you saw there?—A. The cache seemed to be in its original condition as far as quantity was concerned. The Nares expedition left there 3,600 rations, and it was left as I found it, except I took away a water-breaker, as I had none with my boats. There were several barrels of rum in addition to the ordinary rations.

Q. Was there any alcohol for cooking apparatus?—A. I saw no alcohol; I do not remember.

Q. How was this cache secured? Were the stores in their original packages, barrels, or boxes, or how?—A. The bread was in barrels, and the cans of meat were lying loose on the level shelves of rock. This cache was just on the side of a rocky cliff or small hill.

Q. Were the barrels water-proof?—A. They had been originally, but time had loosened the staves somewhat, and that is why the bread had molded; the water had forced its way through.

Q. Were they covered with snow?—A. No; there was no snow anywhere in the vicinity.

Q. They were not covered with tarpaulin?—A. No, sir; part of the stores were under the boat, as many as could be put under there, the boat turned upside down, and the rest of them scattered about wherever a place could be found to keep them in a stationary condition.

Q. To protect them from the wind?—A. Yes, sir.

Q. In Lieutenant Greely's instructions he expressed a wish that notice should be left at Cape Sabine of the making of a cache at Littleton Island; did you make a cairn at Cape Sabine, or leave any notice where he would be able to find it?—A. Before the wreck of the ship I left a notice in the cairn made by Major Beebe in 1882.

Q. At Cape Sabine?—A. It was on Cape Sabine, but about four miles around the point.

Q. On a prominent point?—A. Yes, sir; and the record that I left after the wreck was placed upon the top of Brevoort Island in the same cairn left there in 1875 by Sir George Nares, as the most prominent point there, and the one which he would be apt to look for.

Q. Had he not visited that point?—A. Not on his way up.

Q. He had visited Cape Sabine, had he not?—A. No, sir; he went directly north from Littleton Island when he went up. He stopped at Littleton Island only long enough to leave six and a half tons of coal and a record.

Q. Did you examine the Beebe cache at Cape Sabine—Depot A?—A. I did.

Q. And found it in good condition?—A. Just as it was left with the

exception of the boat. A hole had been stove in the boat when it was being placed on the ship in St. John's, and it had been covered with a lead patch, so Rogge informed me, and that patch had been torn off and the bottom of the boat was considerably scarred by a bear's claw, but I think it could be repaired with very little difficulty.

By the COURT :

Q. In your instructions of June 4, 1883, the paragraph next to the last reads thus :

A ship of the United States Navy, the Yantic, will accompany you as far as Littleton Island, rendering you such aid as may become necessary and as may be determined by the captain of that ship and yourself when on the spot.

What did you understand by that instruction?—A. I understood that the Yantic was to accompany me as far as Littleton Island, if it could, under the conditions of course set forth in the letter asking for it under his own instructions, and give me such assistance as we might determine upon.

Q. What did you understand by the instructions here :

Such aid as may become necessary and as may be determined by the captain of that ship and yourself when on the spot.

Did you understand, for instance, that something should be determined beforehand at St. John's or that the two ships would keep together as they went along and as difficulties might occur you would communicate with each other and determine upon what should be done then and there?—A. I understood that if the vessel could accompany me it was to do so, and that the first instance of meeting ice the Yantic would be left, as my orders required me to go straight ahead, to go into the ice and make as much nothing as possible. I did not consider that there was any necessity of the ships going together from St. John's to Disko, because the chances were that there would be no obstructions whatever, and that inasmuch as there was a certain amount of the stores to be gotten at Disko, and other matters to be attended to, having to delay there anyway, I concluded that it was best for me to go directly from St. John's to Disko, getting there ahead of the Yantic, which was to come by sail and not by steam, make my preparations, and have everything ready by the time that ship got there, and then if Commander Wildes thought it prudent to go on with me we would proceed in company as far as the ice barrier, and when we met the ice barrier of course the Yantic would have to stop and seek a more circuitous route around it, while I, under my instructions, would go into the pack and force my way through. My idea all through was that the Yantic was not to interfere in any way with me in my progress north. If she could get along with me, well and good; if not, I was to leave her.

Q. As the Proteus was considered a faster boat than the Yantic, even when both were under steam, how could you expect her to accompany you if you went at full speed?—A. I did not expect her to accompany me.

Q. Then did that induce you to enter into this agreement with the commander of the Yantic?—A. That agreement was made as the result of consultation with Commander Wildes, and when he informed me that he intended to sail from St. John's to Disko and not use his coal.

Q. But in this memorandum of agreement it was agreed that the Yantic would proceed to Disko under sail. It says further :

The Proteus to endeavor to communicate with the Yantic at Pandora Harbor before August 25.

What was your expectation at the time of making this agreement as to the Yantic proceeding further north than Disko; did you not expect that the Yantic would go as far as Littleton Island at the time you made this agreement?—A. It depended entirely upon circumstances. If she met no obstruction and could get to Littleton Island of course I thought she would go as far as Littleton Island. In fact Commander Wildes assured me he would go as far as Littleton Island if it were possible to do so. Throughout the whole expedition I expected that the Yantic would go to Littleton Island if she met no ice in Melville Bay; that is, if she did not meet sufficient ice to obstruct her passage. When I got to Melville Bay and found that what is known as “the middle ice” was still there, with no prospect of its passing out within a reasonable time, I concluded that Commander Wildes would not put his ship into that ice, but would either wait around its southern limits or attempt to get around it to the westward; and inasmuch as this pack, as far as could be judged by me on my way up, extended well to the westward, probably across Baffin’s Bay, I concluded that he would not be able to get through, and all my future movements were governed by that opinion, and in this opinion I was supported by the opinions of Lieutenant Colwell, Captain Pike, the master of the Proteus, and everybody else who ever expressed any opinion on the subject.

Q. But it was your opinion that the Yantic would go as far as Littleton Island if there was a possibility of doing so?—A. Yes, sir.

By the RECORDER:

Q. You thought that was a positive engagement on the part of Commander Wildes to go to Pandora Harbor?—A. Yes, sir.

Q. Did you not suppose the faith of Commander Wildes was pledged to be in Pandora Harbor, except in the face of insurmountable obstacles?—A. I of course thought Commander Wildes would go to Littleton Island if he could get there without placing his ship in a dangerous position, as contemplated by his orders, or without taking such risk as he did not deem prudent.

By the COURT:

Q. Then your idea was that after you left Disko any dependence upon the Yantic being of any assistance to you was entirely problematical?—A. Yes, sir.

Q. And therefore you expected to depend upon yourself?—A. Yes, sir.

Q. If, when you started, that was your anticipation, of what use was the Yantic to your expedition?—A. Practically none; and I never regarded that she would be of any practical use; that is, the chances were against her. She would have been of use if the conditions had been the same as when Lieutenant Greely originally went to the Arctic regions; but that was only once in the history of Arctic explorations—the condition of the ice as he found it. Every expedition that has ever been north, as far as I have been able to ascertain, found the ice packed in Melville Bay, and Commander Wildes had instructions not to enter the ice-pack. I thought all the time, throughout the whole expedition, that even if

Commander Wildes and myself had sailed together in company, just as soon as we met the ice-pack a separation was necessary.

Q. And you met it?—A. Yes, sir; and that the separation would take place at that time; this ice-pack was the real obstacle anticipated in Melville Bay.

Q. And yet in one of your reports you refer to the hope, at any rate, of meeting the Yantic on your way south?—A. Yes, sir.

Q. Upon what did you base that hope?—A. I based that hope upon the contingencies of ice navigation; it is impossible to foresee the conditions of the ice even an hour ahead, and the conditions that I saw in Melville Bay might have changed entirely within twenty-four hours; the ice might have passed out under the influence of the wind.

Q. As it actually did.—A. As it actually did; and there was that chance always of meeting no obstruction in Melville Bay and getting through.

Q. But in your opinion a large majority of the chances were against the Yantic coming up?—A. Yes, sir.

Q. And that induced you to come down?—A. Yes, sir. It is only one hundred and seventy miles across Melville Bay, and vessels can run across there in twenty-four hours under favorable circumstances.

By the RECORDER :

Q. You of course consulted and conferred with Lieutenant Colwell upon the question as to what it was advisable to do after the wreck?—A. I never had any strict consultation with him at all. We talked matters over. I generally did what I thought best under the circumstances according to my own judgment.

Q. In view of the possibility that the condition of the ice might change and that Melville Bay might be opened after you had left it, was it not considered whether it would not be advisable to wait a couple of weeks in Pandora Harbor, the rendezvous?—A. I considered all that in my own mind, and concluded that it would not be advisable or to the best interests of the expedition to remain any time at Littleton Island.

Q. Or Pandora Harbor?—A. Or Pandora Harbor. There has been a good deal of misunderstanding about this Littleton Island. It was never contemplated by anybody that anything would be established on Littleton Island. Littleton Island is simply a barren rock. Life Boat Cove is the place that was intended as my depot of supplies, as my winter station.

Q. What is the condition of the channel between the Carey Islands and the mainland; how did you find it?—A. There was a good deal of ice between the channel and Carey Island when we went up. We sailed up to Sander's Island, and we were stopped by ice at Sander's Island and had to run to the south quite a distance, and had to make a westward to reach Carey Island.

Q. In coming south toward Carey Island, how did you come?—A. We followed all along the coast from Littleton Island.

Q. Were you at any time informed by Commander Wildes that his instructions contemplated his leaving any provisions or stores at Life Boat Cove, or Littleton Island, or Pandora Harbor for the use of the Greeley expedition?—A. No, sir; I was not.

Q. Or for your use?—A. No, sir.

By the COURT:

Q. If, as you say, the Yantic was not able to overcome the ordinary obstructions of ice which would be found in those seas under the most favorable circumstances almost, why was she sent up there?—A. I thought she was sent up simply to satisfy public opinion, as a good many papers had advocated the sending of a vessel, and from the way in which she was asked for and all the circumstances connected with the case.

Q. A proper tender you think ought to have been able to pass through the ordinary ice that would have been met there?—A. Certainly. I do not see what advantage a tender can be to an Arctic ship unless it is adapted to contend against the ice.

Q. Certainly, without referring to the heaviest ice you would meet, but the ordinary ice you would meet?—A. The ice of Melville Bay. Melville Bay has Arctic ice in it together with the ice which forms there. The ice comes down out of Smith's Sound and is taken up in the pack and frozen in with the ice which forms in Melville Bay from winter to winter, and you really meet Arctic ice in Melville Bay.

Q. So that knowing the character of the Yantic and all the circumstances surrounding the case, as I understand it, you thought that the great probabilities were that she would not reach Littleton Island from your experience in crossing Melville Bay?—A. I thought so.

Q. And you therefore acted upon that opinion?—A. I acted upon that opinion.

Q. And with that opinion you were induced to enter into that agreement with the commander of the Yantic, because you did not believe she could keep up with you in any way?—A. Yes, sir; that was my belief, and that was the belief, as far as I could learn, of every officer on board the Yantic. None of them anticipated going into the ice. They were not prepared to go into the ice. There was no Arctic clothing on the ship. The crew, instead of being decreased, received a draft of men in New York while we were getting under way almost.

By the RECORDER:

Q. The complement of the ship was eighty men?—A. One hundred and thirty-four, I think.

Q. The ordinary complement was eighty men?—A. No, sir; her complement was one hundred and thirty-four men, I think. I think she went within two or three men of a full complement.

At this point, 3 o'clock and 30 minutes p. m., the court adjourned until 11 a. m. to-morrow.

WASHINGTON, D. C.,
Wednesday, November 14, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder and reporter; also the witness under examination, Lieutenant Garlington, and his counsel, Mr. Kent.

The proceedings of the court from the time of the organization of the court were then read.

Mr. Garlington, referring to the question on page 10:

Now, of these thirteen men constituting your party, how many, if any, had had any nautical experience or education?

stated that he had in his mind the party as it left New York, but in addition to this he desires to say that Lieutenant Colwell, of the Navy, of course, was a practical seaman, as also the three men hired in St. John's. The record being corrected was approved by the court, whereupon

Lieut. ERNEST A. GARLINGTON resumed the stand.

By the RECORDER:

Question. I will ask you whether all those thirteen men were with you at the time of the wreck?—Answer. Yes, sir; those thirteen and two Eskimo.

Q. Those constituted your entire party—fifteen?—A. Yes, sir.

Q. What was the number of the crew of the Proteus?—A. Twenty-two men.

Q. Including everybody?—A. Yes, sir.

Q. Were they shipped from the class of men who usually go out sealing at St. John's, Newfoundland?—A. They were not shipped from the best class of Newfoundland sealers. The vessel was secured so late that almost all of the sealers had been engaged for the cod fisheries of the season, and these men were picked up about St. John's.

Q. Did Captain Pike make any statement to you about that?—A. He made a statement to me to that effect; that the crew was not the kind of a crew he would have liked to have gone into the Arctic regions with; that it was much inferior to the crew he had when he went with Lieutenant Greely.

By the COURT:

Q. When did he make that statement?—A. That was after the wreck.

Q. Had not the naval officers something to do with the selection of the men?—A. No, sir.

By the RECORDER:

Q. There was a naval officer sent to inspect the vessel, was there not?—A. Yes, sir. The owners of the Proteus, I think, promised General Hazen to furnish a select crew.

Q. You have stated in your report the misbehavior of the crew or some of them at the time of the wreck. Now I would like you to inform the court if you can to what extent in saving stores that misbehavior operated to your prejudice; how much do you suppose you might have saved if the crew of the Proteus had worked as well as your own men?—A. I could have gotten out a great many more stores on the ice, but I could not have saved any more stores than I did save; that is, absolutely save them. I could not have gotten them on the land.

Q. In view of the ice and all the circumstances you do not think you could have saved anything more?—A. No, sir.

Q. So that the misbehavior of these men did not contribute to the result of the expedition?—A. Not at all as to saving stores, or in any way.

Q. [Submitting a paper to witness.] I would ask you to identify your

supplementary report that has been read here, a copy of which is attached as an exhibit?—A. That is my original report in my own handwriting.

Q. The facts stated there are true to your knowledge?—A. They are.

Q. This was one of the exhibits to your first report? [Submitting another paper.]—A. It is Inclosure 2 to Appendix A to my first report.

Q. And also to your original instructions?—A. Yes, sir.

(A copy of the paper referred to, being instructions for closing scientific work at Fort Conger, is attached to the record.)

Q. [Submitting another paper to witness.] This is Inclosure 3 to your instructions, is it not?—A. Yes, sir.

Q. A list of stores invoiced to you by Lieutenant Craig?—A. No, sir; not invoiced. They were not invoiced to me. It is a list of stores invoiced to Lieutenant Greely, and left at St. John's by Mr. Beebe in 1882.

Q. Did you not take them with you?—A. Yes, sir. Some of these stores, enumerated in this paper, had been left in the caches by Mr. Beebe on the coast of Greenland.

Q. Had you any list of the other stores that you took with you?—A. Yes, sir.

Q. Have you that list?—A. I have a list of all the subsistence stores, but all the rest of my papers were lost in the wreck. The invoices and the list made were lost when the ship went down.

Q. Have you that list of the subsistence stores in your possession?—A. Yes, sir; I have.

Q. You still retain it?—A. Yes, sir.

(The witness is here shown a letter from Fort Conger, Grinnell Land, dated August 17, 1881, signed by Lieutenant Greely, being one of the papers received from the War Department, a copy of which is annexed.)

Q. Is that a part of your instructions—the inclosure to your instructions?—A. Yes, sir; that is an original.

Q. [Submitting a paper.] This is the unsigned paper, beginning with the words “the naval tender to join the Proteus at St. John's, Newfoundland, and proceed with her to Littleton Island,” which you found in your instructions?—A. Yes, sir; that is the paper.

Q. In whose handwriting is that paper, if you know?—A. A clerk in the Signal Office,

Q. What indorsements had it on it when you received it?—A. None whatever; the letter A, the figure 5, and the initials E. A. G. were placed upon it by me as an inclosure to my report; the words Appendix A and Inclosure 5 were written by Lieutenant Caziare in pencil.

Q. When was that done?—A. After I came back.

Q. Do you know where it was done?—A. It was done at his desk in the Signal Office; I saw him when he wrote it; he wrote it there simply, I suppose, to identify it.

Q. What does that Appendix A, Inclosure 5, refer to, if you know?—A. It refers to the first appendix to my report, and Inclosure 5 is the fifth paper. I referred to it in my report as a memorandum marked 5.

Q. These others are office marks?—A. Yes, sir; all made since I came back to the United States.

Q. [Submitting another paper to witness.] That is the original memorandum of agreement between yourself and the commander of the Yantic?—A. No, sir; it is a copy.

Q. Where is the original?—A. In my possession.

Q. In whose handwriting is this?—A. That is my handwriting.

Q. Whose handwriting is the original?—A. In the handwriting of Naval Cadet Howard, the clerk of Commander Wildes.

Q. This embodies the only arrangement made by you with the Commander of the Yantic in reference to your joint movements?—A. It does.

By the COURT :

Q. That agreement was signed by yourself and Commander Wildes?—A. No, sir.

By the RECORDER :

Q. But it was read by Commander Wildes?—A. It was prepared by Commander Wildes.

Q. Did you ask for any other arrangement?—A. No, sir; that was the only arrangement that I thought could be carried out under the circumstances, or that there was any certainty of carrying out. There was always the chance of the Yantic being able to reach Littleton Island, of course.

By the COURT :

Q. What thickness of ice could the Yantic go through, do you suppose?—A. I do not think he would have been justified in putting the ship into any fast ice. Her bows were not strengthened at all on the inside.

By the RECORDER :

Q. At the time this agreement was made, did Commander Wildes say anything to you or in your presence by way of qualification or exception to the written terms?—A. Commander Wildes always assured me that if it were a possible thing he would go to Littleton Island.

Q. But I would like you to confine your recollection, if it is possible, to the time when this was made. Was it made on board ship?—A. Yes, sir.

Q. In his cabin?—A. Yes, sir.

Q. Now, can you recall what occurred, what was said by Commander Wildes?—A. I was not present when the paper was written; the paper was written after consultation with Commander Wildes; I was with him in his cabin all the way up from New York; we talked the matter over continuously almost, in a general way, and that paper was written as the result of all these conversations as to what the ship would be able to do.

Q. Who gave you this paper?—A. Naval Cadet Howard. It was sent over to me at the hotel in St. John's by Commander Wildes.

Q. Did you have any subsequent conversation with Commander Wildes in reference to it?—A. No, sir.

By the COURT :

Q. What was your understanding when you left St. John's; was it that the two ships were necessarily to be together after you left there?—A. No, I expected to see the ship at Disko.

Q. And after leaving Disko that they should not necessarily be together or leave together, but that the Yantic should reach Littleton Island at some time in the future if it could get there?—A. If it could get there.

Q. But you did not expect it necessarily to leave Disko in your company?—A. Not necessarily. I intended to wait at Disko until the arrival of the Yantic there and to proceed in company with her if she would go along; but I did not intend to wait any length of time at Disko in order to have her accompany me.

Q. And that was the understanding between you and Captain Wildes?—A. Yes, sir.

By the RECORDER:

Q. You distinctly remember the specific fact that Commander Wildes told you that under his instructions he could not go into the ice?—A. Into the ice-pack.

Q. And you understood that this agreement was conditioned upon that statement?—A. Certainly.

Q. In this agreement I observe these words:

Should Proteus be lost, push a boat or party south to Yantic.

Pandora Harbor will be headquarters, but before departure Yantic will run up to Littleton Island.

Now, what was understood by pushing a boat south to Yantic?—A. It was understood, as it says, that in case the Proteus was lost immediate effort was to be made to communicate with the Yantic, and if she had gotten through Melville Bay and had gotten up as far as Pandora Harbor, and the Proteus had gotten well into the ice-pack in Smith's Sound and had been lost further up, or anywhere after she got into the ice, of course that referred more particularly to sending a boat down to the vicinity of Littleton Island under the supposition that she would succeed in getting that far.

By the COURT:

Q. From your instructions, as you understood them, you considered it your duty not to stop at Littleton Island on your way up, but to go as far as you could and make a depot of supplies if you did not get up to Lieutenant Greely's colony, and to make your depot of supplies as you came back, not as you went up?—A. That is what I understood from my instructions.

Q. Then you say in one of your letters, in your last report, I think; that you went south in your boats after the loss of the Proteus, hoping to meet the Yantic and to come back with the Yantic to Littleton Island in order to make a depot there, and yourself and some of the men spend the winter there; what expectation had you of meeting the Yantic in going down? How near did you expect to meet her in order to be able to carry out that purpose?—A. I always had in view the chance of her getting through Melville Bay, and if she got through the Melville Bay ice, and entered the north water, she would have no obstruction from that point to Littleton Island, and there would be no difficulty in getting through, because throughout the season the upper part of Baffin's Bay and south of Smith's Sound, what is known as "the north water," is always open, and it was in the hope that she had met the lucky chance and succeeded in getting through Melville Bay.

Q. So as to be at any rate as far north as Cape York?—A. Yes, sir.

Q. How did you expect to get provisions up to Littleton Island from the steamship Yantic when you left that Island on your way south?—A. I expected to have taken them there under the answer that I have just

given. I hoped to meet the Yantic north of Cape York ; that is, on the northern side of the pack-ice in Melville Bay, and, as I said before, there would be no obstruction to her getting to Littleton Island after she got through the pack-ice in Melville Bay.

Q. That is the way you expected to carry them up—on the Yantic?—

A. Yes, sir.

By the RECORDER :

Q. Do I understand you hoped that the Yantic would be able to furnish provisions?—A. Yes, sir; I hoped that she would be able to furnish provisions if she understood that my provisions had been lost and I had succeeded in saving no provisions.

Q. But you had no information that she had received any instructions to do so?—A. No; it was not necessary. I thought, of course, that there would be no instructions necessary to furnish these provisions; that the circumstances of the case would demand the provisions.

By the COURT :

Q. There seems to have been some room for question as to the true meaning of the requests made by Lieutenant Greely in his letter of August 17, 1881, from Fort Conger, as to when those depots should be established; whether on the way up or whether on the return. Had there been any discussion as to the construction to be given to that language before you left there?—A. No, sir. The Neptune, that had gone up under the same instructions, under that same letter, established her depots after the officer in charge had concluded it was impossible to proceed further north. It was after he gave up the hope of getting through the ice around Bache Island that he established Depot A on the shores of Cape Sabine, and Depot B at Littleton Island.

By the RECORDER :

Q. And under Lieutenant Greely's letter the depots to be established by the expedition of 1883 were to be intermediate?—A. He went on the supposition that the expedition of 1882 would establish Depot A as far north as possible, saying in his letter that no southing should be permitted. But this depot had been established really about the point at which he recommended in the latter part of his letter the establishment of a depot by the expedition of 1883; that is, at a point between Cape Sabine and Bache Island; and that depot really was put in in 1882 five miles from Cape Sabine and was placed where he desired it on Littleton Island. The depots that I had to establish were, one to be as far north as possible at the extreme point that I reached, and the other was to be placed at such a point along the coast as it was most needed, and in addition to those depots I had prepared in Disko two additional depots of the same size—two hundred and fifty rations—which I intended to place along the coast of Grinnell Land at a point where I thought best, where they would be most available, and I also intended to leave at Cape Prescott, the point I was making for when the ship was caught in the ice, this whale-boat that Lieutenant Greely asked to have left by the preceding expedition; and, in addition, I intended to make a large depot on my way up, either at Cape Prescott or Franklin Pierce Bay, as I considered that point as a place where a depot would be most needed by parties retreating from the north-

ward, because it is north of Princess Marie Bay, and the greatest obstacle to be overcome in his retreat to the southward would naturally be from the land just north of that bay, across it round Bache Island and across Buchanan Straits over to the mainland or Cape Sabine.

By the COURT:

Q. Did you not expect to make a depot at Littleton Island as you came down?—A. No, sir; my orders required me to go into winter-quarters at Life-Boat Cove.

Q. I mean in the vicinity of that place?—A. Yes, sir.

Q. And you were prepared to do that?—A. Yes, sir; but I wanted to make this larger depot at Cape Prescott, so that if Lieutenant Greely succeeded in getting down that far. The probabilities were that he would meet with delay there on account of the currents and high tide keeping that ice more or less broken up in those inlets very late in the season. And again, I thought it extremely improbable that he would be able to cross Smith's Sound in the fall of the year and would probably, if he succeeded in getting as far down as Cape Prescott, have to remain there a large portion of the winter.

By the RECORDER:

Q. I intended to ask you before whether you had a large supply of rockets to use in winter time?—A. I did. I had rockets and Coston lights.

Q. Did you succeed in saving them or bringing any away with you?—A. No, sir.

Q. Had you plenty of matches?—A. Yes, I had an ample supply of matches and saved them; I had them placed where I could get them.

Q. How were they put up so as to be protected from the weather?—A. In water-tight tin boxes.

Q. Were your subsistence stores selected with reference to the needs of the climate; did you have the proper proportion of antiscorbutics?—A. They were. General Hawkins took great interest in the stores and gave the matter his personal attention. He told me he thought it was the best lot of stores that had ever been sent out of New York.

By Mr. KENT:

Q. Upon reading your instructions given by the Signal Office, bearing date June 4, 1883, what did you conceive to be the leading thought in those instructions as to your duty in the premises?—A. To reach Discovery Harbor with the ship if it were within the range of possibility.

Q. Did you understand that those instructions directed that you should only deposit your party and stores at or near Life-Boat Cove when it became clearly apparent that the vessel could not be pushed through?—A. I did.

Q. Now, did anything ever occur in the Signal Office, before your departure upon this expedition, which contemplated the suggestion as far as you knew that you should leave any stores at Littleton Island upon your way north?—A. No, sir; none whatever.

Q. Was it ever discussed in the Signal Office, as far as you know, in your presence or to your knowledge?—A. No, sir.

Q. The only reference then to it, as I understand, was when you saw it in the paper marked memorandum of instructions?—A. That is the only time.

Q. And then you called General Hazen's attention to it?—A. I did.

Q. And his reply was as stated in your examination?—A. Yes, sir.

Q. You had no authority or control in any way over the Yantic?—A. None whatever.

Q. The paper which is referred to here as the unsigned agreement between Commander Wildes and yourself you say was prepared by him and was submitted to you as the result of your conference?—A. Yes, sir.

Q. In which he determined upon his course as to sailing and whether he would accompany you or not?—A. Yes, sir.

Q. Will you state your view of Lieutenant Greely's instructions as to the order in which the depots provided for should be made; that is, whether Depot A should be made before Depot B, and where Depot A was situated with reference to Depot B?—A. Depot A was to be established at the extreme northern point that the vessel which went up in 1882 should reach, and Depot B was to be established when the ship went south after having arrived at the decision that it was impossible to get any farther north.

Q. Littleton Island was designated as Depot B?—A. Yes, sir.

Q. Then it contemplated the establishment of Depot A north of Littleton Island before the establishment of the depot at Littleton Island?—A. Yes, sir.

Q. You state in your report that when you passed Littleton Island on your way northward the weather was good and that there was an open sea. How long would you have been delayed in landing the stores at Littleton Island if you had stopped at that time?—A. To have landed all the stores it would have taken sixty or seventy hours.

Q. What was the probability in that region of your passage being obstructed within that time, whereas at that time you had an open sea?—A. The entire conditions might have changed within that time; the movements of the ice-pack cannot be foreseen at all; it is arguing on chances all the way through.

Q. Then you considered that in your efforts to get north every day's delay might be disastrous?—A. I did.

Q. And that it was your duty to push forward northward whenever the conditions permitted?—A. Yes, sir; and I was ordered in my instructions to take advantage of every favorable lead.

Q. Did you consider that branch of your instructions paramount to the clause in your instructions which informed you that the Yantic would accompany you as tender?—A. I did.

Q. Then you did not consider that it was your duty under your instructions to wait for the Yantic?—A. No, sir.

Q. But to push forward with the hope that the Yantic might accompany you?—A. Yes, sir.

Q. The recorder, in a question, said to you that you of course consulted and conferred with Lieutenant Colwell upon the question as to what it was advisable to do after the wreck. Do you desire to give a fuller answer to that question than that given when the question was propounded?—A. Yes, sir.

Q. State it.—A. In the answer I made I had reference particularly to immediately after the wreck in arriving at my decision to come south, but in all subsequent movements I consulted freely with Lieutenant Colwell

in regard to all movements. We were in accord in all of our subsequent movements.

Q. When did you first see your instructions bearing date June 4, 1883?—A. I think in the latter part of April. I saw them in the rough after they had been prepared.

Q. Where did you see them and under what circumstances?—A. They were referred to me by order of the Chief Signal Officer for any remarks that I might choose to make on them, as they were referred to every officer on duty in the Signal Department, with orders to submit such additions, changes, or any recommendations that they might see fit to make.

Q. Were those instructions submitted to you as all the instructions that were then prepared in the office on that subject?—A. They were.

Q. When did you first hear, then, of the paper described as the supplemental instructions?—A. I saw it while it was being written by Lieutenant Caziarc.

Q. How long subsequent to the time when you saw the original instructions?—A. It was about the middle of May, after General Hazen had gone to St. John's; I do not remember the exact date; I think it was somewhere between the 15th and 20th of May; probably a little later.

Q. Then you heard no more of those supplementary instructions until you saw them in your envelope?—A. No, sir; nothing at all.

By the RECORDER:

Q. Referring again to that agreement between yourself and the commander of the Yantic, I understood you to say in reply to the question of the counsel that in that agreement Commander Wildes announced his intentions to you, but you still adhere to your answer that in that paper was embodied your agreement with him subsequent to your conversations, do you not?—A. I do not understand the point you make.

Q. That paper between Commander Wildes and yourself embodied an agreement actually made between you?—A. Yes, it was an agreement entered into by Commander Wildes and myself.

Q. And you did not solicit him to make any other arrangement?—A. I did not.

By the COURT:

Q. Did you raise any objection to any of the points made in the agreement?—A. No, sir.

Q. Or protest against anything?—A. No, sir.

Q. Therefore you agreed to that as the best to be done under the circumstances?—A. Yes, sir.

By the RECORDER:

Q. It was put into writing correctly?—A. Yes, sir.

Q. Did you see Commander Wildes after receiving that agreement?—A. Yes, sir. That is, the agreement made between Commander Wildes and myself. There is no dispute about it at all.

The examination was concluded with the understanding that the witness might be recalled at any time.

The recorder then presented to the court some additional papers received from the Signal Office, being certified copies of the records in relation to the original project of Lieutenant Greely for an Arctic colony and some

papers bearing upon the quantity of supplies in the possession of Lieutenant Greely at the time of his arrival at Lady Franklin Bay. Also copy of a letter of the Chief Signal Officer, dated May 14, 1883, requesting that the Secretary of the Navy be asked to furnish a ship as a tender to the Proteus, which papers were read and are attached as exhibits, whereupon

General WILLIAM B. HAZEN was sworn and examined as follows :

By the RECORDER :

Question. Will you please state as concisely as you may see fit, in narrative form, your knowledge of this expedition for the relief of Lieutenant Greely and so much of your knowledge of the Greely expedition as may seem to you to bear upon the questions before the court.—Answer. The expedition to Lady Franklin Bay was conceived, and the law for it was passed, before I came to Washington as Chief Signal Officer. I took charge of the office in December, 1880. Some time after I had been here my attention was called to the fact that there was a law upon that subject that seemed to require some action, and that one of the officers, Mr. Greely, was very anxious to progress with the expedition, which had already been begun, and interested himself very much in it and interested me to the extent of endeavoring to see the law executed. I called for all the papers in this case and all knowledge that could be given me. I found the law on the statute-book excepting that it was then waiting for money to be appropriated to carry it out. Mr. Greely brought to my notice the plans of the year previously and also his own plan, which only differed in a few particulars from the plan of the year before. He virtually adopted that plan. The only material difference was that in place of enlisting men particularly for the service he would use soldiers and hire a sealing ship in place of using a ship of the Navy. The plans were carried on and elaborated with great care and attention and industry, Mr. Greely himself taking chief charge. Congress passed the appropriation, amounting to \$30,000, I think. Mr. Greely had already secured the approval of Mr. Ramsay, the then Secretary of War, who, however, was relieved before the plan was executed, and the plans were then afterward approved by his successor, the present Secretary of War, and the expedition was carried on to its execution as rapidly and as efficiently as it seemed possible to do. Mr. Greely saw himself to the hiring of the ship, which was the Proteus, at St. John's, Newfoundland. The men were detailed from the northwest. They were enlisted men, supposed to be inured to cold weather, and the expedition sailed from St. John's probably in the first week of July, 1881. The ship got through to Lady Franklin Bay and returned in an unprecedentedly short time. It had a remarkable trip, making the round trip in about sixty-one days. There was at that time no serious obstacle in the ice at any place as reported by Mr. Greely. He retained the ship six or seven days, only until his house was in fair way of completion, and she was then returned and discharged, he sending back a great number of requisitions and papers, and among others a detailed plan for the operation of the next ship or ships that should be sent for his supply or relief. The next year, 1882, an expedition was fitted out in exact accordance with his recommendations, fully provisioned and supplied, and was sent, but did not reach within one hundred and fifty miles of his place. It remained

in those waters some four or six weeks, I do not remember the exact date, but in that time every effort seemed to have been made to get through to Lady Franklin Bay; but up to the time the steamer returned the ice was not broken up, and after making the effort to get through the ship returned safely to St. John's and was discharged. Early in the winter of 1882-'83 preparations were made for sending the second relief ship. An officer was asked to be detailed, and Lieutenant Garlington, of the Seventh Cavalry, was ordered to report and take charge of the ship. He reported probably in February, and gave his whole attention to that work. The expedition was fitted out with every care which was possible and following accurately the directions of Mr. Greely. I went myself to St. John's to hire a ship, and was fortunate in hiring the Proteus, the same ship and the same captain that had been successful with Mr. Greely, and I also arranged with, or at least made an official request that a tender, a ship of the Navy, be sent to Grinnell Land. Those ships got off not far from the 1st of July, and proceeded on their cruise. They became separated, for what reasons I do not know, and the Proteus, in making progress to reach Lady Franklin Bay, probably a hundred and thirty or one hundred and forty miles before reaching it, was nipped in the ice and sunk. After making such efforts as seemed possible to make depots and secure the property, particularly food and clothing, he did so, and cached what he could save upon the west side of Smith's Sound, near Cape Sabine. He then fell back with his men until he was joined by the convoy, bringing all his men back, and reported on his arrival at St. John's. That is in brief the narrative. Immediately after my return from St. John's, where I had been to employ the Proteus, I was informed that the Navy Department had asked for a plan of what we wished done in the Arctic seas. I do not think I saw that memorandum. I do not remember of seeing it at that time, but I was told what it contained; that it contained a condition to land the stores on going up. I immediately went to the Navy Department and had an interview with either the Secretary of the Navy, or Commodore Walker, or whoever was in charge at that time, and told him personally what I wanted. It was this: That the tender or escort proceed northward with the Proteus as far as Littleton Island and do such things as were usual for an escort to do or intended to be done on such occasions, and such things as the developments and the facts found upon the spot might seem necessary to be agreed upon. I also carried or sent in place of the memorandum the orders prepared for Mr. Garlington on that trip. I also sent with it the letter which Lieutenant Greely had sent back after having arrived at Lady Franklin Bay, on which Mr. Garlington's order was founded. I thought they were better adapted or suited to the expedition, and they took the place of that memorandum, as I understood. A day or two after, perhaps the next day, Mr. Garlington brought me his packet of orders, and in that packet was this same memorandum. He expressed some surprise at finding it there and asked me how it got there. I told him that I did not know. I told him that it was no part of his orders, and then I gave him the history of the paper as I have given it here. Mr. Garlington then showed me all of his orders and I told him that he must be controlled by the orders that I had given him, and also by the directions of Mr. Greely's letter on which they were

founded; that that letter of Mr. Greely's, written as it was after he had arrived on the spot, was law to me, and I did not feel that I was authorized to change that order or to give him any orders that would conflict with it. I told him also that when on the spot he must exercise in all matters that discretion which every distant commander must exercise, which reposes in him by virtue of his office. I told him that he had my full confidence and I expected him to exercise his discretion in matters as they would develop themselves on the spot. Mr. Garlington had been selected for known high qualities, and the Greely letter was of that nature and character, written as it was after he had arrived there, knowing all the facts as no other man in the world could know them; that I felt that I was excluded from giving Lieutenant Garlington any orders that would in any manner conflict with his directions. After Congress last winter had passed a law requiring that the Greely expedition be brought back this year and before the second ship or a convoy was thought of, it seemed to me that it would be necessary for the expedition going up to vary the Greely instructions so far as to land at Littleton Island and land the stores. That plan was thought of a great deal, and it was discussed a great deal, as was the plan also of making the depot on the west side of Smith's Sound. But after it was arranged to send a tender—that of itself would be a depot, there being also several small depots along that coast—I determined to return strictly to the Greely memoranda, and after that did so. It seemed to me that the sending of the tender obviated the absolute necessity of varying Mr. Greely's directions in any way; I was, however, very anxious to order Mr. Garlington to stop at Littleton Island, but it seemed to me under the circumstances that a bare suggestion would be all that I ought to give him; that I ought to leave him with his mind unbiased and unclouded, to act as the circumstances on the spot might dictate, with full knowledge of Mr. Greely's letter; he having this memoranda, which he read to me, it seemed to me that that was a sufficient suggestion, and I said nothing further about it; Mr. Garlington was possessed of full knowledge of the entire scheme and entire plan from the beginning, and I thought it best to leave it to him to exercise his entire discretion in regard to matters so far as he could while carrying out also the letter of Mr. Greely and the instructions which were based upon that; it seemed to me that everything which by very great care and attention could be thought of was placed at his disposal, and I did not feel that I was authorized to give him detailed instructions as to his duties, after he had arrived on the spot, further than to conform to the orders which he already had and that were based upon Mr. Greely's letter.

Q. Was any plan of rescue or relief matured with Lieutenant Greely before he left that you know of?—A. Yes, sir. The matter was thought of very carefully and the plan was elaborated. It is contained in his original order establishing his expedition.

Q. Directing him to retreat by way of Grinnell Land?—A. Yes, sir. [Reading.]

In case no vessel reaches the permanent station in 1882, the vessel sent in 1883 will remain in Smith's Sound until there is danger of its closing by ice, and on leaving will land all her supplies and a party at Littleton Island, which party will be prepared for a winter's stay and will be instructed to send sledge parties up the east side of Grinnell Land to meet this party. If not visited in 1882, Lieutenant Greely will abandon his station not later than September 1, 1883, and will retreat southward by boat, following closely the east coast of Grinnell Land until the relieving vessel is met or Littleton Island is reached.

That was prepared in Mr. Greely's presence, and he probably wrote that clause.

Q. It agrees with his directions written from Fort Conger?—A. Yes, sir.

Q. Was the latitude given him as to the date of his retreat that he should retreat not later than September 1, 1883, duly considered?—A. Not later than that.

Q. When the travel at that time is so impracticable?—A. That matter is something which was very carefully considered, and the authorities upon the subject were very carefully looked up and studied by Mr. Greely himself, and that was the date which he fixed upon as the date which he wished to begin his retreat.

Q. Was the appropriation for this expedition as large as you had asked for?—A. I think the appropriation was as large as I had asked for. I had great difficulty in getting appropriations for the Signal Bureau, and I was led to make it as small as I could. Nearly all my appropriations were cut down very largely, and I made this appropriation no larger than would be necessary for one trip, and all the money asked for that one expedition was granted.

Q. Mr. Garlington's expedition you speak of?—A. Yes, sir.

Q. Lieutenant Garlington states in his report, and testified here, that he was unable to find the arms provided for the expedition because the cargo was sent on in advance of his arrival at St. John's, and that though he applied for permission to go by the Alhambra for the purpose of seeing how the cargo was stowed and where the things were, that permission was not granted him, and hence when he arrived there he was in utter ignorance of where his important stores, those necessary in an emergency, were placed. Can you explain that?—A. He did make such an application to go on the Alhambra, but it was thought best that he should go with the men. There was great disposition on the part of these men to desert. Several desertions of the men brought down for that purpose occurred, and it was thought best that he should go and stay with them. But the matter of the stores I thought was sufficiently provided for. There was a sergeant, who had gone up with an expedition heretofore, who had charge of all the stores. He was a sort of a supercargo. He knew everything about the stores and had charge of those that had been kept over from the last year, and he was ordered to go on the Alhambra to St. John's and take charge of loading all of these stores upon the Proteus according to a plan that was given him, and to be able to report to Mr. Garlington on his arrival just where everything was loaded. On the arrival of the Alhambra at Halifax he reported here that he had fallen down a hatchway and was unable to proceed. Not believing fully his report, I telegraphed him that his duties were so important that he must proceed as well as he could and attend to his duties after arriving there. It seems that he never received this dispatch, but returned to this city. When he returned here I caused him to be examined by a surgeon, and the impression was left upon the minds of the surgeon and myself that he had feigned this trouble in order to get back, and he is now undergoing trial by court-martial on charges to that effect. That was the reason why I did not think it best to send Mr. Garlington to load the ship.

Q. [Submitting a paper to witness.] Look at this paper, a letter dated May 14, 1883, to the Secretary of War, asking that the Secretary of the

Navy be requested to furnish a naval ship as tender for the Proteus, the letter being from the Chief Signal Officer of the Army, which is a copy of the records of the Signal Office furnished the court.—A. [After examining the same.] That is correct.

Q. Does this comprise all of the correspondence on the subject of the tender?—A. Yes, sir; it comprises all the written correspondence that I know of.

Q. Was your interview at the Navy Department subsequent or prior to that?—A. That was subsequent to that; that was the first paper when it was first talked of calling for a naval ship.

Q. Do you remember with whom you had that conference?—A. With Commodore Walker, probably. I had many conferences, and nearly all of them were with Commodore Walker.

Q. Was the subject of the Yantic acting as a depot discussed?—A. Not specially as a depot. That was covered by the discussion to the effect that the Yantic should go to Littleton Island and should act there according as the emergencies might require.

Q. Was any assurance given you that the Yantic would provide provisions for the Greely or the Garlington parties?—A. No; there was no assurance of that.

Q. And no request that it should?—A. No.

Q. Does the correspondence that has been furnished us contain all the material papers in relation to the subject?—A. I think it does. It certainly does the material papers.

Q. All the material information bearing upon the rescue of Lieutenant Greely or for his relief in 1883?—A. Yes, sir.

Q. Have you any means of stating to the court what rations Lieutenant Greely had?—A. I have a statement of the rations taken with him. Shall I read it?

Q. If you please.—A. [Reading.]

Subsistence stores taken by Lieut. A. W. Greely on expedition to Lady Franklin Bay, 1881.

	Reduced to the Army ration.	
1,000 lbs. codfish.	1,125	} Equal to 29,498 rations of meats, being rations for 25 men 39½ months.
3,000 " pemican.	3,000	
242 " bacon.	322	
729 " ham.	911	
3,000 " bacon.	3,750	
9,600 " pork.	12,000	
96 cans salmon (2 lbs.).	192	
23 barrels beef, salt.	5,750	
864 cans " corned (2 lbs.).	2,160	
120 " " roast (2 lbs.).	240	
24 " mutton (2 lbs.).	48	} Equal to 26,734 rations of breadstuffs, being rations for 25 men 35½ months.
48 " crab meat (1 lb.).	48	
6,450 lbs. family flour.	5,644	
500 " macaroni.	500	
1,720 " oatmeal.	1,505	
140 " cracked wheat.	123	
280 " farina.	280	
980 " corn meal.	735	
17,899 " hard bread.	17,899	
1,264 " beans.	8,200		} Equal to 32,450 rations of beans, rice, &c., being rations for 25 men 43½ months.
1,395 " beans.	9,300	
576 cans " baked (3 lbs.).	3,800	
420 lbs. pease, split.	2,800	
595 " rice.	5,950	
1,120 cans hominy (10 lbs.).	2,400	

Subsistence stores taken by Lieut. A. W. Greely, &c.—Continued.

		Reduced to the Army ration.		
1, 900 lbs. coffee, R. & G. }		26, 400	} Equal to 72,000 rations of coffee or tea, being rations for 25 men for 96 months.	
196 " coffee, R. & G. }				
200 " tea, green. }		45, 600		
48 " " black. }				
56 " " E. B. }				
1, 063 " sugar, granulated }		27, 400	} Equal to 28,400 rations sugar, being rations for 25 men for 39 $\frac{3}{4}$ months.	
3, 060 " " A. }				
192 $\frac{1}{2}$ gall. molasses, N. O. }		1, 000		
108 " syrup. }				
269 " vinegar.		26, 900	} Being rations for 25 men 35 $\frac{3}{4}$ months.	
510 lbs. candles.		38, 200		" " " 25 " 50 $\frac{9}{10}$ "
240 " soap.		24, 400	" " " 25 " 32 $\frac{1}{2}$ "	
240 cakes soap (toilet).				
48 " " "				
450 lbs. " S. W.				
1, 568 " salt.	117, 600		" " " 25 " 156 $\frac{1}{2}$ "	
96 bags salt, table.				
10 lbs. pepper, black.	42, 000		" " " 25 " 56 "	
75 " " "				

Note I.

Note II, summary.

Party consists of—
4 officers.
18 enlisted men.
3 Eskimos (estimated).
—
25 total.

Meat ration,	49 $\frac{1}{2}$ months.
Flour "	35 $\frac{1}{2}$ "
Beans, &c.,	43 $\frac{1}{2}$ "
Coffee and tea,	96 "
Sugar,	37 $\frac{3}{4}$ "
Vinegar,	35 $\frac{3}{4}$ "
Candles,	50 $\frac{9}{10}$ "
Soap,	32 $\frac{1}{2}$ "
Salt,	156 $\frac{1}{2}$ "
Pepper,	56 "

In addition to that there are extra supplies, which I will read :

Subsistence stores, L. F. B.—Continued.

MISCELLANEOUS.

5 lbs. allspice.	960 cans onions (2 lbs.)
456 cans apples (3 lbs.)	96 cans oysters (2 lbs.)
100 lbs. apples (evaporated.)	144 cans peaches (3 lbs.)
96 cans asparagus.	250 lbs. peaches (evaporated.)
3,024 lbs. butter.	48 cans pears (2 lbs.)
204 lbs. chocolate (Mr. Cobb's.)	98 cans pears, Am. (2 lbs.)
200 lbs. chocolate.	96 bottles chow chow (qts.)
5 lbs. cinnamon.	100 galls. pickled onions.
24 cans clams (2 lbs.)	250 galls. pickled cucumbers.
5 lbs. cloves.	48 cans pineapples (2 lbs.)
144 cans corn, green.	1,248 cans potatoes (2 $\frac{1}{2}$ lbs.)
24 bottles ex. lemon (4 oz.)	144 cans preserved damson.
24 bottles ex. vanilla (4 oz.)	244 lbs. prunes.
50 pkgs. gelatine (Swinburn's.)	66 boxes raisins.
50 pkgs. gelatine (Nelson.)	1,008 cans sauce, cranberry.
10 lbs. ginger.	12 bottles sauce, Tobin's Chili.
100 lbs. hops.	12 pints sauce, Worcestershire.
48 cans jam, blackberry (2 lbs.)	504 cans soup, asst'd.
144 cans jelly, currant (2 lbs.)	240 pkgs. soup, vegetable.
48 cans lobster (2 lbs.)	40 lbs. starch, corn.
1,920 cans milk.	25 lbs. tapioca.
198 lbs. mustard.	960 cans tomatoes.
5 lbs. nutmegs.	1,000 lbs. tobacco, plug.
12 bottles oil, olive.	325 lbs. tobacco, smoking.

960 cans tomatoes (3 lbs.)
 120 cans Lima beans (2 lbs.)
 144 cans ex. beef (1 lb.)
 552 lbs. cheese.
 108 lbs. yeast powder.
 24 bottles celery (4 oz.)
 504 cans eggs, cond.
 180 lbs. figs.
 192 cans gooseberries (2 lbs.)
 96 jars preserved peaches.
 12 boxes Tobasco pepper.
 18 $\frac{1}{2}$ -bbs. sauer kraut.
 908 cans rhubarb.
 48 cans quinces (3 lbs.)
 48 cans shrimps.
 780 lbs. lard.
 24 cans tamarinds.
 34 bottles horse radish.
 24 cans orange marmalade.
 50 lbs. pitted cherries.
 96 cans blueberries.
 48 cans whortleberries.
 24 cans white O. H. cherries.

48 cans Cal. grapes.
 48 cans pears.
 72 cans squash.
 48 cans okra.
 144 cans carrots.
 144 cans turnips.
 144 cans beets.
 120 cans sausage.
 24 cans peach butter.
 24 cans quince butter.
 36 cans plum butter.
 24 cans currie powder.
 6 jars Canton ginger.
 12 pk'gs herbs, asst.
 12 bottles extracts.
 6 kegs olives.
 8 $\frac{1}{2}$ -bbls. cider.
 128 lbs. nuts.
 24 cans pear butter.
 144 lbs. dates.
 30 lbs. coconut.
 100 galls. lime juice.

In addition to that, Mr. Greely was ordered specifically in his written instructions to give the subject of native food and preparation of it his first and careful attention. After the fourth day he made a photograph of what he had gathered, and there it is [submitting a photograph to the court]—birds and musk oxen.

Q. These lists of rations are from the records of the office?—A. They are from the records of the office. It amounts to about five years of food he carried with him.

Q. And he made caches of an inconsiderable proportion of it?—A. Yes, sir.

Q. There is a matter alluded to in the papers in relation to an engagement for the purchase of coal. Will you state anything you desire in relation to that?—A. In the first charter party, in 1881, that was introduced to furnish Mr. Greely with coal in case he should need it after he arrived there. In the other two copies that were made relating to the purchase of coal the same phraseology and names were introduced that were introduced afterwards, and it was discussed, and we concluded as Mr. Greely was the chief officer in that country that it would be proper for his name to remain there. The use of the coal was contingent upon the fact of Mr. Garlington having to remain at Littleton Island. It was not for Mr. Greely at all, but before the Proteus started it was found that we could buy coal cheaper in St. John's in sacks for this purpose than we could buy it of the Proteus, and it was therefore bought in that way and put upon the Proteus and carried up. But it was for Mr. Garlington and not for Mr. Greely.

Q. I believe it appears in the instructions to Mr. Greely that he was directed to report specifically as to the character of the coal in Discovery Harbor. Was any such report received as to the extent of the beds?—A. I think there was, and I think that he reported that there was very good coal there, but I do not recollect now. I have not before me his report.

Q. Do you know anything of the subsequent correspondence between the Signal Office and the War and Navy Departments in reference to the

inclosure that was designated as the instructions for the naval tender and the Proteus—the inclosure which Mr. Garlington spoke to you about as having been found in his envelope?—A. Nothing at all further than I have explained to you.

Q. I mean subsequent to the return of the expedition?—A. No, sir; I was absent at that time.

Q. In whose charge was your office?—A. Captain Mills.

Q. For what time, generally?—A. Captain Mills was in charge of the office from about the middle of July, until I returned from my western trip about the 10th of October.

By the COURT:

Q. What induced originally the preparation of that memorandum?—A. When Congress directed that the Greely party be brought back this year, and before it was determined to send a tender, it seemed then to be necessary that such action be taken; it was not written out, but it was discussed very fully in my office; then, before I returned from St. John's, where I had been to engage the Proteus, a memorandum was called for by the Navy Department covering these subjects, and some one in my office, I have never known who, in making a memorandum included that in it; when I returned I saw at once it was a matter which had been duly considered before, and was not intended, and it is my opinion it was not sent over to the Secretary of the Navy at all, and it only had life at all by having been found by Mr. Garlington in his envelope afterwards.

Q. In your letter of October 16, 1883, transmitting to the Secretary of War the first report of Lieutenant Garlington, speaking in reference to this memorandum you state this:

Just before starting, Lieutenant Garlington brought a copy of a memorandum that had been prepared for the Secretary of the Navy to aid him in preparing instructions to the convoy which contained the original condition of first landing at Littleton Island, &c.

From that it would appear that that memorandum had been originally prepared in your office by somebody for the Secretary of the Navy to aid him in preparing instructions for the Yantic.—A. I was told when I returned that that was the case, and I have no doubt it was the case. But before it was sent over I had considered the subject myself, and saw that that memorandum was not in accordance with the Greely letter, and it was a matter which I had already decided not to make one of the conditions, and I immediately went myself in person and explained what I wanted, and carried, or had sent afterwards, the orders of Lieutenant Garlington and the Greely letter to take the place of that memorandum.

Q. So that this memorandum was prepared or talked about prior to any action on your part asking for a tender?—A. Prior to that. That was in my mind from the time of the act of Congress calling Mr. Greely back until the tender was arranged for; then it passed out of my mind as not necessary.

Q. In your original instructions to Lieutenant Greely, if I remember them correctly, it is stated that he would leave his post on the 1st of September, 1883?—A. Not later than the 1st of September, 1883.

Q. And as a matter of course, as no communication had been had with Lieutenant Greely, he expected that his suggestions to you in this letter

would be carried out; that is, to leave the depots provided the steamers that were sent to his relief could not get up to his post?—A. Yes, sir.

Q. Why did you change your views in regard to that and discuss the idea of going contrary to the views of Lieutenant Greely by making a depot on Littleton Island as the vessel went up instead of carrying out the original intention of making it as the vessel came down?—A. For the reason that it seemed to me that if everything was carried past Littleton Island it would place so much in one boat, and if it was lost there would be so much lost that it would be better to change Mr. Greely's plan that far. As soon as it was determined to have a tender, it then did not seem to me that the necessity was sufficient to deviate at all from his directions.

Q. Because the tender, being at Littleton Island, would actually be a depot?—A. Would actually be a depot; yes, sir.

Q. When you asked for this tender of the Navy Department, what was your intention and what was your understanding when the tender was allowed as to its purpose and what you expected of it?—A. The ordinary purposes of a tender and such purposes as should be required and determined after the boats were in those waters. The uses of the tender, it seemed to me, should suggest themselves to the commanders of those boats there, but it was in my mind of course that she should act as a ship of rescue for the party if there should be a wreck of the Proteus, or that she should be prepared to render any other aid in food or in any other way which her position and the circumstances should require.

Q. In your letter asking for the tender, which was read this morning, you stated that you did not anticipate the tender being put into the pack-ice. That being the case, and with the knowledge, of course, that you had of the waters between St. John's and Littleton Island, did you expect that the tender would accompany the Proteus from the time it left St. John's until it got to Littleton Island; that is, as two vessels that are supposed to be going together, that would be in sight of each other for most of the time, that may be separated for a few hours?—A. I am not sufficient of a navigator to know what she should have done. I supposed that she would accompany the Proteus as far as she could practically. The hard pack, as I understood it, and as has always been told me, stands above Littleton Island at all seasons—that there was no season but that a ship without entering the hard pack could by passing up near the coast of Greenland arrive at Littleton Island, and it was my expectation that the Yantic could do that and would continue with the Proteus as far as she could; but in case she could not cut through the ice the Proteus had specific directions to go on and do the best she could and make the most of her trip.

Q. Had you any absolute certainty of the Yantic getting as far as Littleton Island?—A. No; I had no absolute certainty of either vessel getting there; but I believed that the Yantic would reach Littleton Island as much as I believed the Proteus would reach there.

The court then (at 3 o'clock p. m.) adjourned until 11 a. m. to-morrow.

WASHINGTON, D. C.,
Thursday, November 15, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder; also Lieutenant Garlington, and General Hazen the witness under examination, who heard their testimony read over. The proceedings of the previous day were then read.

Lieutenant Garlington refers to his answer on page 18:

‘Q. Did you have any subsequent conversation with Commander Wildes with reference to it?—A. No, sir.’

And desires to add to the answer:

“Except to change the words ‘northwest’ to southeast, Carey Island.”

General Hazen desired to say with reference to the statements of stores that it appeared they contained some errors of computation, as they were made in great haste, at short notice, and he thought he would be able to furnish revised statements by to-morrow morning, whereupon

General WILLIAM B. HAZEN resumed the stand, and his examination was continued, as follows:

By the COURT:

Question. Did the relief expedition of 1882 (ship Neptune, Mr. Beebe in charge) sail with any instructions to establish Depots A and B on the way north or suggestions to that effect?—Answer. It was directed to make those Depots A and B, not on its way up, but on its way returning, in case it should not get through.

Q. Was the letter of Lieutenant Greely from Fort Conger, dated August 17, 1881, construed by you as specifying that these depots should be established by the relief expedition of 1882 on its way north or only after failure to reach Lady Franklin Bay?—A. It was intended that it should be made only in case they failed to reach him.

Q. Were the instructions to the relief expedition of 1883 (Lieutenant Garlington’s) essentially the same as those to the expedition of the previous year?—A. They were, with the difference that the expedition going in 1882 was for the purpose of reaching Lieutenant Greely, and failing to reach him, then, after making the Depots A and B, to bring its stores all back to St. John’s. The expedition of 1883 was to reach Lieutenant Greely if possible and bring him away, and failing to do that establish its stores about Littleton Island in place of bringing them to St. John’s, after making the two Depots A and B.

Q. Did the instructions to Lieutenant Garlington, based upon the Greely letter, contemplate his leaving depots of provisions, &c., at Littleton Island and Cape Sabine on his way north, or only after it should be ascertained to be impossible to get the ship through to Lady Franklin Bay?—A. Only after it should be determined that he could not get it through.

Q. Were the Depots A and B, referred to in the Greely letter, actually established by the Beebe expedition of 1882?—A. They were.

Q. Was any exception ever taken to the course of the expedition of 1882 (Mr. Beebe’s) in passing to the northward of Littleton Island without stopping to make a depot there?—A. None whatever.

Q. Did you approve of Mr. Beebe’s action in making the depots at Cape Sabine and Littleton Island on his way south instead of on his way

north?—A. I did, in my instructions for him to do so and in Mr. Greeley's directions also.

Q. Mr. Beebe's expedition of 1882 seems to have construed the letter of Lieutenant Greeley to mean that the Depots A and B should be established when on his way south, after failing to reach Lady Franklin Bay. Has this been your construction also?—A. It has.

Q. And do you still so construe that letter?—A. I do.

By the RECORDER :

Q. By way of further illustration, I will ask you if the directions to Lieutenant Garlington differed from those to Mr. Beebe in instructing him to make his depots intermediate between those made previously by Mr. Beebe's expedition and prior expeditions?—A. Yes, there was that difference, and there may possibly be some other minor differences that I do not think of. But the main differences are stated in my direct answer.

By the COURT :

Q. In Lieutenant Garlington's report he says :

I desire to call your attention to the manifest injury done me in the publication of certain statements immediately after the news of the disaster reached here. These statements, purporting to have been authorized from the Signal Office, were to the effect that I had been furnished with supplementary instructions prior to my departure from the United States, which instructions I had positively disobeyed.

Of course we know your views in regard to that. What I desire to ask is whether you know anything in regard to those statements having been authorized from the Signal Office, or whether you know of any one who had given out such an idea as that supplementary instruction had been given to Lieutenant Garlington?—A. I was absent at the time in Washington Territory, and of my own knowledge I know nothing of it. Since I returned I have made some inquiries about it, and it seems that some such intimation was given out by the officer in charge of the correspondence of my office.

Q. What is his name?—A. Mr. Caziare. But as to the circumstances I am not prepared to state specifically. I would say for Mr. Caziare that he was never charged with the work of this Arctic expedition. It was always in the hands of a special officer, and he was merely called in by the officer in charge of the work at the time, as I was told, to compile this little memorandum. That, perhaps, was the only original work he had to do in the whole business from first to last.

Q. In view of your testimony on the subject, why was a defective copy or any copy of the memorandum sent to the Secretary of War for the Secretary of the Navy after the disaster was known; was there any object, and if so, what was it?—A. I know nothing about that at all. It all occurred in my absence, and I never knew that there was any copy, correct or defective, sent.

By the RECORDER :

Q. You would make the same reply, of course, with reference to any copies sent to the Secretary of the Navy?—A. Just the same reply.

By the COURT :

Q. Do you not think, under the circumstances, that Lieutenant Gar-

lington ought to have been present at St. John's to superintend the loading of that steamer so as to know where all the stores would be placed and where he could put his hands upon them?—A. I do not think that I was in fault in directing them to be loaded by the sergeant. He had loaded the stores before. He knew all about them. He knew all about the method of loading them; and although it was important that Mr. Garlington should be there to see his stores loaded, I considered it of more importance that he should go with the men to prevent them from deserting. Two of these very men that he had himself selected had deserted two days before, and the danger was that they would all desert, in which case we would have been in a deplorable state. I did think that after arriving there the sergeant in packing these stores, keeping a list of precisely where they were put, could and probably would inform Mr. Garlington of everything, so that there would be no difficulty of that sort at all. The sergeant failed to go on and do his duty. I may say he was just married before leaving here, and I believe that acted upon his mind in his coming back here, and that caused all the difficulty about the stores.

By the RECORDER:

Q. The request for the naval tender appears to have been made May 14?—A. Yes, sir.

Q. And Mr. Garlington and his party left New York on June 13; in the mean time, was any copy of the instructions for the guidance of the Yantic and its commander furnished the Signal Office?—A. There never was.

Q. Was any applied for?—A. I do not recollect.

Q. So far as the records go they do not show that any was applied for?—A. None that I have seen.

Q. In view of the failure of the expedition of 1882 and of the difficulties in obtaining suitable men from the Army and the want of nautical education in officers of the Army as a rule, would it not have been better that the work and duty of relieving Lieutenant Greely and bringing him back to the United States had been confided entirely to the Navy?—A. If the Navy had taken the work from the beginning I would say it would have been better; but it having been elaborated and carried on as it was by the Army, I would say that the Army should have continued it. There was an infinite amount of detail in the work, of which a great many matters were vital, that might not have been transferred intelligently, and I do not think it was a good time to have transferred the work.

Q. Does not that refer rather to the meteorological and special work of your branch than to the work which was simply to be done on the seas, of going for these men and bringing them back safely; could not that be better performed in all probability by the branch of the service to which that kind of duty naturally pertains?—A. I do not think so. They would naturally have taken their own ships. Their own ships are not prepared for entering the ice which is found above Littleton Island, and that in itself would have been one objection, and I do not think it would have been the best course.

Q. But if there had been legislative permission to procure suitable ships, such as the Tigress and the Polaris are supposed to have been, would not then the naval discipline and the naval ability generally, have been better employed?—A. As for that I am not prepared to say. The discipline

would have been excellent, but the history of the last two or three expeditions under the control of the Navy would not lead me to believe that they would have been any more successful or that it would have been any better.

Q. As I understand, your reasons for making your instructions to Mr. B be and to Lieutenant Garlington conform to the requests of Lieutenant Greely in reference to his rescue were in order that there should be no disappointment to Lieutenant Greely, and that there should be such a concert of action that he would know where they would probably meet?—A. The reason was that this plan was prearranged by Mr. Greely. It was the only possible plan that could be followed on account of his position. To have violated a prearranged plan of that kind, should any disaster come from it, there would be no excusing it.

Q. But the ultimate reason was in order that Lieutenant Greely might follow the routes and visit the points where he would be most apt to meet assistance at the earliest possible moment?—A. That was the reason. The entire object was to carry out the plan which would be most likely to rescue and aid Mr. Greely.

Q. But those reasons would not have operated to prevent a more minute and perfect system by which additional precautions for his rescue would have been adopted, would they?—A. Oh, no; any matter of detail of that kind which might seem to be essential was entirely within the province of the officer in charge.

Q. Would it not have been much better if the officer of the War Department and the officer of the Navy Department, upon whom it devolved to give instructions, respectively, to the Yantic and to Lieutenant Garlington, should have framed those instructions together, with a view to the joint action of the Army and Navy?—A. I think it would have been.

Q. Do you know anything special that operated to prevent such a cooperation?—A. No, I do not.

Q. What is the name of the officer to whom you alluded as having been specially in charge of this branch?—A. Captain Clapp, of the Infantry, until Lieutenant Garlington reported, and afterward Lieutenant Garlington.

Q. That was until February, 1883?—A. Yes, sir.

Q. He was not concerned in giving the instructions to Lieutenant Garlington, was he?—A. He framed the first rough draft of instructions.

Q. Do you know what outfit in the way of sledges Lieutenant Garlington was provided with?—A. He was provided with three sledges—two or three, I think three—that were made under the direction of Captain Clapp in this city, under the advice of Engineer Melville of the Navy. They were made with great care, and seemed to embrace and to combine all the advantages which the experience of men in the Arctic regions, especially Melville, could suggest.

By Lieutenant GARLINGTON:

Q. Did you ever discuss with me the propriety of changing Lieutenant Greely's instructions in so far as they related to landing stores on the way north to Littleton Island or in that vicinity?—A. No, unless there was some expression made at the time that you brought me the memorandum. I had thought when the matter was first brought to my attention that I had had a conversation upon that subject, but upon further

consideration I do not know that I did further than what I have stated to this court.

Q. In that conversation did you say anything to me which would require me or lead me to think it my duty to adopt that memorandum as a suggestion from you?—A. Nothing further than the mere statement or the mere fact before you might suggest to yourself when you arrive there.

Q. Had you ordered any one to furnish me with a copy of that memorandum?—A. No.

Q. Did you know it had been furnished me until I showed it to you?—A. No.

Q. Did you know anything of the condition of the United States steamship Yantic, and as to what preparations, if any, had been made to render her suitable for the trip she had been sent on?—A. I never saw the Yantic and know nothing absolutely. I was told soon after she was detailed that she was not a fit boat to enter the pack, and before going upon the expedition she would require a great deal of repairs upon her boiler and the sheathing to her hull. I know that something in the way of repairs was done, but the extent of it I do not know.

Q. In the telegram that I sent from New York recommending that I be allowed to go on the steamer Alhambra to St. John's, did I not recommend that the entire party should be allowed to go?—A. You did.

Q. Was I not correct in my conclusion that I was to allow the movements of the Yantic to interfere in no way with my progress to the northward?—A. You were specially directed by me not to permit the Yantic to hinder your movements to the northward; if it appeared that she could not proceed with you, you were to go on and do the best you could without her.

Q. You stated that you believed that the Yantic would reach Littleton Island as much as you believed the Proteus would reach there. Is that exactly what you meant?—A. Yes, in general terms, though, perhaps, upon closer consideration, the Proteus being an ice-boat and the Yantic not, that far that answer should be modified. But in general terms I expected both ships to reach there.

Q. That was on the supposition that she would meet no ice?—A. That she would meet no hard ice but what she could pass.

Q. That she would meet no ice but that she could force her way through?—A. Yes.

Q. Did you have any idea as to what kind of ice that would be?—A. Yes, I supposed that would be broken ice; that is, ice that had moved out from its original place of formation and was more or less broken. I do not remember what it is called, but it is different from the firm pack; that is, it is broken up.

Q. The ice-pack may have been more or less broken, may it not?—A. Yes, the pack may be more or less broken. I should have said the firm ice before it was broken.

Q. Do you not think that I carried out the spirit of my instructions in not stopping at Littleton Island and leaving the greater part of my stores there on the way north?—A. I do. There is one statement that I would like to make with regard to that memorandum, and that is that I have no recollection of that memorandum until it was brought to me by Mr. Garlington, although I may have seen it. Some clerk may have brought it to me, but I have no recollection of it.

By the RECORDER :

Q. There is one matter about which I will ask you in reference to something Mr. Garlington has just inquired about. Why was the request to go with all his men on the Alhambra refused?—A. She being a merchant ship and the Yantic being a naval vessel, I supposed the facilities for the discipline and care of the men would be very much superior.

By the COURT :

Q. Why was it not practicable to permit Lieutenant Garlington to go on the Alhambra and send the men by the Yantic, under their control?—A. I did not understand that they wished to assume personal control of the men, being in another branch of service, and really I thought that the sergeant would do that work and do it properly, as he had done it once before.

By the RECORDER :

Q. I will ask you, general, in the light of the history of that expedition, does it not appear now very clear if the materials for a depot had been provided and so stowed in the Proteus, and so stowed in the Yantic, that they could have been landed in a very little time on the way up to Littleton Island, or Life-Boat Cove, or some neighboring place, that it would undoubtedly have contributed greatly to the chances of Lieutenant Greely's safety?—A. Yes, I think the more of those vessels with that material the greater the chance.

By the COURT :

Q. If Lieutenant Greely should be on his way now from Discovery Harbor do you think that he would find supplies sufficient on his route on the west shore of Smith's Sound in order to support his party comfortably until he gets to Cape Sabine?—A. Yes; I do.

Q. Sufficient to keep him in comfort all winter in case he should be detained there?—A. I think so, with the native food which he can secure.

Q. How much of the provisions on his start can he probably take with him?—A. That depends upon whether he starts with boats, with dogs, or with men only. If he should start with boats, I should say he could take three months' supplies; if he should start with dogs, he could not take more than two months' supplies; if he should start with men, he could take a very much less amount, depending upon their health and strength.

Q. But sufficient, with ordinary progress, to be supplied by the depots that are made on the coast?—A. Yes, sir.

By the RECORDER :

Q. In your knowledge of Lieutenant Greely you rely greatly upon his discretion?—A. Very greatly. Mr. Greely is an extraordinary man in regard to his characteristics, his hardihood and manliness especially.

Q. He would not be likely then to cut loose from all possibility of return until he was sure that something equally good was before him?—A. I could not say that. He would start with a pretty fair assurance of maintaining himself, but he could not leave his own stores without taking some risks at any time.

By the COURT :

Q. Do you know how far it is from Discovery Harbor to Cape Sabine by the ordinary route along the shore?—A. It must be one hundred and sixty or one hundred and seventy miles.

Q. Could you give us from your office a statement of the distance that would have to be traveled by Lieutenant Greely from Discovery Harbor to Cape Sabine, giving in detail the different points at which stores have been placed, the distance in miles between these different points and the quantity in each?—A. Yes, sir. [Referring to a small map.] I have here the caches and the amount of stores, but the computations of distances are not here. I will, however, produce this information in full to-morrow morning.

First Lieut. LOUIS V. CAZIARC, Second Artillery, sworn and examined, as follows :

By the RECORDER :

Question. On what duty are you?—Answer. I am now on signal duty, in charge of the division of correspondence and records in the Signal Office at Washington.

Q. How long have you been on that duty?—A. Since May, 1881. My duties correspond by orders to those of an adjutant-general as far as the centralized work of the office permits.

Q. I will ask you to state, in the form of a narrative, as concisely as you can, your personal knowledge of the expedition in 1883 for the relief of Lieutenant Greely.—A. Preparations for this expedition were begun in the fall of 1882, soon after the return of Mr. Beebe with the expedition of that year. The result of applications to the Adjutant-General, and through him to the commanding general of the Department of Dakota, was the selection of Lieutenant Garlington and of some enlisted men from that department to be added to those of the men who had been up with the expedition of the prior year, and the personnel of the force was made up in that way, with the exception of the addition of the sealers who were to be hired and of the Eskimo who were to be obtained on the coast of Greenland. The supervision of Arctic matters at the commencement of this, was under the charge of an officer specially detailed for that work, and in charge of the division of the office known as the Division of Arctic Observation and Research (Paragraph 367, office regulations). Captain Clapp, of the Sixteenth Infantry, was in charge of this division, and continued so until the latter part of February, 1883, at which date he was directed to turn over to Lieutenant Garlington, who had then reported to the office, the charge of so much of his work as related to the outfit of the expedition to Lady Franklin Bay, and to make a report to the Chief Signal Officer of the fact of that transfer, which he did. He remained, however, as an advisory officer to the Chief Signal Officer on account of his familiarity with the work of these expeditions in former years, and continued to give him advice, although after this time Lieutenant Garlington may be understood to have been in charge of his own division, so far as the orders are concerned that came within my knowledge.

Q. What do you know, if anything, with respect to the instructions to

Lieutenant Garlington and their preparation in the Signal Office?—A. The instructions were begun, I think, in the latter part of April, and consisted, first, of a rough draft prepared by Captain Clapp, he having been called upon by the general to submit a project of instructions. Those instructions were referred to all of the officers in charge of divisions for suggestions by an indorsement of the 16th of May, 1883, the officers being directed to make marginal notes of corrections, which, in their opinion, were necessary. This is the original draft which I have in my hand. [Exhibiting same.] General Hazen left for St. John's on the 18th of May to arrange for the charter of the steamer to be employed for the expedition. This reference was on the 16th of May. In the mean time Captain Powell, of the Sixteenth Infantry, was assigned to duty as Acting Chief Signal Officer, and the reports of the various officers were submitted to him. By him a new copy was made on a type-writer and held to await the return of the general. The general came back on the 4th day of June. The instructions were then submitted to him, amended by him, and issued on the same day, June 4. But I think they were not delivered to Lieutenant Garlington until the 5th, on the night of which day Lieutenant Garlington proceeded, according to my recollection, to New York City to look after sending Sergeant Wall to St. John's to oversee the loading of the stores, Sergeant Wall sailing from New York by the Alhambra on the 7th day of June. The preparation of these orders was, therefore, mainly between Captain Powell, as Acting Chief Signal Officer and General Hazen, my own part in it being less than usual for the reason that it was incidental to the transfer of unfinished work of the Chief Signal Officer which had arisen during the absence of General Hazen from May 18 to June 4. As natural, I was not present at all of the interviews taking place between these two officers in the preparation of the copy which was finally sent to me for issue. As to the memorandum the case is different.

Q. The memorandum spoken of as an inclosure?—A. Yes, sir. On the 2d day of June, about the close of office hours, Captain Powell sent for me and directed me to prepare for the Secretary of the Navy, in readiness for him on the opening of business on Monday, a memorandum requiring joint co-operation between the Proteus and the Yantic, the Yantic having been designated by the Secretary of the Navy for the purposes of this expedition on the request which had been made, I think, on the 14th of May previously. In accordance with that I did on Sunday, the 3d day of June, come to the office, and after studying over the case as I was able I drew the memorandum in question, which on the morning of June 4, I gave to Captain Powell, to be used by him for the purpose for which he had asked it to be prepared. This is the first draft of that memorandum. [Exhibiting a paper.] I might go on to say that these instructions were prepared in my division and submitted with all the inclosures to General Hazen himself, signed by him, and delivered by me to the officer addressed.

Q. Suppose you read the first draft to the court?—A. [Reading.]

The naval tender to join the Proteus at St. John's, N. F., to proceed with her to the neighborhood of Littleton Island.

The Proteus to land her stores except supplies for more northerly depots at Littleton Island on her way north. If she succeeds in reaching Lady Franklin Bay to pick up the stores, if possible, on her return.

The naval tender will await the return of the Proteus in the neighborhood of Little-

ton Island, and on her return steam to the south in her company—as far as consistent with her own safety—until she reaches the southern limits of the ice-pack, when they may separate.

Should the Proteus be crushed in the ice her crew will retire on Littleton Island, and the tender will bring to St. John's, Newfoundland, the officers and crew of the Proteus, the rest of the party to remain at Littleton Island. But should the ice render it dangerous for the tender to remain in the neighborhood of Littleton Island until the Proteus returns, or her crew, and the expeditionary force succeeds in reaching there, the tender may go to the south, leaving full particulars at Littleton Island. If the Proteus should be crushed, and it should be impossible for the tender to await the return of the crew, they will have to remain through the next winter at Littleton Island.

Signals by flags, heliographs, and guns should be preconcerted, and communication by this means should be maintained between the two vessels as long as possible after they are separated by the passage north of the Proteus.

Nothing in the northward movement must be allowed to retard the progress of the Proteus. It is of the utmost importance that she take advantage of every lead, to get up to Lady Franklin Bay.

Q. What did you do with that memorandum?—A. I gave this to Captain Powell for the purpose named. I wrote this on Sunday, but Captain Powell was not at the office at the time I wrote it. It was copied by the clerks and handed to him in the very opening hours on Monday. The ideas in the memorandum originated in the study of the orders that had been already prepared. I had before me all the orders as they were then drafted, and after consideration of the whole subject I prepared, by way or advice, this instruction as what I thought the best scheme the office could give to the Secretary of the Navy for co-operation between these two vessels, to be accepted or rejected as the Chief Signal Officer or the Acting Chief Signal Officer should see fit, of course.

Q. Proceed with the history of the memorandum. You say you gave it in that form to Captain Powell on June 4?—A. I gave it to him on June 4. Captain Powell never returned the memorandum to me, but he told me he had turned it over to the Chief Signal Officer.

Q. Did you ever see it again?—A. I never saw it again.

Q. Did you ever see a memorandum similar in tenor to that again?—A. A copy of this memorandum was put with the instructions of Lieutenant Garlington; that is, it was in the same envelope. It was among the inclosures handed to the general at that time. All the papers were handed to him for his scrutiny at the time when he signed the original instructions.

Q. By whom was it placed in that packet?—A. By me.

Q. In the form in which it appears in this certified copy, which is in evidence, being page 33 of Signal Service Notes, No. 10, as certified?—

A. Certainly.

By the COURT:

Q. You do not know, then, whether the general actually saw that memorandum before the instructions were handed to Lieutenant Garlington. You only know that they were in the envelope?—A. I do not know whether he saw them with the instructions. They were left with him to examine.

Q. You do not know whether he saw them at all?—A. I do not think they were in an envelope, but put together with a band for the general's scrutiny. They were left with him and he looked them over and sent them out.

By the RECORDER:

Q. By whom were the alterations made that appear by comparison in this certified copy with your rough notes?—A. I really do not know. I did not know that there were any.

Q. Did you see this memorandum again?

The WITNESS. The one that was inclosed to Lieutenant Garlington?

The RECORDER. Yes; when did you next see it, if at all?—A. On the return of Lieutenant Garlington—subsequent to his return; that is, the particular copy which was put in the instructions.

By the COURT:

Q. It was the copy that you handed to the general?—A. Yes; the copy that I handed to him with the instructions.

By the RECORDER:

Q. Was any record kept of it in the office during Lieutenant Garlington's absence; and, if so, what?—A. I have already stated to the court that these instructions were submitted to the general on his return, on the morning of June 4, and I mean now all the instructions—the letters to Lieutenant Greely, to Lieutenant Garlington, the memoranda regarding the scientific outfit, the memorandum of stores, the copy of the charter party, and the copy of this memorandum in question—and that they were written and hektographed—some written, some hektographed—during that day, and practically completed on that day, although I do not think they were fully completed until the following day. I am not so certain about their delivery. This, of course, involved a great deal of very rapid work, and the "roughs" were completed by the clerks in the ordinary course of clerical duty to make a perfect copy for entry, as we supposed, according to the usual standing orders. The record books were made up from the rough copy completed for record—the copies I have here—and I found by scrutiny on the return of Mr. Garlington, and when this paper was first submitted, that there was a discrepancy in the record copy in the permanent books of the office, due to a failure to correct these "roughs" to correspond with the copy delivered—a clerical mistake. Sergeant Beale, now a lieutenant in the Signal Corps, who was at that time my chief clerk, made these errors. He sent off, with the original instructions, to Lieutenant Garlington as Inclosure 4, a copy of the charter party, of which, however, he made no record; but it is marked in his handwriting "Inclosure 4." He sent to be copied for record, as Inclosure 4, the memorandum in question, marking it also in his handwriting "Inclosure 4." This probably having been done at a time subsequent from the preparation of these orders and when in a great hurry. So that there is no actual record in our office of the charter party being delivered to Lieutenant Garlington, but in place of it this memorandum in question as Inclosure 4. Otherwise there is no substantial difference between the orders, as I remember at this moment, as recorded in the books of the office and the original copy delivered to Lieutenant Garlington.

Q. You say he marked the charter party as Inclosure 4. Do you mean the copy of the charter party in the office record, or do you mean the original?—A. No, I think that furnished to Lieutenant Garlington with his instructions.

Q. And on the retained copy———A. [Interrupting.] The charter

party is omitted and this memorandum is Inclosure 4 ; that is, in the permanent record books of the office.

Q. Is it your recollection that the charter party was inclosed?—A. I have no recollection about it really. It must have been put in in a great hurry at the last moment.

By the COURT :

Q. Do I understand you to say that the getting up of this memorandum, you have read to the court, was of your own motion without any instructions from higher authority?—A. No, sir ; I was ordered by Captain Powell to prepare a memorandum.

Q. Embodying the views that are in that memorandum?—A. No, sir ; no outline of any views was given to me on the subject.

Q. Therefore that memorandum merely embodied your own views?—A. Merely embodied my own views, for adoption or rejection as the Chief Signal Officer should see fit.

Q. What induced you to adopt views that were so contrary to the views of Lieutenant Greely, as given in his letter sent from Discovery Harbor?—A. I did not think they were contrary in any essential feature.

Q. Lieutenant Greely in his directions desires that the relief steamer shall go as far north as Discovery Harbor, and if it cannot get there on account of the ice shall make its depot of supplies as it comes back, while yours requires the depot of supplies to be made as the steamer went north?—A. Yes. But Mr. Greely's letter was written in the belief that the station at Camp Conger would be maintained for a series of years if he could be reached, and in the preceding year, in laying out his scheme for the expedition that was sent up under the conduct of Mr. Beebe, the object was to put in another year's supplies to replace the year's supplies consumed, and to replace such officers and men of the party as had by disease or other causes shown themselves unfitted for further service in that climate. Failing to do that, and establishing depots which would be useful in the scheme of the next year, the vessel was to come back ; now, for the second year, though he only made a provision for the single year's supplies, although two would have been wasted, his project was to have the vessel go up there and continue the work ; the plan of the international agreement upon this subject contemplated the taking of an unbroken series of three years' observations, which it was hoped originally could begin in August, 1881 ; but several of the States were so slow in putting in their stations, from various causes, that it was postponed, and the series was to begin in August, 1882 ; therefore, in order to procure, for comparison, observations at all these stations, around the Polar belt, for a series of three unbroken years, we should have had to have continued observations from August, 1882, to August, 1885.

Q. But in the original instructions to Lieutenant Greely, when he went up there it was stated that he should leave there on the 1st of September, 1883?—A. Yes, if he was not reached, that he should leave there not later than September 1, 1883. Mr. Greely seems to have hoped to get a vessel up in 1882, when he would have received an additional year's supplies and sent some of his men back. He hoped to have continued the station there after 1883, for correspondence will be found sent back at the same time this recommendation was made, in which he asked his officers to volun-

teer so that he could in the next year determine whether they would stay beyond the period for which they originally went up, which was three years, and their replies are inclosed with that correspondence. So that he had no idea of breaking up the station. Now, the law of Congress under which this last expedition was sent, changed all those conditions. It commanded that the expedition should be recalled, and I did not therefore in drawing that memorandum, as I explained to Captain Powell at the time, regard it as essential that the stores should go north of Littleton Island and be exposed to the hazard of destruction in the heavier ice, but that, as a prudent measure, a base should be established at the most northern point which most of the authorities agreed could be reached without extreme hazard, and that they should not be taken beyond that point, and it was in that view solely that I submitted the question to my chief.

Q. Did you know what influenced the rejection of the views embodied in that memorandum, by the Chief Signal Officer?—A. No, sir; I do not know. I never have known. I talked over the matter with Captain Powell quite frankly, and left him to turn the matter over to the Chief Signal Officer as a part of his unfinished business, not so much pertaining to my desk as to the business of the Chief's office. He was familiar with the conversations with the Secretary of the Navy, and I did not regard it as work pertaining to my own desk, but rather to the desk of the Chief.

Q. A copy of that memorandum was not submitted to the Secretary of the Navy?—A. Not within my personal knowledge; no, sir.

By the RECORDER:

Q. [Submitting to witness the original instructions to Lieutenant Garlington identified by him.] Do you recognize these as the original instructions?—A. Yes, sir.

Q. In whose handwriting is that paper?—A. It is in the handwriting of one of the clerks of my division. It was prepared in my division. I think perhaps I ought to say to the court in connection with this matter that I followed up this memorandum, the copy which I delivered to Captain Powell, for some days; that I certainly understood General Hazen that it had been delivered to the Secretary of the Navy and that the plan had been or would be drawn in conformity with that memorandum. I ought to say that I never was led to believe for a moment that it was not to be adopted. On the day that it was drawn—on Sunday—Mr. Garlington came into my office as I was finishing it and it was submitted to him. I understood him to approve it, and I was not undeceived myself in that belief until the receipt of his dispatch, I think of September 14 or 15, in answer to the inquiry why he did not land stores at Littleton Island. That contained the first information I ever had that he did not approve it, and was as great a surprise to me as anything that ever happened.

By the COURT:

Q. Just there you may give some information as to how the report got abroad in the public prints.—A. It got abroad through me, sir. The reporters had pressed us for copies of these instructions. The principal letter to Lieutenant Greely, which I have just identified, was hektographed in all the numbers which the hektograph would print originally and was given to the press at that time, and when the press asked us for copies of Mr. Garlington's instructions we gave them those.

Q. You mean before Lieutenant Garlington went off?—A. Before he went off. On the receipt of the news of the disaster, on September 13, the press asked us for copies of his instructions and at first we gave them only that hektograph letter, but subsequently, I do not know how it came about, some members of the press came and asked if no provision was made for landing stores. I answered rather quickly and without the care that I should have exercised in view of the great importance of the subject to Mr. Garlington, that there were such instructions sent, and turned to the clerk and told him to get me a copy of them, and he brought it to me and without particular scrutiny it was delivered to the press. We did not discover the error until after we had received Mr. Garlington's telegram in reply to that in which he was asked, "why did you not land stores at Littleton Island." It was assumed in sending that telegram that, Mr. Garlington being in sympathy with the office, we would immediately get a reply that would satisfy the office and the country, and it was with great astonishment that we got this reply that it was not in his programme, and that it was following Lieutenant Greely's orders, &c. Nor did I ever know that Lieutenant Garlington had presented this memorandum to General Hazen before his departure, nor any of the conversation that took place between General Hazen and Lieutenant Garlington in that respect. It never was reported to me by either Lieutenant Garlington or General Hazen, and no reference was ever made to it until this subject came up after Mr. Garlington's return.

By the COURT:

Q. So that you knew nothing of the fate of that memorandum after you presented it to General Hazen with the instructions to Lieutenant Garlington?—A. Except that I rested in the belief that it had been accepted and that it had gone to the Secretary of the Navy. General Hazen may not have scrutinized all the inclosures of that letter.

Q. Were you confirmed in that belief by the error upon your permanent records which speaks of that memorandum as Inclosure 4?—A. I was confirmed in that belief; yes, sir. But being asked for the information for the Secretary of War by Captain Mills, then Acting Chief Signal Officer, on the 15th of September, two days after receipt of news of the disaster, to give my opinion as to the bearing of this memorandum upon Lieutenant Greely's instructions, I took the subject up afresh, but looked upon it fairly as a matter of orders or no orders, and then gave the opinion which I have since held, that it was not an order and could not be so construed; that following the law of contracts as applying to such cases an inclosure not mentioned in the contract itself forms no part of it; so an inclosure not mentioned in the letter of instructions itself ought not to be considered an order mandatory upon an officer or an order at all. I gave that opinion and I have not relinquished it in any respect or seen any reason to change it.

By the RECORDER:

Q. [Submitting to witness a paper identified by Lieutenant Garlington.] That is the copy of this memorandum that went with Lieutenant Garlington's instructions?—A. Yes, sir.

By the COURT:

Q. Do you know whether there were copies of instructions to Lieuten-

ant Garlington sent to the Secretary of the Navy before the Lieutenant's departure?—A. I never heard of any, and they are not recorded in my office. There is a record on the 6th day of June that General Hazen took to the Secretary of War instructions without inclosures.

Q. I am speaking of the Secretary of the Navy?—A. There is no record, sir.

Q. You do not know anything about it if there is?—A. No, sir.

By the RECORDER :

Q. [Showing same.] That is the original of the paper in question that you call the memorandum?—A. Yes, sir. I found in my record books, as the basis of that opinion of September 15, that there was nowhere in the text of the original letter any reference to Inclosure 4, and I therefore thought that it was not a part of the order.

Q. In whose handwriting is this paper?—A. It is in the handwriting of one of the clerks in my division.

Q. And you have no knowledge of how it came into this form from your original notes?—A. No, no particular knowledge without searching it out; but I do not know how it came into that form now. September 13 and 14, the first two days after the news of this disaster, we devoted ourselves exclusively to the consideration of the situation of Mr. Greely. We did not take up any other question than that. The time was spent mainly upon maps, and in consideration of the subject of supplies, and the possibility of getting an expedition off to him during the autumn, and we were less particular about this until after we received Mr. Garlington's long dispatch in answer to the one wherein the Secretaries of War and the Navy "concur in asking yourself and Captain Wildes to answer jointly or separately," &c., &c.

Q. After the return of Lieutenant Garlington to St. John's there was a request from the Secretary of the Navy to furnish him a copy of Lieutenant Garlington's instructions, was there not?—A. A verbal request.

Q. Was a copy furnished him?—A. I do not know how completely; it did not quite come in that form. During the first two or three days after the dispatch of September 13, possibly the 15th or 16th, Mr. Chandler was away, and Commodore English, I think, was Acting Secretary of the Navy; the papers were freely carried back and forth from our office; such papers as any particular inquiry rendered necessary, either in the form of roughs or of complete copies, or rough copies, to save carrying the large record books of the office to and fro, as is constantly the case, and after the return of Secretary Chandler, when he took up the examination of the whole subject, those papers again went back and forth; sometimes they would be in our office and sometimes in the Navy Department; but on the conclusion being reached by the Secretaries that nothing further could be done, or some time after that, the Secretary of the Navy asked that he should have the papers that had been used in the course of those conferences, and then they were made up, and transmitted to him with such completeness, as Captain Mills thought necessary, to give him the *data* which had been used during the conferences; that is the story of those papers.

By the COURT :

Q. Of that last batch?—A. Yes, sir.

By the RECORDER :

Q. I will read from a letter of the Secretary of War, in evidence, and will ask you for any explanation which you may wish to make in reference thereto :

I consider it necessary to inquire into the history of this memorandum. It appeared as a loose paper inclosed with your letter of instructions to Lieutenant Garlington, dated June 4, 1883, but it is not mentioned in that letter. I am advised by the Secretary of the Navy that while he was preparing his orders for the Yantic you furnished his Department with a supposed copy of that letter, which, in like manner, did not mention the memorandum and did not inclose it. This copy, as did the original, covered four mentioned inclosures, but only one of them seems to have been like its original. The three other inclosures as now seen differ entirely from those with the original letter and do not, of course, meet their own description as found in the body of the supposed copy of the original letter.

After the telegraphic reports of the disaster were received I, upon the request of the Secretary of the Navy, directed the Acting Chief Signal Officer in your absence to prepare for and furnish to the Secretary of the Navy a copy of your instructions to Lieutenant Garlington. This last, as furnished, contains only three inclosures, four being mentioned in the body of the letter. One of them was substantially like one of the inclosures with the original letter; another was substantially like one of those with the first copy above mentioned, and the third was marked "Inclosure 4" (an Inclosure 4 being noted in the letter), and is a copy of the "memorandum" in question. These latter papers were, of course, supposed by the Secretary of the Navy and myself to be, as stated, an authentic copy of your instructions to Lieutenant Garlington, and we, in our conferences, formed an opinion as to his having disobeyed an order which it now appears he did not in fact receive as an order.

Will you please explain, especially the reference to this last letter (copy of the instructions upon which it is here stated there was marked "Inclosure 4," corresponding with the memorandum)?—A. The discrepancies as to the inclosures grew out of just what I have related, the method of handling these papers back and forth from one department to the other. We did not pretend to give the Secretary, for instance, a list of the outfit of that expedition, and I do not think we gave him a list of the stores cached at St. John's. They were not regarded as material. In place of that Captain Mills would take to him, for instance, Signal Notes No. 5—something of that sort. So that there was no real attempt made to furnish a complete copy of all distinct papers. But the mistake in regard to Inclosure 4 having occurred in the body of the letter is easily explained. In connection with what I have said about my being convinced that the memorandum ought not to be considered a part of the orders, it became interesting to see if it bore any relation whatever to the letter of instructions, and, if so, what. On an examination of that letter we found in the last clause a communication simply like this: "The United States ship Yantic will accompany you as far as, &c., and you will arrange between her captain and yourself, when on the spot, a plan of co-operation." Now, it was thought if that inclosure could have been put in there at all, if it bore any reference to any part of those instructions, the remotest whatever, independently of its being an order, it must be to that clause, and on one of these copies that Captain Mills had taken over I had written in pencil in the margin, "Inclosure 4," to remind him to speak of that connection if it came up, and in copying that the clerk must have transposed it and put it out at the end of the line, because I never saw the copy until after the receipt of the Secretary's letter, and I went to see the Secretary of the Navy and saw for the first time the copy. It is clearly an error.

By the COURT :

Q. In making copies of papers upon any subject, what is your custom in the Signal Office; do you compare the copy with the original on your books before it is sent, or do you trust to the copy of the clerk being accurate?—A. We generally compare everything, but even those comparisons are found defective, as appears in that memorandum. There is a personal equation of the value of the man who compares. I ought to say in reference to that, that there is one defect in keeping the records with our present clerical force. While we take care in comparing a communication with the original, we are not so careful in putting it into the record books, from lack of clerical force.

Q. Do you not take press copies of all your communications?—A. We do as far as possible, and generally do, but when we get a hektograph letter in this shape we cannot do that. When we hektograph, the press is out of the question; then we keep the hektograph copy. If any alterations are made we trust to comparing it with that, but in entering it into the permanent books no comparison is made, but we trust entirely to the accuracy of the copyist.

By the RECORDER :

Q. When did I understand you to say you discovered the mistake in taking the record by which this memorandum was substituted for the charter party and marked Inclosure 4?—A. I did not discover that until Mr. Garlington returned to Washington. He then told me he had an Inclosure 4, which was so numbered, and which was an entirely different paper.

Q. About what time was that?—A. It must have been early in October.

Q. It was subsequent, then, to your furnishing the Secretary of War for the use of the Secretary of the Navy a copy of all the papers?—A. Yes, sir; and we never have made any attempt to correct that record in our books because we preferred to have it stand with its original defects.

Q. Then this copy furnished by the Secretary of War to the Secretary of the Navy was in accordance with that record?—A. Yes, sir.

Q. Except that Inclosure No. 4 was marked on the bottom of the letter of instructions?—A. Yes, sir.

Q. And that, you say, was put on merely as a memorandum in lead pencil?—A. It was so put on the original for the Secretary of the Navy, and must have been copied from that on to another hektograph copy. It is in the handwriting of a clerk who is not a very good writer, and who put it in at the end of line instead of on the margin.

Q. Put on in ink?—A. Put on in ink; written out at length, "Inclosure 4."

Q. And the memorandum correspondingly marked "Inclosure 4?"—A. No, I think not; but it is misleading, since it is such an important element in the consideration of the value of the paper when mentioned in connection with the clause of the letter as inclosed.

Q. There is a tabulated statement furnished the court; perhaps your testimony has covered the matter, but I would like to refer to it; you have seen this tabular statement, I presume [indicating same, already read as evidence]?—A. Yes, sir.

Q. Please look at this table of discrepancies accompanying the letter of the Secretary of War to the Chief Signal Officer of October 31, 1882, in evidence, and see if you have any further explanation to make in reference to it?—A. I think what I have just said covers everything. It appears from the column headed, "papers given to the Secretary of the Navy before the departure of the expedition," that the Memoranda A, B, C, D, and E—that is, the instructions for observation—were not sent him. The list of stores at St. John's or cached was not sent him, nor the charter of the Proteus, nor the memorandum of supplementary instructions. Now, I have before testified that I do not know anything about these copies that went to the Secretary of the Navy. We have no record of them at all. Then as to the Secretary of the Navy after the disaster. The Memoranda A, B, C, D, and E were not sent in, nor the list of stores at St. John's or cached, nor the charter of the steamship Proteus, and in place of the memorandum an imperfect copy was delivered—that imperfection mainly relating to the clerical error in making it in the letter as "Inclosure 4," and not having it marked upon the outside as "Inclosure 4." The record books of the office would justify the latter, but not the former mark. It does not appear either that the Secretary was furnished after the disaster with a copy of the letter of the Chief Signal Officer to Lieutenant Greely of June 4, 1883, nor a copy of the track chart of the steamer in the expedition of 1882. This is a large chart of that which is published in the Signal Service Notes, which appears, by the preceding line, was furnished. Those appear to be the principal discrepancies as I see them.

Q. Now, in regard to this imperfect copy of the memorandum of supplementary instructions, pinned to a copy of the letter and marked Inclosure 4, in red ink, note on page 8, Inclosure 4?—A. That is on page 8 of the copy of Lieutenant Garlington's papers?

Q. Have you said all that is necessary to explain that?—A. Yes, I think so.

Q. What is this printed pamphlet Signal Service Notes No. 5?—A. It is the notes of work of the Signal Service in the Arctic regions.

Q. I know; but what does it refer to here?—A. It contained Mr. Beebe's report and the chart of the steamer of the preceding year. I think it is quite possible that there is an error in the assumption that the copy having Inclosure 4 written on it is the same copy that the Secretaries had at the time of their conferences. Those conferences took place soon after September 16th, and in passing those papers back and forth and changing them frequently, there may have been a change or there may not; I do not know, because I never took them myself. I have no personal knowledge of it.

Q. Who took them?—A. Captain Mills took them.

By the COURT:

Q. But they were prepared in your office?—A. They were prepared in my office.

By the RECORDER:

Q. Did you have any conversation with Lieutenant Garlington when he returned in reference to that memorandum?—A. Yes, sir.

Q. Please state what took place.—A. Lieutenant Garlington felt that a great injustice had been done him in the publication of it as a part of his orders, and informed me that he had never received it except as a loose

paper; he told me also of his conversation with General Hazen, as referred to by both of those officers in reports made recently to the Secretary of War, and substantially in the terms reported by him in his original report; he also told me that the Inclosure 4 which came to him was a copy of the charter of the Proteus, and that it was marked Inclosure 4, and I can only account for that as an error on my own books at a later date.

Q. That was not referred to in the body of the letter either?—A. No, sir. Of course it is not usual to mark any inclosures not referred to in the body of the letter until marked by the receiver.

By Lieutenant GARLINGTON:

Q. Why did you suppose that I approved of that memorandum you first prepared? did I ever tell you that I approved of it?—A. I understood Lieutenant Garlington to approve that memorandum at the time it was written.

Q. Please state in what terms I approved it.—A. Mr. Garlington read it three or four times over, and there was a conversation between us on several points. One was the delay which would occur through landing the stores at Littleton island, and in order to counteract that the last clause of that memorandum was put in as a saving clause. That clause reads substantially that nothing will be allowed to delay the Proteus in making her way north; that she must take advantage of every lead of ice. That left a considerable discretion. There was also something said about the feasibility of dividing the stores between the two vessels. But I was left then with the impression, which I continued to hold from the time of the preparation of that paper until the receipt of Lieutenant Garlington's dispatch, that he was in favor of that scheme. If he had not been, I certainly should not have made that memorandum. It would certainly have led to a change of the memorandum.

Q. Did I ever state to you in terms that I approved that memorandum as you wrote it and as I first saw it?

The WITNESS. As it was written in the interview of that Sunday?

Lieutenant GARLINGTON. Whenever it was written?

A. To say positively that in express terms Mr. Garlington gave me his approval of it would be saying a good deal. But he conveyed that impression; I derived that impression from our interview.

Q. Did you up to this time have anything to do with Arctic matters—the preparation of instructions?

The WITNESS. In this particular year?

Lieutenant GARLINGTON. Yes.

A. Very little.

Q. Did you have anything to do with any instructions relating to me except in the preparation of the order directing Captain Clapp to turn over certain portions of that duty to me?—A. No, I think not.

Q. Were not the instructions prepared by Captain Clapp and referred, as you have stated, to the different heads of bureaus, referred to you as well as the other officers?—A. They were not. I can tell more positively by looking at the memorandum. My impression is they were not. [After referring to a paper.] They were not. Nor was I on duty strictly in the office at this time. I had been assigned to the preparation of these office regulations and my desk for from some time prior to May 18, until I returned to it on the general's going away on that duty, had been in charge

of Lieutenant Powell or Lieutenant Allen, and I had been on special duty at my own house in the preparation of this book (referring to a Signal Service work).

Q. You knew of such reference?—A. Yes; I knew of it.

Q. Did you ever make any official suggestions as to any changes in those original instructions?—A. I certainly did not in any material manner, if I did at all; that is, in the instructions proper, independently of the Memoranda A, B, C, D, and E, because I did on those.

Q. What had my landing stores at Littleton Island on the way up to do with the instruction to be given to the naval tender which was to accompany me?—A. I should think it a matter of great importance.

Q. Was it not a matter of much greater importance that the suggestion should be made with reference to a change in my instructions proper?—A. I do not quite understand the question.

Q. If my instructions were to be changed, was it not much better and more in accordance with a systematic manner of conducting business to have made these changes in the instructions before they were delivered to me?—A. There is no question that they should have been embodied in the instructions if at all. The memorandum was a most unsatisfactory shape in which to put them, and I have said so much on that subject, that I did not consider them orders at all; that I did not quite understand the question. I have never since the 15th day of September considered those as orders, and I thought I had expressed myself so clearly on that point that I could not be mistaken.

Q. Did you take any pains to satisfy yourself, before you gave this memorandum to the press as part of my orders, whether it was or was not a part of my orders proper?—A. Nothing further than is implied in asking for it, and having received it at once without any further direction. That made it appear to me at once a subject as to which no further inquiry need be set out. To ask a clerk to deliver me a thing, and to have him hand it to me, and to have scanned it simply, seemed a settlement of the question beyond all doubt. Doubt was not raised until the dispatch came back from St. Johns, when it was asserted it was not in the programme. Then the whole orders were examined, as I before stated.

By the RECORDER:

Q. You had taken it for granted that they were part of his orders?—A. Taken it for granted, and that with asking for a thing, having it found so readily—it was found in an instant—that there was no question how it went.

By Lieutenant GARLINGTON:

Q. What do you mean by receiving it?—A. For instance, I send for my chief clerk and ask him for those instructions and he hands them to me at once. I scanned them and recognized the paper I have in my mind; the fact is as I now state it, that I never for a moment understood anything else than that it was to be done until I examined them on the 15th of September, notwithstanding the defective form of the orders.

Q. Did you not consider it a matter of sufficient importance to me in my absence to be perfectly straight before you gave out any instructions, or claimed instructions, that were furnished me?—A. I considered myself reasonably well informed that they were correct, or I should not have so received them.

Q. You say you took your chief clerk's word for it entirely?—A. Not at all. I say I scanned them. The papers were handed to me. I identified them by looking at them. They seemed to be correct.

Q. What do you mean by scanned them?—A. Looking over them without comparison with the originals.

Q. Are you positive that this memorandum was prepared on the 3d of June?—A. Yes, sir; on the 3d of June, Sunday.

By the RECORDER :

Q. When did General Hazen get back?—A. On the 4th.

By Lieutenant GARLINGTON :

Q. Was not this memorandum first prepared at least a week before the 3d of June?—A. No.

Q. Was it not prepared soon after you had been informed that General Hazen, just before his departure, had asked for a naval tender?—A. No, it was not.

Q. You are perfectly positive?—A. Perfectly. I am sure that it was prepared and that I came to the office for the express purpose of writing it on Sunday and that I gave up my morning to it. When the facts first came to my recollection I only knew that much—that I had written that memorandum on Sunday, and I was then confirmed in that knowledge by various references, to the calendar and in other ways, for I found that on reference to the general's absence and his return on the 4th—my recollection before that had brought to me the fact that this memorandum was prepared by Captain Powell's order and asked for by Captain Powell because of the general's return. So, Saturday, Sunday, and Monday, all working together, I felt confident, and do feel confident still, that there is no fault of recollection in that date.

Q. Did you not speak to me as to the procrastination and of the difficulties which you met with in getting Captain Powell to take any action pertaining to Arctic matters?—A. I did.

Q. Was not that paper included?—A. It was not.

Q. You are certain of that?—A. I am sure.

Q. Why had so long a time elapsed since you found that General Hazen had asked for this vessel before anything was done in the matter?

The WITNESS. Had asked for the Yantic?

Lieutenant GARLINGTON. Yes.

The WITNESS. The letter asking for the Yantic was written on the 14th day of May, and no reply was ever received to it, and it is not within my province to visit the War Department or the chiefs of other Departments; it belongs to the Chief Signal Officer or the officer acting in his place; I did complain of procrastination.

By the COURT :

Q. Did Captain Powell, as Chief Signal Officer, ask you to write those instructions?—A. Yes, sir.

Q. Did he know what your views were on the subject?—A. Yes, sir.

Q. You had had conversations together?—A. Yes, sir.

Q. Do you know what his views were?—A. No, sir.

Q. These were your own individual views?—A. Yes, sir.

Q. Written merely for the acceptance of higher authority?—A. Yes, sir; they were for acceptance or rejection. I made no attempt to force

them or put them forward. I had been asked to draw the memorandum. I wrote it and delivered it.

By the RECORDER :

Q. Did you present to General Hazen those views?—A. I did, sir.

Q. Before the instructions were given?—A. Yes, sir. The copy was given to General Hazen before the copy was made to go into Lieutenant Garlington's instructions.

Q. As to the danger of taking all the stores through Smith's Sound?—A. No, sir. Did I present it to him?

Q. Did you present your views?—A. Not specially; not very much.

By Lieutenant GARLINGTON :

Q. Did you have any conversation with Captain Clapp, the officer in charge of this Arctic expedition, in reference to this particular memorandum?—A. I did.

Q. What was that conversation?—A. Captain Clapp thought it a material departure from the instructions, and was not very pleased that it should have been undertaken by me while he was the officer principally consulted in those matters.

Q. Did he not consider it a gratuitous piece of work on your part?—A. Really I do not know. He never told me so.

Q. After you found out and had made up your mind fully, as you have stated, that this memorandum was in no way a part of my orders, did you take any pains to correct the impression that had been given to the Secretary of War and the Secretary of the Navy and other officials here?—A. Every effort possible was made to correct that impression. Captain Mills repeatedly saw the Secretary both because he was well disposed and because I asked him to do it; and it will be found in the New York Herald of the 16th—

Q. [Interposing.] I am not asking about the Herald; I am asking about the officials?—A. I think everything possible was done to correct that impression, but it had to be done guardedly. I was not cognizant of the conversation that had taken place between Mr. Garlington and General Hazen with reference to this matter.

Q. Did you have any communication with General Hazen also during his absence?—A. No.

Q. Did the Acting Chief Signal Officer, as far as you know?—A. I do not know.

(Lieutenant Garlington here closed his examination of the witness, reserving the privilege on account of the necessary absence of his counsel elsewhere to further examine the witness should he deem it necessary, permission for which was granted by the court.)

By the RECORDER :

Q. Do you know anything else that you think material to the questions before the court? You have read the order convening the court, and you know, of course, the object of our inquiry.—A. No, sir; I do not know anything else that I think of.

The court then (at 3 o'clock p. m.) adjourned until 11 o'clock a. m. tomorrow.

WASHINGTON, D. C.,
Friday, November 16, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder; also General Hazen, Lieutenant Caziarc, Lieutenant Garlington and his counsel. The proceedings of the previous day were read, corrected, and approved.

General Hazen presented to the court a chart containing the information asked for yesterday, which is attached to the record of this day's proceedings, marked Exhibit C; whereupon

Lieut. LOUIS V. CAZIARC resumed the stand, and his examination was continued, as follows:

The WITNESS. I see that the answer to the third question, from the top of page 50, is liable to a little misapprehension. The question was:

Q. Please state in what terms I approved it.—A. Mr. Garlington read it three or four times over, and there was a conversation between us on several points. One was the delay which would occur through landing the stores at Littleton Island, and in order to counteract that the last clause of that memorandum was put in as a saving clause.

It is with regard to this landing of the stores at Littleton Island and this saving clause. The saving clause was put in very much less to affect the landing of stores at Littleton Island, than to save any delay through the inability or accident of the Yantic to keep up with the Proteus, and I think that answer might lead to some misapprehension. It lays too much stress upon avoiding the delay that might be incidental to landing the stores at Littleton Island and too little upon avoiding the delay of the Yantic through inability to keep near her. There is one other point to which I would like to direct attention—my general duties in the office regulations. The fourth paragraph requires me to familiarize myself with the general duties of the entire office, and for that purpose to closely scan as far as may be practicable all correspondence of a generally administrative nature, passing it afterwards to the division to which it pertains.

By the RECORDER:

Q. I observe in reading the proceedings of yesterday that you produced in court the original draft of instructions to Lieutenant Garlington. Perhaps it would be well that you should read it.—A. With the marginal notes and all?

Q. Yes.—A. [Referring to and reading from original draft aforesaid.] Written in General Hazen's handwriting at the top of it is:

Copy for Garlington and for Greely.

Now, in the handwriting, which I recognize to be that of Captain Clapp:

LETTER TO LIEUTENANT GARLINGTON.

SIR: You are aware of the necessity of reaching Lieutenant Greely with the expedition of this year and of relieving his party. This necessity cannot be overestimated. Lieutenant Greely's supplies will be exhausted during the coming fall, and unless the relief ship can reach him he will be forced with his party to retreat southward before the winter sets in. Such a retreat will involve extreme hardship and the probable abandonment of instruments and material, with possibly a loss of valuable records pertaining to the work of the past two years.

In the last sentence the words "instruments and material," "possibly," "pertaining to the work of the past two years," are erased in ink, appa-

rently by General Hazen, and words inserted which make the sentence read as follows:

Such a retreat will involve extreme hardship and the probable abandonment of much valuable public property, with possible loss of important records and of life.

Then it goes on in the writing of Captain Clapp:

For these and other reasons which will occur to you, no effort must be spared to push the vessel through to Lady Franklin Bay. Only when it is certain that this cannot be done will you decide to establish your party at Life-Boat Cove.

In the event of being obstructed by ice in Smith's Sound or Kennedy Channel, you are advised to try for a passage along the west coast, which beside being usually the most practicable, will afford better advantages for sighting and communicating with any party sent out by Lieutenant Greely.

From that sentence the word "for," following the word "try," is erased in ink, apparently by General Hazen, and the words "to find" inserted, so that it reads "you will try to find a passage." Then it goes on in Captain Clapp's handwriting:

To make such communication more possible your party, or sufficient of the men, must be able to send and receive readily messages by flag or torch, and these should be kept in readiness for instant use at all times when communication is possible.

Erased from that sentence are the words "more possible," "sufficient of the men," "readily," and "these." All in pencil, and inserted in pencil in a handwriting which I cannot entirely identify, enough to make the sentence read:

To make such communication surer your party, or enough of it, must be able to readily send and receive messages by flag or torch, and flags and torches should be kept in readiness for instant use at all times when communication is possible.

In the margin opposite that last is written in pencil, apparently in the handwriting of Professor Abbé:

Who of the men can read the signals? If they understand it.

And interlined, I think in the handwriting of Lieutenant Kilbourne:

Grugan's heliostat.

And another line:

Greely has two.

Apparently referring to the heliostats. Then it goes on in Captain Clapp's handwriting:

Should the vessel be unable to get through the ice to Lady Franklin Bay or to reach the west coast at points above Cape Sabine it will be of great importance that Lieutenant Greely should know of the efforts being made to relieve him and of the plans for doing so.

And opposite this, in the margin, is written, apparently in the handwriting of Captain Mills, in lead pencil, the words:

Has he spirit for the torches?

I resume that, which is in Captain Clapp's handwriting:

You will endeavor therefore to convey such intelligence, if practicable, and omit no means of informing him or any of his party of the situation. Should any landings be made at prominent points on the west coast during the efforts to get through the ice you will leave a short record of the facts (with such information as it is desirable to convey) so deposited and marked as to render it discoverable by parties traveling southward.

From which are erased the two words, "the west," in the clause "prom-

inent points on the west coast," and the word "either" substituted, in pencil, in a handwriting which I cannot identify. I resume the reading:

If such landings be made at points where caches of provisions have been made you will, if possible, examine them and replace any damaged articles of food, leaving, of course, a record of your action.

The words "have been made" are erased in pencil, and substituted are the words "are located," also in pencil.

When it becomes clearly apparent that the vessel cannot be pushed through, you will land your party at or near Littleton Island and prepare for remaining till relieved next year.

That sentence has been altered by erasures and interlineations in pencil, all apparently in Captain Clapp's handwriting, so that it now reads:

When it becomes clearly apparent that the vessel cannot be pushed through, you will retreat from the advance position and land your party and stores at or near Life-Boat Cove, discharge the relief vessel with orders to return south, and prepare for remaining till relieved next year.

Now, I go on with Captain Clapp's original writing:

As soon as possible after landing, you will endeavor to communicate with Lieutenant Greely, by sending a party of the most experienced and hardy men equipped for sledging, and carrying such stores as is practicable to Cape Sabine, whence a smaller party will push as far north as possible, or until Lieutenant Greely's party is met.

In this sentence the following was inserted, after the words "as soon as possible after landing," apparently in the handwriting of Professor Abbe, "or in case your vessel becomes unavoidably frozen up in the ice-pack." Erased in ink in this sentence is the word "sending," and inserted apparently in the handwriting of General Hazen, in place of it, "taking personal charge of," and the word "and" preceding the word "carrying" is also erased, apparently in the same hand, and the words "still headed by yourself" inserted in ink previous to the words "will push as far north as possible," and the words "whence a smaller party" are also erased, and inserted in a handwriting which I cannot identify are the words "more lightly equipped." Going on with Captain Clapp's draft we have:

In this and other matters you will follow closely the instructions of Lieutenant Greely dated August 19, 1881, a printed copy of which is furnished you herewith.

The men not employed in these expeditions will lose no time in housing themselves and in securing the stores preparatory to Lieutenant Greely's party.

The sentence is amended in the handwriting of Captain Clapp by inserting the words "arrival of" before the words "Lieutenant Greely's party." Inserted immediately after this clause, in black ink and apparently in the handwriting of Professor Abbe, is the following:

You are allowed two observers and an outfit of scientific apparatus and will take every opportunity to add to our knowledge of meteorological, magnetic, and other phenomena.

Following this, by a direction to the margin, comes, in the handwriting of Captain Clapp:

It is important that a careful and complete record of events should be made, and in case your party does not return this year that a full report be sent by the vessel on her return to St. John's.

Following which, in the handwriting of Professor Abbé, also in pencil, is:

Each member of your party should be required to keep a private diary which shall be open to the inspection of the Chief Signal Officer only in case of necessity.

Resume reading the writing of Captain Clapp :

The character and the amount of the (meteorological and other) scientific work to be accomplished if possible by your party is enumerated in an inclosed paper marked

Blank.

The words "if possible" have been erased in black ink and the word "paper" erased and "memoranda" substituted for it. After the words "marked," "B, C, D, E," inserted in black ink, and the word "herewith," "B, C, D, E," being followed in brackets by the signature of Abbé, and evidently the words "memoranda," "B, C, D, E," and "herewith" are inserted in his handwriting. I resume the reading of Captain Clapp's memoranda :

Whenever a junction is effected with Lieutenant Greely you will report to him with your party for duty.

An asterisk, pointing to the margin, here calls for an insertion in black ink of the following note in the handwriting of Professor Abbé :

Should any important records or instruments have been left behind by Lieutenant Greely in his retreat, he may regain these by help of the steamer to be sent up in 1884.

Resuming the reading of the writing of Captain Clapp :

It is believed that with the stores and supplies sent out last year, which are at St. John's, N. F., and at the Greenland posts, together with the provisions and articles supplied this year, everything needful has been furnished, and that your party will have an abundance of all that is needful for its safety and success.

The sentence has been altered by the interlineation after the words "Greenland posts," in pencil, in the handwriting of Professor Abbe, "and which you will gather up on your way northward." Further down the word "needful," following the words "abundance of all that is," is erased in black ink and the word "necessary" inserted in the handwriting of General Hazen. I resume Captain Clapp's writing :

I have faith also that you zealously endeavor to effect the object of the expedition and succeed in relieving your comrades, who for two long dreary years have been shut out from the world by the.

The words "by the" are erased in pencil, the word "will" inserted before "zealously," apparently in the handwriting of Captain Clapp; the words "have faith also" are erased in black ink and the words "believe and expect" substituted in the handwriting of General Hazen. All the words following "your comrades" are erased in black ink, apparently by General Hazen, and the following substituted :

Since upon your efforts their lives may depend, and you cannot overestimate the gravity of the work intrusted to your charge.

I resume reading Captain Clapp's manuscript :

With best wishes for your success and the safe return of the united party, I am, &c.,

In which has been inserted following the word "with" the word "my," in black ink in the handwriting of General Hazen.

(The second rough is produced by the witness, and being examined by the recorder, he states that he does not discover any material difference between its terms and those of the instructions actually issued to Lieutenant Garlington, and therefore does not desire to consume any further time in examining the witness in reference to it. It was then shown to counsel for Mr. Garlington.)

By the COURT :

Q. It is in evidence that the views given in your memorandum had been discussed a good deal before a convoy was thought of. That was long before your draft of the memorandum was made, on June 2.—A. Yes, sir. The convoy was applied for by a letter dated the 14th of May.

Q. Therefore this discussion in the Signal Office of the terms of your memorandum was carried on a good deal before the 14th of May?—A. I never heard of that discussion.

Q. In some of the testimony given by you yesterday it seemed that you were instructed by the Acting Chief Signal Officer to prepare a memorandum for the use of the Navy Department?—A. Yes, sir.

Q. And upon being questioned you said that you did not prepare that memorandum as embodying the views of anybody else than yourself?—A. Yes, sir.

Q. In the testimony given by General Hazen he says :

After Congress last winter had passed a law requiring that the Greely expedition be brought back this year and before the second ship or a convoy was thought of, it seemed to me that it would be necessary for the expedition going up to vary the Greely instructions so far as to land at Littleton Island and land the stores. That plan was thought of a great deal, and it was discussed a great deal, as was the plan also of making the depot on the west side of Smith's Sound. But after it was arranged to send a tender—that of itself would be a depot, there being also several small depots along that coast—I determined to return strictly to the Greely memoranda, and after that did so.

So that according to this it seems that this whole matter, which was the matter that was embodied in your memorandum, had been discussed weeks before you made out that memorandum. Now, in the statement that you made, it seemed that the memorandum was an original idea with you, and that it was not made under specific instructions from higher authority?—A. It was original so far as I was concerned.

Q. Had you had any conversation before that with anybody?—A. No, sir.

Q. Did you know that it had been discussed in the office before that?—A. No, sir; but the court will observe that I had not been upon office duties, such as is customary, for some time; from some time early in May until the 18th, subsequent to the application for this ship, I was on special duty, mainly out of the office, and a discussion might have taken place without my knowing it.

Q. You have given evidence that the inclosures and memorandum for Lieutenant Garlington were prepared in your division and were all submitted to General Hazen, signed by him, and delivered by you to the officers addressed. Did you then examine them; and, if so, did you notice whether the memorandum was among the inclosures?—A. Yes, I knew that the memorandum was among the inclosures, and my attention was specially called to it by my chief clerk.

Q. As the Chief Signal Officer had signed the paper which accompanied that memorandum, what opinion did you form as to the value of the memorandum at that time?—A. I think I treated that very much as one necessarily treats a good many orders that are issued. We do not pass upon their value or validity often until some question is raised. Orders are issued and obeyed, of course, and a strict legal examination of the value of an order is very often deferred until something, as in the present case the return of Mr. Garlington, brings it up, and it seems to be a very

important, vital question to the reputation of an officer or to the best interests of the service, either from a disciplinary or any other point of view. Then the order will be taken and carefully examined. About this order there are points where I wish my memory was fresher, but this happened some time ago. I am confident that it was not inserted in those instructions by my own personal wish or desire; that in putting it in there I had or thought I had a warrant for it on the part of my own chief. I could have had no desire to put it in myself, and the testimony that General Hazen may have given in the matter may show that he did not see it among the inclosures, or that he did not look over the inclosures carefully. But further than that I cannot explain. I have no explanation to offer for myself.

Q. It came to you from General Hazen inclosed in the same envelope with the instruction?—A. I do not think it was in the envelope when it went to General Hazen.

Q. Yes, I know; but I am speaking of when it came from General Hazen?—A. They came to me together.

Q. Was the memorandum in the envelope with the orders to Lieutenant Garlington that had been signed by General Hazen?—A. Yes, sir; in such an envelope as was used. They may have been attached by a rubber band or merely laid together.

Q. You do not remember whether it was inside of the envelope and addressed?—A. No, sir; I do not think it was. I do not think the envelope is generally addressed until after that, because they would go upstairs to be compared at once before they went out, in order that the changes necessary on our roughs be made for the required copies. The ordinary routine would be to send them upstairs. They would be addressed, put in an envelope, and then sent to me.

Q. According to your recollection, did they come to you from General Hazen as if it was the intention of General Hazen that that memorandum should accompany the instructions to Lieutenant Garlington?—A. Yes, sir.

Q. That was your understanding?—A. Yes, sir. They went to him and they came back to me without remark of any kind. I was not questioned as to why the memorandum was put in there and I remember nothing about it. The conversation between Mr. Garlington and General Hazen was never reported to me by either of those officers, nor did it ever come to my knowledge until after Mr. Garlington's return.

Q. When that paper came back it merely had the signature of the Chief Signal Officer to the letter of instructions to Lieutenant Garlington?—A. Yes, sir.

Q. And therefore you prepared the papers that were put in the envelope addressed to Lieutenant Garlington as inclosures?—A. Yes, I found them in the papers I received.

Q. But you do not remember whether that memorandum was in the envelope that came from General Hazen?—A. I do not think it was in the envelope.

Q. Was it in the condition in which such papers come from General Hazen for you to transmit?—A. Yes, sir; unquestionably.

Q. If I remember your testimony, what was given to the Acting Chief Signal officer was that memorandum that you have submitted to the court

here—your original draft of the memorandum?—A. No; from this draft a copy was made.

Q. What was it you gave to the Acting Chief Signal Officer?—A. A copy of that draft.

Q. And was that the draft which was returned to you and which you inclosed in the instructions to Lieutenant Garlington?—A. No, sir; that copy I never saw again. I had reason to believe that that copy had been taken to the Secretary of the Navy.

Q. What copy was it, then, that you sent to Lieutenant Garlington?—A. Another copy of that paper.

Q. Who made it?—A. It was made by the clerks in my division; I do not know by whom.

Q. But it came to you from General Hazen?—A. No, sir; it was submitted by me to General Hazen with all the papers.

Q. Then you submitted one copy to the Acting Chief Signal Officer and afterwards submitted another copy to the Chief Signal Officer?—A. Yes, sir. What I call the original paper was the one prepared for the Secretary of the Navy, which I always supposed was delivered to him.

Q. And which was a copy, or rather framed from the original rough that you have here?—A. Yes, sir.

By Mr. KENT:

Q. When was the preparation of instructions for Lieutenant Garlington first considered in your office?—A. I said in my testimony yesterday I thought about the latter part of April, but since going more particularly into this matter and seeing some of these papers, I am inclined to think it could not have been long prior to the 16th of May, and must have been between the last of April and the 16th of May, the date when the memorandum was sent around to the officers, accompanied by the rough draft of these instructions. That memorandum I exhibited in court yesterday is dated the 16th of May.

Q. On the 14th of May a letter was addressed from the Signal Office to the Secretary of the Navy asking for the tender, was it not?—A. Yes, sir.

Q. Were you cognizant of what took place with respect to the preparation of these instructions previous to that time?

The WITNESS. Previous to the 14th or 16th of May?

Mr. KENT. Yes.

A. I was at all times prior to the second day of May, but between the second day of May and the eighteenth day of May I knew much less than ordinarily of what was going on in the office. I was employed during that time in editing this book of Office Regulations.

Q. General Hazen in his letter of the 16th of October, transmitting Lieutenant Garlington's report to the Secretary of War, states that the instructions to land stores at Littleton Island before going north of that point was first determined upon, but afterward, it having been arranged to send a ship of the United States Navy with the Proteus, the absolute necessity of first stopping to unload at Littleton Island was obviated, and then it was thought best that the original instructions of Lieutenant Greely should be regarded. Did you have any information respecting what occurred in the office relating to the first orders which were contemplated?—A. It is not within my knowledge that any discussion took place on

that subject; that is, preceding the draft which I prepared, in which that plan was embodied.

Q. Was the draft of the instructions, as given to Lieutenant Garlington, submitted to you as one of the officers of the Department for comment?—

A. It was not.

Q. Was the second draft, bearing date June 4, submitted to you? [Submitting a paper to witness.]—A. Not formally. But I find corrections in my own writing in this, and I find more of such corrections in the letter to Lieutenant Greely which was drafted at the same time.

Q. To which letter do you refer?—A. The letter to Lieutenant Greely transmitting a copy of these papers to him by Lieutenant Garlington; and so, in connection with the scientific outfit, some of those papers have a good many alterations of mine in them. This paper [indicating a paper], Memorandum A, for Lieutenant Garlington, is full of corrections; that is, with regard to closing scientific work at that point—the meteorological work.

Q. Then the paper referred to in my question, bearing date the 4th of June, passed through your hands?—A. Yes, sir.

Q. And was by you inspected?—A. Yes, sir.

Q. As of what date?—A. On the 4th and 5th of June.

Q. On the 4th of June that paper was in your hands?—A. Certainly.

Q. On the 3d of June, I understand, you had prepared the memorandum instruction referred to here?—A. On the 3d of June.

Q. Did it become apparent to you, upon the knowledge of those two papers that you had at that time, that there was a direct conflict between them?—A. Not so direct as had been assumed. There was a direct conflict between them to one extent: so far as affected the orders to Lieutenant Garlington. In that respect they were in direct conflict, and one or the other should have been amended.

Q. So far as regarded Lieutenant Garlington?—A. Undoubtedly.

Q. I understand that this memorandum of instruction, described as Inclosure No. 4, was not prepared as an order to Lieutenant Garlington, but merely as a memorandum copied to be sent to the Secretary of the Navy for his government in preparing such instructions as he might wish for the tender?—A. That is the correct understanding, and it will be seen on scrutinizing it that it is formed on that basis; that the officers concerned are not addressed by name, but that "the Yantic" will do so and so, "the Proteus" will do so and so. There were no personal directions contained in it to any one.

Q. I understood you to say that you had this paper copied early on the morning of the 4th?—A. I had it ready for Captain Powell at the beginning of business on the 4th.

Q. You gave it to Captain Powell?—A. I did.

Q. What other memorandum did you make of this paper at that time?—A. Nothing further than to keep the rough from which it was prepared.

Q. Then, what further memorandum did you make from that rough?—A. Another copy of this rough was made for Lieutenant Garlington; that is, in addition to what I considered the original paper which was handed to Captain Powell, a copy was made and became an inclosure to Lieutenant Garlington's instructions.

Q. Your second copy?—A. Yes, sir.

Q. Will you please state clearly and succinctly the history of that copy when it went from your hands?—A. All the inclosures to Lieutenant Garlington's instructions, and all the inclosures to Lieutenant Greely's letter which inclosed to him copies of Lieutenant Garlington's instructions, had necessarily to be collected; they were collected, put with the letters, being marked, so far as necessary, so far as they were referred to in the body of the text, so that they could be easily identified from other inclosures put with those letters before General Hazen for his signature; after being signed by him they were returned to me.

Q. Then it was a copy that was inclosed in Lieutenant Garlington's letter of instruction?—A. A copy in the sense that the one made for Captain Powell was the original.

Q. What did you ever hear from the original that you gave to Captain Powell, the then Acting Signal Officer?—A. I was informed by General Hazen, not on the 4th or 5th of June, but perhaps on the 6th or 7th, that he had given that paper to the Secretary of the Navy, and that the plan for the movements of the Yautic would be made or had been made conformably to that paper.

Q. Had General Hazen seen the copy of the original given Captain Powell before it was sent in Garlington's envelope?—A. That I do not remember. That is a point I wish I could remember, but I cannot recall it and cannot state it with any certainty.

Q. The letter of instructions, then, was returned to you by General Hazen signed?—A. Returned to me signed with the inclosures without remark by him.

Q. In answer to the question, "Did you present to General Hazen those views?" having reference to the views spoken of, you answer "I did, sir."—A. I did.

Q. And before the instructions were given?—A. Yes, sir; before the instructions were given.

Q. What did General Hazen say with regard to that memorandum of instructions?—A. I understood him that they were to be used as projected; that they were to be handed to the Secretary of the Navy, and, if so handed, that of course involved his assent to the plan. The mere handing of them would be an adoption of them. Otherwise I should have expected him to return them to me with the desire to have that part which relates to the landing of stores at Littleton Island on the way of the Proteus north stricken out. It would have been natural for me to expect the return of the memorandum from his desk in order for me to complete my record.

Q. Ordinarily would you have expected such a paper as that to have been signed by the Chief Signal Officer and returned to you with his approval?

The WITNESS. That inclosure?

Mr. KENT. Yes.

A. No; I think as I said yesterday, that the better course would have been the change of the order; to make the order conform to that change of plan beyond what was already contained in the order.

Q. Inasmuch as the order was not changed so as to comply with this inclosure, and there was no signature to the inclosure, did you assume that the inclosure, under those circumstances, was approved and so act upon it

as an approved order?—A. I did until after the receipt of Mr. Garlington's telegram from St. John's. It should be remembered in that connection that it appears in the report of Lieutenant Garlington, and in testimony, I am sure, that conversations took place between Lieutenant Garlington and General Hazen regarding the effect that this memorandum would have upon the order. Now none of these conversations were reported to me, and I think it would be clear to you that General Hazen might have made exactly the opposite reply. I spoke guardedly yesterday in my testimony with regard to that point. I was obliged, General Hazen being absent, to be very careful that I said nothing that when he returned would be disapproved by him. I could not tell what conversations had taken place between Mr. Garlington and himself, and the relation of this conversation, of which I was ignorant, was indicative of my position in the matter. General Hazen being absent and not available to be questioned, I was obliged therefore to assent to nothing until his return. But that did not prevent me from ability to declare my opinion when asked by the Acting Chief Signal Officer during General Hazen's absence as to the force of a memorandum of that sort accompanying his orders.

Q. In the rough of instructions bearing date June 4, which passed through your hands, you made no suggestion as to the propriety of depositing stores at Littleton Island on the northward course of the Proteus?—A. No. I think that a fuller answer is necessary to that last question, otherwise it might become misleading. It should be remembered that although a letter had been addressed to the Secretary of War on the 14th of May, asking for the detail of a naval ship by the Secretary of the Navy, no reply had been received to that communication, and that I had no information of the action taken beyond my conversations with the Chief Signal Officer regarding the use of this memorandum; that I had never seen, nor was a copy of the instructions of the Yantic furnished us for record until after the report of the disaster of this expedition, when we procured a memorandum copy from the Secretary of the Navy, which was subsequently returned to him, and that we have not on file in our office now any reply to that letter, or any information in regard to the co-operation of these two vessels, while I had before me, on the contrary, the clause of Lieutenant Garlington's instructions, which the general had added at the last moment that the United States ship, the Yantic, would accompany him, &c. Now as to the arrangement of any plan of co-operation, there was no record evidence of anything beyond that contained in the last clause which gave power to Lieutenant Garlington to arrange with the commander of the Yantic on the spot such plan of co-operation as might be necessary. On Saturday Captain Powell asked me to prepare this memorandum. On Sunday I prepared it. On Monday I delivered it to him. On Sunday the rough of the order of instructions to Lieutenant Garlington stood without that last clause as to the co-operation between the two ships. The plan of co-operation then was made to rest upon such an agreement as might be entered into between the two Departments on my memorandum. Subsequently, on Monday, the general added that last memorandum.

Q. That being the case, what was the propriety of inserting in the envelope containing the instructions to Lieutenant Garlington a memorandum paper which was intended as the basis of instruction to be given by the Secretary of the Navy for the government of the tender?—A. Inde-

pendently of the instructions to Lieutenant Garlington I conceived it to have been important and necessary that he should be furnished with a copy of any agreement entered into between the Chief Signal Officer and the Secretary of the Navy, or between the War and Navy Departments, with regard to the plan of co-operation of those two ships; and I had supposed until recently that that plan was adopted and that the insertion of this inclosure was upon that basis.

Q. Do you remember whether or not there was a telegram received from General Hazen, while he was in St. John's, requesting that no action should be taken respecting a tender until his return?—A. I do not quite remember that. I should like to refresh my memory by consulting the telegrams before answering that question.

By the COURT :

Q. As I understood it, you stated that when you received all these papers back from the Chief Signal Officer, and prepared them for transmittal to Lieutenant Garlington, you considered from your examination of it that the memorandum was part of the instructions?—A. Yes, sir.

Q. I desire to know whether you examined the papers sufficiently to find out whether in the letter of instructions to Lieutenant Garlington, signed by the Chief Signal Officer, there was any reference to that memorandum as an inclosure to that letter of instructions?—A. Yes, sir; I knew that there was not.

Q. You knew there was not?—A. I knew there was not.

Q. Have you not testified before, that upon examination of all the papers since the disaster you came to the conclusion that that memorandum was not part of the instructions, and the principal reason was that there was no reference to it in the letter?—A. Yes, sir.

Q. How do you reconcile those two views?—A. Merely on the ground that a mistake was made in not making a more careful examination of the papers before speaking about them.

Q. I mean, did you make a sufficiently careful examination to be satisfied whether that letter did make a reference to that memorandum or not before you gave it to Lieutenant Garlington?—A. Yes, sir; I think I did.

Q. And you knew that there was no reference to that memorandum as one of the inclosures?—A. Yes, sir.

Q. And yet you thought at the time, finding that memorandum, it must have been a part of his instructions, although you have changed your mind since?—A. I said so when the first recollection of what these orders were came back on the news of this disaster, and therefore I did not look at the memorandum again.

Q. And that was without full consideration of the subject?—A. Yes, sir.

Q. And now your opinion is fixed in regard to the matter?—A. There is no question about that.

Capt. SAMUEL M. MILLS, Fifth Artillery, Acting Signal Officer, being duly sworn, was examined as follows :

By the RECORDER :

Q. On what duty are you now?—A. I am property and disbursing officer of the Signal Service.

Q. On duty in the office at Washington?—A. In the office of the Chief Signal Officer at Washington.

Q. From what time to what time last summer and fall were you in charge of the Signal Office?—A. I think from about the 10th of July until, perhaps, about the 15th of October.

Q. Do you know anything respecting the instructions to Lieutenant Garlington or the so-called supplementary instructions prior to that first date?—A. I do not; nothing until after the news of the disaster.

Q. You have seen the letter of the Secretary of War calling upon the Chief Signal Officer for explanation of certain discrepancies in reports and copies furnished by your office?—A. Yes, sir.

Q. Now, will you state what you know of the matter fully without being more particularly interrogated?—A. A copy of the first letter referring to the letter of instructions of June 4, 1883, Appendix A, I gave the Acting Secretary of the Navy, Commodore English, at the request of the Secretary of War, which was a hektograph copy. [Referring to a paper handed him by the recorder.] I refer to the third column of the tabular statement accompanying the letter of the Secretary of War to the Chief Signal Officer, of October 31, and will read:

Copy of letter of instructions. Red ink insertions in this copy not on original or any copy of first given to Secretary of the Navy.

A day or so after furnishing the hektograph copy, which was done at the request of the Secretary of the Navy, he sent for me and showed me the letter that he had prepared to be sent to Lieutenant-Commander Wildes, and, after commenting upon these instructions, I said: "Mr. Secretary, the memorandum referred to is not referred to in the body of the letter of instructions to Garlington in the original." "But," he says, "it is in this copy that you have given me." I took the copy, and I saw that it was in red ink marked "fourth inclosure" at the bottom of the fourth paragraph. I said, "This is entirely a mistake. It must have been that the clerk in hurriedly making a copy has seen some pencil note that he has copied in red ink because it does not exist in the original." He says also, "This copy is not signed." Says I, "Mr. Secretary, a hektograph copy is never signed, but I will make that to all intents and purposes a copy of Mr. Garlington's instructions," and I turned the paper over and marked "H. B. Hazen." I should have written "W. B. Hazen, Chief Signal Officer." It seems the original copy had been signed "Brigadier-General" and so on, "Chief Signal Officer," and I said, just simply to make it a perfect copy, "I will make it so." Then he remarked, "This purports to be an official copy of the records of the Chief Signal Office." I said, "So they are to all intents and purposes, excepting these little corrections I have made," but particularly told him about that memorandum, that it was not referred to in the original letter, and that it was a clerical error its being marked fourth inclosure, and upon investigation I found out how that probably occurred; in the margin of one of the copies that the clerk subsequently made this hektograph copy from, it is marked "4 Incl.," so some other clerk, when called upon for a copy to give to the Secretary of War, instead of putting that in in pencil as he found it there, put it in in red ink in the body of the letter; that explains that; with those exceptions those copies are identical with the copies that were given to the Secretary of the Navy before and to the Secretary of War; the next cor-

rection here is the same; he says on the paper, "Written to the Secretary of War before departure of expedition"; that is the same paper apparently given after; "imperfect copy of memorandum, supplementary instructions pinned to copy of letter and marked Inclosure 4, called in red ink note on page 8 Inclosure 4." That may have been so marked on the paper the Secretary had, but I do not know whether what I told him with reference to the marking in the body of the instructions applied to this mark that was on the inclosure or not. But the original copy of the memorandum, which is known and sometimes referred to as Inclosure 4, had no mark of Inclosure 4, and if the Secretary had asked me why it was marked Inclosure 4 I could not have told him because I had not seen the original. But I have since seen the original and I found that the original had no mark Inclosure 4 on it. No doubt it was marked in the office "Inclosure 4" before it went to the Secretary of the Navy, and from the record books it appears that that was Inclosure 4; but in comparing the original records with the copies furnished by Lieutenant Garlington, Inclosure 4 was another paper entirely. It was a copy of the charter party contract, and it does not appear that that was sent to him at all, so that there is a discrepancy between this paper and the record. Inclosure 4 was not the memorandum, although the record books show that it was, but it was a copy of the charter party.

By the COURT:

Q. When you were called upon to supply those papers to the Secretary of the Navy did you or did you not understand that you were expected to supply copies of all the papers that were given to Lieutenant Garlington?—

A. Oh, no. There were a great many papers that I knew he would not require, such as the list of stores, list of instruments, detailed instructions for observers, &c.

Q. The question is whether he did not apply for those, and when he asked for those papers whether or not you should have given him the copies of all the papers that were given to Lieutenant Garlington?—A. What he wanted was the instructions. I think what he asked for was the instructions of Lieutenant Garlington.

Q. I merely asked the question on what the Secretary of War says in that letter.—A. I think that, with a moment's explanation to the Secretary of War to show the character of those papers, he would immediately say that he would not require those.

Q. I understand that. I merely wanted to ascertain what call he made upon your office?—A. It was for Lieutenant Garlington's instructions.

Q. If you were called upon for the instructions to any officer would you not include, in copying those instructions, copies also of all the inclosures referred to in the body of his instructions?—A. Yes, if I thought there was going to be an official investigation. To go into the matter thoroughly they should all have been included. But being hastily called upon for these instructions to find out whether or not he had complied with them, I did not take them. In fact I was not familiar with them myself because I had never seen them before. While going over to his office I was familiarizing myself with what his instructions had been.

Q. You sent him also a copy of the Signal Office Notes No. 5, they being the report of Mr. Beebe, of 1882?—A. Yes, sir.

Q. Why did you send them, as they were not included in the instruc-

tions to Lieutenant Garlington?—A. I am not certain, but my impression is that that was a printed Signal Service note, and I do not just recall it by its number. But I thought there was a list of stores on one of the sheets. If I could see it I could identify it. I think that is the reason I took it over. One paper I know I took over, because I had made some pencil marks on one of the leaves to show the Secretary how many rations had been left. [After referring to the Signal Service Note alluded to.] I recall now why I took this over. My impression is I took this over because I had marked certain paragraphs in which Mr. Beebe reported where he had cached stores, so that I could tell the Secretary the different places where stores were left.

Q. Did the Secretary say anything to you as to why you omitted bringing the inclosures?—A. Oh, no, sir. In fact they just passed through his hands to the Secretary of the Navy.

By the RECORDER:

Q. So far as you know, in answering these calls for information, they were all answered in good faith and with the intention of furnishing all the information that was thought to be wanted?—A. Thoroughly so.

Q. And if any errors occurred they were clerical errors, due to haste and the mistake of the clerks or other officials under your command at that time?—A. Purely so. I went over the Secretary's letter very carefully, and all the discrepancies are susceptible of immediate explanation if I had the three copies here—the record books and the different copies. You will find one is erased with pencil, another marked with ink, another with red pencil, another with black pencil, but they are all susceptible of explanation, remembering that marking this "Inclosure 4" when it was inclosure four, according to the record books, when the original copy was not marked inclosure four.

By the COURT:

Q. On writing official papers of that sort, and when copies are made of them, are those copies always compared, whether when entered into your permanent record books or when copies are made for transmittal outside?—A. I don't know.

Q. They are never compared?—A. I do not know whether they are compared or not, because I had not the management of the records. I can give you a statement with reference to the furnishing of that coal if you wish. The same parties at St. John's made the same contract as previously and they copied the exact phraseology, because at that time it was contemplated that this coal was to go forward and be left with Lieutenant Greely. But in this expedition the coal was purchased for Lieutenant Garlington, to be left with him. Lieutenant Greely's name, however, was put in. We purchased the seventy-five tons of coal from the party at St. John's and shipped it. I invoiced it to Lieutenant Garlington. It was to be unloaded where he unloaded. But the contract was drawn like the previous one, though it was never intended that that coal was to be invoiced to Lieutenant Greely. But that was all corrected before the party left. That part of the contract was canceled and I bought the coal of another party.

By the RECORDER:

Q. You had no direct charge of the papers or correspondence of the

office?—A. No, sir; not at all. I just merely found myself in charge and took the records as I found them. They were put in my hands and I acted upon the papers, supposing they were the correct records.

Lieut. JOHN C. COLWELL, of the United States Navy, being duly sworn, was examined as follows:

By the RECORDER:

Question. You are a lieutenant in the United States Navy?—Answer. Yes, sir.

Q. You were attached to the United States ship Yantic last June?—A. Yes, sir.

Q. When that ship conveyed Lieutenant Garlington's command to St. John's?—A. Yes, sir.

Q. Was that your first acquaintance with Mr. Garlington?—A. Yes, sir.

Q. Will you state how you became connected with his command?—

A. On the way up, in conversing with Lieutenant Garlington one evening upon the subject of the expedition, I suggested to him that I would like to accompany him. In talking it over he said it would be a good idea, and he would see if he could not arrange it when he got to St. John's. We arrived in St. John's on the 21st of June. Lieutenant Garlington telegraphed to General Hazen and I telegraphed to the Chief of the Bureau of Navigation asking to be allowed to join Lieutenant Garlington. Lieutenant Garlington telegraphed to General Hazen asking to have me detailed. I received an answer on the evening of the 22d of June from Commodore Walker, the chief of the Bureau of Navigation, saying no. The next day I received another telegram from Commodore Walker, in which he said, "Report to Lieutenant Garlington for duty as a member of his party," and I reported the same evening, June 23, to Lieutenant Garlington.

Q. And you sailed?—A. I moved all my effects on board the Proteus on the 28th of June, and we sailed on the 29th from St. John's in company with the Yantic.

Q. Was the loading of the Proteus completed when you reported?—A. With the exception of some stores that had been left over from the expedition of last year and the lumber for the house.

Q. Do you know in what condition those stores were found?

The WITNESS. The stores left from last year?

The RECORDER. Yes.

A. I do not know in what condition they were found.

Q. They were put aboard before you sailed?—A. They were put on board before we sailed.

Q. You have read, of course, Lieutenant Garlington's report of the expedition?—A. Yes, sir.

Q. As far as your knowledge extends, does that report present a correct and faithful account of what occurred in the history of the expedition up to the time you parted company with Lieutenant Garlington?—A. Yes, sir.

Q. At the time of the wreck of the Proteus, what was the behavior of the crew?—A. Very bad.

Q. Did Captain Pike say anything to you or in your presence respect-

ing their behavior?—A. Some time after the ship went down, probably an hour or so, I was on a cake of ice that was floating out to sea, and some of the Proteus men with me, with two of our own men. Two of the Proteus men ran away, refused to stay with me, and went back with the main party on a sound floe. About an hour afterward I rejoined the other party, and, calling Captain Pike, I told him that he had some few good men, but the greater part of his crew were a worthless, cowardly lot. He said, "I know it, but I can do nothing with them. I wish I had the lot of men I had with me on the last expedition."

Q. At the time of that wreck was everything possible done by Lieutenant Garlington and his party to save and secure the stores?—A. Yes, sir.

Q. All were secured that it was possible to secure in view of the condition of the ice and the circumstances generally?—A. Yes, sir.

Q. What was your view at the time of the proper course to be pursued by Lieutenant Garlington?

The WITNESS. After the wreck?

The RECORDER. Yes.

A. My idea was that I should take a picked lot of men, and lightly equipped start south, making as good way as I could for Upernavik to get the news to the Yantic, the main body to cross the Sound and follow down along the east coast making as good time as they could, as I did not suppose the Yantic would be able to get north through Melville Bay under her instructions, but that if she got news of the disaster she would then make a more determined effort to reach us than she would under her original instructions, and the main body with Lieutenant Garlington keeping on down the east coast would meet the Yantic on her way up. In case the Yantic did not succeed in getting up they would have a chance of reaching the Danish settlements by themselves without help.

Q. What knowledge of the instructions to the commander of the Yantic had you?—A. None, except just what was the general talk. I had never seen the instructions; but the talk among the officers on board was that the ship was not going into the ice, and I gathered that also from conversation with Commander Wildes.

Q. Can you recall precisely what he said to you at any time on that subject, using his own words as nearly as possible?—A. In Godhaven, in speaking to Captain Wildes about the ice we had met off the coast of Labrador, I told him the Yantic would probably have had a pretty lively time in that ice; that her sheathing would not have stood long in it. He said he would not have gone into it—he would not have put the ship into the ice.

Q. Will you describe plainly the character of that ice?—A. It was Arctic ice—hard, blue ice.

Q. What thickness would it average?—A. It would average possibly about eight or ten feet, very loose.

Q. And broken up in small pieces?—A. Very much broken up in small pieces.

Q. You met with large quantities of that ice in Melville Bay?—A. In Melville Bay the general character of the ice was not Arctic ice; it was the Melville Bay pack-ice, which averages about four feet thick; but there was Arctic ice in it, and that ice was much closer than the ice we saw off Lab-

rador; the cakes were very large, and the ice impenetrable to the Proteus in some places.

Q. I remember the report of Lieutenant Garlington on that point. You were beset frequently, were you not?—A. Not regularly beset, but stopped by unbroken, impenetrable ice.

Q. Therefore you had formed the opinion at the time of the wreck of the Proteus that Captain Wildes would not enter that ice?—A. That he would not enter it.

Q. That he could not cross Melville Bay?—A. That he would not do it.

Q. That he ought not under his instructions?—A. That he ought not under his instructions, as I understood them.

Q. Do you think the Yantic could have accompanied you through that ice?—A. No, sir; it could not have accompanied us.

Q. Do you think that the Yantic could have passed through the ice in Melville Bay, through which you passed, with safety to herself?—A. It would have been possible, but it would have been inadvisable, fitted as the Yantic was and with her crew, with the possibility of being beset in the ice or caught in it for the winter.

Q. You think it would have been of unusual danger to a naval vessel?—A. Yes, sir.

Q. Had the Yantic any special equipment for service in the Arctic regions?—A. Her battery was taken off, all her ordnance stores were landed, and she was sheathed from the bow to a little abaft of foremast with oak planking spiked on the outside of her copper.

Q. To what thickness?—A. About three inches abreast of the foremast. It was thicker right on the bow, probably six inches at the cut-water.

Q. You read Lieutenant Garlington's instructions on your way up?—A. Yes, sir.

Q. And were familiar with those instructions?—A. Yes, sir.

Q. And with Lieutenant Greely's letter of advice as to what should be done with a view to his safety?—A. Yes, sir.

Q. Did you have any conversation with Lieutenant Garlington with reference to this Inclosure No. 4, as it is called?—A. Not until after we got back to St. John's.

Q. Did you know of its existence?—A. No, sir.

Q. How did you find the stores belonging to the expedition when you came to use them?—A. Good, with the exception of the skin clothing, which was bad. The pemmican was also partly spoiled—mouldy.

Q. I will ask you if you know what rations the Yantic carried?—A. Not certainly; no, sir. I understood when she left New York that she had eight months' provisions on board of ordinary Navy rations.

Q. What is the complement of a ship of the third rate like the Yantic?—A. The Yantic when she sailed out of New York had 20 officers and 126 men aboard of her as her crew. She afterward got an ice-pilot at St. John's. She was six men short of her complement. Her complement is 132.

Q. Now, I will ask you how long it would have taken to land at Littleton Island or Life-Boat Cove or Pandora Harbor or some contiguous place where it would be most convenient, say 15,000 rations?—A. Two and a half or three days with the facilities the ship had.

Q. Suppose those rations had been prepared for the purpose of landing,

placed on top of the rest of the cargo in the most convenient form for landing, how long would it have taken then?—A. She probably could have done it in two days.

Q. Did or did you not hear on your voyage to Smith's Sound the idea discussed of making, on your way up, a depot in the neighborhood of Littleton Island?—A. Yes, sir; I did.

Q. Please state by whom it was discussed and what was said generally?—A. I talked over with Lieutenant Garlington several times that clause in his instructions about landing provisions there. He at no time proposed to land them on the way up, but to first make his trial north and to examine the different places on the coast where, according to the latest Arctic explorers, there are good places for winter quarters and places much more accessible to Lieutenant Greely's camp, Fort Conger. The idea Lieutenant Garlington expressed several times was, that failing to get up with the ship he would return and examine several of these places. His idea was that the place known as Alexandra Harbor, mentioned by Captain Nares, would be a place much more suitable than Littleton Island, and if it appeared so to him after making a personal examination he thought of making his camp there, where he would be much nearer to Lieutenant Greely, and on the same mainland.

Q. In case he was obliged to stay all winter?—A. Yes, sir.

Q. Did it not occur to you or to Lieutenant Garlington, so far as you know, after the wreck of the Proteus, that it would be advisable to go to Littleton Island, or Life-Boat Cove, or Pandora Harbor more especially, and wait there for a week or two in expectation of seeing the Yantic?—A. No, sir.

Q. You were perfectly convinced that she could not or would not come through the ice of Melville Bay? That if she did get through it would be by a fortunate chance?—A. We argued that if she did get through she would meet us as we were going down the coast, one or the other of us, and if she got up to Pandora Harbor she would probably overtake us.

Q. Do you know what was the probable reason she did not meet you?—A. She was too far off the coast.

Q. Too far to the westward?—A. To the westward.

Q. Do you recall Captain Wildes telling you that his instructions would not permit him to enter the pack-ice, or that he had instructions?—A. No, sir; I do not recall Captain Wildes telling me that.

Q. So far as you know, in your opinion as a naval officer, was everything possible done by Lieutenant Garlington and his party to carry out the object of his instructions?—A. Yes, sir.

Q. And you approved of his course, after the wreck of the Proteus?—A. With the one exception of not letting me go with a boat at once to the southward.

Q. You think it would have been better for you to have started at once from the scene of the wreck?—A. Yes, sir.

Q. You were detached at Cape York?—A. Yes, at Cape York.

By the COURT:

Q. How many days in advance would that have given you?—A. I would have started from Cape Sabine on the 25th, and I expected I would be able to make Upernavik inside of a month. I could have made the Carey Islands in two days.

By the RECORDER:

Q. The water being open?—A. The water was open. We knew from what we had seen coming up. It was perfectly open as far as the Carey Islands.

Q. Do you know anything else that is material to assist this court in its inquiry? You know the object of its investigation.—A. The Proteus was not as well equipped as she should have been.

Q. Proceed to state how?—A. Her boilers were old. It was the intention, as stated to me by one of the officers of the ship, I think the chief engineer, to take the ship home that summer and have new boilers placed in her, but this contract was made and they concluded to repair the old ones and let her go north. Her equipment of boats was very poor; she had no seaworthy boats on board; she had four boats.

Q. And none of them were seaworthy?—A. Two of them would float and two would not. One was put in the water, and in two days it had swelled up enough to float. It just filled up. Those two boats were stowed bottom up on the gallows frame on the ship, and standing under them you could see daylight through the seams of them. Of the other two boats, one was leaky; that was the long boat; and the smaller one of the two, the jolly boat, was not leaky, but it was very old and not a seaworthy boat. The equipment of these boats was very bad. The rigging of the ship was very old and untrustworthy. On the way up some new standing rigging was fitted. Her compasses were untrustworthy. The main reliance was placed on a liquid compass which was kept down in the captain's cabin. The captain had no idea of the local deviation of his compass, and stated to me one day that the ship had been swung once for local deviation in the nine years since she was built, which was in 1874. She had one patent log, which she lost by winding it around the propeller one day. She had none after that.

By the COURT:

Q. How did she compare with the vessels that ordinarily navigate those seas?—A. All the St. John sealers are old. The Proteus was one of the newest; she was built in 1874. But, as I stated before, she was not what I considered a well-equipped ship. Everything about her was old.

Q. But in chartering ships I suppose that was about as well as could have been done?—A. In St. John's. Well, that was as well as they could have done there.

Q. You think that the equipment, the sails, boats, &c., all might have been improved upon without any trouble?—A. They could all have been placed in good condition before she went up.

Q. How long would it have taken to do that?—A. Two weeks' work on her rigging would have put her in good condition.

Q. And how about her boats?—A. She should have had new boats throughout, which could have been bought in any seaport town.

Q. How about her boiler?—A. I heard of no trouble from the boiler on the way up. The boiler could not have been put in in that time. It would have taken six months to have taken her to Dundee, as they would have had to do.

Q. But you had no trouble with the boiler?—A. I heard of none.

Q. If the ship Proteus had been inspected by a sea officer, for instance by a naval officer, what would have been his report upon her?—A. If she had been thoroughly inspected his report ought to have been that she needed new rigging and new boats and a proper outfit of navigating instruments. The officers I did not consider well fitted for their positions. The first mate was a young man, a son of the captain, about 21 or 22 years of age, who never had been in the Arctic regions before.

Q. A son of this captain?—A. A son of the captain of the Proteus. The second mate was a cousin of the captain of the Proteus, and also a young man, rated as boatswain on the ship's books. This was the first time he had ever been an officer. He had been before the mast on the previous trip of the Proteus to Lady Franklin Bay. The chief engineer was making his first voyage in that capacity. He was assistant on the expedition before and was promoted on the discharge of the chief engineer when the charter party was made for the expedition.

By the RECORDER :

Q. Now as to the equipment of the expedition, how were the boats of Lieutenant Garlington?—A. They were not as carefully fitted as they should have been.

Q. Where were they procured?—A. I understood from the Brooklyn navy-yard.

By the COURT :

Q. In what were they defective?—A. In the fitting of the sails and masts, and in the fitting of the cleats and pins to belay sheets and hal-yards to. There were none of those on one of the boats, and the masts did not fit in either boat. Gear was wanting on the sails. The oar-locks fitted for the steering oars were placed too far forward to make the oars of any use. No tiller nor water breakers were with the boats.

Q. As they came from the navy-yard to what do you attribute such deficiencies?—A. I never have been on duty in a navy-yard and do not know what the responsibility is.

Q. Or what inspections are made of material before it is issued?—A. No, sir.

Q. From your knowledge of the instructions to Captain Wildes not to put the Yantic in the ice, from your experience in going through the waters of Melville Bay, in your opinion what chance was there of the Yantic coming up to Littleton Island?—A. My idea was that the Yantic would not be able at all to come up directly, judging by the ice we had seen. I thought, however, she might follow the edge of the pack off to the westward and come up along the west coast; might cross Baffin's Bay to the southward and come along the west coast by the time we got to Cape York. The ice was apparently less close to the westward in Melville Bay than the track we had come. I thought that would delay her some time, and there was a bare chance of her getting through that way; but I thought there was no chance of her coming through the way the Proteus did.

Q. Although she did come through?—A. She did come through about the same track the Proteus made, leaving out of consideration the deviations; the Proteus was lost in the fog and made a very devious course.

Q. In your mind was the probability of her coming through such as

would have induced you to risk remaining at Littleton Island and waiting for her coming up?—A. No, sir.

Q. Therefore you believed that the chances were so slight of her coming up at all that the best thing was to go down to the Danish settlement, hoping to meet her on the way up?—A. Yes, sir.

Q. Just exactly as was done?—A. Yes, sir.

Q. That is, the general idea met your approval except that you had your own ideas about the way carrying it out?—A. Yes, sir.

Q. Then why was the Yantic sent up there?—A. I do not know.

By the RECORDER:

Q. To return a moment to the equipment of the expedition. Had you ice-hooks and ice-anchors in these small boats?

The WITNESS. At the time of the wreck, or do you mean furnished with the boats?

The RECORDER. Had you them with you in the expedition?

A. There were ordinary grapnels, as furnished to every naval boat, and ordinary anchors.

Q. How about the ice-hooks?—A. The grapnels would do.

Q. Are those long poles with hooks on the end grapnels?—A. A grapnel is an anchor with six prongs.

Q. I mean the long poles with hooks at the ends of them?—A. They are the ordinary Navy boat-hooks.

Q. Were your boats provided with water casks?—A. No, sir; I did not see any.

Q. They were not kept in readiness for an emergency such as the wreck?—A. The only cask we had for our boat was one taken by Lieutenant Garlington from Captain Nares's depot at Carey Island, and that was filled and was lying on the deck when the ship was smashed; it was afterward stove on the ice.

Q. Now, about the Army party; how many of the thirteen men that left St. John's besides yourself and Lieutenant Garlington had any nautical education?—A. I can only speak of the men in my boat; I did not know any of them had any, but after the wreck I knew there was one man who had spoken to me of having been in the Navy; I knew he had served an enlistment in the Navy, as he told me. He was in Lieutenant Garlington's boat.

Q. As a seaman in the Navy?—A. As an ordinary seaman. But in my boat there was one very excellent sailor, who was Corporal Elwell, and a St. John's man, who had been a fisherman and knew something about boats—was a good boatman. One other man could pull an oar, and knew something about handling sails. That was all in my boat.

Q. How many had you in your boat?—A. I had until I reached Cape York six men and Dr. Harrison. The doctor joined Lieutenant Garlington's boat at Cape York when we separated.

Q. You keeping the same crew?—A. I keeping the same crew.

By the COURT:

Q. Did Lieutenant Garlington and yourself have any consultations as to what would be the best course to pursue, either going up or after the wreck occurred on your way down?—A. Going up we did not have any

consultations as to the best course to pursue, but after the wreck we frequently talked over what the prospects were—what we ought to do.

Q. And arrived at conclusions?—A. Yes, sir.

Q. And you think that under all the circumstances of the case you two gentlemen did the best that could be done?—A. According to our knowledge we did the best we could do.

Q. There was no difference of opinion between you as to coming down after the wreck?—A. No, sir.

Q. Except as to the point at which you should separate?—A. Yes, sir.

At this point (4 o'clock p. m.) the court adjourned until Monday at 11 o'clock a. m.

WASHINGTON, D. C.,

Monday, November 19, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The proceedings of the previous day were read. The testimony of Lieutenant Caziarc and Captain Mills and Lieutenant Colwell was read in their presence. The record having been amended was approved.

Lieut. Louis V. Caziarc desired to make a correction in his answer to the third question on the 62d page of the record. Instead of saying that he was informed by General Hazen that a copy of Inclosure No. 4 had been given to the Secretary of the Navy, he desired to say that he understood from General Hazen that it had been given. Mr. Garlington desiring to know if Mr. Caziarc had looked in the records of the office to see if a telegram was received from General Hazen from Halifax in reference to the naval tender during his absence last May and June, Lieutenant Caziarc replied as follows:

I find that two telegrams were received on the 21st of May in the order in which I will read them; in answer to a message of the 20th of May, sent by Captain Powell to General Hazen, in which he informed him in substance that "the Secretary of the Navy will send a tender as you requested," he asked the question, "When will she be needed at St. John's and what will be the northern limit of the voyage?" and asked him to outline the instructions. To which General Hazen replied in a telegram received at 1.33 p. m., May 21, dated 21st, Halifax:

Tender to go to southern limits of pack-ice; to leave St. John's about July 1.

The other received at 1.54 p. m. same day, dated 21st, Halifax:

Will be back about June 2. Hold all instructions till I come. Tender to be at St. John's, say June 25.

By Lieutenant GARLINGTON:

Q. In explaining your answer to the last clause of the memorandum marked 5 (also known as "inclosure 4), you stated that that clause was added to obviate an objection raised by myself as to the delay made there in landing stores. Was not the reference that I made in regard to the possibility of the ships being frozen up in the ice north of Littleton Island, or the necessity of my having to winter somewhere north of Littleton Island?—A. The objection certainly included those points.

Lieut. JOHN C. COLWELL then resumed the stand, and his examination was continued, as follows:

By the RECORDER :

Q. Did you advise Lieutenant Garlington to let you separate from his party with the whale boat, according to the ideas that you expressed in your testimony, from Cape Sabine?—A. I suggested to him that that was my idea.

Q. He differed with you?—A. He said nothing about it. He did not act on it.

Q. Do you know what provisions the Proteus crew had or for what length of time they were provisioned?—A. I was told by one of the officers—I have forgotten who—that she had a year's provisions.

Q. For her own crew?—A. For her own crew.

Q. What arms and ammunition had the party after the wreck, if you know?—A. I had a Hotchkiss rifle, five hundred rounds of ammunition, a shot-gun, and thirty-six loaded cartridges. I afterwards found fifty more. My powder and shot and caps and loading tools I got out on the ice, but they disappeared. I never saw them again after seeing them thrown on the ice. I afterward recognized some of my powder cans among the effects of the Proteus people. They were then empty. There were two Winchester rifles belonging to two members of Mr. Garlington's party, and I think about five hundred rounds, or there may have been a thousand rounds, for these Winchester rifles. I had a navy revolver and fifty rounds of ammunition, and one of the men had an army revolver and I do not know how much ammunition.

Q. That was all?—A. That was all.

Q. In view of the difficulty that you anticipated and that Lieutenant Garlington anticipated in the Yantic getting through Melville Bay, would it not have been wise and prudent before parting company with her at Disko to have arranged several places of rendezvous, say for instance after Littleton Island, Northumberland Island, Carey Island, Cape York, and the Sabine Islands in Melville Bay, so that the Yantic would proceed to those in succession and leave a record of her progress and should return to them, so that in case you did not find she had arrived at Littleton Island you would have proceeded* to Northumberland Island, and found whether she had arrived there, and so on throughout?—A. Such an arrangement was made. It was arranged that the Proteus should visit Carey Island, Hakluyt Island, and Pandora Harbor on the way up and leave records, and that the Yantic would also visit those places on the way up. The arrangement was not positive about visiting Hakluyt Island.

Q. You refer to this agreement do you?—A. Yes, sir.

Q. It states :

Cairns inclosing bottles or tins will be left at Cape York, S. E. Carey Island, or Hakluyt Island, Pandora Harbor, and Littleton Island.

A. That was the way I understood it. Hakluyt Island was understood to be a point to be visited in case we did not go to Carey Island.

Q. But there was no arrangement that the Yantic should return to these places?—A. No, sir.

Q. So that they were not properly places of rendezvous?—A. No, sir; she was only to visit them on the way up.

Q. You did not stop on Carey Island on your way down did you?—

A. We did not on account of the weather being very threatening when we were at Cape Parry, and the boats were too heavily loaded to trust them out there with their inexperienced crews.

Q. Did you look for any record at Carey Island?—A. We did not visit Carey Island.

Q. Did you look for any record at Cape York?—A. Our idea in going to Cape York was that we would find some news from the Yantic; but we found none.

Q. Did you look for Cairns?—A. We more particularly questioned the natives whom we saw there if they had seen any ship, and they said they had not.

Q. But you could not ascertain definitely from them how long they had been there?—A. We ascertained definitely from them that no vessel had stopped at Cape York this year.

Q. The Yantic did not touch at any of these points going up?—A. She touched at Carey Island, and also at Pandora Harbor.

Q. But if there had been an arrangement that she should certainly stop in the first instance at Sabine Island, Lower Melville Bay, and leave a record stating that she had passed there and would return on her way, and if a similar record had been left at Cape York, another at Carey Island, and another at Hakluyt Island, then you could have stopped at the most northerly point where you discovered this record and waited in security till she returned, could you not?—A. Yes, sir.

Q. The ice you met in Melville Bay was pack-ice, was it not?—A. Yes, sir.

Q. Did the bay seem to be full of it, or about what area of the bay?—A. The bay seemed to be full; the ice had not been broken out of the bight of the bay this year; the track of the Proteus on the chart shows the edge of the fast ice pretty closely.

Q. Still clinging to the eastern shore of the bay?—A. Yes, sir; to the bight of the bay.

Q. And to the left, how much ice was there?—A. As far as we could see.

Q. The middle pack?—A. The middle pack.

Q. You know nothing of the western passage?—A. The western passage I did not know anything of.

Q. Now, from your observation there and from your reading of the works of Arctic explorers, do you not know that Melville Bay is habitually full of ice and very much dreaded by all navigators in consequence, it being regarded as one of the most perilous parts of the route of Arctic travelers?—A. It is so regarded, but exceptional voyages have been made across Melville Bay when no ice has been seen.

By the COURT:

Q. If you had started as you had suggested from Cape Sabine on the 25th, how many days in advance would you have been to the party going to Littleton Island before going south?—A. From what I now know of the condition of the ice in Melville Bay about ten days after the 25th, I could have made Upernavik in two weeks after leaving Cape Sabine. But at that time I had in view the ice that we had met in Melville Bay; that it was pack-ice for about one hundred and fifty miles; that I would have to work through that, and it would take me about a

month to make Upernavik. I thought I could make it inside of a month, possibly twenty days.

Q. How many days earlier than you did make it could you have made it?—A. Two weeks.

Q. You would have gained two weeks by the operation?—A. Yes, sir.

Q. As things actually turned out, would it have made any difference in the result; that is, would you have met the Yantic on the way, as you anticipated, at Upernavik?—A. I would have had a chance of meeting the Yantic in Melville Bay on her way up to Carey Island. If I had not met her on the way up I would have been in Upernavik when she first returned there on the 11th or 12th of August.

Q. As it actually turned out, if your plan had been adopted by Lieutenant Garlington and he had allowed you to go ahead, you would have met the Yantic long before she reached Littleton Island?—A. I would have met her certainly by the 12th of August, the date she returned to Upernavik.

Q. That is, you would not have met her until after she came back?—A. I would have stood the chance of meeting her as she crossed Melville Bay, as I intended to make the track directly across the bay.

Q. Then the idea was if you met her to bring her back to Littleton Island?—A. To bring her back to Lieutenant Garlington and his party, and Lieutenant Garlington could make his arrangements with Commander Wildes for carrying out his plans.

Q. But with the information that you had at the time I suppose you considered that even then there was a bare chance of meeting the Yantic or of perfecting anything?—A. I expected to meet her at Upernavik. I thought that she had met the ice and returned to Upernavik, and I expected to find her waiting there.

By Lieutenant GARLINGTON:

Q. I wish to ask you a question in reference to those cairns. Are the Sabine Islands situated on the route usually followed across Melville Bay at that season of the year?—A. No.

Q. Would there have been any practical use of leaving records on Hakluyt Island, Northumberland Island, or any of those islands north of Cary Island and between that point and Pandora Harbor, from your knowledge of the conditions of that part of Baffin's Bay?—A. I think it would have been a good idea for the Yantic to have left records at Northumberland Island.

Q. On the way up?—A. On the way up.

Q. Did the Yantic visit Northumberland Island on the way up, to the best of your recollection?—A. She did not.

Commander FRANK WILDES, of the United States Navy, being present was requested by the recorder to take the stand and be sworn.

Commander WILDES. Before taking the oath I would like to ask a question. In what capacity do I appear before the court? Is it to have my acts as commander of the naval portion of the expedition inquired into by the court, or simply as a witness to testify as to what I know regarding the acts of others?

The court at this point directed the room to be cleared for purposes of

consultation. After a few minutes spent therein, the doors were reopened and the court resumed its proceedings, as follows:

The RECORDER:

Commander Wildes, the court directs me to inform you that this court has been convened by the President of the United States and directed to investigate the circumstances attending the failure of the relief expedition of 1883, and you are summoned as a witness and appear as a witness before the court to answer any questions that may be put to you, and that you have the same privilege that any other witness has of declining to answer any question that may tend to criminate you.

Commander WILDES. In that case I will take the oath, sir.

Commander FRANK WILDES, of the United States Navy, being then duly sworn as a witness, was examined as follows:

By the RECORDER:

Question. You are a commander in the United States Navy?—Answer. Yes, sir.

Q. And were in command of the United States steamship Yantic in her expedition to Smith's Sound or to Baffin's Bay last summer?—A. I was. (The witness was here shown the paper furnished as a certified copy of the instructions of the commander of the Yantic by the Secretary of the Navy.)

Q. These were your instructions, were they not?—A. That is a correct copy of my instructions.

Q. Now, to save time and avoid the necessity of asking for a narrative of the operations of your ship and a history of the expedition, I will ask you if your reports of September 11 and October 13, made to the Navy Department, embrace a correct history of the expedition?—A. They do.

Q. So far as you were personally cognizant of the facts?—A. Yes, sir.

Q. Will you please to state whether you were furnished with a copy of the instructions to Lieutenant Garlington of the Army?—A. I was.

Q. And with the memorandum made by Lieutenant Greely respecting the measures to be taken for his rescue?—A. I was.

Q. Your instructions state:

Inclosed herewith for your information are copies of a letter from Lieutenant Greely to the Chief Signal Officer, written after the arrival of the former at Fort Conger: "Work of the Signal Service in the Arctic regions;" track chart of the Steamer Neptune from July to September, 1882; instructions to Lieutenant Greely; and instructions to Lieutenant Garlington, U. S. A., commanding relief vessel to Lady Franklin Bay.

An examination of these papers will acquaint you with the object of the relief expedition and the importance of its success. You will, therefore, when in all respects in readiness for sea, proceed with the vessel under your command to St. John's, N. F.

After having filled up with coal at St. John's, proceed to the northward through Davis Straits in company with the steamer Proteus if practicable; but before leaving that port you will confer with Lieutenant Garlington, and make arrangements which will enable you to act advantageously in the event of an early separation from the Proteus, which ship, being fitted for cruising in the ice, will probably take advantage of opportunities to reach her destination which you would not feel authorized in taking in the Yantic.

Will you state what conference you had with Lieutenant Garlington in reference to that matter, or what conferences generally you had with him?—A. Various conferences on the way from New York to St. John's. We consulted together nearly every day, talking about the expedition and what could be done, and on the basis of that this agreement was drawn up.

Q. The agreement that is published in the Signal Service Notes as an agreement between Lieutenant Garlington and yourself?—A. The same one.

Q. Signal Service Notes No. 10. You have seen it?—A. Yes, sir.

Q. Was that the only agreement made in reference to the movements of the vessels?—A. The only one.

Q. Did Lieutenant Garlington express any desire to have any more minute arrangement?—A. I do not remember of any such desire.

Q. Do you remember that you desired any other arrangement?—A. I did not.

Q. Your instructions proceed :

In view of the possibility of the destruction of the Proteus it is desirable that you should proceed as far north as practicable, in order to afford succor to her officers and men in the event of such an accident, and it is desired that you should await there the return of that ship or the arrival of authentic information as to her fate. Under no circumstances, however, will you proceed beyond Littleton Island, Smith's Sound, and you are not to enter the ice-pack nor to place your ship in a position to prevent your return this season.

How did you understand that clause in your instructions?

The WITNESS. Which clause?

The RECORDER. This :

Under no circumstances, however, will you proceed beyond Littleton Island, Smith's Sound, and you are not to enter the ice-pack nor to place your ship in a position to prevent your return this season.

A. I understood just what is said there.

Q. Will you be good enough to explain to the court the full meaning of the term "ice-pack," which is a technical term?—A. The ice-pack is generally pieces of ice broken up, crushed together, piled up. It is generally pieces of more or less size, some large, some small, crushed in on top of each other, thus making a very rough, heavy, confused pack.

Q. Floating together?—A. All together. Sometimes it may be more or less open; with strong winds it closes up tight; with light winds it opens out.

Q. Are not such packs constantly met with in Melville Bay?—A. They are.

Q. It is the history of navigation of those waters that those packs are to be expected there?—A. They nearly always have been met there. There is a choice of passages across Melville Bay—the northern, middle, and southern passages, depending on the state of the winds.

Q. But none of them can be counted upon with any certainty to be free from ice?—A. No, sir; you cannot count on crossing Melville Bay until you get across.

Q. The nature of your instructions then rendered it very problematic whether you could reach Littleton Island?—A. It did; problematic in any case, with any instruction.

Q. Where did you first learn of the disaster of the Proteus?—A. At Littleton Island.

Q. From a record deposited in a cairn?—A. Yes, sir.

Q. You state in your report :

The body of water known as Melville Bay is so little understood generally that a short description may not be out of place here.

From Cape Shackleton, which may be regarded as the southern point, the coast trends northerly 150 miles to Cape Walker, thence westerly 150 miles to Cape Dudley Diggs.

The coast-line is one vast glacier, the rocky headlands only projecting, which constantly discharges multitudes of icebergs, many of enormous size. These drifting to the westward and grounding in the shoal water south of Cape York frequently hang up for a whole season the vast fields of ice which accumulate during the winter. When not so hung by bergs, the main or middle pack, which is out of the influence of the current from Smith's Sound to Davis Straits, drifts back and forth with the prevailing winds, at times leaving open water between it and the fast ice, and again closing.

The North Star was caught in August, 1849, and luckily broke out after "hairbreadth escapes" on the 25th of September and succeeded in getting into Wolstenholm Sound where she wintered. The first Grinnell expedition in 1855 was caught in the pack early in July and not released until August 15. In 1857 the Fox was caught south of Cape York and drifted all winter in the pack. In 1875 the Alert and Discovery met the pack just outside the Brown Islands near Upernavik and were thirty-four hours forcing their way through. On the 22nd of July, 1876, the Pandora was beset for eight days in the pack and only succeeded by great exertions in freeing herself, having been in imminent danger of being crushed. Many whale ships have been lost in this bay. During one year the governor of Upernavik states that he had two hundred men thrown on his bounty, whose ships had been crushed in the ice. (See proceedings United States Naval Institute, December 11, 1873.)

That information is obtained from the explorations of Arctic voyagers?—

A. Yes, sir.

Q. And believed by you to be correct?—A. Yes, sir.

Q. In view of that would you have felt justified in entering a lead in the pack?—A. That would depend very much upon what kind of a lead it was; the appearance of the ice would make a great difference—whether it was floe-ice or loose pack, or whether I could see my way through; whether I could see clear water on the other side or a water sky on the other side; it would also depend on the weather.

Q. Upon your learning of the loss of the Proteus did any question occur to you of the propriety of landing stores from your own ship and making a depot of provisions there for the use of the Greely party?—A. Yes, sir.

Q. What was your view on the subject at the time?

The WITNESS. I decline to answer that, sir.

The RECORDER. Do you decline on the ground of it tending to criminate you?

The WITNESS. To criminate! No, sir.

The RECORDER. That is the only ground upon which a witness can decline. Perhaps I might ask you if you regarded your instructions and the duty to which you were assigned as authorizing you to contribute your stores and provisions?

The WITNESS. I will answer that, sir. I did.

Q. In your conferences with Lieutenant Garlington was any request made by him for you to contribute stores or provisions for the use either of his party or the crew of the Proteus or for the use of the party under the command of Lieutenant Greely?—A. No, sir.

Q. Was the matter discussed at all?—A. No, sir.

The RECORDER. You prefer not to state your reasons for not adopting that course, do you?

The WITNESS. Suppose you ask the question again.

Q. Upon learning of the wreck of the Proteus while you were at Litleton Island, did you take into consideration the advisability of making a depot of provisions and stores?

The WITNESS. I think I answered that.

The RECORDER. I ask you for your reasons.

The WITNESS. My reasons for what, sir?

The RECORDER. For not landing stores or provisions at Life-Boat Cove or Littleton Island.

The WITNESS. Those reasons I have given in my letter to the Secretary of the Navy, and I think that is before the court as testimony. That is a plain answer to the question. That question was asked by the Secretary of the Navy and was answered by me in my letter.

The RECORDER. In your letter of October 16?

The WITNESS. The last letter I wrote. I do not remember the date.

The RECORDER. Will you be good enough to refer the court to it. [Submitting a paper.]

The WITNESS. It commences there. [Indicating.]

The portion indicated by the witness of his report of October 16, 1883, is as follows:

I sailed from New York, having a ship's company of one hundred and twenty-four enlisted men and twenty officers, with eight months' provisions for eighty men on board; every available space was utilized for their stowage. On our passage northward the usual ration was found insufficient and one hundred and twenty rations were issued. On learning of the loss of the Proteus, I considered that my first and paramount duty was to pick up the boats, which contained thirty-seven men. Having done that it would be time to consider what next. I had no doubt that I should do this and hoped to find them at the Carey Islands, or, failing there, somewhere between Cape Parry and Cape Athol. Should they have reached and entered the ice of Melville Bay I thought it impossible to tell when they would appear. Dr. Kane took eighty days to go over the same ground. This would necessitate my remaining very late in the season, as it was quite out of the question to return home without them. But the pack prevented my reaching Cape Athol, and having worked through, on August 9, various fruitless attempts were made to force an opening between Cape Dudley Diggs and Cape York. On the 10th heavy pack appeared to the southwest; the wind was northeast and the ice moving off-shore down on us; there was ice behind us preventing our return northward. I had no alternative but to proceed to Upernavik.

In taking these steps I was governed by what I have previously stated in regard to the possibilities of Melville Bay and the probabilities of our being beset in the pack. Once involved in ice, I knew we would be helpless and our imprisonment of indefinite duration. I had no fears for Lieutenant Greely, who, living in a region reported well stocked with game, had economized his provisions. Should he reach Littleton Island, besides the provisions on the west coast the rocks and waters between that island and the mainland abound in walrus, the stench from their ordure fouling the air for a long distance. On the neighboring mainland reindeer are reported numerous. On the S. E. Carey Island there is a cache of six months' provisions for twenty men, known to Lieutenant Greely, who landed there. They would have to live Eskimo fashion, but Dr. Kane and Lieutenant Schwatka did that.

The WITNESS. That covers the question, I think, sir.

Q. Had you any equipment for Arctic navigation or for service in the Arctic regions?

The WITNESS. Equipment for the ship or crew?

The RECORDER. For the ship and the crew both.

A. The ship had a sheathing of oak plank extending from her water-line to about 7 feet below. The oak plank was about $2\frac{1}{2}$ inches thick, being a little thicker about the cut-water. That is all the protection she had. She had no more equipment for officers and crew for that region than she had to go to the West Indies.

Q. You regard her as entirely unfitted for a winter in the Arctic regions?—A. Entirely.

Q. Do you consider that your delay at Upernavik on your passage north materially affected the course of events to the prejudice of the objects of the expedition?—A. I do not.

Q. Are the causes of that delay fully stated in these reports?—A. They are.

Q. And you do not desire to add anything on that subject?—A. I do not think it necessary to add anything, sir; that is, I do not think it necessary to add anything for a professional man to judge of, a man who is acquainted with ships or the sea or the difficulties of navigation in that region; but to any other person an explanation might possibly be necessary.

Q. Perhaps it would assist the investigations of this court, as it is not composed of professional seamen, for you to state more fully.—A. I delayed in Upernavik three and a half days, there being a dense fog all the time. Outside of Upernavik there are about ten miles of islands, shoals and sunken rocks, unsurveyed, unknown, floating icebergs, too. In that latitude you cannot depend on your compasses. If you get out and are caught in a fog you must run your chances. Once out you have got to take your chances. If you are in a secure place it is far better to remain until you have a good chance to get out where you can see your way. It was necessary for me to be very cautious in handling my ship, having a large crew and not being an especially strong ship. The Pandora was caught by fog in that very situation and narrowly escaped destruction. The Alert, Captain Nares' ship, was also caught and ran aground and laid over one tide on the rocks. I could not have laid over a tide on the rocks without bilging.

Q. What was your object in visiting Upernavik?—A. To obtain information as to what the weather had been during the past season, and also what kind of a winter they had had; what knowledge they had of ice formation or ice movement there and any other information that I could obtain.

Q. In one of your reports I observe that you speak of the happy-go-lucky manner in which the Proteus was navigated. Will you please explain that to the court?—A. Lieutenant Colwell can tell that better than I can; I had my information from him; I can repeat what was told me.

Q. There is no objection to your doing so in an investigation of this kind.—A. Captain Pike was not a good navigator. He never could tell whether his sights were right or wrong. He ran his ship ashore twice when there was no necessity for it. I refer to his navigation.

Q. That has been explained to the court by Mr. Garlington and to some extent by Lieutenant Colwell. Do you know anything about the seaworthiness of the Proteus?—A. Only in a general way. I did not give her a thorough examination.

Q. State from your own observation.—A. From my own observation I should say that she was a very strong ship. The hull was strong. As to the condition of her boilers and engines and equipment generally I could not say. Her boats I know were very poor. The boats I saw were not suitable at all to carry north, and speaking of her equipment you might count the crew in as a part thereof.

Q. What class of men were they?—A. They were apparently a very poor lot of men—to look at.

Q. What did you observe, if anything, with reference to the equipment of the expedition under the command of Lieutenant Garlington—its sea-going equipment, boats, &c.?—A. I did not examine his boats. I only

know by hearsay what their condition was. If you count his men as his equipment, too, I believe his men were not sailors. They knew nothing about a boat.

Q. You know the object of this investigation; it is one of interest to the Government. Can you give the court any further information to assist it; do you know anything else material to the inquiry as to the cause of the failure of the expedition?—A. I can give one cause of the failure, I think, and that is, a great and important enterprise was undertaken with very insufficient and scanty means. That is one reason.

Q. Can you not state your meaning more fully under that head?—A. It is known how important the enterprise is. Two ships were sent north very unlike each other in their powers. One was a reserve ship to the other. The leading ship, the ship which was to do the work, was a foreign ship, officered and manned by a British crew, flying the British flag—a crew picked up anywhere, composed of what are called “beachcombers,” “longshoremen,” not seamen, the expedition going up as passengers, separate from the ship which carried them, composed of a different branch of the service, on a duty which required men to be able to live on the water, on the land, and on the ice, and a supporting ship sent out not suitable to go North with her large crew—too few provisions, unprotected, unfitted for ice encounters, liable to be caught in the ice and meet with a disaster much more grave than happened this summer. When the Navy Department thought it proper to send an expedition north to search for the Jeannette they convened a board of high officers, who sat for weeks studying and determining the equipment down to the minutest detail that should be fitted to this ship; what they were to do, where they were to go, what men were to go in her; and then, in spite of that, she was lost, though she did very well as far as she went. In this case I do not know of anything of the kind having been done. There was a large quantity of experience to refer to—the records of other Arctic expeditions of late years. I do not know that any reference was made to that, anything drawn from their experience; I have heard of nothing of that kind, so far as I know myself. That is the reason I said it was a great and important expedition undertaken with very limited means.

By the COURT:

Q. Was this your first experience in the Polar seas?—A. Yes, sir.

Q. Then all your knowledge of the difficulties to be encountered in your sailing north was gathered I suppose from your reading?—A. From reading it since boyhood, from what I saw this summer, and from talking with people there.

Q. Of course, in your instructions, you must have understood the object of sending the Yantic as a tender to the Proteus—that there must be some object in view. What was your understanding of it?—A. Just what is stated in my orders; but I did not confine myself to them; I understood that I was to go beyond those orders; not to cover myself by the actual wording of the orders; I understood the object of the expedition.

Q. What I want to know, if I can get at it, is this: The instructions were that the Yantic should accompany the Proteus. Now, I am no sailor and do not want to be. My understanding of that would be that the two ships would keep near together. By that I mean a few hours apart proba-

bly; that they would meet every day in the morning, separate through the day, and probably come together again. My understanding would be that that was intended by the instructions. I can understand, also, that there was no absolute necessity of the two vessels keeping together in that way on their way from St. John's to Disko, because I suppose that is plain sailing; but beyond that what was your understanding of your instructions when the two vessels left Upernavik in order to carry out that instruction that the Yantic should accompany the Proteus; what did you understand by that, taking the whole tenor of the order? Did you understand that you could under that instruction delay as you did several days after the Proteus left, or that you ought to start with her so as to be near her in case of accident?—A. I understood that I ought to start with her in case I could start. But I could not. It was necessary for me to remain there; otherwise I would have gone out when she did.

Q. What was the condition of your ship when you got to Upernavik or Disko or in that vicinity; how were your boilers?—A. Bad.

Q. They had to be repaired there before you could go any farther?—A. They had.

Q. You had not coal enough to start from there with, considering the possibilities of the future?—A. It was necessary for me to have all the coal I could get, because we burn a great deal of coal, and not being able to tell what was going to happen up there I considered it necessary to take in all the coal I could get, and I did it.

Q. As you went from St. John's to Upernavik sailing, why was it you did not take all your coal before you started from St. John's so as not to be bothered on the way?—A. We were using coal all the time going up. We had to condense our own water. We used a ton a day upon that. Then we used coal to put the ship under steam going out of St. John's, and I kept her under steam twenty-four hours because I had instructions from the Navy Department to make certain observations. Altogether I used twenty-five or thirty tons of coal. Then, again, when we left St. John's our bunkers were full and our decks were nearly full; I think we had seventy-five tons of coal on deck; the Yantic is a small ship with a deep waist, and seventy tons is a heavy load with rough weather; as it was we met a gale off Cape Farewell, very heavy seas, and in case the wind, as it did before twice, had shifted to the northwest I would have had to throw all my deck-load of coal overboard, otherwise we would have been swamped. After getting into the narrow waters of Baffin's Bay I felt pretty safe in filling my ship with as much as she could carry.

Q. Then when you left St. John's you carried all the coal it was safe to carry?—A. All I dared to carry.

Q. And if it were necessary to carry more you could fill up on the way and that would take some time?—A. Yes, sir. Then I had to go to various places to get it and finally had to dig it out of the ground there.

Q. With your own men?—A. With my own men.

Q. When you left St. John's had you any idea that you would be able to get up to Littleton Island?—A. I thought it hardly probable, but I meant to make a trial of it.

Q. In your opinion, from all the information that you had upon the

subject, not having been up there before, did you think the chances were unfavorable to your getting up there?—A. Very much in favor of my not getting up.

Q. And that was the idea, as I understand from others, that prevailed among the officers of your ship?—A. I will not undertake to say in the way of testimony what they thought.

By the RECORDER :

Q. That was the idea you communicated to Lieutenant Garlington—that the chances were very much against your getting to Littleton Island, was it not?—A. Possibly I may have done so. I cannot recall any instance of it now, though.

By the COURT :

Q. What was the necessity of Lieutenant Garlington leaving you at Upernavik two or three days before you were ready to go up?—A. He did not go to Upernavik.

Q. I mean leaving Disko and going to Littleton Island. Was there any absolute necessity of his doing that beyond the necessity in such a case of going ahead whenever you can?—A. He acted under his instructions.

Q. The instructions to you, and certainly the instructions to Lieutenant Garlington, were that the ships should accompany each other. Now we get to a certain point in the route and one of the ships leaves the other behind three days. I want to ascertain the causes that led to that action. Lieutenant Garlington from his testimony, as I remember it, says that his instructions were that he should go ahead without allowing anything to delay him on the way; that he must take advantage of the best weather and leads and everything else as a matter of course. But I want to know, if I can get at it, why the two ships did not keep together when they left there. It would have been a delay of only two or three days.—A. I told you why the Yantic could not leave.

Q. Yes, I understand that; but why could not the Proteus have remained?—A. That is a question for Lieutenant Garlington to answer.

By the RECORDER :

Q. Did you urge or advise him to remain?—A. No, sir; I did not.

By the COURT :

Q. Did you consider that the Yantic was a proper ship to have been sent upon that work in order to do the work that was expected of the ship; that is, to go to Littleton Island?—A. No, sir.

Q. In your opinion was the loss of the Proteus due in any degree to the inadequate manner in which the expedition was manned and equipped, as you have explained those terms?—A. I think it was, to this extent: that with another man in command of the Proteus, a man who knew what ice was, a better man in every way, the Proteus would not have gone in there as she did.

By the RECORDER :

Q. You think she was too recklessly pushed?—A. I think he did not know what he was about.

By the COURT :

Q. In what way?—A. Captain Pike, as I understand, made no exam-

ination of the ice himself; he never went aloft, but trusted to his son and his boatswain—both young and inexperienced men; he was supposed to furnish all the ice knowledge and seamanship and everything necessary to the expedition; he furnished none of those that I am aware of.

Q. You had no difficulty in your way finally in getting from Upernavik to Littleton Island?—A. We met the pack, a very heavy pack—that is, a great quantity of it, not particularly heavy ice—on the northern side of Melville Bay. We went through a number of loose streams of ice, some of it quite heavy, that struck us pretty hard, and a portion of the time, for about six hours, where there seemed to be a greater quantity of ice, the fog was very thick; sometimes it would lift so that we could see a quarter of a mile, and at other times it would shut down so that we could not see beyond the ship's flying jibboom. When it raised we could see the ice still streaming away to the southwest, and I thought then and think now that we were in about the only open water that there was there. The southerly winds I believe had not only packed the ice up in the northern side of Melville Bay, but it kept the ice coming out of Lancaster Bay from going south and drifted that north. I think the northern part of Melville Bay was full of it, and on the 10th of August I never could see more than a mile or two. It was quite as heavy as the Smith's Sound ice.

Q. How did your ship behave? Did you feel that you were in any danger while working through the pack?—A. There was danger of the fog shutting down thick and of finding ourselves embayed in the ice, the shifting of the wind bringing it down behind, or ahead, or in any direction. I could not tell where it was coming, and I was, I thought, running a great risk in doing what I did, but I thought I would try it.

Q. That is, you thought so on account of the vessel you were in?—A. On account of the vessel.

Q. She was not an ice-boat?—A. She could not do anything in the ice. If you get caught in the ice and if you can keep moving ahead it is well and good. If you are stopped you have to back and ram and beat your way through. I could not back with the Yantic through the ice. If I had backed I might have lost my rudder and rudder post, and the screw being of composition metal might have been so twisted as to be disabled. I did not want to get into any predicament of that kind, if I could help it, and I was very much relieved when it cleared away so I could see where I was. By that time I had got into open water.

Q. What preparations were actually made for the cruise in regard to the vessel itself; that is, in preparing the vessel for the cruise up north? What additions or improvements were made to the vessel itself in order to prepare it for that work with the exception of the sheathing that you have spoken of heretofore?—A. Her battery was taken off and her ammunition removed in order to give more room to stow coal to let her carry this additional weight.

Q. What was the use of having a crew of one hundred and twenty-six men?—A. That was our customary crew; it was not necessary to carry so many men north.

By the RECORDER :

Q. How many men would have been sufficient to man the ship?—A. She should have been prepared in a little different way. Having so many

men they do not use the most convenient way of rigging the ship as in the case of merchant vessels. Patent blocks and more apparatus would have been required to enable her to be handled by a smaller number of men. Fifty men probably would have been a good enough crew for her prepared in that way.

By the COURT :

Q. As it was, you brought back to St. John's quite a large quantity of provisions, did you not?—A. A fair quantity; yes, sir.

Q. As far as you remember, how many days' provisions did you bring back to St. John's?—A. I have not reckoned up to see how much it was.

Q. Did you at any time state to Lieutenant Garlington what your instructions were?—A. I do not remember that I did.

Q. You were furnished with a copy of his instructions?—A. I was.

Q. But he was not furnished with a copy of yours?—A. That I do not know.

Q. He was not furnished with a copy of them by you?—A. No, sir.

Q. Nor did he see your copy?—A. No, sir; he did not see my copy. He could have seen it though at any time if he had chosen to ask for it. There was no secret about my instructions.

Q. Did you have in your instructions a copy of what is known here as the memorandum "Inclosure 4"?—A. No, sir.

Q. You know what that is, I suppose?—A. Yes, sir.

By the RECORDER :

Q. In those conferences of which you speak, with Lieutenant Garlington, was there any diversity of opinion; did he ask for anything that you felt obliged to decline to grant as to the movements of the vessels?—A. I do not recall any such occurrence.

Q. Would it not probably have contributed to the chances of success if you and Lieutenant Garlington had fixed upon more places of rendezvous between Upernavik and Littleton Island; that is to say, for instance, suppose it had been arranged that he should look for a record of your movements at Littleton Island or Pandora Harbor and then again at Northumberland Island—I merely mention that as an example—and then again at Carey Island or Cape York, so that upon going to one of the most northerly station and not finding you he would go to the next and there discover when you had been there and when you would return, &c., so that at each of these places he would expect you to stop and return? Would not some such arrangement as that have been prudent and wise?

The WITNESS. Do you mean on the way north?

The RECORDER. Yes; that such an arrangement should be made before leaving Disko?—A. Yes, sir; I have no doubt that some such arrangement as that might have been made.

By the COURT :

Q. Do you think that the chances—not speaking of your after knowledge, but the knowledge you had then or the knowledge which the Proteus portion of the expedition had acquired on their way up—were sufficient to lead them to doubt the practicability of the Yantic reaching Littleton Island so as to justify them in leaving that island without waiting at least a few days for her arrival?—A. I do.

Q. That is, the party could not place any dependence upon your being able to get up there?—A. None whatever, sir.

Q. I believe the intention was to have the Yantic at Littleton Island as the base of the supplies for the Proteus as she went farther north, and, as the Yantic had but one chance in a great many of getting up there at all, what was the use of sending the Yantic on the expedition?—A. She had that chance if she got up there. She brought the party back. She made all the efforts she could to pick them up, but on account of her inefficient equipment she could not go into the ice. If I had had a strong ship, a ship as strong as the Proteus, I could have gone in there and picked them up without any doubt. There is another point, also. The presence of the Yantic there no doubt contributed, so I have understood, to preserving the morale amongst them; that is, that Pike's party did not get the upper hand. They thought it probable they might be brought to account. They knew the Yantic was on the coast and that sooner or later they would meet her, and I have understood that that alone quite probably kept them from violent measures.

Q. Besides your written instructions you had no verbal instructions or any ordinary conversations with superior authority in regard to what you had to do?—A. No, sir; I received my orders three days before I sailed. I did not know where the ship was going until then except through the newspapers.

Q. Where had your ship been cruising just before that?—A. In the West Indies.

By the RECORDER:

Q. You had no other duty, then, than such as you were directed by these instructions to perform?—A. Nothing that would interfere with those instructions at all; I did have some other duty, but nothing that would interfere with carrying those out.

Q. You had some other duty?—A. Observations, simply; not duty for the ship, but compass observations.

Q. Scientific observations?—A. Yes, sir.

By Lieutenant GARLINGTON:

Q. I will ask you whether or not you intended to include me in the answer you gave that no study of the experience of others had been given to this subject?—A. I meant by the authors of the expedition; those who fitted it out.

By the RECORDER:

Q. You did not refer at all to Lieutenant Garlington?—A. No, sir; I did not have him in my mind at all.

The court at this point (3 o'clock p. m.) adjourned until 11 o'clock a. m. to-morrow.

WASHINGTON, D. C.,
November 20, 1883—11 o'clock a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of the proceedings of the previous day was read. The testimony of Lieutenant Colwell and Commander Wildes being read in their presence, and the record being corrected, was approved.

Commander FRANK WILDES then resumed the stand.

The WITNESS. I desire to make an addition to my answer to a question on page 83 of the record. The question was:

Q. What was your object in visiting Upernavik?—A. To obtain information as to what the weather had been during the past season and also what kind of a winter they had had; what knowledge they had of ice formation or ice movement there and any other information that I could obtain.

To that I wish to add:

This would influence me in my choice of routes across Melville Bay.

Then on the last page the question is asked:

Q. Besides your written instructions, you had no verbal instructions or any ordinary conversations with superior authority in regard to what you had to do?—A. No, sir; I received my orders three days before I sailed. I did not know where the ship was going until then, except through the newspapers.

I would like to correct that, so as to read:

I did not know that the ship was to go north of Upernavik until then, except through the newspapers.

By the RECORDER:

Q. I want to ask you as to the ordinary range of these sealers from St. John's. What geographical limits are they accustomed to keep within when going out sealing?—A. They usually keep south of Davis Straits. This past summer one of them went after a kind of seal which they call the bladder nose, on the east side of Greenland. I asked the mate if they went into the ice, and his reply was "no, we were too far from home." Whether that was the true reason or not I cannot say. Probably his ship was weak and they did not care to put her in the ice.

Q. You were too late to see the sealers at St. John's, were you not?—A. Yes, sir.

Q. You are not therefore able to inform the court how the Proteus compared in strength and build with other sealers generally.—A. I could not state in a positive way about that. I talked with people about it, of course.

The RECORDER. [To the court.] General Hazen wishes to ask a few questions.

The WITNESS. Is it permissible for any persons outside of the court to ask me any questions they choose?

The RECORDER. The questions are submitted to the court and are, of course, approved by the court before they are put.

General HAZEN. Shall I submit them in writing?

The COURT. You can submit them to the court, and if they are proper they can be put by the court. They may be submitted orally.

The RECORDER. General Hazen requests the court to inquire of the witness whether the words in his answer on page 84, "too few provisions," refer to the provisions for the Proteus or the Greely party or for the Yantic?

The WITNESS. Those words refer entirely to the provisions for the Yantic.

General HAZEN. I would like to ask further what knowledge the witness has that the Proteus crew was made of "beachcombers," "longshoremen," and not seamen. I will explain my reason for that question. The contract made with the owners of the Proteus, who are a firm of very long standing and of very high credibility, required that these men should be all prime and first class in every respect, and if they were not so I want the court to find out in order to know where the fault is. Hence I think it very important that that matter should be investigated as well as any other matter, believing that I took every possible means to make that crew what it ought to be.

The COURT. There is no objection to that question being answered.

The WITNESS. It was too late in the season to secure a good crew of sealers such as is usually taken north with such expeditions. When a crew was shipped for the Proteus most of these men had gone into other operations—codfishing, farming, or various occupations. Captain Pike said that he had to pick up a crew wherever he could get it, and it was a very poor crew. I also made the statement on the authority of Lieutenant Colwell, who is capable of judging what a seaman is. I also had them mustered every morning while they were on board of my ship, and I had an opportunity to look at them and personally inspect them, and from my knowledge of seamen there were very few of them whom I would have enlisted on my ship.

General HAZEN. On the 89th page of the record, Commader Wildes says:

The presence of the Yantic there no doubt contributed, as I have understood, to preserving the morale among them—

Meaning the crew of the Proteus;

that is, that Pike's party did not get the upper hand; they thought it probable they might be brought to account.

This refers to a possible mutiny among those men. I would like to know what he knows in regard to it.

The COURT. [To the witness.] Will you answer that question?

The WITNESS. All my information was derived from Lieutenant Colwell. I received a letter from him in Godhaven stating many points about the progress of the expedition, what had occurred, and the condition it was in up to the time he left it at Cape York. I base that statement on that letter.

By the COURT:

Q. Have you that letter?—A. I haven't it with me. It was not an official letter. This letter was written right on the spot with all the facts fresh in his memory and probably was not exaggerated at all. It was forwarded through an Eskimo, and it was intended to give me as correct an idea as possible of the condition they were in in order that I might know what was best to do for them.

General HAZEN. On the same page the question was asked by Lieutenant Garlington:

Q. I will ask you whether or not you intended to include me in the answer that no study of the experience of others had been given to this subject?—A. I meant by the authors of the expedition, those who fitted it out.

I wish to know if the witness included in that the Chief Signal Officer and the efforts of the Signal Service to carry out that expedition?

The COURT. [To the witness.] You can answer that question.

The WITNESS. I have nothing to add to the answer there, sir.

General HAZEN. Then I would like to ask what he knows about the study of experience by the Chief Signal Officer and the Signal Bureau with regard to that expedition.

The COURT. [To the witness.] You can reply to that.

The WITNESS. That is answered on page 84, I think. I say there that I do not know that any reference was made to former experience; that is, not to my knowledge. I cannot say positively; I only judge of what is patent to everybody. I mean what everybody can see for themselves, the progress and the results last year and this year. That is the only reason.

General HAZEN. Then I would like to ask wherein the expeditions either last year or this year failed to get as far north or do as much as any ship could do up to the time that the ship last year came to the solid pack, which no ship could pass, or this year till she by false seamanship or the act of God was nipped and sank. By "pack" I mean solid ice.

The COURT. [To the witness.] You can answer that.

The WITNESS. Probably they did as much as they could do last year and this year, fitted and equipped as they were.

By the COURT:

Q. How long was the Proteus party on board of your ship?

The WITNESS. You mean the whole party?

The COURT. Yes.

A. I picked them up on the 2d of September, and we arrived in St. John's on the 13th. I sailed the same day within a few hours after taking them on board.

Q. And you had then ample opportunity to observe them?—A. I had eleven days.

By the RECORDER:

Q. By way of explanation of one of your former answers, I desire to ask at what time of the year do the sealers usually leave St. John's?—A. They leave on the 10th of March. They cannot leave until then by law, and they all go out together at that time.

Q. Do they make a second trip?—A. Sometimes they do.

Q. What time would they come back from their first trip?—A. They are all through both trips by the latter part of April. If they make a successful and rapid trip some of them go out again. It is not always the case, as I understand.

Q. Do they go out again in April?—A. They go out just as soon as they can get out. If they are lucky and make a large find of seals, kill a great many, they fill their vessels, come in, discharge, and go right out again. But they are through with both trips usually by the latter part of April.

Q. What becomes of them after that; are they not to be found in the neighborhood of St. John's?—A. They were not to be found, as I understand it, this past summer. It was said there that they were scattered gone in vessels or abroad to England or in the cod-fisheries. The cod-

fishery was very large this year, there having been a large quantity of cod taken.

Q. That is pursued later?—A. I believe that commences later in the season. Then they had gone into the interior also, away from St. John's, not into the interior of the island, but into the interior towns and points there for employment.

Lieut. JOHN C. COLWELL, United States Navy, was then recalled and further examined.

By the RECORDER:

Q. What did you observe, if anything, in reference to the capacity of Captain Pike as an ice-master or an ice-pilot?—A. This was apparently his first experience in Arctic ice.

Q. Did or did he not con the ship in the ice?—A. He coned it from the bridge under the direction of one of the mates in the crow-nest.

Q. That is, from the mast-head?—A. That is, from the fore truck, which was the extreme top of the foremast.

Q. Had the mate had any experience in Arctic ice?—A. None.

Q. Do you know that Captain Pike put the ship in any unnecessary danger as far as you observed?—A. It was my first experience in the ice, and his actions were not such as would have been mine. But at the time I supposed his judgment to be correct, as he is a sealing captain.

Q. Are not the sealing captains accustomed to navigate the ice?—A. Not Arctic ice.

Q. Such ice as you met off the coast of Labrador?—A. Not such ice as that.

By the COURT:

Q. Had the Proteus been in command of a naval officer of experience do you think the result would have been different after leaving Littleton Island?—A. I think it would.

Q. Upon what do you base that opinion?—A. With the experience that I have now of that ice I would not have put a ship into the leads and kept her in the ice as the captain of that ship did.

Q. Do you think that he kept in the leads so long because he was ignorant of the nature of Arctic ice?—A. That is my opinion. I think when he was stopped in the ice the first evening after we left Payer Harbor he should have gotten out of the pack that night instead of lying in it all night as he did.

Q. Do you attribute that to any inexperience on his part in dealing with Arctic ice?—A. I do.

By the RECORDER:

Q. How far had you entered this pack then from its edge?

The WITNESS. When we were stopped?

The RECORDER. At the time you speak of, when you think he should have gotten out.

A. We were about six miles inside of it.

Q. Would it have been practicable to get out and return to Payer Harbor?—A. Yes, sir.

Q. Was Payer Harbor protected from the ice?—A. Yes, sir.

Q. Was any remonstrance made with Captain Pike by Lieutenant Garlington or any different course of action requested of him?—A. I heard none. I heard Captain Pike say, "The ship is in a safe place. This ice is soft and won't hurt her if it does nip." It did nip that night, but not very heavily.

Q. And how was it immediately preceding the disaster?—A. The ship was trying to get out of the pack then.

Q. The same pack?—A. The same ice. She was only a few miles from where she had stuck the night before, and was endeavoring to make her way out.

Q. Going out?—A. Working out through the ice. When she was crushed there was no open water for her to go into. She was trying to wedge two heavy floes apart. A man was landed on the ice and he followed around the crack to see if the crack extended into open water, which extended to within a few hundred yards. He came back and said it did. The floes were closed tightly together. The captain put the bow of the ship against the crack and worked the engines ahead full speed. This wedged the two floes apart and the ship worked about half way between them.

Q. How far?—A. Probably one hundred and fifty yards. One of the floes was about four hundred yards in diameter. The other was the main ice-field. She was about half way through when the ice closed up under her stern, and you could see it nipping up ahead, and that is where she was crushed.

Q. What was the thickness of this ice?—A. I measured some of it. It was from six to seven and a half feet. That was on the level. Of course it was much thicker where it was at all hummocky.

Q. What was the state of the wind?—A. Perfectly calm.

Q. The ice was moved by the tides?—A. By the tides.

Q. What was the state of the tide?

The WITNESS. When the ship was first nipped?

The RECORDER. About the time of the disaster, when she was crushed?

A. When she was crushed the tide was running flood. She sank when the ice slacked, with the first of the ebb.

Q. To what did the fast ice cling there?—A. There was no fast ice there.

Q. Did I not understand you that one of the floes was stationary?—A. That was the main ice-field occupying Smith's Sound as far as we could see off to the eastward.

Q. But the motion, as I understand you, appeared to come from the other floe?—A. My impression of the nip was that the main ice-field was moving to the southward with the current; there is a steady current in Smith's Sound; the ice to the southward of this, between where we were and Cape Sabine, was very much broken; this ice was moving in with the flood-tide when she was first nipped, and the main field coming down from the northward, jammed this broken ice against Cape Sabine, and the ship was caught between the two.

Q. How did the ebb-tide operate?—A. The ebb-tide started the whole thing moving off to the southward and eastward again. Of course the broken ice was running much faster, probably a knot an hour faster than the main field. But the whole thing was moving to the southward and eastward.

Q. In reference to the matter about which Captain Wildes has been interrogated this morning, as to some mutinous indications among the crew of the Proteus, what is your knowledge of that, if you have any?—A. Their own officers had no control over them. At the time of the disaster I heard one of the crew defy one of his officers; he told him the Proteus was lost and there were no more officers; every man was for himself; one man was as good as another. I heard Captain Pike several times call on his men to do certain things and they paid no attention to his orders.

By the COURT :

Q. Before or after the disaster?—A. After the disaster. Coming down the coast in the boats I can remember several times we had private information from some member of the crew of the Proteus that we had better keep a lookout on our boats and stores, as there was a party of men in the Proteus' crew who wanted to steal our boats and make for the west coast, our boats being much better than the Proteus' boats. After that we kept an armed watch over the stores all the time, and kept one rifle with us whenever we slept and the man on watch with another rifle.

By the RECORDER :

Q. Had the crew of the Proteus any arms among them?—A. They had eleven guns; it was either six shot-guns and five rifles or five shot-guns and six rifles, I am not sure which.

Q. Among the men?—A. Among the men.

Q. The sailors?—A. The sailors.

Q. Were Captain Pike and his mate armed?—A. No, sir; a great many of these arms belonged to the ship, were not the private property of the men, but the men had them; I understood from Lieutenant Garlington that he had requested Captain Pike not to allow these men to have these arms and ammunition, and Captain Pike had promised that he would take the arms from them, but he never did it.

Q. That was the whole substance of your report to Commander Wildes upon this subject as far as you recollect?—A. I do not remember exactly what I wrote to him. I wrote it in a great hurry when I was out in an open boat on my way south. An Eskimo canoe came off to me. I wrote this note on a blank sheet of paper torn out of a book and sent it down to him. I do not remember exactly what I said. I have never seen it since, but I tried to place the condition of affairs before him.

Q. In reference to what was this refusal to obey Captain Pike?—A. I remember a number of times—I cannot recall exactly what, with the exception of twice—he called to them to come and help haul the boats up and they did not come. On one occasion when he called his whole crew were sitting down near him. His first mate, his son, and the ship's cook and one of the firemen obeyed his call. The rest of them sat there and looked at him.

Q. Do you know anything of any depredations by the crew of the Proteus upon the property of the expedition?—A. I know that they took a great deal of the stores of the expedition at the time of the wreck. I recognized some canned things and clothing.

By the COURT :

Q. At or about the time they refused to obey Captain Pike were they

plundering the private baggage of the officers as well as the public supplies?—A. I never heard Captain Pike give any orders when they were plundering.

Q. Did he attempt to stop their pillaging?—A. During the greater part of that time I was not with the main party when they did most of their stealing. I was still on board the ship. That was before she sank, and after she sank I had gone to the other side of the crack, and when I got back our stores had all been collected in one pile. In the mean time, I understand, when the things were being thrown out of the ship on the ice they broke open the packages and helped themselves. I did not see them doing it, although I saw the things in their possession. I did not see them break open these packages as I was on the ship at the time.

Q. Did they not steal some of your own personal property?—A. I never saw any of my things after the wreck. I did recognize some, too, but could not recognize them positively enough to claim them, with the exception of one coat.

Q. And your powder cans?—A. Yes, those powder cans. But they were empty when I recognized them.

Q. You recognized them as yours?—A. I recognized them as mine because I had a peculiar kind of powder.

(The witness here left the stand, his examination being concluded.)

General HAZEN. I wish to say to the court that the Proteus and her captain were hired after very deliberate and very careful consideration. Captain Pike brought to the owners of the ship from Lieutenant Greeley in 1881 a letter highly indorsing him as fulfilling all of his wishes. That letter the owners have. The owners also are a firm of very long standing—over a hundred years—of the highest respectability, who consider their probity in business as high as it is possible for any firm to do. They made this contract with me to furnish that ship, thoroughly equipped and manned and provisioned, in the best possible way. They now claim that they did it. If they did not do it they are very much at fault. It is questioned to this court. It is a fact shown in evidence, as it now stands, that they did not do it. I would therefore ask that Captain Richard Pike, the captain of that ship, Mr. J. Syme, the agent of J. & M. Stewart, the owners of the Proteus, with whom I contracted, and Thomas N. Malloy, the consul of the United States stationed at St. John's, who made all these contracts, who wrote them all and knows all the facts, be called here as witnesses to testify upon all these facts. I ask this without casting any reflections upon the gentlemen who have given this testimony. I think it is due to me that the other side be heard before this court. They have also expressed to me a desire to be confronted in order that they may make their own statements and their own case in this matter. There has also been a question raised, in fact it comes in direct testimony this morning, that the originators of this expedition did not give it proper study, did not properly prepare it, and that the means were inadequate. I would like to have Captain Clapp, of the Sixteenth Infantry, who knows more of that than anybody in the world but myself, ordered here to testify to the court what study and preparation were made for that expedition. I would also like to have General John P. Hawkins, the commissary who selected and bought all the stores, brought here to testify as a witness as

to their quality and their general condition. I think that will sufficiently establish the part that I had to do with this contracting and furnishing, and I think it will put before the court the proper statement of the case which I would like to have them understand.

The RECORDER. Did I understand you to say you have letters from these gentlemen?

General HAZEN. I have a letter stating that in case these subjects are touched upon they wish to state their case.

The RECORDER. Upon the subject of the fitting out?

General HAZEN. Upon the whole subject; the character of the Proteus and the subject of the fitting out in men as well as material; and I would like also for them to bring the letter from Lieutenant Greely indorsing Captain Pike.

The RECORDER. Does Captain Clapp know anything of the case that is not known personally to you?

General HAZEN. He knows a great deal of the minutiae of the preparations, he having done it with his own hands in his own way. In a general way he knows no more than I, but the particulars of that work he does know better than I, because he did it himself.

The RECORDER. As to the fitting out?

General HAZEN. As to the fitting out.

The RECORDER. As to what supplies were provided?

General HAZEN. As to what supplies were provided and the general study and care and attention that was given to the whole subject.

The RECORDER. He was relieved by Lieutenant Garlington in your office as early as February, was he not?

General HAZEN. Yes, sir; but the main decision and the main plan of preparations had then been completed.

The RECORDER. Has Captain Pike expressed any wish to appear before the court?

General HAZEN. He has, through the consul, stated that he wanted his conduct investigated, if questioned.

The COURT. The suggestion of General Hazen will be considered by the court.

General W. B. HAZEN was then recalled and further examined as follows:

By the COURT:

Q. It might be well to take advantage of this opportunity to ask a few questions. About the 4th of June, 1883, when the papers relating to the instructions of Lieutenant Garlington were before you for consideration and for signature, did you observe the paper known as "Inclosure 4?"—A. I have no recollection of that paper until it was brought to me by Lieutenant Garlington.

Q. Who presented those papers for your signature? A. That I do not remember.

Q. Do you remember whether or not it was Captain Powell who had been Acting Chief Signal Officer during your absence?—A. I do not.

Q. You acted upon these papers on the day they were presented to you?—A. I acted immediately.

Q. Did you examine any inclosures to the letter of instructions to Lieutenant Garlington?—A. Not that I remember, until he brought his packet to me after they were delivered to him.

Q. Then when you turned over the papers to Lieutenant Caziare, your adjutant-general, to give them a proper direction, you submitting all the papers to him, was it your intention that all those papers should go to Lieutenant Garlington or that Lieutenant Caziare should select such as should accompany the order?—A. I do not remember that there was any special reservation about it; as far as I remember the papers were returned just as I received them; I have no recollection about any of the inclosures; I only recollect as to the orders that I signed; the various papers that were with it I have no recollection of.

Q. Did you add anything to the orders as they were submitted to you?—A. Not at that time.

Q. I merely ask this because I do not quite understand the case. As I recollect, Lieutenant Caziare states that those papers had been submitted to the Acting Chief Signal Officer with the original of that memorandum and that that original was intended for the Secretary of the Navy; that another copy was submitted with the instructions to you through Captain Powell—that Captain Powell submitted those papers to you for action. He does not know what passed between you and Captain Powell. That when the papers were returned to him there were the instructions to Lieutenant Garlington, the inclosures that are referred to in those instructions, and this memorandum, and that without very thorough examination he was perfectly satisfied that that memorandum was part and parcel of the instructions and continued to have that opinion until after the disaster, and my question is designed to ascertain whether you could remember how these papers got into your possession and what you intended by the inclosures that were sent with the order to Lieutenant Caziare to be delivered to Lieutenant Garlington?—A. I do not remember any particulars about the inclosures in that envelope. I only remember that I did not intend that that memorandum should be part of Lieutenant Garlington's orders.

Q. And you never saw the memorandum until Lieutenant Garlington showed it to you?—A. Not that I remember.

Q. Was the original of that memorandum shown to the Secretary of the Navy?—A. I do not think it was. I do not think that either the original or a copy was ever shown to him.

By the RECORDER:

Q. Or to the Chief of the Bureau of Navigation?—A. No, I do not think so. My impression was that it was not. I know I did not intend it to go over there as a part of any memorandum for their guidance, because I immediately went over myself and told them precisely what I wanted and furnished them the order which was Mr. Garlington's, and his only order, and the letter of Mr. Greely.

By the COURT:

Q. You do not remember at what period of the transaction that last remark was added to Lieutenant Garlington's instructions, in which he was told that a naval vessel, the Yantic, would accompany him, and so

on?—A. No; it was added before this final handing to him of the papers, and it was after I returned from St. John's.

Q. Was that the result of any conversation between yourself and Captain Powell or Lieutenant Caziare or anybody?—A. Not at all. It was the information which I had directly from the Secretary of the Navy that this ship should go.

Q. When you wrote a letter to the Secretary of the Navy through the Secretary of War asking for a naval vessel to accompany the Proteus you stated therein that you did not intend the vessel to go into the ice?—A. Into the pack.

Q. You also, in a telegram that you sent from St. John's and which was read this morning, say:

Tender to go to southern limits of pack-ice.

What did you exactly mean by that?—A. I meant that the vessel should not enter the pack-ice where she would be in danger, supposing that she would have no occasion to do it in reaching Littleton Island, and I also felt it necessary to assure the Navy Department that she should not go, fearing that the vessel would not be given us at all if there was any danger of that kind. But I always supposed, without going into the pack, that she would arrive at Littleton Island, and my conversations with the Secretary of the Navy or the Acting Secretary of the Navy were always based upon that fact.

Q. As far as your information went at that time, were you not aware of the difficulties of going through Melville Bay, and that the pack-ice would be found there on all occasions, and that there was only a chance to get through without meeting them?—A. No; my understanding then was that, although the pack-ice was in Melville Bay, a ship at all seasons, without seriously entering the pack, could get through to Littleton Island; I understood that the pack-ice extended all through that bay, but by keeping near the west coast of Greenland that any summer a vessel could reach Littleton Island, and it was upon that theory that Littleton Island was selected as a depot rather than the west coast, because that far the vessel could always reach.

By the RECORDER:

Q. I think you stated that you did not see the instructions to the Yantic?—A. They were never furnished our office until since the disaster.

Q. Did you see any memorandum upon which they were based?—A. I never did.

Q. Did you know their nature, or was the nature of the instructions communicated to you?—A. No, sir; they never were. I see, in reading over the instructions this morning, they follow very closely my verbal request.

Q. Do you remember of the Secretary of the Navy asking you if they were entirely satisfactory to you?—A. No, sir.

Q. Or telling you that he could not be responsible for the duty; that it was a duty to be performed at your request, and that you must be responsible as to the nature of the instructions conforming to your request?—A. He never said anything to me that I remember about instructions. He did say something to the effect, if I remember rightly, that it was done at my request. But as to the matter of instructions, I do not remember

his ever saying anything to me about it. If he had it certainly appears to me he would have sent me something of the instructions that he had drawn up in order that I might have passed upon them.

Q. But your conversations with regard to the detail of the instructions were with the Chief of the Bureau of Navigation, were they not?—A. At the last conversation I had I think the Secretary of the Navy and Commodore Walker of the Navy were both present. It was very short and my requests were very simple. I have already given them: that the Yantic proceed northward as far as Littleton Island, with the Proteus, as an escort or a tender, and do such things after her arrival and on the way as might be deemed proper by the different commanders.

Q. Did you specify the supply of any stores or provisions for the expedition or for the Greely party?

The WITNESS. To be carried by the Yantic?

The RECORDER. Yes; or to be furnished by the Yantic.—A. No; there was no specification of that sort made.

By the COURT:

Q. Did any of the naval authorities with whom you consulted at any time express any doubt that the Yantic could reach Littleton Island?—A. I do not remember that they did. There were a great many doubts expressed about it, but whether they were expressed at these interviews with the Secretary of the Navy or Commodore Walker I do not remember. But I was left with the impression that there was a good deal of doubt in their minds as to her getting there.

Q. As to her reaching Littleton Island?—A. As to her reaching Littleton Island.

Q. Did you have any doubt yourself?—A. I had none.

Q. None at all?—A. Yes, I had the same doubt that I would have of any ship on a perilous expedition, but my experiences had led me to believe that those preconceived difficulties usually passed away upon reaching them, and I had scarcely a doubt but with proper effort the Yantic could get through.

Q. And therefore you were perfectly willing to risk the safety of the expedition upon the Yantic reaching Littleton Island?—A. Yes, sir.

Q. And remain there as a base?—A. And remain there as a base. I considered that that would add largely to the chance of the expedition being a success.

By the RECORDER:

Q. I will ask you if it would not have been much better if Mr. Beebe had been instructed to cache all his stores at say Cape Sabine, or at Littleton Island, or in that neighborhood, rather than bring them to St. John's, and why were not instructions given him to that effect?—A. In my opinion it would have been very much better if he had done it. But it seemed to carry out the plan of Mr. Greely to bring them back; and it was done. I have regretted very much ever since that such instructions were not given and that his supplies were not all left at Cape Sabine.

By the COURT:

Q. What supplies did Lieutenant Greely ask to have sent up to him in the letter that was received?—A. He asked that supplies for forty men

for one year should be sent, and as a guide to their quantity and kind and quality that we should be governed by the list which he had taken up himself.

Q. Do you know why he should have required such additional provisions when, according to your previous testimony, he had taken with him about five years' supplies, and under his instructions he was to remain there only two years?—A. He was to remain there three years under his instructions; that is, his party was to remain there three years. It was not intended that the party should come back after two years, until Congress passed that law. The reason of his adding to the supply was to cover any possible contingency in deterioration or loss of stores or any dependence the vicissitudes and accidents in the progress of the ship might make necessary, or to land the stores and make a depot at Littleton Island to live upon them.

By the RECORDER:

Q. How did it happen that Mr. Garlington was informed in his instructions that Greely's supplies would be exhausted this fall?—A. That is a matter I have thought of a great deal. I am not able to account for it. It was either a clerical error or it was put in by Captain Clapp in his first rough draft and the matter was overlooked afterward.

Q. It would naturally have the effect to impress upon Lieutenant Garlington the urgent necessity of reaching Lady Franklin Bay, perhaps?—A. I have often thought that that was what Captain Clapp intended in so writing it; but I do not know. It would have that effect.

Q. Does the charter party embody all the agreements you made with the firm of J. & W. Stewart?—A. It does.

Q. I do not observe that there is anything special respecting the character of the crew?

The WITNESS. Have you the charter party?

The RECORDER. I have it here. [Submitting Signal Service Notes No. 10 to witness.]

A. Although not stated in words this seems to cover it:

That the parties to the first part agree that in consideration of the terms hereinafter set forth, the said steamship or vessel being tight, staunch, and strong, and in every way fitted for the voyage hereinafter described.

It seems to me that that covered the requirement in every way of being fitted with a proper crew.

Q. But you refer more to oral promises that the crew should be of the best character?—A. We had a conversation to that effect, and I was promised very positively that that should be so.

Q. You accompanied Lieutenant-Commander McCalla when he made an inspection of the Proteus?—A. Yes, sir; I was not with him when he inspected the boilers, but I was with him when he made the other inspections.

Q. You visited the ship?—A. I visited the ship in person.

Q. Was the crew shipped then?—A. A portion of them were.

Q. Did you receive any impression as to the character of the men?—A. They impressed me well. I will say with regard to the captain that he was reputed in all that country as the best captain for that northern service. As to the ships, both the Proteus and the Neptune were reputed

in all that section as being in every respect among the best, and in many respects the very best, of that fleet. I will say further with regard to that fleet that it is built expressly for that service and is the development of more than two hundred years' experience in sealing work. It is composed of over a thousand ships, comprising sailers and steamers. The better steamers are made in Scotland and at the best ship-yards, and the testimony of that entire community was that these were the best ships for that purpose that could be obtained, and I yet have to be informed wherein, in each of the three cases until they met impassable barriers that no ship in the world could stand, they did not fully in every way fill the conditions of the service.

Q. Did you understand they were accustomed to encounter heavy ice?—A. They are made specially with regard to that.

Q. What did you understand to have been Captain Pike's experience as an ice-pilot?—A. I was informed that he was thoroughly competent as an ice-pilot; that he had been all his life in that sealing service in the ice of Baffin's Bay, and that he had every possible experience that was necessary for a man to have.

Q. How many of the crew do you suppose you saw yourself?—A. I should say that there were a dozen.

Q. Exclusive of the officers?—A. Yes, sir. The engineer seemed very capable. He had been just promoted from an assistant. He had been with that ship on its previous cruise. The mate had also been on the previous cruise with Lieutenant Greely. I have been told since that he was a son of the captain. But in that respect it should be remembered that the trades in families up in that country continue to all time, the son succeeding the father, and I would not consider that as any objection to him.

Q. Did you make any examination of the boats of the Proteus?—A. I did; they seemed to be fair boats; I will say, with regard to the equipment of those sealers, that they would not come up to the standard of the naval service of the United States; those boats are used for the trade in seals and blubber and oils; they burn pitch pine, and they are dingy and black all of them, and in respect to the standard of a United States naval officer none of them would pass muster; but those ships with their equipment, for all the substantial purposes that they were required by these expeditions, seemed to me to be admirable, and I think their service has proven them to be so; their selection was made after a great deal of study upon that subject.

Q. How long did you and Commander McCalla remain in St. John's?—A. We were there five days. I think the Newfoundland fleet for ice-service is the largest and the best in the world. That is its reputation as I have been able to gather it. That comes from their long use in this special ice-work.

Commodore JOHN G. WALKER, United States Navy, Chief of the Bureau of Navigation, Navy Department, was then sworn and examined as follows:

By the RECORDER:

Question. You are chief of the Bureau of Navigation of the Navy Department?—Answer. Yes, sir.

Q. And were so last summer immediately preceding the sending of the Yantic to Baffin's Bay?—A. Yes, sir.

Q. The court would like to hear from you the history of the negotiation between the Chief Signal Officer and the Secretary of the Navy which led to the sending of the Yantic to Baffin's Bay.—A. The Chief Signal Officer asked verbally if it were possible to furnish a ship for that purpose, and talked with the Secretary of the Navy and also with me, and he was told that we could furnish one. He then made a written application to the Secretary of War, who wrote to the Secretary of the Navy on the subject, and the Secretary of War was told that a ship would be furnished. The Yantic being the most available ship for the purpose was the one selected, and orders were given to fit her for that service.

Q. That was a letter of May 14th, which we have before us asking that the ship should be sent?—A. I think so; yes, sir.

Q. Subsequent to the receipt of that letter did you have any interview with General Hazen?—A. Several. There was a good deal of communication between the Signal Officer and the Secretary of the Navy and with me also. There was a good deal of talk and a desire upon the part of the Navy Department to meet the views of the Signal Office and of the War Department, that we might do everything in our power to further their views.

Q. Did the instructions to the commander of the Yantic embody all the requests made, either verbal or written, by General Hazen?—A. I think so. A good deal of this work was done in conversation, but the instructions to the Yantic were intended to meet the views of the War Department.

Q. What did you understand as the object of the Chief Signal Officer in asking for the Yantic particularly?—A. Simply to have a relief vessel to fall back upon in case of disaster to the Proteus.

Q. Was it contemplated that the Yantic should furnish any provisions from her stores for the use of the Greely party?—A. Not at all.

Q. Did General Hazen make any request to you or in your hearing that the vessel should be used as a depot?—A. No, I never knew of such a request.

Q. The instructions directed the commander of the Yantic to proceed to Littleton Island. At the same time he was cautioned that in no case was he to enter the ice-pack or to put himself in a position where he would be detained beyond the season. You remember the clause, probably?—A. Yes, sir.

Q. How, in the mind of the Navy Department in giving those orders, were those two things to be reconciled?—A. In my own mind I had very little doubt of his ability to reach Littleton Island sometime during the season. But the orders were positive that he should not go beyond Littleton Island, the idea being that as he went up into the narrow waters there he would be likely to come into more danger, and the orders not to go into the ice-pack were positive, because the ship was entirely unfitted for work in the ice. It was his duty to go to Littleton Island if he could effect it without too much risk to his ship, but he was to take care of his ship.

Q. The instruction to go to Littleton Island was therefore entirely contingent upon the condition of the ice in Melville Bay, where it is generally found in large masses?—A. Yes, sir.

By the COURT :

Q. Did the Navy Department give General Hazen to understand at any time during those negotiations that there was a probability that the Yantic would reach Littleton Island?—A. I cannot say that we did, but I should not like to dispute it either, because in my mind there was very little doubt but that sometime during the season she would reach Littleton Island.

Q. In your opinion were the probabilities for or against her getting to Littleton Island?—A. In my mind the probabilities were that she would reach Littleton Island, perhaps not directly, but sometime during the season, although it would not have surprised me if she had failed to reach there, still I thought there was a probability that she would succeed.

Q. In the instructions it was stated that the vessels should accompany each other. To what extent did you suppose that was to be construed?—A. I did not myself suppose that they would accompany each other. I supposed it would be practicable for the Proteus to go on where it would not be for the Yantic, and that they would soon separate for that reason. The Proteus was built for going into the ice and the Yantic was not.

Q. Then your expectations were that the Proteus would get to Littleton Island far ahead of the Yantic?—A. Oh, yes; that was my opinion.

Q. That being the case, of what assistance did you suppose the Yantic would be to the Proteus if she did not accompany her at all?—A. If the Proteus should come to grief, as she did, that the Yantic would be available to bring away her people; I suppose no one was of the belief that she would come to grief so soon as she did; the Yantic was simply a point to fall back upon in case they were obliged to fall back to save themselves.

Q. Was the Yantic about the strongest ship you could send upon that expedition?—A. She was the smallest and the handiest ship that we had in the North Atlantic squadron. No ship built in the ordinary way is fit to go into heavy ice. She was as good as any that could be sent, and, being smaller, she was the handiest ship for that purpose.

Q. You could not have made any better selection for ice work than you did?—A. No.

Q. And I suppose the sheathing that was put upon her was about the best that could be put on?—A. That was simply to prevent the sharp ice from cutting her sides through. If that sheathing was taken away the ice would cut her sides.

Q. Then I suppose you are very well satisfied with what the commander of the Yantic did in the expedition under all the circumstances?—A. I think he got on faster than we had reason to suppose he would. I think he reached Littleton Island quite as early as we had reason to suppose he would. Such navigation is difficult and dangerous and subject to delays from many causes.

Q. And therefore the Yantic accomplished about as much as you expected, taking things altogether?—A. Yes, I think she did.

Q. When the Chief Signal Officer asked for a naval vessel he stated that he did not expect she would go into the ice-pack. That being the case, how far did you suppose he expected the vessel to go before she struck the ice?—A. The ship was liable to strike the ice-pack anywhere in Baffin's Bay. But she could, of course, avoid it by going around the

pack and working her way to the northward. I suppose it was expected by the Chief Signal Officer that she would go up to Littleton Island.

Q. And that by the "ice-pack" was meant the pack she would meet in Smith's Sound?—A. The ice-pack that she would meet in Melville Bay or at any point on her passage up or down. She was not to put herself in danger by running into the pack wherever she found it.

Q. You think that the delay that was made by the Yantic on the way up was absolutely necessary in her case—about Upernavik and Disko and along there?—A. I do not know that I can say positively about that. Her commanding officer, I presume, was anxious to start north with all the coal he could carry, and then I understand that he had very thick weather. Of course the moment fog and thick weather come on he had better be at anchor at Upernavik, or wherever he was, than to go out in the open bay.

Q. And she was not able to carry all the coal she wanted from St. John's?—A. Not for the entire cruise.

Q. And therefore she was to stop and pick up coal?—A. Yes, if she could get it. Navigation in fog and thick weather is difficult and dangerous enough anywhere, but especially so in that high latitude where a vessel is liable to fall in with ice at any moment.

By the RECORDER :

Q. Would it not have been advisable for the commander of the Yantic and Lieutenant Garlington to have agreed upon a number of places of rendezvous between Upernavik and Littleton Island where Lieutenant Garlington could expect to find the Yantic at different times?—A. The object of the Yantic was to reach Littleton Island as directly as she could, and I do not know that they would naturally think of other points. That was a matter of detail for them to settle. I do not know that any one could say.

Q. When two vessels are sent upon joint duty of that kind do not the commanders fix upon certain points of meeting?—A. They would naturally fix upon certain points of meeting, but I presume neither of those gentlemen looked for any danger south of Littleton Island, and their natural point of meeting would have been Littleton Island or in that neighborhood.

Q. But in view of the difficulty of getting to Littleton Island and the delay that was to be anticipated, would it not have been better— A. [Interrupting.] Any delay in getting to Littleton Island would probably be from the ice in Melville Bay, where there would be no point.

Q. Which would prevent the vessel from reaching any other point?—A. Where they probably would not reach the land.

By the COURT :

Q. Do you know of an agreement which was made between Commander Wildes and Lieutenant Garlington before they left St. John's and by which they were to separate and meet at Upernavik and Disko?—A. I know it was reported that there was such an agreement ; yes, sir.

Q. You have not seen that agreement?—A. No, I have never read that agreement.

(The agreement referred to was here submitted to the witness and by him read.)

Q. Now, under the instructions, as you remember them, do you think there was any impropriety in those two gentlemen entering into that agreement in the prosecution of the work?—A. I think not.

Q. You think that was proper under the circumstances?—A. I think that that was perfectly proper.

At this point (2.30 p. m.) the doors were closed for deliberation by the court upon the question of sending for witnesses, and, after thirty minutes spent therein, at 3 o'clock p. m., the doors were reopened, and the court adjourned until to-morrow at 11 o'clock a. m.

WASHINGTON, D. C.,

Wednesday, November 21, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of yesterday was read, the testimony of the witnesses being read in their presence, and the record being amended was approved. Whereupon

Lieutenant-Commander BOWMAN H. McCALLA, United States Navy, was sworn and examined, as follows:

By the RECORDER:

Question. You made an inspection of the Proteus last summer, did you not?—Answer. I did, sir.

Q. Is that a copy of your inspection report? [Presenting a certified copy of the same received from the Navy Department.—A. [After examining the same.] That is correct, sir.

Q. Will you inform the court what examination you made, particularly, of the vessel and her equipments?—A. On the 24th day of May I arrived at St. John's, N. F., about 1 a. m. The same morning I went on board the Proteus and went all over her. I particularly inspected her boiler, the repairs to which were just about completed. I went inside the boiler. On the following day I again went on board. Water was run up above the patch which had been put on in the lower and center furnace at the junction of the combustion chamber. On the following day, the 26th, I went on board to see the vessel under steam. Meanwhile the bridges had been built in the furnaces, and there was twenty-five pounds of steam on at the time I went on board. The working pressure of main boiler was fifty pounds. The steam pressure ran up to fifty-five pounds when the engine was put in operation, and the ship was started ahead at her moorings and backed, and the engines were turned over in going ahead and reversing. The Proteus was in excellent condition in my opinion. She had davits for eight boats, I think, with arrangements to carry boats inside. She had two boats at the davits on the quarter. They were good boats. A third boat was in use alongside the ship. The other boats I understood were on shore. I learned at this time that special boats for the expedition were being built at the New York navy-yard. I thought the ship well fitted for the purpose. At the time of the inspection she was lying in the stream with about fifty tons of coal in her bunkers, with two spare propellers on the deck and one spare rudder. I asked for her compasses. The best compass was brought out

from a locker where it was kept for safety in port and shown me. I thought it a good one. It was what is called a liquid compass. I was shown its binnacle or arrangement to mount it when in use, which was in the cabin skylight in the aft end, where the helmsman could see it from the wheel. Her other compasses the captain told me were on shore. As the result of my examination I made a report to General Hazen, a copy of which I have just pronounced correct.

Q. Did you inspect her rigging and sails?—A. Her rigging was good in my opinion. Her sail power was auxiliary and sufficient.

Q. Were these two boats that you saw large enough to carry her whole crew?—A. No, these two boats were not sufficient. As a sealer she carried eight or more boats—carried a large crew, from 40 to 60 men. I spoke about the boats, and it was then that I learned that special boats were being fitted.

Q. For the expedition?—A. Yes, for the expedition, but for the Proteus the three boats that I saw. I do not know how much of a crew she was to have when she was to go north. The three boats that I saw were capable of holding conveniently ten men each. I understood of course that there were other boats—eight or twelve. She had davits for eight boats and arrangements for carrying more inboard.

Q. Do you know what leads she had?—A. I made no inspection of her outfit.

Q. You did not see the crew?—A. The crew was not shipped with this exception. It is customary, I believe, to keep an engineer's force on board of the sealers all the year, together with the captain, in order to keep the boilers and engines in good condition. The engineers that I saw were three, one chief engineer, two assistant engineers, and one fireman. There was one whom I took to be an officer on the deck when I first went on board other than the captain. These were the only men attached to the ship at that time, to my knowledge.

Q. Up to the time of your last inspection?—A. Yes, sir; the ship had returned from a second successful sealing voyage this year and had discharged her crew.

Q. I observe that you recommended that a boiler-maker should be part of the crew as a condition of her acceptance?—A. Yes, sir.

Q. Do you know whether that was done?—A. I do not know; I will state why I recommended it if you like.

Q. If you please.—A. Those ships do not carry boiler-makers; the engineers are mechanics or machinists, but do not claim to be boiler-makers. I thought the ship might possibly be detained a winter in the ice, and from my experience in naval steamers I felt that a skilled boiler-maker might be of great use in regard to the boilers, and would probably be serviceable as a skilled mechanic.

Q. Did you meet Captain Pike, the master of the ship?—A. I met Captain Pike, the master of the ship, upon each occasion when I went on board.

Q. How did he impress you?—A. Captain Pike impressed me most favorably. He was a man of about fifty years of age, and in my conversation with him I formed the opinion that he would make an excellent commander of the ship. He had been a successful sealer, and the impression among those with whom I talked in St. John's was that he was an

excellent man. I also talked with the chief engineer, whose name I do not now recall. He impressed me most favorably. Captain Pike and the chief engineer had both been in the ship two years to my knowledge, and both had made the trip to Lady Franklin Sound two years before with Lieutenant Greely and his party.

Q. How did the others impress you; what estimate did you form of them?—A. I did not see enough of the two engineers to express an opinion beyond the fact that they seemed to be practical machinists. I had no conversation with the assistants, but saw them busy about the machinery and boiler.

Q. Did General Hazen accompany you in these inspections?—A. General Hazen accompanied me in my inspections, except that he was not on board at the third inspection.

Q. What was the date of the last inspection?—A. The first inspection was on the 24th, the second on the 25th, and the third on the 26th of May.

Q. And when did you start on your return?—A. The evening of the 26th.

Q. By steamer?—A. By steamer.

Q. With General Hazen?—A. With General Hazen.

Q. You did not see the equipment of the expedition?—A. I saw none of the outfit or the equipment for the expedition.

By the COURT:

Q. How many hours did you spend on board the ship in each of your inspections?—A. At the first inspection I was on board about two hours, as near as I can estimate. On the second inspection I was on board about the same time. On the third, about an hour.

Q. Did you visit all parts of the ship?—A. I visited all parts of the ship.

Q. Did you make a close inspection of the boats to which you refer in your testimony?—A. I did not make a close inspection. I thought them excellent boats, and so remarked at the time.

Q. From their general appearance, I suppose, rather than a close inspection?—A. From their general appearance.

By the RECORDER:

Q. Were you able to form any idea as to their age?—A. The age of a boat is very deceptive. They might have been six months old or they might have been four years old, so far as I could judge.

Q. The painting and so forth is apt to conceal their age?—A. May be deceptive. But it cannot conceal decay or rot in boats.

By the COURT:

Q. So that the boats may not have been as good as they appeared?—A. I should not say that.

Q. Had you had any previous experience in regard to these sealers, as they are called?—A. I had had none.

Q. That was the first time that you came in contact with any such vessels?—A. The first time.

Q. Then you could not give us any opinion as to how the Proteus compared with the best sealers in those waters?—A. Yes, sir; I saw

there, I think, the Neptune, the Bear, and the Eagle or Falcon; the Proteus was, in my opinion, the best of them so far as I could judge; the Bear and Neptune were about the same size as the Proteus; the Eagle or Falcon—I am not certain of the name—was about, I should judge, three hundred tons less in burden.

By the RECORDER :

Q. What was the tonnage of the Proteus?—A. About six hundred and eighty tons, English measurement.

By the COURT :

Q. Did you hear anything in regard to the condition of her boilers, &c., before you made the inspection—that they were very old and had to be replaced, and so on?—A. I did not. I heard nothing in regard to her boilers beyond what I have stated.

Q. In regard to Captain Pike, the master of the vessel, from all that you gathered from him, and also from conversations with other people, did you think that he was about the best of such officers as command such vessels for sealing purposes?—A. My opinion of him was that he was a superior man in that capacity to what I expected to find.

Q. To what extent was he educated as a navigator?—A. That I could not state. To have been master of the Proteus he must have passed an examination in England under the direction of the English Board of Trade, which would examine him as to his professional fitness for command of an English ship. I think I told General Hazen that I thought him a most excellent man, and that having been up once to Lady Franklin Sound was much in his favor.

Q. Is the court to understand from your testimony that in your opinion the ship and the master were as good selections as could have been made in St. John's for the purpose?—A. If I had had the selection I should have selected both the ship and the captain and also the chief engineer. I do not know that the chief engineer whom I saw went with the Proteus in that capacity. He told me that he expected to go.

General WILLIAM B. HAZEN was then recalled and further examined.

By the RECORDER :

Q. In regard to the boiler-maker, was there one taken in accordance with Mr. McCalla's request, and, if so, for what reason?—A. Upon receiving Commander McCalla's report that a boiler-maker would be necessary as one of the crew I immediately went myself to the agent of the company, Mr. Syme, and told him that he must be certain not to fail to have a first-class boiler-maker shipped as one of the crew of the Proteus, and that unless that was the case I would not charter the ship, and he informed me that he would attend to it and put the best boiler-maker on board that he could procure, and he afterwards informed me that he had done it. I also wish to say that yesterday in speaking of Mr. Greely's letter written at Lady Franklin Bay, commending Captain Pike, I said it was in St. John's and that I had only a copy, but I found last evening that I have the original letter, and have it before me and will be glad to read it to the court.

By the COURT :

Q. The letter you have before you is the original letter?—A. This is

a certified copy of the original. The original letter is in my office. [Reading:]

FORT CONGER, GRINNELL LAND,
Lady Franklin Bay, August 18, 1881.

J. & W. STEWART, *St. John's, N. F. :*

GENTLEMEN: I have the honor to express my full and entire satisfaction with Captain Pike's management of his vessel, as well as his treatment of myself and party.

I have felt from the time we left Godhaven that our expedition was in the hands of a capable and courteous shipmaster, who thoroughly understood his work and his vessel.

I am, respectfully yours,

A. W. GREELY,
First Lieut. 5th Cav., A. S. O. and Asst.,
Commanding the Expedition.

By the RECORDER:

Q. You have two other letters that you wish to read. Perhaps you had better read those.—A. Yes sir. [Reading:]

UNITED STATES CONSULATE,
St. John's, N. F., October 1, 1883.

General W. B. HAZEN,
Chief Signal Officer, Washington, D. C. :

DEAR SIR: I regret the loss of the relief steamer Proteus. Lieutenant Garlington and party left here on the U. S. S. Yantic September 20.

Captain Pike would wish an examination, as his management has been censured by Commander Wildes of U. S. S. Yantic. Mr. Syme is rather annoyed at statements in New York papers.

I am, sir, yours most respectfully,

THOS. N. MALLOY,
United States Consul.

To that I replied.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, November 13, 1883.

Mr. THOMAS N. MALLOY,
United States Consul, *St. John's, N. F. :*

SIR: I have the honor to acknowledge the receipt of your communication of the 1st ultimo, announcing the departure of Lieutenant Garlington and party from St. John's, N. F., on the Yantic, and expressing the desire of Captain Pike for an examination as to his management of the Proteus on her late voyage, and in reply to say that as the President has ordered a court of inquiry to investigate the conduct of the late relief expedition to Lady Franklin Bay, it is not thought necessary for this office to take any action in connection with the matter.

The court may desire to take Captain Pike's testimony orally or by deposition.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen., Chief Signal Officer, U. S. A.

Q. No reply has been received to that?—A. No reply. Referring to the testimony of Lieutenant Colwell on page 93—

Q. Are not the sealing captains accustomed to navigate the ice?—A. Not Arctic.

Q. Such ice as you meet off the coast of Labrador?—A. Not such ice as that.

I would say that no captains are accustomed to navigation in ice such as is found in Smith's Sound and such as the Proteus met with, except on extraordinary occasions, such as may occur once in a great many years when vessels are specially sent into the Arctic regions, as the Polaris, the Neptune, and the Yantic, and the Proteus sent this year. Such experience does not come to any captain more than once or twice in a life, and

to ninety-nine captains in one hundred, never at all. Captain Pike had already been once in that ice with Lieutenant Greely in 1881, which was probably more than any other captain at St. John's ever had been, and had gathered general knowledge of Arctic work. No ships were sent into Smith's Sound after the *Polaris* left until Mr. Greely was sent in 1881, and probably there is not a ship sent into those waters on an average more than once in twenty years, at long periods of time.

By the COURT :

Q. Are not these sealers in the habit of going as far north as the northern portion of Baffin's Bay?—A. Yes, sir.

Q. Are they not apt to come in contact with that ice in that bay?—A. Yes.

Q. Do you not suppose they would get a great deal of experience in going up there?—A. A great deal of experience, but not with the unbroken ice, such as is found in Smith's Sound.

By the RECORDER :

Q. Inasmuch as Lieutenant Colwell and Lieutenant Garlington testified that they met Arctic ice off Labrador, are not the sealers accustomed to encounter that same kind of ice and the ice also that comes down the east coast of Greenland and is swept out into Davis Straits; that is, Arctic ice?—A. But it is not ice in the bed, such as is found in Smith's Sound. They can get into the floes when the ice separates.

At this point (1.30 p. m.) the room was cleared and the doors closed for the purpose of deliberation by the court, and at 3 p. m. the doors were reopened and the court adjourned until 11 a. m. to-morrow.

WASHINGTON, D. C.,

Thursday, November 22, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of the proceedings of the previous day was read, including the testimony of the witnesses, which was read in their presence. The record having been amended was approved; whereupon

Lieutenant-Commander BOWMAN H. McCALLA resumed the stand.

The WITNESS. Referring to my testimony of yesterday in relation to the position for the steering compass, I will state that the position selected for it was conveniently near the wheel, that being the warmest place, to prevent freezing. Referring to the capacity of the boats I would add that the three boats I saw were capable of holding conveniently ten men each in moderately bad weather, with a month's provisions and a quart per day of water per man for two weeks. That is the best idea I can give in regard to the boats. The reason I only saw four vessels was that three or four of them were reported to be frozen up off the west coast of Newfoundland, from which they were not liberated until June. Two or three others had not come in from their second trip, or had gone out after coming in from their second trip.

By the RECORDER:

Q. You are an assistant in the Bureau of Navigation?—A. I am assistant to the Chief of the Bureau of Navigation and office of detail.

Q. Do you know where the Yantic was stationed immediately preceding her detail for special service in connection with the Greely expedition?—A. She was in New York and had been attached to the North Atlantic station for nearly three years. It was her first commission. I mean by that that she was a new ship three years ago.

Q. In making any alterations in a ship to prepare her for this service, by whose orders would such alterations be made?—A. By the order of the Department. By that I mean the Secretary of the Navy.

Q. What is the complement in men of a ship of that kind?

The WITNESS. The Yantic?

The RECORDER. Yes, sir.

A. About one hundred and thirty, full complement; that is to say in peace times. In war times she would have a slightly larger complement; perhaps twenty more men.

Q. What would be the smallest number of men who could properly handle her?

The WITNESS. You mean total complement, of course?

The RECORDER. Yes.

A. I should say that the smallest number of men that would be necessary for the Yantic, exclusive of men detailed for duty in cabins and ward-rooms and steerages, would be seventy, making her total complement on the average basis or allowance for men detailed for the service before mentioned about eighty-five, exclusive of marines.

Q. Everybody on board?—A. Yes, sir. The total complement, exclusive of commissioned and warrant officers, of course.

By the COURT:

Q. Are you considering in that answer that the vessel had her armament taken out of her?—A. Oh, yes, certainly; she might, I suppose, get on with a much less number of men; but I should not deem it prudent for her to go with less than the number I have mentioned.

By the RECORDER:

Q. And how many commissioned and warrant officers would she require?—A. She would require, in my opinion, her full complement of officers for that service, which would be about twelve commissioned officers and four warrant officers or naval cadets; that is my opinion, formed since I have been sitting here.

Q. About what is her tonnage?—A. I do not know how the Yantic's tonnage is measured; that is done in the Bureau of Construction and Repair by their own rules; but her displacement is I think 900 tons; the displacements of ships is the only method of comparing them, because the tonnage rules vary.

Q. Then what would be about the displacement of the Proteus?—A. I am unable to state; not nearly so much; if I had her draft of water and her measurements when loaded I could tell you; I think the Yantic tonnage is put down in the Naval Register; her registered tonnage, or tonnage by measurement, is about 400; I may be mistaken, although that is

my impression; but you cannot compare ships by tonnages of different countries.

Q. Do you know anything respecting the interviews and negotiations between the War and Navy Departments about the sending of the Yantic?—A. The first news that I had that the Yantic was going north was given me by General Hazen in Newfoundland upon receipt of a telegram from one of the officers in the Signal Office. On the 4th or 5th of June I was sent to General Hazen to request for the Navy Department a copy of the instructions to be given to Lieutenant Garlington in order that Commander Wildes might be made acquainted with them. I received from General Hazen a hektograph copy of instructions, a track-chart of the Neptune of the year before, and, I think, a pamphlet upon the subject of the Signal Office work in the Arctic. That is all I remember.

Q. You do not recall anything that General Hazen said to you especially?—A. I recall nothing of the conversation. As soon as this copy was brought to General Hazen I returned to the Navy Department.

Q. And the instructions for the Yantic were subsequently prepared?—A. Yes, sir.

Q. Did you see nothing of any other memorandum respecting what it was wished the Yantic should do, prepared in the Signal Office?—A. All I have seen of that memorandum I think was what I saw in the newspaper press. If you would let me see a copy of it I would tell you at once. [A copy of Signal Service Notes No. 10 containing the memorandum referred to was handed the witness, and said memorandum was pointed out to him.] I have seen this inclosure marked five. I think I saw it in the Navy Department under the head of "instructions" or "memoranda for naval tender."

By the COURT:

Q. Did you see it before or after the disaster to the Proteus?—A. I saw it about June 4 or 5.

Q. Are you certain that you did not see it in the Signal Office?—A. I am positive that I did not see it in the Signal Office. When I saw it it did not have on it the words "Office of Chief Signal Officer, Washington, D. C., June 5, 1883."

By the RECORDER:

Q. Can you state under what circumstances you saw that paper at that time; in whose hands it was, how it got there, or what use was being made of it?—A. The memorandum that I speak of was in my hand. It was given me by Commodore Walker, the Chief of the Bureau of Navigation. It was after seeing the memorandum that I was sent over to General Hazen to ask for a copy of the instructions of Lieutenant Garlington.

By the COURT:

Q. You are positive about that?—A. I am positive about that; that is, I could not identify this one, word for word, but it was the substance of this, and was headed "Memorandum" or "Instructions for naval tender."

By the RECORDER:

Q. When you went over to General Hazen's office did you speak to
S. Ex. 100—8

him about that memorandum?—A. My conversation did not relate in any way to the memorandum or the instructions for the officer to be in charge of the expedition.

Q. That was the first day that you came to the Navy Department after returning from St. John's?—A. It was the 4th or 5th of June, I am not certain which.

Q. Do you remember whether it was the first day you came there after your return?—A. No; it was not the day. I could not state positively whether it was the second day.

Q. Was General Hazen at the Department subsequently in reference to the matter, that you know of?—A. I never saw him there. By that you will understand that he might have been there a hundred times and I would not have seen him.

Q. It appears from the papers here that no reply was ever made in writing to the request upon the War Department to ask the Navy Department for that tender, and that no copy of the instructions to the commander of the Yantic was ever furnished the Chief Signal Officer. Could you inform the court how that happened?—A. I could not. I do not know anything about that. My impression is that Commander Wildes was directed in his orders to confer with Lieutenant Garlington and acquaint him with his instructions, which would have the effect of having furnished the Signal Officer with his instructions.

By the COURT:

Q. You were not in position necessarily to know whether the instructions were given?—A. I had nothing to do with the instructions. By that I mean that my duty at the Navy Department has no connection with the orders or instructions to commanding officers. That is Department work.

By the RECORDER:

Q. Do you know what became of that memorandum?—A. I do not. I put it on Captain Walker's desk or returned it to him. I know nothing further of it.

By the COURT:

Q. You speak of having had this memorandum put in your hands by Commodore Walker. Is it probable that the receipt of this memorandum caused you to be sent over to the Chief Signal Officer to ask for a copy of the instructions of Lieutenant Garlington?—A. The cause of my being sent was that Commander Wildes' instructions were being prepared, and in order to send him a copy of Lieutenant Garlington's instructions I was sent to General Hazen to ask for them.

WILLIAM E. CHANDLER, Secretary of the Navy, being duly sworn, was examined as follows:

By the RECORDER:

Q. Mr. Secretary, will you state to the court in your own way your knowledge of the application for a naval ship to accompany the Arctic relief expedition of 1883 and the interviews and negotiations that led to the granting of the request?—A. Some time prior to the 14th of May the request was made that a naval vessel should be sent with the Proteus, or the vessel which the Signal Office was to send to the relief of Lieutenant

Greely. I had a conversation, I am quite sure, with Secretary Lincoln, in which he stated the request of the War Department, that a naval vessel should go, and I informed him that the Navy Department would be very glad to send a vessel, and suggested a written request, in consequence of which the letter of May 14 was received. No formal answer was made to it, because the statement of a willingness to send a naval vessel had been previously made. Shortly after the 14th of May the Navy Department decided to send the Yantic, and Commodore Walker was requested by me to give attention to the subject of the instructions to be given Commander Wildes, and I, either by direct request to the Signal Office or through Commodore Walker, orally requested that the Chief Signal Officer would see me with reference to those instructions. At this time Secretary Lincoln was absent and General Hazen also; I think it was while General Hazen was at St. John's; Secretary Lincoln went away the 18th of May and remained absent until June 6, and this request of mine for an interview with the Chief Signal Officer was probably not many days before the 4th of June, when, I think, General Hazen returned from Newfoundland; Commodore Walker, I think, informed me that Captain Powell had called upon him with reference to the instructions, and I told Commodore Walker that I wished to see Captain Powell in person, and the latter came to my office; I had an interview with him, the substance of which was this: I said to him that in joint expeditions of this kind differences frequently arose as to the measure of responsibility, and that as the naval vessel was to assist in an expedition that belonged to the War Department I desired that a request for the specific instructions to be given the commanding officer of the naval vessel should be furnished by him to the Navy Department. I remember also asking him whether he desired that the naval vessel should carry anything in the way of extra provisions or outfit for parties who might travel upon the ice, or for Lieutenant Garlington's party in case anything should happen to the Proteus, and he said no, he thought not. He may have said that he would consider that question and give a further reply. But I understood at that time that the Yantic would not be expected to take anything in the way of outfit or stores beyond enough for her own purposes, but that the Proteus would carry everything. Shortly after this, Commodore Walker submitted to me the draft of the instructions and I went over them with him. I asked him if they were satisfactory to the Chief Signal Officer and he said they were. I saw no written memorandum from the Chief Signal Officer either at that or at any other time that I recollect. I left Washington myself on Thursday, June 7, and that was the reason the instructions were signed by Admiral Nichols on Saturday.

Q. The Saturday following?—A. The Saturday following, the 9th. Between June 4 and June 7, when I went away, General Hazen was at the Department, and I had a conversation with him, the substance of which was this: I said it gave us pleasure to send the naval vessel and that I hoped the instructions that had been given, or that were to be given, were satisfactory to him. He was then in Commodore Walker's private office, which is between the latter's public office and my private office, as I inferred conferring with Commodore Walker and Commander McCalla with reference to the instructions, and he said they were satisfied with the instructions either that had been prepared or were being prepared.

By the COURT :

Q. That is, the instructions to Commander Wildes?—A. Instructions to Commander Wildes; yes, sir. You will notice that although they had been then settled by me with Commodore Walker according to my statement, they had not been actually signed, but were signed on the Saturday following by Admiral Nichols, the acting secretary. I either asked General Hazen the question whether he did not desire the Yantic to carry some outfit and additional supplies, or referred to the fact that he did not desire it, and his reply was that they would not require anything of that kind except that the Yantic should go well fitted to take care of herself and her own officers and crew, and to be at hand in case of an emergency.

By the RECORDER :

Q. What was done by way of preparation of the vessel for the voyage?—A. The Yantic having been determined upon, Admiral Cooper, commanding the North Atlantic squadron, to which the Yantic was then attached, was instructed by letter of May 31 as follows :

NAVY DEPARTMENT, *Washington, May 31, 1883.*

SIR: The War Department has asked that a naval vessel be sent up the west coast of Greenland as a means of relief for the party at Lady Franklin Bay and the steamer going to the Arctic for the purpose of bringing the party away should any disaster occur.

You will be pleased to send the United States steamer Yantic to the navy-yard with orders to get ready for that service as soon as practicable.

* * * * *

Very respectfully,

WM. E. CHANDLER,
Secretary of the Navy.

Rear-Admiral GEO. H. COOPER, U. S. N.,
Commanding North Atlantic Squadron, New York.

The Yantic had been at the West Indies, but on the 25th of February, 1883, had arrived at Pensacola, visited Mobile on the 6th of March, New Orleans on the 14th of March, sailed from New Orleans for Key West April 2, arrived at Key West April 6, and between April 9 and May 6 visited Savannah and Charleston and arrived at Hampton Roads on the 6th of May, where she was with the flagship Tennessee with the admiral on board. On the 20th of May she sailed from Hampton Roads for New York, and May 22 arrived at New York and anchored off the Battery. On the 2d of June Admiral Cooper gave Commander Wildes this letter of instructions, both vessels, as you will see, then being in New York Harbor.

UNITED STATES FLAGSHIP TENNESSEE (1st rate),
Navy-yard, New York, June 2, 1883.

SIR: The War Department has asked that a naval vessel be sent up the west coast of Greenland as a means of relief for the party at Lady Franklin Bay and the steamer going to the Arctic for the purpose of bringing the party away should any disaster occur.

This request has been approved by the Navy Department, and the United States steamer Yantic, under your command, has been selected for the service.

You will be pleased to prepare the Yantic for the above-mentioned service, and as the season is already somewhat advanced it is necessary that your vessel should be gotten ready at the earliest moment possible. You will ask the commandant of the New York navy-yard to hasten your preparations, and will explain to him the urgency of the case.

In making your preparations you will bear in mind that your vessel may be absent a long time from port and from depots of supplies, and that she may encounter severe and stormy weather and ice.

You will report to me when ready also once each week should your preparations occupy a longer period.

The address of the commander-in-chief is "U. S. flagship Tennessee, general post-office, New York City."

Very respectfully,

G. H. COOPER,

Rear Admiral, Comd'g U. S. naval force on North Atlantic Station.

Commander FRANK WILDES, U. S. N.,

Commanding U. S. S. Yantic, navy-yard, New York.

A true copy:

J. N. MILLER,

Captain, U. S. Navy, Chief of Staff.

The Yantic went alongside of the dry-dock on the 2d of June. She went into dry-dock the 7th of June and out of dry-dock the 12th of June, during which time I suppose the plank sheathing was put upon her bows. I gave instructions early to Commodore Walker, notwithstanding no request was made from the Signal Office, to take the heavy weights off the ship and fill her up with coal, and also specially to have a large supply of provisions put on board. On the 4th of June Commodore Walker, being in New York, with Commodore Upshur visited the Yantic and gave directions for taking off the ordnance, and made oral suggestions to Lieutenant Gibson who was then in command, Commander Wildes not being upon the ship. This is an extract from the log-book of June 4, 1883, which says:

From meridian to 4 p. m. Commodore J. H. Upshur, United States Navy, and Captain John Walker visited the ship.

W. C. GIBSON, *Lieutenant.*

The actual instructions or sailing orders to Commander Wildes were not signed until June 9, for the reason that it is not the practice to issue sailing orders until a few days before the ship leaves. They are purposely held back. But Commander Wildes knew where the ship was going about as well as anybody connected with the naval establishment. I have examined to see what the information at the Navy Department was in reference to the condition of the boilers of the Yantic, and I find that the boilers were built by the Providence Steam Engine Company, and delivered in August, 1877, erected at the Washington yard, and fitted for sea-service in September, 1880. That is, they had been three years in the ship when the Yantic returned to New York. The last official report of the engineer of the ship, prior to her going to St. John's, is as follows:

Extracts from quarterly report of United States steamer Yantic, for quarter ending March 31, 1883.

Present condition of boilers fair.

The boilers have been scaled and thoroughly cleaned with the exception of the inner surfaces of the back tube sheets, which are inaccessible on account of the closeness together of the boiler braces. An effort has been made at different times to remove some of these, but it was found impossible in the limited time that the boilers have been out of use during the quarter.

Three new socket bolts have been put in the water legs. The greater part of the tubes in Nos. 2, 3, 4, 6, 8, 9, and 11 furnaces have had to be re-expanded on the back ends. All the above work, together with the usual amount of inspection, overhauling, packing, making up new joints, &c., has been performed by men of the Department.

WALTER D. SMITH,

Chief Engineer, U. S. N.

FRANK WILDES, U. S. N., *Commander, Commanding.*

The report of Fleet Engineer Brooks, dated May 14, 1883, contains the following:

Boilers to be in good condition, except in back connections and some leaky tubes, which

can be re-expanded; crown sheets will be cleaned off here, but tubes will not be scaled at present.

The 1st day of June the Chief of the Bureau of Construction in writing directed Commodore Upshur to proceed to do the work necessary to fit the Yantic to go to the west coast of Greenland, as follows :

[No. 121.]

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR,
Washington, June 1, 1883.

Commodore J. H. UPSHUR, U. S. N.,

Commandant Navy-yard, New York :

SIR: The Yantic having been ordered by the Department to go up the west coast of Greenland as a relief ship, you will please direct that any necessary work preliminary to sending her on that duty be done with all practicable dispatch.

Very respectfully, your obedient servant,

T. D. WILSON,
Chief of Bureau.

I have not ascertained the quantity of provisions that were on board, but have directed a statement to be prepared which I will furnish the court if it is desired. I procured the statements as to the provisions that were on the Yantic August 3 and September 15, which, I believe, are already in evidence, attached to Commander Wildes' report. I have had prepared an estimate of the number of days' rations for the crew which those supplies would furnish. It was prepared in the Bureau of Provisions and Clothing, from which, assuming one hundred and twenty-four men to have been on board August 3, it will be seen that there were one hundred and nineteen days' meat rations, with bread and other accompanying rations, which, I should judge, would have furnished full and ample subsistence according to the Navy rations for more than one hundred and nineteen days. That was August 3. The statement which I have assumes one hundred and twenty-nine men to have been on board September 15, when the ship reached New York, inasmuch as five had been taken on board at St. John's September 14, and there were then meat rations for one hundred and twenty-nine men for eighty-seven days. In other words, say four months' full rations were on board when the ship on August 3 left Littleton Island, and there were brought back to St. John's full rations for three months. I believe this is all the statement that I desire to make in answer to your general question as to what I know about the Yantic.

Q. I will ask you if the Yantic was the most available ship for the purpose at the time she was designated?—A. She was so considered by the Department, being at hand and the smallest ship.

Q. There was no authority in the Department at that time to purchase or charter a ship for such a purpose under your general authority as head of the Department?—A. I would not undertake to say that. No such request was made of us. We were not asked to furnish an ice-ship, and of course no ship, whether large or small, unless her bows were specially prepared for it, would be a good ice-ship.

Q. The furnishing of that ship was in conformity with all the requests made upon your Department?—A. Understood to be in precise conformity to the requests. The letter of General Hazen to the Secretary of War of the 14th of May expressly says that the ship would not be required to enter the ice.

Q. Or to be placed in a condition of unusual danger?—A. The expression is :

She need not enter the ice-pack nor encounter any unusual danger.

I suppose General Hazen inserted that because it had been understood, in the oral conversations preceding, that we would be able to conform to a request for a vessel under these conditions, but that the Department was not able to furnish an ice-vessel.

Q. Did the instructions to Commander Wildes, as you understand them, contemplate his furnishing any portion of his stores and supplies for the use of the Greely party?—A. I hardly know how to answer that question. It calls for an opinion, and I would prefer at this time not to give opinions, unless the court think they are important. Of course I may say for myself that one object in increasing the provisions was to be prepared for any emergency which might happen to either vessel. But there was no suggestion that the Proteus party would require them, but rather the contrary on the part of the Chief Signal Officer that they would not need any.

By the COURT :

Q. Who determined upon what had to be done to the Yantic in order to prepare her for her trip, such as sheathing her bows? Was that left to Commander Wildes' discretion or to the commanding officer of the navy-yard, or were there any special instructions given from the Navy Department?—A. There were no special instructions given, and nothing done by me beyond what is expressed in the letters except the request to Commodore Walker to give some personal attention to the subject, which he did by his visit of June 4. It is a little difficult to say under the system that prevails under the departmental organization who is most directly responsible for what goes on. I should say that Commander Wildes was bound to make suggestions of anything that he thought ought to be done to fit his vessel out. Being instructed as he was by Admiral Cooper's letter of the 2d of June he was bound to do the best he could to fit her out and to make suggestions to the commandant of the yard. You will see by the letter that he was instructed :

You will be pleased to prepare the Yantic for the above-mentioned service.

* * * * *

In making your preparations, you will bear in mind that your vessel may be absent a long time from port and from depots of supplies, and that she may encounter severe and stormy weather and ice.

I think there was a measure of responsibility for her outfit upon the Department at Washington, upon the commandant of the navy-yard, and upon the commander of the vessel.

Q. I suppose that your expectation was that the Yantic should go as far as Littleton Island if she could do so without endangering the safety of the vessel; that is, that she should not put herself in any positive danger?—A. Those were the orders, and I expected the commander to comply with the orders.

Q. Of course you did not expect that such a vessel as the Yantic could go through such ice as the Proteus which was actually prepared for such work?—A. Evidently not.

The court directed that a letter written under its instruction by the recorder and by him handed to General Hazen yesterday should be

attached to the record of to-day's proceedings, which is accordingly attached, marked Exhibit D, and is as follows:

EXHIBIT D.

ROOMS OF COURT OF INQUIRY,

(Appointed by Special Orders 249 C. S., Par. 3, A. G. O., October 31, 1883),

November 20, 1883.

To Brigadier-General HAZEN,

Chief Signal Officer of the Army:

SIR: I am instructed by the court to advise you that the court has taken into due consideration your suggestion that the attendance of Mr. Malloy, U. S. consul at St. John's, Newfoundland; of Mr. Syme, agent for the owners of the ship Proteus; and of Mr. Pike, her master, be invited in order that they may testify in relation to the equipment of the ship and the character of her crew when she sailed on her last voyage, it having been alleged that such equipment was defective and the conduct of the crew on such voyage not altogether good. The court has likewise deliberated upon your suggestion that Captain Clapp of the Sixteenth Infantry should be summoned from his distant station as a witness to testify with what care and deliberation the plan and outfit of the expedition of 1883 was considered and prepared in the office of the Chief Signal Officer of the Army.

This court is anxious to receive and duly weigh all material evidence that can be adduced respecting the history of the expeditions of 1883 and of prior years, but at the same time it is solicitous of confining the inquiry within its legitimate limits, and to avoid as far as possible entering into collateral or remote questions that might make this investigation almost interminable.

With regard to the testimony proposed to be invited from witnesses at St. John's, the main question before the court under this head is believed to be: Did the Chief Signal Officer make every effort incumbent upon him to obtain a properly equipped ship and a suitable crew, and what measures were taken by him for that purpose? If everything possible was done in that direction, the subsequent conduct of the crew was clearly a matter not under his control. Moreover, no testimony has yet been received that either the nature of the equipment or the conduct of the seamen shipped materially affected the final results of the expedition.

In regard to Captain Clapp, the question is, what is there material to the inquiry respecting the acts of the Signal Office that this officer may know, and that the Chief Signal Officer or any other witness now in this city does not know, or that the records of the office do not show?

The court, therefore, requests that you will prepare and present to this court, at your earliest convenience, a statement showing what you expect that each of the witnesses named may prove, and how such expected testimony would be material to the case.

And the court would further suggest that it might facilitate the preparation of such statement if you should communicate with the persons named by telegraph.

Very respectfully, your obedient servant,

HENRY GOODFELLOW,

Recorder of the Court.

General HAZEN appeared, and presented and read to the court his reply to the foregoing letter, which is attached hereto, marked Exhibit E, as follows:

EXHIBIT E.

WASHINGTON, D. C., November 22, 1883.

Major HENRY GOODFELLOW,

Judge-Advocate and Recorder of Court of Inquiry:

In reply to your letter of the 20th instant, requesting that I prepare a statement showing what I expect each of the witnesses named in my request of the 20th may prove, and how such expected testimony would be material to the case now under consideration, I would respectfully state that there is now testimony before the court that the Proteus was not suitably manned, equipped, and officered. That her crew were not sailors, but were mutinous beachcombers and 'longshoremen; that her captain was not efficient nor acquainted with ice navigation, and that her other officers were without experience in the ice; that in the organization of the expedition—meaning myself and the other officers of the Signal Service—having charge of these matters, had not studied the subject, and

that the means employed for the expedition were inadequate. In short, that my duties in connection with these expeditions had been carelessly and incompetently performed. All this tends to show a culpable and almost criminal neglect of duty. There has been in this testimony a radical error of facts, which it is very necessary to correct.

I recognize in it the familiar custom seen when regular forces come in contact with citizen or irregular forces, judging from certain standards of their own, the citizen force is jeered at and maligned by the other. At the beginning of the late war the volunteer force in its dirty coats, baggy breeches, and greasy equipment was with young regular officers the constant theme of ridicule and contempt, and judged from the standpoint of a regular inspector in those particulars they would have had no standing. But we all know that under that equipment there was the best soldier ever put in the field. I recognize the same spirit in this case. The young officers of the Navy did not find in the equipment, clothing, discipline, and general appearance what would pass their regular Navy standards. But I propose to show from the witnesses from St. Johns, what I know to be true, that the Proteus was not only the best ship available, but was an admirable ship in all respects, including her equipment, for the purposes required of her; that her captain was not only thoroughly proficient, but an officer of long service and experience in ice navigation, and was superior to any other captain that I could have employed, and that her other officers were not only experienced, but very competent. And I believe I will prove that her crew was composed of good and experienced ice seamen, as I was promised they should be.

I expect to prove by Captain Clapp that in December, 1881, I placed in his hands the whole subject of Arctic work, charging him to give it constant and careful study, to consult all authorities to be found in the libraries of this city, and such persons of actual experience in Arctic work as were to be found, and to bring to my attention everything of value upon the subject, and to perfect for the then coming expedition to the Arctic regions such plans resulting from all this study as should seem best suited to that purpose, and that from that time till July, 1883, when he was relieved from duty in my office under the operation of an act of Congress, he was engaged in such study and preparation, holding frequent interviews and consultations with me upon these subjects, during which time he did prepare two expeditions for Lady Franklin Bay and two to Point Barrow, with the best of food, clothing, boats, sleds, and everything else essential to the progress of that work, or, in short, that during all this period of twenty months, and up to the sailing of the Proteus, very careful and adequate study and consideration was given to the subjects I am charged as neglecting.

I expect to prove by General Hawkins that upon my requisitions he carefully selected, bought, and shipped, both by the Neptune in 1882 and the Proteus in 1883, in ample quantities, the freshest and best outfit of subsistence stores that it was possible to get in the markets of the United States. I expect to prove also that the means were not only adequate but were selected and prepared with that care which only high devotion to a sacred duty can give.

The bearing of all this upon the subjects before this court of inquiry is that a failure to do those duties properly would subject me by the terms of the order convening the court and by good administration to trial by a general court-martial, which I would amply deserve.

I neglected none of these duties, and when that fact is questioned the right to prove in the most unequivocal manner that I did not neglect them I claim as my right.

It is stated in substance in your letter that so long as it is shown in court that proper efforts were made by the Chief Signal Officer to do all these things he could not be held accountable for what might happen afterward. The world, as well as this court, places a very different estimate upon a man who tries to do his work well and does it, from one who does not do it well, no matter how hard he tries.

I propose to prove to this court beyond all reasonable doubt that this work was well done to the last, and I wish the privilege of proving it.

I will add that telegrams to be answered in writing will in all probability in a few days bring all I require.

There is no claim by any one that the crew of the Proteus failed to obey any order, or to do its duty before the disaster, and I wish to prove the fact that by law and custom in those waters the fact of shipwreck itself discharges all hands. There is no longer pay nor officers, and when any of those men after the sinking of the Proteus failed to obey promptly the captain, they did so not from a spirit of mutiny but because under their laws and customs he had no authority over them.

I am, respectfully, your obedient servant,

W. B. HAZEN,
Chief Signal Officer.

JOHN STEWART HARRISON, acting assistant surgeon in the United States Army, was then duly sworn and examined, as follows:

By the RECORDER :

Question. You are an acting assistant surgeon in the Army?—Answer. Yes, sir.

Q. How long have you been so?—A. I was appointed the 1st of last June.

Q. Did you accompany the Arctic expedition under the command of Lieutenant Garlington?—A. Yes, sir.

Q. From New York?—A. I sailed from New York on the Yantic on the 13th of June, 1883.

Q. And arrived at St. John's when?—A. On the 21st of June.

Q. You have read carefully the reports of Lieutenant Garlington of the history and results of that expedition?—A. Yes, sir.

Q. Do they to your knowledge present a faithful account thereof?—A. They do, sir.

Q. Do you know anything of the conduct of the crew after the disaster, as recently spoken of?—A. They acted in the most scoundrelly manner possible ; they acted like pirates.

Q. Explain to the court what you mean.—A. As soon as the ship was nipped it was necessary for the provisions to be got on deck ; Lieutenant Garlington, with his party attended to breaking out the cargo ; I was ordered to the cabin to save what I could there ; on my expeditions to and from the vessel I saw several of the crew picking up clothing ; I asked where they were carrying it, and they said it was presented to them ; I was not able to do anything, being intent upon saving what provisions I could ; they did nothing in the first part as regards saving provisions ; I saw several of them sitting smoking and drinking on the ice ; finally, towards the last, the steward of the Proteus commenced breaking out the canned goods, and finally the crew and Mr. Pike, the mate, commenced saving provisions and also getting out sails for a tent.

Q. So far as Lieutenant Garlington and his party were concerned, was everything possible done to save stores?—A. To my knowledge it was.

Q. What do you know about Captain Pike, if anything ; what opinion did you form of his abilities and character while you were with him?—A. The opinion I have formed of him, as far as I could judge, is that he was not up to the standard which a shipmaster should reach.

Q. State the facts upon which you base that opinion.—A. They are these : After we left Godhaven Harbor, on the 16th of July, we stopped at the Fjord, there to pick up an Eskimo driver. Going along an unknown coast Captain Pike did not sound at all, and we struck upon a rock there in the morning. He seemed not to make such efforts in the direction of soundings as a sailor should, passing along an unknown coast. Another time, in going into Egdesminde Harbor, he neglected to make soundings, trusting simply to the Eskimo pilot, and we ran aground, but in backing out fortunately no damage was done.

Q. You accompanied Lieutenant Colwell in his boat as far as Cape York?—A. Yes, sir.

Q. Did you see or hear of any mutinous demonstrations by the crew of the Proteus?—A. It was reported to me by one of our party that our stores and boats should be watched because some of them would want to raid our stores and take one or both of our boats.

Q. One of your party reported that?—A. Yes, sir.

Q. Who was that?—A. I think it was Sergeant Kenney, and I advised him to report it to Lieutenant Garlington at once.

Q. Where is Sergeant Kenney?—A. He is now in the city; he has been discharged from the Army, and I think has since been appointed a member of the metropolitan police force of this city.

By the COURT:

Q. Did he give you any reason for that opinion?—A. No; he said he had heard it; he gave me nothing definite.

Q. How did the crew of the Proteus behave up to the time of the sinking of the ship?—A. There was no trouble before that in any way.

Q. Did you consider it a pretty good crew prior to that time?—A. I was told in St. John's that the regular crew, on account of the contract being delayed, would not ship, and that these men were picked up anywhere.

By the RECORDER:

Q. By whom were you told that?—A. Captain Pike. He said that he could not get his own crew, the men that he wished to pick out to sail with him, but he had to pick up any he could get on account of most of the best men having gone away on the fisheries.

By the COURT:

Q. Did Captain Pike express any opinion to you in regard to the crew?—A. Nothing further than that before mentioned.

By the RECORDER:

Q. After the disaster did you hear him express any disapprobation of the conduct of his crew?—A. I am not certain where, but I think it was when on the ice, he said that he had no power to restrain the men from pillaging, and though I do not remember his exact words his intimations were that they were scoundrels, though I have forgotten whether he used that expression or not; but that is what I inferred from him.

Q. You have attended the examination of the witnesses here, I believe, with a good deal of regularity?—A. Yes, sir.

Q. Are you able to give this court any information that has not already been communicated to it with reference to the expedition and the causes of its failure?—A. Nothing more than what has been said, because I know nothing as far as it was officially concerned. I saw no orders and knew nothing of them except what was published in the papers.

Q. You do not know anything of your own knowledge of interest that you think would be valuable for this court to know?—A. No, sir; I do not recall anything.

The RECORDER. [To the court.] I merely called this witness to see if he was able to furnish any new information on the subject, he having been a member of Lieutenant Garlington's party.

At this point (2 o'clock p. m.) the room was cleared and the doors closed for the purpose of deliberation by the court, and after one hour spent therein the doors were reopened and the court (at 3 o'clock p. m.) adjourned until 11 a. m. to-morrow.

WASHINGTON, D. C.,
Friday, November 23, 1883—11 o'clock a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of the previous day's proceedings was read, the testimony of Lieutenant-Commander McCalla and Dr. Harrison being read in their presence. The record being corrected was approved. The recorder stated that the Chief Signal Officer desired to make a statement to the court in continuation of his testimony; whereupon

General WILLIAM B. HAZEN resumed the stand and proceeded as follows:

The WITNESS. It seems to be proper that I should say something as to the reason why there was no request made to the Navy Department to put on extra supplies. Time was becoming an element of the greatest importance, and I wished to do nothing that should cause any delay. Being satisfied that the Yantic would take such ample provisions of her own stores as to do for all hands, including Mr. Greely's party in case of an emergency, I preferred to rest on that rather than make any request or suggestion that by any possibility could consume time; that is, I considered time more important than any further preparation. I here wish to bear testimony to the most ready and hearty co-operation and help on the part of the Navy, and especially by the Secretary and Commodore Walker in everything connected with this matter.

By the RECORDER:

Q. Were you informed or were you aware of the amount of rations the Yantic was to take?—A. Not definitely; but I was satisfied from the conversation I had with Commodore Walker, though I will not be certain how I was satisfied, that she would take a large supply, sufficient for all the emergencies which might arise.

Q. Do you remember whether it was known to you at the time of the departure of Mr. Garlington what amount of provisions Lieutenant Greely had at Lady Franklin Bay?—A. We knew from the same sources of information as we now know. We were then possessed of the same information we now have.

Q. Was it actually known to you at the time?

The WITNESS. What Mr. Greely had?

The RECORDER. Yes.

A. Oh, certainly.

Q. Did Captain Powell communicate to you when you returned from St. John's what the Secretary testifies he had told him; that the responsibility for the expedition must rest upon the Army and not upon the Navy as to the details of the expedition?—A. I cannot recollect what he said about it. He said something of that nature which came from the Secretary of the Navy.

The RECORDER. I would like to ask General Hazen with reference to one matter presented in his letter to the court yesterday. Whether, in view of the fact that it is expected to prove that the crew was discharged from their contract and allegiance to the vessel, he thinks that it would be material to show that they did behave in an exactly proper manner or were not guilty of any disorders?

General HAZEN. The general tenor of the testimony is such as to leave the impression that the crew was badly selected; that is, was a mean crew; and I would like to establish the fact, if I can, that it was a proper crew; I will say I have felt a great deal in this matter, because I had given the whole subject a degree of care and attention which I scarcely ever gave to any subject in my life.

The RECORDER. I would like to recall Lieutenant Garlington as to one point only at this time.

Lient. ERNEST A. GARLINGTON recalled and examined as follows:

By the RECORDER:

Q. I think you testified that the provisions taken out by your expedition were of an excellent quality?—A. Yes, sir.

Q. You referred in your testimony to the provisions supplied at New York?—A. I referred to everything I had, with the exception of the skin clothing and the pemmican, as to which Lieutenant Colwell testified.

Q. That is what I wish to inquire about.—A. There were some few articles among the stores left at St. John's by Mr. Beebe of the year before, principally some Danish berries which had been secured as antiscorbutics. They had deteriorated.

Q. In regard to this pemmican especially, that was the pemmican left by Mr. Beebe on his return from his trip in 1882?—A. Yes, sir.

Q. So far as stores procured in 1883 were concerned you found them all to be of what quality?—A. All to be of as good quality as could be gotten. The clothing was furnished by the Quartermaster's Department. The Buffalo coats were furnished by the Quartermaster's Department and were of good quality generally. Some were not so good. Some of the hides of the coats were not well tanned, and when they got wet they became very offensive. That was the only objection to them. The subsistence stores were excellent.

Q. Now, how much of this pemmican do you estimate was spoiled?—A. I think that at least half of it was unserviceable. None of it tasted good to me. I had never seen any of that kind of pemmican before, and I really cannot say positively to what extent it was spoiled.

Q. Do you know where that pemmican was obtained?—A. It was made in Baltimore. It seemed to be musty, dry, and not at all palatable. The men would not eat it at all coming down. I issued it to some of the men on the retreat and they ate scarcely any of it, and I gave most of it to the crew of the Proteus. They got out of meat.

Q. Did they attempt to eat it cooked or raw?—A. I think they heated it over.

By the COURT:

Q. Did General Hawkins, of the Commissary Department of the Army, who selected these subsistence stores at New York, make any remark to you about their quality?—A. He did.

Q. What was it?—A. He said that they were the best lot of commissary stores that had ever been sent out of New York; anyway that they were as good as had ever been sent. General Hawkins was very much interested in the subject, and I had a good many conversations with him about it, and he made a good many suggestions which I adopted in refer-

ence to goods to be bought, and valuable suggestions as to antiscorbutics, and made several suggestions in other things. The first list that was submitted was revised. I went over to New York and had a consultation with him and revised it in accordance with his suggestion. It was then submitted again to the Commissary-General, and the material points were approved and the goods were purchased on the amended requisition. There was some clothing bought in St. John's, but the heavy flannel drawers were all made too short. They were of good material, but they did not fit the men. But that was not a very serious objection to them. When I asked about them it was explained that they were made to wear with the long stockings those people up there wear.

Q. You were on duty in the Signal Office from some time in February until you started on the expedition?—A. Yes, sir.

Q. What were you engaged upon during that time?—A. I was engaged in making out these requisitions for the provisions and getting clothing and material for the expedition.

Q. Did you have any conversations with any of the authorities in the Signal Office in regard to the instructions that would be necessary when you started on the expedition?—A. I had some general conversation with Captain Clapp and may have had some general conversation with other officers, but no official conversation. I purposely made no suggestion at all with reference to my instructions from the beginning.

By the RECORDER:

Q. Were you asked to make any?—A. The rough draft of the instructions prepared by Captain Clapp was referred to me, as it was referred to all the officers of the Department.

By the COURT:

Q. Those instructions embodied what you were expected to do should you be unable to get as far north as Lady Franklin Bay, such as if you were to stop in the ice that you were to cache provisions and return to Littleton Island. Was the subject ever broached and discussed as to what should be done should the Proteus sink?—A. No, I remember no such discussion.

Q. The matter was never discussed as to what should be done in case you got caught in the ice and your vessel got nipped and sunk and left you on the ice?—A. I never discussed it with any official of the Signal Office, nor did anybody discuss it with me or in my hearing.

Q. And there were no instructions given, either verbally or in writing, to you as to what should be done in case the vessel should go to the bottom?—A. No, sir.

By the RECORDER:

Q. Had you any knowledge, beyond that communicated to you in your instructions, of what amount of supplies Lieutenant Greely had at Lady Franklin Bay?—A. I had seen the list of supplies Lieutenant Greely had, but I had never figured on it. I did not know how long those supplies were intended to last him, or would last him, except what I was told, and I always understood until I came back here from the Arctic regions that Lieutenant Greely's supplies would be exhausted at the end of August, 1883.

By the COURT:

Q. But you do not think so now, do you?—A. From what I have been told since I returned I think that he has quite a large quantity of supplies left over. As to my instructions, it will be seen from the records here that I made no suggestion or recommendation with regard to the instructions from the beginning. When I found that my instructions were being prepared for me by Captain Clapp, and being submitted to heads of division in the Signal Office, I determined that I would make no suggestions one way or the other. I did not desire to divide the responsibility, because I appreciated the difficulties that would arise in case anything happened, and if I made suggestions in conjunction with everybody that it would be impossible to fix the responsibility in any way in regard to these instructions. When it was not left to me to make my suggestions and submit them to the Chief Signal Officer, but taken out of my hands, I let it remain out and made up my mind to go on and carry out those instructions as well as I could. But I did not want any division of responsibility with every officer in the Department. In that connection and in regard to that memorandum I state emphatically and unequivocally that I did not express an approval of that memorandum for the same reason, and for the additional reason in reference to that clause relating to landing supplies at Littleton Island, I never saw and I cannot see now why it should be put in a memorandum to be furnished to the Navy Department to form a basis of instructions to be given to the naval tender, and the only remark that I can recall—and I have studied over the subject as much as I can, endeavoring to call it to mind as much as possible—that I made to Lieutenant Caziarc in reference to that clause was to ask him the question what would become of me if the ship was frozen in above Littleton Island, or I had to go into winter quarters, in case I left all my stores at that point, and he answered that point by saying it would probably be well to leave half of them. To that I made no reply. I studiously avoided giving any official expression of an opinion on that paper; and I will say also that I never knew he had been ordered to make the paper. I always thought that that paper was prepared by him, as I testified before, to facilitate matters, because there had been a good deal of talk in the office about the delay and the difficulty in getting things done by the Acting Chief Signal Officer. I also knew of the existence of that telegram that General Hazen sent from St. John's or Halifax directing them to take no step in the instructions until he came back.

By the COURT:

Q. Why could not the material for the instructions have been got together before he went to Halifax? You had from the 1st of March.—A. I do not know. I am confident the instructions were begun in the latter part of April, and that the original draft of instructions had been submitted to General Hazen before he went to St. John's, because when it was referred to me—when I saw it—it had the changes made by General Hazen in it then, in his own handwriting. In fact, when I saw it those were the only amendments that had been made to it, and they were by General Hazen himself; that was before he went to St. John's.

By the RECORDER:

Q. You do not mean to say that it would not have been a wise measure

to land a large portion of your supplies, say half, or even a third, or fourth, at Littleton Island, or in that neighborhood on your way up?—A. I think if stores had been landed at all they should have been landed on the other coast.

Q. The reason for landing them at Littleton Island or Life-Boat Cove seems to have been that Mr. Greely was expected to regard that as his objective point?—A. He had to pass by the other point, though, to get there.

Q. I suppose his route would depend very much upon the condition of the ice, however, and that was his final objective point.—A. Lieutenant Greely's plan was, and he indicated that there would be no departure from it, that he was to come by Cape Sabine, and that was the condition upon which the party stationed at Life-Boat Cove was to watch closely and keep their telescopes on Cape Sabine.

Q. I observe by the map that on the 2d and 3d of August you were at Saunders' Island, on the 4th, 5th, and 6th of August you were just below Cape Athol, and on the 8th, 9th, and 10th to the 16th of August you were in the neighborhood of Cape York?—A. Yes, sir.

Q. That on her way up the Yantic was on August 2 about twenty miles off Cape Dudley Diggs and on her way down she was at S. E. Carey Islands August 5, and August 10 on her way down she was again opposite Cape Dudley Diggs. Now, do you not think that if there had been more places of rendezvous between Cape York and Littleton Island you would undoubtedly have met?—A. No, sir. When the Yantic left Littleton Island she made a due course for Cape Isabella.

Q. But I mean suppose you had made an arrangement with Commander Wildes that you would look for him at any one place where he could leave a record and to which he should return, and so on?—A. In general of course the more points you agree upon at which to meet the more probability there is of meeting; I do not think that the establishment of cairns at those places along there would have made it any more certain that we would meet each other.

Q. Not the mere establishment of cairns, but if the agreement had been that the Yantic should stop at certain places and leave a record that she had passed there and then returned on her way south, you would have gone to these places, and finding the record that she had gone north you would remain there with the certainty that you would be taken up?—A. That would depend upon the circumstances of the case. We might have gone there and we might not. A good many of those places we could not get into. It depended upon the state of the ice, the weather, and the wind. But, as I say, the more places of that sort agreed upon the more likelihood of forming a junction, probably.

Q. Did it not occur to you to make a more definite arrangement in that respect, as you were doubtful that the vessel might get to Littleton Island?—A. No, sir; it did not occur to me. I thought that it was covered by the agreement we entered into. I knew that if the Yantic ever succeeded in getting through Melville Bay there would be no difficulty in her going to Littleton Island or that vicinity. The obstruction that I anticipated was always in Melville Bay.

Commodore JOHN G. WALKER recalled and examined as follows :

By the COURT :

Q. You have already stated that the sides of the Yantic were sheathed to prevent the ice cutting them. What other preparations were made to prepare her for the special service in question, either at the time of your visit to her at the Brooklyn navy-yard or at any other time?—

A. At the time of my visit directions were given to land her battery and her ordnance stores for the purpose of allowing additional coal and additional provisions and supplies to be carried, and the commandant of the yard had an order to do all and anything that was necessary to fit her for that service. Those orders were sent by the Chief Constructor of the Navy. He had verbal orders to the same effect from me, to go ahead and do everything that was thought necessary.

Q. Who determined the amount of what had to be done upon the vessel to prepare it?—A. That was determined by the commandant and the officers of the yard and the commanding officer of the ship.

Q. They knowing the service she was going on were supposed to be fully capable of deciding what was best to be done under the circumstances?—A. Yes, sir.

Q. What would be the proper complement of officers and men respectively for such a ship for war service?—A. She would be allowed one hundred and fifty men, and the number of officers that would be considered absolutely necessary would be thirteen. But she would probably be given, including naval cadets and youngsters, about eighteen.

Q. Does the number one hundred and fifty include marines?—A. It includes marines; yes, sir.

Q. So that the whole force on board would be one hundred and sixty-eight men?—A. The whole force on board would ordinarily be about one hundred and sixty-eight; that is, including the officers, midshipmen, and cadets.

Q. So that it would be one hundred and sixty-eight men, all told?—A. Yes, sir.

Q. What complement of officers and men, respectively, ought such a ship have to fit her for ordinary service in time of peace?—A. She would have the same number of officers, but she would have one hundred and thirty-three men instead of one hundred and fifty.

Q. What would be the smallest crew of officers and men, respectively, that could readily handle the ship when subjected to the usual contingencies of navigation?—A. That is a matter of opinion. If you mean the very smallest, it could be reduced to a very small number. But taken in its ordinary sense, I should say about eighty men and about ten or twelve officers.

Q. Would a larger crew be required for such special service as that upon which she was ordered?

The WITNESS. Do I understand you to mean larger than this smallest number?

The COURT. Yes.

A. Then I should say that more than the minimum should be given to provide for sickness and loss of men by exposure.

Q. After it had been determined to detail the Yantic for the special

service referred to, was any addition made to her crew?—A. None to my knowledge.

Q. I believe that is all upon that point. There is another point. Did you ever see the paper known here as “Memorandum 4” or “Inclosure 4” previous to the preparation of the instructions to Commander Wildes?—

A. I have no recollection of having seen it. I should have testified three or four days ago when I was before the court that I had never seen it until I saw it in the newspapers; but I know that Lieutenant-Commander McCalla has testified that he saw it and received it from me, and therefore I cannot say positively that I did not see it, but I have no recollection of it.

Q. There was a copy that came to the Navy Department after the disaster, was there not?—A. None came to me. I am not sure, but I think a copy went to the Secretary.

Q. But that was after the disaster, as you understand it?—A. I think so; yes, sir. I might add here that we had conversations and papers of various kinds in preparing the orders for the Yantic, and it is possible that I may have had this paper, but I have no recollection of it.

Q. You have read Lieutenant-Commander McCalla’s testimony, and you know what it is on that point?—A. Yes, sir; I should have testified a day or two ago that I saw it only in the newspapers, and I cannot recollect now of seeing it, but still it is possible I may have seen it.

Q. Did you get up the instructions to Commander Wildes?—A. Yes; I got them up under instructions from the Secretary, and laid them before the Secretary for his examination and criticism before they were adopted.

Q. He has testified that he looked them over with you. Do you recollect whether in preparing those instructions for Commander Wildes that you had any memorandum which you consulted?—A. Yes, we had various papers. I had gotten together everything I could on the subject of navigation in those waters, and had made a considerable examination of them, and I consulted everything, but I do not remember this memorandum, and my impression has been that the first I knew of it was when it was published after the failure of the expedition.

By the RECORDER :

Q. I will just ask one question to complete what we want to know about the equipment, and so forth. The Yantic was of course provided with sufficient boats to carry her ship’s company in case of destruction?—

A. She probably had boats enough to hold all her people by crowding. She had the usual complement of boats that are given to vessels of war.

By the COURT :

Q. I think you stated in your previous testimony that your idea was that the Yantic was sent up there with the expectation of getting up to Littleton Island, and that the object of sending her there was that in case of disaster she might be in the way to pick up the men?—A. Yes, and render any assistance that was necessary or that was within her power.

Sergt. WILLIAM H. LAMAR, of the United States Signal Service, sworn and examined.

By the RECORDER :

Question. You are a sergeant in the Signal Service?—Answer. Yes, sir.

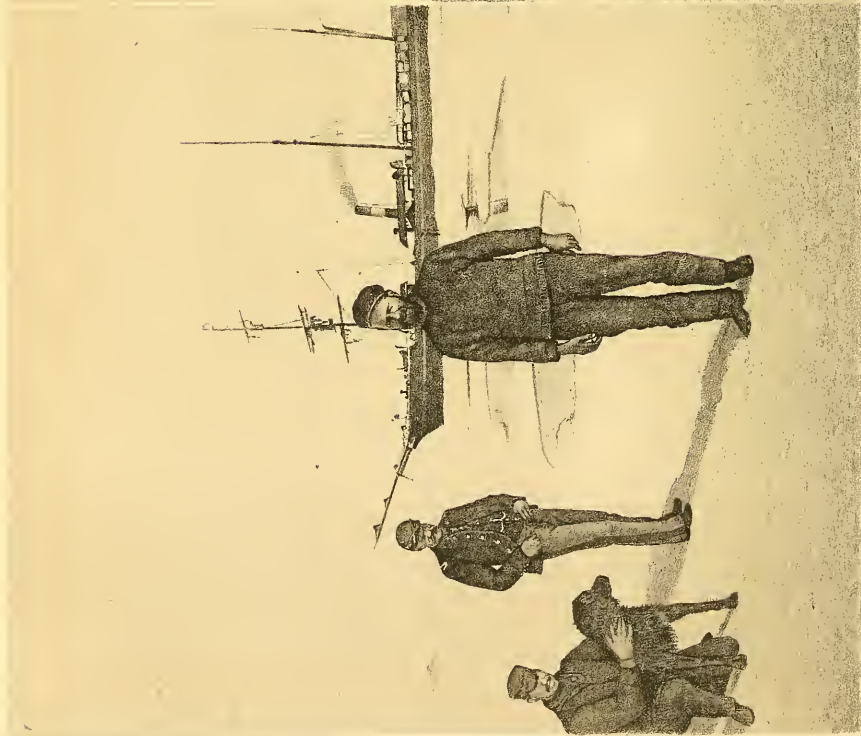
EXHIBIT "F" TO RECORD. PHOTOGRAPHS TAKEN BY SERGEANT LAMAR, SIGNAL SERVICE, WITH
A PRIVATE AMATEUR OUTFIT, AND FURNISHED BY HIM TO THE COURT OF INQUIRY



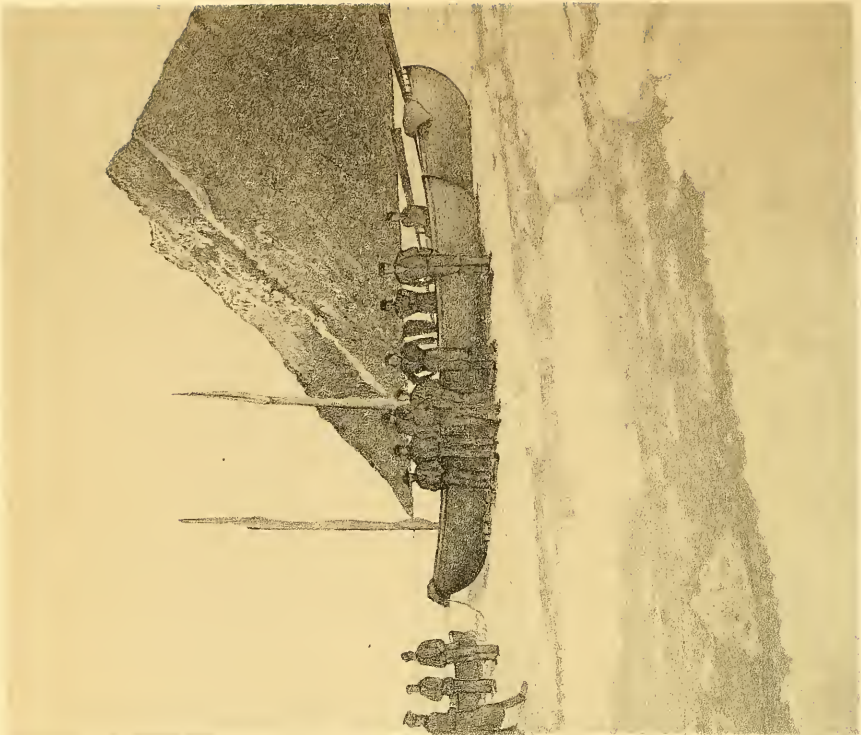
U. S. SIGNAL SERVICE PHOTOGRAPH

PHOTOGRAPH, SHOWING THE "NIP" WHICH DESTROYED THE PROTEUS

SEX-100-148

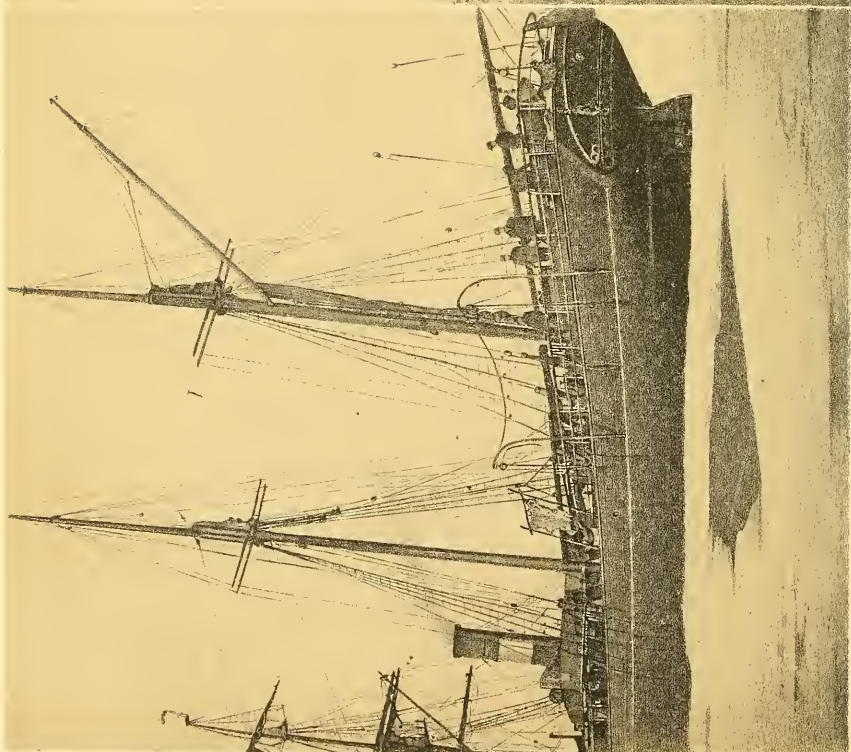


PROTEUS AT HEAD OF MELVILLE BAY
S. EX. 100, I. 49.



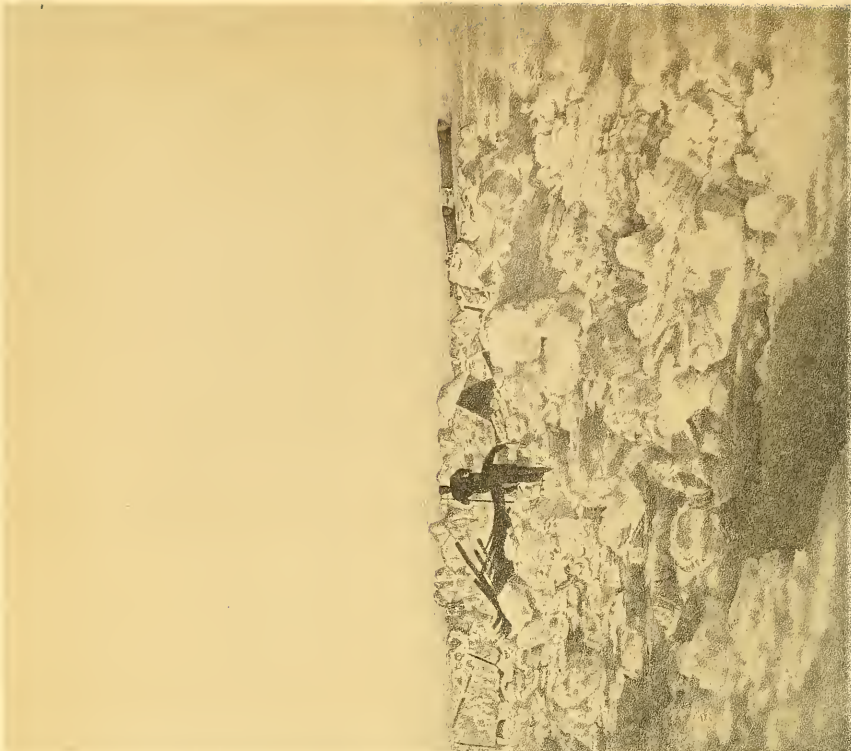
ON RETREAT IN BOATS NEAR CONICAL ROCK
NEAR CAPE DUDLY DIGGES.
S. EX. 100, I. 48.

T. Jackson & Son, Lith., Phila.



PROTEUS, JULY 23rd THE MORNING OF THE DAY
WHEN SHE IN THE EVENING WAS CRUSHED.

S. EX. 100, I. 48.



HOLE, WHICH THE PROTEUS LEFT IN SINKING,
BOATS IN ICE IN BACKGROUND.

S. EX. 100, I. 48.

© Stearns & Son Lith. Philad.



W. S. G. & Co. Lith. Phila.

PROTEUS IN PANDORA HARBOR HARTSRENE BAY

S. EX. 100. I. 48.



ENGLISH CACHE AT CAREY ISLAND.

S. EX. 100. I. 48.

Q. You accompanied the expedition under the command of Mr. Garlington?—A. Yes, sir.

Q. And returned with it?—A. Yes, sir.

Q. What was your special duty on that expedition?—A. I was an observer of the Signal Corps on special magnetic and meteorological work.

Q. Had you charge of the instruments?—A. I had, together with Private Ellis, of the Signal Service. We were on the same footing as observers.

Q. You had charge also of the photographic apparatus, had you not?—A. That was just a private amateur outfit that I carried.

Q. Did you take some photographs of the Proteus and the surrounding ice?—A. Yes, sir.

Q. [Submitting photographs.] Are these that you now present to the court the ones?—A. Yes; they are prints from the negatives that I made.

Q. State what they are, respectively. They are designated as F, F 2, F 3, F 4, and F 5.—A. F is the Proteus just before she sank, about the time that she was abandoned, after we had taken everything off; we were all off on the ice. F 2 is a view at the head of Melville Bay; the Proteus ran up there and was stopped by the ice on the way to the place where she finally sank; we stopped there several hours, and while the party was on the ice I made that exposure. F 3 was taken on the retreat in boats near Conical Rock, which you will see in the background, and the boats hauled up on the ice there to prevent them being smashed. F 4 was taken on the morning of the 23d of July. The Proteus was nipped in the ice very near the latitude of Cape Albert, just before she turned on the retreat south where she was finally sunk. She was nipped there about two hours. F 5 is a view just after the vessel sank, showing the boats on the ice-floe and the broken mass of ice. It was taken about a minute after she passed out of sight. I will state that there are several other photographs in the series, but I was called on only to produce those as showing the condition of the ice.

By the COURT :

Q. One of those photographs you took—the Proteus—just as she was going down?—A. Yes, sir.

Q. What did you do between the time she was nipped and the time you took your photographs of her?—A. I was assisting to remove supplies from on board until she was finally abandoned.

Q. After all that was finished, then you had time enough to take a photograph of her before she went down?—A. It was five minutes after she was abandoned before she finally sank.

Q. And it was during that five minutes that you took the photograph?—A. Certainly. Allow me to correct myself. I believe that I am mistaken about that five minutes. I think that she was abandoned in that condition, and it was then that I took it, and it was after that that Lieutenant Colwell and party went aboard for the other boat. I think it was between those times I took it. At first the party was called off from the ship by cries of danger—that she was sinking and so forth, and we all left her. I think every man left the ship at that time, and I think it was as that time that I made this exposure, and that afterwards she was boarded again to get the final boat out.

By the RECORDER :

Q. Was or was not everything possible done after the disaster to save the stores, as far as you know?—A. Our party certainly worked as hard as they were able to work. It was about twenty-four hours from the time of the sinking of the vessel until the last boat landed upon Cape Sabine, and we were working constantly all that time very near. I know for one that I was perfectly exhausted myself at that time.

Q. Did the officers and crew of the Proteus do all they could to save the stores?—A. Our party worked entirely separate from theirs, and I did not have cause to see as much of what they were doing as what I saw of our party. But I know that there were a great many working in the after part of the vessel getting supplies from the hatch beneath the cabin floor, and as I had cause to go there to save some chronometers—I had one in the cabin—I saw a good deal of work being done there that I could not have observed had I been elsewhere. A great many of the supplies of the Proteus were removed from that portion of the vessel.

By the COURT :

Q. By the crew?—A. By their party; yes, sir; while our party was working in the front forward hatch and the forward peak, an entirely different portion of the ship.

By the RECORDER :

Q. Did or did you not see any disobedience or disposition not to assist manifested by any of the crew of the Proteus?—A. I do not know that I saw any disobedience of orders at all. I could not say positively that I saw any direct disobedience of any order given by their officers.

Q. Did you see any want of alacrity?—A. I think at first they were more engaged in supplying themselves with things they thought they needed than saving supplies.

Q. Explain to the court fully how they were engaged.—A. They paid more attention to their private baggage than they did to saving supplies in the first place. Their own bags of clothing were the first things they saved, and they seemed to think that personal property was the first thing to be saved at that time; but as to their standing around and not doing anything when they saw things that they could do, I did not see anything of that kind.

Q. Was there not naturally some confusion at the time?—A. Yes, sir; it was a very exciting scene. I think that the expedition party worked much more effectively than the other party.

Q. Did Captain Pike at any time express any disapprobation of the conduct of his men?—A. Yes, sir; at one time he did. He was speaking of the discipline the soldiers were under at that time. He made some remark about his men not working as well as the soldiers did. He used the expression "soldiers."

Q. Do you remember what he said?—A. No, sir; he was at some distance; we were upon the edge of a floe; I believe one of our boats had just been pushed into the water, and his party were off perhaps a hundred yards; I heard him call loudly there to some of them; I was not near enough to hear any of the ordinary tones.

Q. Have you read Lieutenant Garlington's report of his expedition?—A. Yes, sir.

Q. Are you able to give this court any information that it has not received from that report and from other evidence so far as you know?—A. I think he is mistaken about the time of the vessel going down. I know he is. I had charge of the chronometers, which contained the only reliable time on the vessel. The time of nipping as he stated was quarter to three. She was finally abandoned at 6 o'clock, and sunk five minutes later. I noticed the chronometer, both at the time of the vessel being abandoned and at the time of her sinking.

Q. You saved some of the chronometers, did you?—A. Ellis and I saved all of the chronometers, five in number. In regard to other statements made in that report I know of no error.

Q. Do you know anything else material to the question of the causes of the failure of the expedition?—A. I know of nothing positively myself. I heard what Captain Pike said about most every difference between himself and Lieutenant Garlington on the expedition from the time of its starting until the close. The position that I occupied threw me in that portion of the vessel a good deal, and I frequently saw Captain Pike on deck and he talked freely to myself and Private Ellis in regard to a great many differences between Lieutenant Garlington and himself. But of course as to knowing whether they are true or not I never heard anything that passed between them at all. I simply had his statement, and I have heard his son's statements.

Q. Did you ever know yourself of any differences between them?—A. I never saw or heard anything that passed between Lieutenant Garlington and Captain Pike at all. But I have heard Captain Pike on deck frequently speak of them.

Q. You knew of no dispute or difference of opinion yourself between Captain Pike and Lieutenant Garlington?—A. I know simply of differences of opinion from Captain Pike's statements to me.

Q. What did those statements refer to?—A. Before we left Godhaven Lieutenant Garlington, I think, was ready to go sometime before Captain Pike thought the weather would permit the vessel to leave the harbor. It was foggy and raining and he did not want to leave, and Lieutenant Garlington was ready and rather insisted upon it, so he said, and he did not like Lieutenant Garlington's taking the stand he did in that matter as he thought he was in command of the vessel. That was about his statement.

Q. Anything else?—A. The day before the wreck we were in Payer Harbor at Cape Sabine, and Private Ellis and myself had gone ashore to make some magnetic observations. We expected to remain there several days to coal ship, &c. We had gone across Smith's Sound and found the whole sound blocked with ice, as Captain Pike had reported it must be, and he expected to stay, he said, at Cape Sabine for several days to coal ship, and then to go out to see about the ice. We were recalled from shore only a few hours after we had landed the instruments and gone to work, and I asked Captain Pike why we were called back so suddenly and why we were going forward, or something of that kind. I do not recollect exactly my question, but I spoke about his leaving so soon, and he said then that Lieutenant Garlington had discovered what he thought to be open water in that direction, and that he did not want to leave himself, that he did not believe the ice was favorable to proceeding farther. He said that he first remonstrated about going any farther at present, and that Lieutenant Garlington told him that

he did not think he would be doing his duty to the party at Lady Franklin Bay or to the United States Government if he did not go on. So he then, under the circumstances, went forward. He spoke of that occurrence several times while we were butting against the ice, and so on, while he no doubt mentioned this fact after the wreck more than before. But at most every encampment that thing was spoken of and discussed in the camp.

Q. In the presence of Lieutenant Garlington?—A. No, I never heard in the presence of Lieutenant Garlington one thing of the kind discussed. I simply heard Captain Pike's statements. I know nothing further than his statements.

Q. What do you mean by coaling?—A. Coaling the bunkers from his own supply on the ship. I know nothing of these statements only so far as I have heard them discussed by Captain Pike and his son and the members of his crew and the whole party all the way down on the retreat, when of course these matters were discussed every day.

Q. Were you in the habit of taking observations for latitude yourself?—A. Yes; I took observations for latitude and longitude.

By the COURT :

Q. On what boat were you on the retreat?—A. I was in Lieutenant Colwell's boat.

Q. All the time?—A. Yes; all the time except near Cape York. He went forward with a party from about fourteen or fifteen miles above Cape York. He had a crew and went forward to see if there were any boats at Cape York. The main portion of the boats could not reach Cape York on account of the ice.

Q. You got aboard after that?—A. I got aboard at Cape York again, and continued on the same boat.

By the RECORDER :

Q. Do you know whether Captain Pike was able to take observations?—A. I have seen him take sights for latitude and longitude, but I never saw any of his computations the whole time I was on the ship.

Q. You had had no previous nautical experience?—A. No, sir.

Q. But from your observation as to the manner in which Captain Pike was regarded by his associates and from his general bearing could you form any idea as to his capacity as a shipmaster?—A. I know nothing at all of the requisites of a shipmaster. I had never been to sea. I know that Captain Pike in St. John's was spoken of very highly as a navigator. They think he is a great sea captain up there.

Q. You mean the seafaring community think so?—A. Yes, the seafaring community think so.

Q. How was he regarded by his men? Did he seem able to command them and to enforce discipline?—A. On the retreat they seemed to think they were not under his command, except so far as they were disposed to be.

Q. But prior to that, before the disaster, was he regarded with respect by his men?—A. I know nothing to the contrary before the wreck.

Q. You say the men after the disaster considered themselves absolved from obedience?—A. Yes, sir. They claimed that they were no longer

receiving pay after their vessel went down and that when it sank their relations with it ceased.

By the COURT :

Q. Not recognizing any duty to yield obedience had they a right to eat the food that was carried along?—A. Well, they did eat it.

Q. What position do you hold in the Signal Service?—A. Sergeant in the Signal Corps.

Q. How long have you been in the Corps?—A. Two years next January.

The RECORDER. Lieutenant-Commander McCalla wishes to make a further correction in his testimony which he does not remember as having heard read.

Lieutenant-Commander BOWMAN H. McCALLA then resumed the stand.

The WITNESS. I would like to correct my answer to the question by the court on page 114, as follows :

Q. You are not in a position, necessarily, to know whether the instructions were given?

As the question apparently refers to giving a copy of Commander Wildes' instructions to the Chief Signal Officer, I would say that I was not necessarily in a position to know ; on page 112, in reply to the question—

Q. In making alterations to a ship to prepare her for the service, by whose orders would such alterations be made?

I would say, by order of the Chief of the Bureau of Construction and Repair under the authority of the Secretary of the Navy.

JOHN KENNEY sworn and examined.

By the RECORDER :

Question. You were in the Signal Service?—Answer. I was attached to the Signal Service while on duty with this expedition.

Q. In what capacity?—A. As senior non-commissioned officer of the expedition—sergeant.

Q. What was your regiment?—A. Troop I of the Seventh Cavalry.

Q. You left with this expedition from New York and returned with it, did you?—A. Yes, sir.

Q. Now, I wish to learn from you what you know, if anything, regarding the failure of the expedition—any special causes that may be known to you which, in your opinion, led to the failure?—A. To the best of my knowledge it was through unavoidable accident.

Q. You refer to the wrecking of the ship?—A. Yes, sir.

Q. I wish to ask you particularly as to the conduct of the officers and crew of the Proteus at the wreck?—A. They acted pretty bad all the way through.

Q. Explain that fully to the court.—A. The men, in the first place, did not seem to care much about saving property as they should have done. They were of no help to us at all, and as far as I could see did not intend to be. I did not hear any words at all between the men, but I know that that was the feeling amongst them all. I could see it.

Q. Was everything possible done by Lieutenant Garlington and his

party to save the stores and what could be obtained from the wreck?—A. Lieutenant Colwell had charge of the men on deck. I was with him. We staid on her till the last minute. She went out of sight a few minutes after we jumped off.

Q. So far as your party was concerned you think nothing was left undone to save as much as possible?—A. Yes, sir. Everything that could be done was done.

Q. Did you hear Captain Pike at any time express any disapprobation of the conduct of his crew?—A. No, sir; I did not myself.

Q. Do you know anything of any mutinous demonstrations on the part of the crew—any disposition to violence on the journey down?—A. I had good reason to believe that they were going to take one of our boats.

Q. Explain what reason you had?—A. I was told by one of the men that I had better keep an eye on our largest whale boat, that Lieutenant Colwell was in charge of, and furthermore that Lieutenant Garlington had better watch himself. That was all I heard about it.

Q. Who told you that?—A. A man named Harry Jeau.

Q. What was he?—A. He was a fireman. He did not exactly tell me in those words, but he hinted at it in such a manner that I could not but understand it.

Q. Can you state to the court his words as well as you remember?—A. No, sir; I cannot.

Q. He was one of the firemen of the Proteus?—A. Yes, sir.

Q. You do not remember anything further that he told you about it?—A. No, sir; I do not.

Q. To whom did you communicate those facts?—A. To Lieutenant Garlington.

Q. When was it Jeau told you this?—A. Well, I heard hints all along the passage down from Cape Sabine. I did not get it at any exact time, but the day before we left Cape York I got some rumors from a man named Hunt, who was cook of the Proteus, and I communicated them to Lieutenant Garlington. I first spoke to Dr. Harrison about it. He advised me to tell Lieutenant Garlington. It was my intention to do so in the first place, but I thought I would wait and see how things were going.

Q. Have you read Lieutenant Garlington's reports of this expedition?—A. No, sir; I have not.

Q. How long had you been in the military service when you were detailed to this expedition?—A. A little over four years.

Q. You volunteered for it?—A. I did, sir.

Q. The rest of the men, as far as you know, were volunteers, were they?—A. Yes, sir.

Q. Where had you been serving?—A. At Fort Totten, Dakota Territory, or in the department of Dakota Territory, through that country—Montana.

Q. Do you know anything about some of the men deserting who were originally enlisted or originally detailed for the expedition?

The WITNESS. You mean previous to the party leaving New York?

The RECORDER. Yes.

A. They were Sergeant Bolton and Private Cook.

Q. To what Troop did they belong?—A. Troop L, of the Seventh Cavalry.

Q. Do you know of any disposition on the part of any of the others to desert?—A. No, sir; not previous to going.

Q. Or any indications of a disposition in that direction?—A. No, sir; not previous to our departure from here.

Q. Did you know of any disposition to desert afterward in the course of the voyage?—A. No, sir; not during the voyage.

Q. Or on the retreat of the party by boat down?—A. No, sir; there was not a man among the party but was bound to stick.

Q. Did any of them manifest any disposition to desert in New York or St. John's?—A. No, sir; there was no sign of their deserting there. A few of the men got on a spree; that was all.

By the COURT:

Q. When this man belonging to the Proteus gave you that information in regard to stealing a boat, was it done in a threatening tone or merely as a hint?—A. It was not exactly given to me; I got the expressions and came to the conclusion, and after Corporal Elwell and I talked the matter over of the way things were going; the men were all the time saying that our large boat would be the best boat to cross Melville Bay—to fit that boat out of the stores of the expedition and send one party across and bring a ship for the remainder; and the men were saying that it would not do to stop in that country all winter; they were giving me hints; I could not exactly say the words that were used, but it was to that point, anyway; that is what they intended to do.

Q. That is, you saw they were not relying implicitly upon what the officers of the expedition were going to do, but they were inclined to take a hand in it themselves?—A. They were going to do that if worst came to the worst.

By the RECORDER:

Q. Did I understand you to say that these men, Jeau and Hunt, gave you this warning in a friendly way of what the others would do?—A. Well, it was said in a way such as to tell me to take care of myself. I could hardly understand what they were driving at at the time until I talked with other parties. Other parties had got hints of the same kind. Corporal Elwell was one.

Q. You say also that you heard expressions from other men that seemed to indicate that they had that intention themselves?—A. Well, it was just this way as far as the other men were concerned: They would make remarks against the officers of our party. We could hardly get head or tail of what they were driving at, but we got an idea that it was hostile to our party and that it was dangerous to trust them. That was the idea I came to.

By the COURT:

Q. And as a consequence your party took precautions against the loss?—A. Yes, sir; the majority of the men did.

Q. Do you know anything of any differences or disputes between Lieutenant Garlington and Captain Pike as to what ought to be done at any time?—A. I do not know of any differences, sir; if there were any I did not hear them.

Q. Do you know what kind of men these people on board the Proteus were?—A. They were Newfoundlanders of the meanest kind.

Q. They did not impress you as being good sailors?—A. They were neither sailor men nor anything else.

At this point (2.30 p. m.) the examination of the witness was concluded, the room cleared, and the doors closed for the purpose of deliberation by the court. At 3 o'clock p. m. the doors were reopened and the court adjourned until 11 a. m. to-morrow.

WASHINGTON, D. C.,
Saturday, November 24, 1883—11 o'clock a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of yesterday's proceedings, having been read and amended, was approved by the court.

The RECORDER. General Hazen desires to ask Lieutenant Garlington a few questions with the permission of the court.

Lieut. ERNEST A. GARLINGTON was then recalled and examined as follows:

By General HAZEN:

Q. From your experience upon the Proteus what is your opinion with regard to that ship for the purposes intended of her—both the ship and her equipment; also your opinion of her character and fitness as compared with any other ship or equipment which might be available for that purpose?—A. I think the Proteus was the best ship that could have been gotten for the work on this side of the Atlantic. The only objection that I could see to her was that her engines were amidships, and from my study of the subject, since particularly, I think that the engines are better placed aft, as they are in all the Dundee whalers except one, I believe. But she was considered the best of all of the ships at St. John's. The rigging of the Proteus was old, and if we had been dependent on the sails to any great extent the probabilities are that they would have been carried away in any heavy weather. When we first struck the ice off Labrador, butting it, the mainmast seemed to me to be quite unsteady, and the next morning I noticed that the sailors were at work putting in new lanyards, and they did some other work on the rigging between that point and Disko. We had four boats; a jolly boat, a long boat, and two punts. The boats were all old, and appeared to me to be in bad condition, particularly the two punts. Captain Pike himself considered the long boat a very good sea-boat. I heard him say at Upernavik that he would be perfectly willing if he could get it decked over to make the attempt to get to St. John's in it. But from my limited experience with boats I considered all of them very bad boats. The Proteus was provided with two extra screws or propellers and one extra rudder, and I was told by Captain Pike that she had an extra suit of sails. I was also informed by him that they had ample provisions for a year. All the provisions I saw were of good quality, though of a low grade of provisions, except the ship biscuit, which was very good.

Q. What was the general conduct of the ship, in a general way, from the time she left St. John's until the disaster as to her qualities of navigation and the method of her management?—A. I saw nothing in the management of the ship to complain of up to the time of the wreck, except it appeared to me that Captain Pike was very careless in navigating unknown coasts and entering unknown harbors; I never could explain to myself satisfactorily why he got so far into the bight in Melville Bay; he laid it to the compasses and fog; but my opinion is that he should not have gotten so far off the track even under those circumstances.

Q. But generally, did not the ship make a good voyage?—A. Yes, sir.

Q. What was the conduct of the men as seamen doing their duty upon the Proteus up to the time of the disaster?—A. I saw nothing at all in the crew to find fault with until the ship got nipped in the ice.

Q. Do you know anything of the custom or law, whichever it may be, as to the status of a crew after a disaster?—A. I was informed by several of the men that as soon as the ship sank the pay of the seamen ceased at that moment and that they owed no allegiance to their officers except what they chose to give. I asked Captain Pike about that, and he either could not or would not give me any positive information on the subject.

Q. That was your impression?—A. Yes. During the wreck I heard the mate give one of the men an order to do certain things and the man told him to go to hell; he wanted him to understand that the ship was gone now, and he was as good as he was. That was while the ship was sinking.

Q. You have stated that on two occasions Captain Pike's ship, the Proteus, was not run ashore but touched the rocks or touched the coast. Now, do you know anything of the character or the customs of navigation with those strong boats, they being so strong that it is quite customary for them to feel their way along with the bottom of the boat rather than to sound as much as it is usual in our marine service?—A. I cannot say as to their custom in that regard, but I know that the Proteus never used the lead-line at all as far as I saw. I do not know anything about the others. That is, the lead-line was not used until Lieutenant Colwell used it when we ran on the rock at the mouth of Disko Fjord. From what I saw I do not think they are as careful as they would be on a well-regulated ship; in fact I know they are not.

Q. Do you not think the construction and strength of the ship had something to do with that?—A. It may give them overconfidence; I think it very likely did. Running on a rock up there is not as dangerous as running on a rock in other waters, because the ice smooths off the rocks to a great extent, and they are not jagged or pointed as much as they are in other waters.

By the RECORDER :

Q. I will ask you in reference to a matter that was, as you are probably aware, alluded to yesterday in the evidence. Did or did you not urge Captain Pike at any time to proceed against his own judgment?—A. No; I did not.

Q. In leaving Disko or in entering the ice off Cape Sabine?—A. In no place did I ever urge Captain Pike to do anything against his judgment, nor did he express to me at any time that he was doing anything against his judgment.

Q. He never protested against any request of yours that he followed?—

A. He never protested against doing anything that I requested him to do. When we left Egedesminde I wanted to go to Jacobshaven and he told me that he did not think it was advisable on account of the consumption of coal, and that the object I wanted to go there for could be effected just as well by going back to Godhaven and I changed my mind and went to Godhaven. There was no difference whatever between Captain Pike and myself from the time I went on the ship in St. John's until the time I went ashore with him when I got back to St. John's.

Q. He never made any complaint to you?—A. He never made any complaint to me. I have heard of things that Captain Pike has said since he returned to St. John's and on the retreat also, but he never said anything to me, and when I got to St. John's I heard of these remarks that had been attributed to Captain Pike. I went to see Mr. Syme, the agent of J. & W. Stewart, and requested him to have Captain Pike come to his office at a particular time, saying that I would be there with Lieutenant Colwell. At the appointed time we went there, and Captain Pike was also there. He stated at that interview what I have stated here; that there had been no difference at all between him and me during the voyage. He also stated in answer to a question to Mr. Syme that he had gone into the ice against his judgment, but that he never expressed to me that it was against his judgment or gave me any reason to suppose that it was against his judgment. Nor did he express any such opinion to me either, when I told him to go out of Payer Harbor or at any time while we were in the ice, and I said nothing to him whatever in the way of direction from the time we left the harbor until the ship sank. Lieutenant Colwell was present at a conversation that took place between me and Captain Pike just before we left Payer Harbor and knows all the circumstances of the case. I think Dr. Harrison was also present.

Q. On leaving Payer Harbor to enter the ice in which the ship was crushed, did you make any request or give any directions to Captain Pike respecting which he expressed any dissatisfaction to you or in your hearing?—A. When I returned to the ship from making an examination of the cache left near Cape Sabine by Mr. Beebe in 1882, and having discovered the open water leading as far as I could see, Captain Pike was asleep. I went into his cabin and called him, and told him that I had discovered this open water and wished him to get the ship under way as soon as possible to go out and make an examination of it and to make an effort to get north. He got up, came to the door of the room, and said that his coal-bunkers were getting empty. I told him that as soon as he got under way he could use my detail to assist in filling the coal-bunkers, and he said, "All right, I am as anxious to get north as you," and went on deck and gave the necessary orders for getting the ship under way. From that time until the ship sank I made no suggestion, directly or indirectly, to Captain Pike. He expressed to me no opinion at all as to the advisability of going into the ice then or at any other time. I would also state that in going out of Payer Harbor, to make sure of everything, I requested Lieutenant Colwell to go into the crow-nest with the first mate, who was in the crow-nest, and he went there and remained until the ship met the first barrier, and from that time until the time the ship was finally beset and sunk the movements of the ship were directed by Mr. Pike, the son

of the captain, or the boatswain, Mr. Taylor, Captain Pike remaining on deck.

By the COURT:

Q. You said in substance a moment ago that Captain Pike was careless in entering unknown harbors and in navigating Melville Bay. I would like for you to explain a little more fully what you mean. In what way was this carelessness manifested; what precautions were taken and what were neglected?—A. My sea experience up to that time had been either on a well-regulated merchant ship or a man-of-war, and I had never seen any ships run into an unknown harbor without taking the precaution of sounding, or run close to land without using the lead, and when we went into Egedesminde there was no lead used, and running along the shore of Disko Island, from the harbor of Godhaven to the entrance of Disko Fjord, no lead was used. We were running along in sight of the shore all the time, a mile or a mile and a half, and there were rocks to be seen from the ship near the coast we were following at the time the ship struck, and just before she struck somebody in the bow of the ship, I think young Mr. Pike, called the attention of his father to the fact that we were getting into shallow water, and Captain Pike said that there was plenty of water, and pointed to some icebergs on ahead, saying "if those icebergs can float this ship can float here." Even then there were no soundings taken. Those icebergs were afterward ascertained to be aground. A very few minutes, or seconds probably, after attention was called to there being shallow water there, he saw himself, from the ripples on the water, that there were rocks ahead, and he had the ship slowed down, and almost immediately it struck, and she went astern full speed. The probabilities are if she had gone forward at full speed she would have jumped off the rock, but in slowing down and going back she bumped once or twice and then hung. That is the first time that I had any reason to question Captain Pike's ability as a sea captain. He did not impress me then as being equal to the emergencies that were likely to arise. He seemed to lose his head there, and he went dancing up and down the deck and jumping around, saying that we should not have come there and making remarks of that sort; yet he never took a precaution to do anything to get the ship off except to go backwards and forwards, and he left the deck and went down in the cabin and knocked on Lieutenant Colwell's door, who had not yet got up, and said, "Lieutenant, the ship has struck a rock." Then Lieutenant Colwell came up on deck and took soundings. He went and grabbed up the lead-line and threw it over and it indicated plenty of water and he could not account for it. Some men standing there said several fathoms had been cut off the line, so the probabilities are that if anybody had been sounding before she struck they would not have known of the presence of any obstructions.

Q. That was one time. Were there any other times?—A. Then as I have said we went around Disko Island and lay a course for Cape York, and at the end of a certain time we found ourselves over there near the Belgoni Islands and did not know where we were. He thought that the prominent land near those islands was Cape York and one of the islands was Conical Rock. We ran alongside the fast ice, about midday, if I remember correctly, or a little after midday. Then Mr. Colwell and myself were certain that he had gotten too far to the eastward, and after

talking with Mr. Colwell I determined to lay alongside this fast ice until we could get a time-sight and locate the position of the ship, and he went ashore with the signal observers and got a sight and determined that point there [indicating on Signal Service maps]; that is why I think he carelessly navigated. I do not think such a big error in position should have been made.

Q. How many miles out of his course was he, do you suppose?—A. It was about one hundred and twenty miles over there, I think.

By the RECORDER:

Q. [Referring to Signal Service map.] You mean that erratic course where it crosses and makes a triangle?—A. Yes.

Q. That was all occasioned by this mistake, was it?—A. Yes.

By the COURT:

Q. He was not driven to that course by the ice?—A. He seemed to think that he was too far to the westward, and followed the leads to the eastward instead of to the westward; I will say that I do not feel competent to give an opinion on a man's seamanship; this is just what I observed and the conclusions I drew, and I never thought he could work a time-sight because nobody ever saw him work out one.

Q. That is, none of your party?—A. Yes; the two signal men took observations every day and worked them up. Mr. Colwell took sights and worked them. I remember one instance where Mr. Colwell took a time-sight and worked it out and Captain Pike asked him what he got and he told him, and he said, "That is what I got;" and then Mr. Colwell went over his work again and found that he had made an error, and he told Captain Pike what that was, and Captain Pike worked his over again and he said he found he was in error, too, and he got the same result that Mr. Colwell did the second time.

Sergeant WILLIAM H. LAMAR, recalled.

The WITNESS. In regard to that photograph, I know now that it must have been taken at the time that the vessel was first abandoned and that after that Lieutenant Colwell and party went aboard and saved the remaining whale-boat, for at the time that we finally abandoned the vessel the ice was piled up higher on the starboard side. In fact it was over the rail amidships on the starboard side, and the ice not appearing that way in the picture I know it must have been the first time that the vessel was abandoned that this photograph was taken. In regard to saving chronometers, testified to on page 133 of the record, I would say that Private Ellis and myself saved four chronometers—two mean time and two side-reals—and the pocket chronometer was saved by some of the Proteus crew and afterward returned to Lieutenant Garlington. It was saved by the second engineer.

By the RECORDER:

Q. [Indicating two photographs.] These two photographs you have produced this morning, marked F 6 and F 7, represent what?—A. F 6 is the English depot at Carey Island with the relief party there, and F 7 is the Proteus in Pandora Harbor. It was taken from near the head of the harbor, about the point where the cairn that Beebe left last year was expected to be found.

By Lieutenant GARLINGTON :

Q. I would like to ask you if your duties did not keep you most of the time, except when you were asleep, in the cabin or on the afterdeck?—A. Yes, sir; my duties kept me in the cabin or on the afterdeck most of the time.

Q. Did you observe or hear anything pass between Captain Pike and myself that would lead you to suppose there was any difference between us on the way up?—A. Never in the least did I hear anything pass between you and Captain Pike that would lead me to infer that there was any difference at all. I have heard him talk to you and I have heard you speak to him a great many times.

Q. Did he state to you that he had told me before we left Payer Harbor that the movement was against his judgment?—A. Just as I stated in my testimony last night.

Q. I wish you would state to the court what you heard the second engineer state about that chronometer at the time he had it first and subsequently on the retreat?—A. I did not see him when he had it at first. I think the chronometer had been turned over to you before I ever knew that it was in his possession.

Q. State any conversation that you heard respecting it.—A. It was when we were encamped at Cape York, if I am not very much mistaken. It was at *one* of the camps along down on the retreat. He asked me what this chronometer was valued at and I told him that I was under the impression that it cost three hundred dollars. He asked me if it could be worn as a watch. I told him, yes it could, and he said, "Well, if he had known the way that Lieutenant Garlington was going to act about taking these buffalo overcoats away from them at Cape Sabine after they had saved them that he would not have let him know that he had the chronometer." They were all very angry about having to leave those coats, and it was in that connection he mentioned this fact.

At this point (1 o'clock p. m.) the room was cleared and the doors closed for the purpose of deliberation by the court. At 3 o'clock p. m. the doors were reopened, and the court adjourned until 11 a. m. Monday.

WASHINGTON, D. C.,

Monday, November 26, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of Saturday was read, and having been amended was approved. The court directed that the letter addressed by the president of the court to the Adjutant-General on Saturday, the 24th instant, and the reply thereto by the Adjutant-General, received to-day, be entered on the record as Exhibits G and H to this day's proceedings. The letters referred to are as follows:

EXHIBIT G.

ROOM COURT OF INQUIRY,

(Convened by Special Orders No. 249, Par. 3, C. S., A. G. O.).

To Brigadier-General R. C. DRUM,

Adjutant-General:

SIR: I have the honor to advise you, for the information of the Secretary of War, that facts developed in the course of our inquiry now render it necessary in the opinion of the court that Mr. Richard Pike, master of the ship Proteus, should be invited to come before this court and testify as to certain allegations touching his own conduct and that

of his crew on the voyage to Smith's Sound. It is made known to the court that Mr. Pike desires to deny certain aspersions upon his seamanship and good conduct, but irrespective of this the court is of opinion that his evidence may be very material to questions properly involved in this investigation. There is reason to believe, also, that Captain Clapp, of the Sixteenth Infantry, as well as Captain Powell, of the Sixth Infantry, would be material witnesses. The depositions of other witnesses at St. John's might be taken while the court is waiting for Mr. Pike, who, in the opinion of the court, should be heard by the court in person.

The court would accordingly ask the Secretary of War to request the Secretary of State to instruct, by telegraph, Mr. Molloy, the United States consul at St. John's, to invite Mr. Pike to proceed, *without delay*, at the earliest opportunity of transportation to this city, and report to this court as a witness of the same, so as to report here by the 19th of December, and that the assurance shall be given him that his proper expenses in doing so will be defrayed by the War Department (in such a manner as the Secretary may approve), also that the consul be also requested to procure his own and Mr. Syme's depositions under interrogatories that will be sent to him, the consul.

As this action will involve a delay of some three weeks, the approval of the Secretary of War is asked for an adjournment to the 19th of December next.

The printing of the exhibits, which is delayed somewhat by other important business in the printing office, may, it is hoped, be completed by the time of reassembling of the court.

Very respectfully,

S. V. BENÉT,
*Brigadier-General, Chief of Ordnance,
President of Court.*

EXHIBIT H.

WAR DEPARTMENT, ADJUTANT-GENERAL'S OFFICE,
Washington, November 26, 1883.

Brigadier-General S. V. BENÉT,
President Court of Inquiry on Loss of the Steamer Proteus, Washington, D. C.:

SIR: Having submitted to the Secretary of War your letter of —, received on the 24th instant, I am instructed to convey his approval of the adjournment to December 19th for the purpose stated.

The Secretary of War will take the necessary measures to carry out the wishes of the court relative to the attendance of persons named as witnesses.

I am, sir, very respectfully, your obedient servant,

R. C. DRUM,
Adjutant-General.

Thereupon (at 12 o'clock and 10 minutes p. m.) the court adjourned until Wednesday, December 19th, proximo, at 11 o'clock a. m.

WASHINGTON, D. C., *December 19, 1883.*

The court met pursuant to adjournment of November 26, 1883. Present, all the members and the recorder.

The recorder announced that the reporter, Mr. Alexander, was detained by illness, and had deputed, subject to the approval of the court, Mr. Maurice Pechin, a stenographer of the city, to perform his duty in his absence.

The court then directed Mr. Pechin to be sworn, and he was duly sworn to the faithful performance of his duty as stenographic reporter.

Whereupon,

Capt. JAMES W. POWELL, jr., Sixth Infantry, was sworn and examined, as follows:

By the RECORDER:

Question. How long were you on duty in the Signal Office?—Answer. I think about one year and eight months.

Q. From what date to what date?—A. From November, 1881, to July 1, 1883.

Q. During what time last spring, during the absence of General Hazen, were you in charge of the Signal Service?—A. From the latter part of May to the first few days in June.

Q. Now, prior to May, 1883, did you have any personal connection with the subject of Arctic exploration?—A. No, sir; my duties were not at all with the Arctic exploration; they were of another character in the office.

Q. State what connection with, and what knowledge of, the expedition under charge of Lieutenant Garlington you had during that period of your charge of the office.—A. When General Hazen was ordered to St. John's I was assigned to duty as Acting Chief Signal Officer, and among other matters kept up the current preparation for Mr. Garlington's detail, and, without originating any matters, carried forward the preparations which had been already commenced by General Hazen.

Q. Proceed to state what you did, &c., more particularly with reference to the instructions to Lieutenant Garlington.—A. The instructions for Mr. Garlington had already been prepared by General Hazen before he left. They were in rough notes, which had been referred to the various officers on duty in the corps for opportunity for advice and remark, and I found them in that shape, together with instructions for the scientific work; and with a view of expediting matters and having everything in readiness for General Hazen's return I prepared clean copies, without changing the tenor in any way. I do not think, in fact, I altered a word in any of those papers. They were prepared on the type-writer, to be in readiness on General Hazen's return for him to act upon, and in that shape upon his return I presented them to the general.

Q. State what you know, if anything, in reference to the memorandum, a copy of which I now show you.—A. I would like to see the original of that; I mean the manuscript.

The RECORDER. It may be furnished you; but I do not think we have it here now. I think it has been sent to the Public Printer.

The WITNESS. Well, perhaps I can identify it without the originals. The original writing by Mr. Caziare is what I wanted to see.

Q. You mean the rough notes?—A. Yes, sir. I think I might better tell from the paper itself. I might perhaps go back a step and explain, which would introduce the memorandum. About the latter part of May I was sent for by the Secretary of the Navy to confer relative to the tender which the Navy Department proposed to send with the expedition. At that time I did not know anything about the matter. I made myself acquainted as well as I could in the office as to what was desired by General Hazen and then saw the Secretary of the Navy, who asked me whether it was intended that this tender should go so far north as to be endangered by the ice; that the Navy Department had not at that time a vessel they could assign to such duty where there would be great danger. I told him I believed that was not expected. He further inquired if it was contemplated that this tender should be required to carry supplies for the relief party. I told him I was informed that was not expected. He then went on to explain that it was important, in order that

there should be no trouble—that all matters should be clear—that the instructions for the co-operation of the vessels should be made clear, and desired the views of the Signal Office on that subject as to what was expected of the relief vessel. I explained to the Secretary the temporary position in which I was placed as Acting Chief Signal Officer; that I had not made a study of the subject, and as General Hazen would return from St. John's in less than a week, that I would, if possible, wish to defer presenting such a paper until the General's return. The Secretary informed me that would be in sufficient time. On my return to the office I instructed Mr. Caziarc (who from his position as Assistant Adjutant-General, I thought would be conversant with General Hazen's views and wishes as to what should be done in reference to the relieving vessel, he having all the correspondence in connection with the matter in his division) to report a draft of what might be required, so that if General Hazen did not return before the Secretary required this information, that I might have opportunity to confer with other officers to prepare a draft of what would be required. Subsequently Mr. Caziarc presented me a paper or read me a paper—I will say presented or showed me a paper, I think in the hand-writing of Lieutenant Caziarc.

Q. Look at this exhibit. (Referring to page 126 of the Appendix).—A. Of which this is the general tenor. Further than that, I cannot identify it precisely. I did not take any action whatever on that paper. It included orders for Mr. Garlington's conduct of the expedition, which I thought had been already settled by the Chief Signal Officer, and was not what I wished, it being apparently Mr. Caziarc's views, and not a compilation of the wishes of General Hazen in the matter.

Q. Was this before or after you saw the Secretary of the Navy that this paper was shown you the first time?—A. I think it was immediately after my return after seeing the Secretary of the Navy. That was what led to it.

Q. Did you not receive into your possession a copy of the paper?—A. I have no recollection, sir, of ever receiving such a paper into my possession.

Q. Nor of having furnished anybody a copy?—A. No, sir; nor sent one to Lieutenant Garlington. Of that I am positive.

Q. Do you have any recollection of speaking to General Hazen about it?—A. I have no recollection of speaking to General Hazen about it, sir.

Q. Did you report the tenor of this conversation with the Secretary of the Navy to General Hazen on his return?—A. I think immediately on his return he saw the Secretary of the Navy in regard to it.

Q. How many days before General Hazen's return was this conversation with Lieutenant Caziarc in which this paper was shown you?—A. I could best determine as to dates by the fact that I think it was on that same date I sent a telegram to General Hazen at St. John's to know at what northern limit the vessel was required to go. I sent such a telegram to the General, and I might fix the date by that—that is, the conversation in regard to his preparing instructions.

Q. The conversation in which that paper was shown you, the question was.—A. Oh, that was a few days subsequently, but I could not fix it positively.

Q. Why did you telegraph to General Hazen to know how far north

the tender was expected to go?—A. The Secretary of the Navy wanted that information, and with a view of having the matter in proper shape in case the General had not returned when the Secretary would require it.

Q. Look at this paper now shown you (being the paper referred to in Lieutenant Caziarc's testimony as the first draft, on page 40 of the record of proceedings) and state if it is the paper referred to by you as having been shown to you by Lieutenant Caziarc.—A. I cannot identify the paper particularly, except because of its being in the handwriting of Lieutenant Caziarc; I think it is the same paper.

Q. Is the lead-pencil writing there in Lieutenant Caziarc's handwriting?—A. Yes, sir.

Q. Now, this is dated June 4. Do you know whether that was the date on which it was shown to you, or whether it was before or after that date?—A. I think it must have been before that date, if General Hazen returned on that day.

Q. Now, Lieutenant Caziarc has testified in substance about this first draft as follows:

What did you do with that memorandum?—A. I gave this to Captain Powell for the purpose named; I wrote this on Sunday, but Captain Powell was not at the office at the time I wrote it; it was copied by the clerks and handed to him in the very opening hours on Monday; the ideas in the memorandum originated in the study of the orders that had been already prepared.

Q. Proceed with the history of the memorandum. You say you gave it in that form to Captain Powell on June 4?—A. I gave it to him on June 4. Captain Powell never returned the memorandum to me, but he told me he had turned it over to the Chief Signal Officer.

Q. This is on page 41 of the record. Does that testimony refresh your recollection in any way?—A. Not at all, sir. I do not think I did turn it over to General Hazen. I do not think I had it in my possession, and if General Hazen returned on the 4th there would have been no necessity or utility in presenting the papers to me on that day, because immediately on the General's return to his office I ceased to have anything further to do with the duties as Chief Signal Officer, resuming my own duties, and went to another field.

Q. Would it depend on the time of day on which General Hazen returned. For instance, if the 4th was Monday and you were in charge on Monday morning, and the Chief Signal Officer did not return until the afternoon, might it not be that the reason you stated would not have operated?—A. I might perhaps further explain that General Hazen was never long in the city before he was at the office. I cannot say what particular hour he returned that day. I think his arrival was always known to us at the office very soon afterward.

Q. But it might not have been known to you on that day; he might have returned on the night train?—A. I merely suppose he returned on that day. I do not know that he returned then.

Q. Is that your only reason for believing that you could not have received and turned it over to him, because you believe that he returned on that day?—A. No, sir; my recollection is that I did not receive it.

Q. You do not know the day of the week on which General Hazen returned?—A. I do not.

Q. Or how soon after you saw this paper it was that he returned?—A. No, sir; I do not; I cannot recall it.

Q. You do not remember having any conversation with General Hazen in reference to the subject of that paper?—A. I do not.

Q. Or on the subject of landing stores on the voyage of the vessel northward?—A. I did not discuss the details of the expedition with the General at any time. As I say, it was not in my department.

By the COURT :

Q. Lieutenant Caziarc gave this answer to a question the recorder asked him, referring to that paper: "I gave it to him on June 4. Captain Powell never returned the memorandum to me, and he told me he had turned it over to the Chief Signal Officer." Do you remember anything of that?—A. I remember no such conversation.

Q. What orders did you give to Lieutenant Caziarc when you asked him to prepare instructions, after that conversation with the Secretary of the Navy, and which ended in his preparing the memorandum you are speaking of?—A. I could not repeat the exact instructions, but I know what was in my mind, what I desired.

Q. What was that?—A. That he should compile from past conversations he had had with the General, and the various papers and correspondence which were in his hands as assistant adjutant-general, General Hazen's wishes as to what was required of the tender.

Q. You are aware that this memorandum contained certain ideas that are not found in the letter of instruction given to Lieutenant Garlington?—A. Yes, sir.

Q. Were those ideas that are embodied in the memorandum discussed in the office prior to your instructions to Lieutenant Caziarc?—A. I did not hear them discussed, sir.

Q. Did you have any conversation with Lieutenant Caziarc in regard to the ideas embodied in that memorandum, in any shape or form, before he wrote them out?

The WITNESS. In regard to the ideas expressed in that memorandum?

The COURT. Yes.

A. No, sir; not to delineate in any way what I expected from him.

Q. Did you ever hear prior to that the idea discussed that stores should be landed at Littleton Island on the way going up instead of on the way returning?—A. Captain Clapp's desk and Lieutenant Garlington's desk were in the same office, and frequently, while I was there at General Hazen's office, I may have heard Arctic work discussed. They may have mentioned time without number various plans, but not being in my division I did not make a study of it and cannot recall precisely what plan was thought of.

Q. Did you ever hear that discussed, in any shape, so far as you know?

The WITNESS. Leaving stores at Littleton Island?

Q. Yes, on the way up?—A. Not definitely further than I might have heard it, and still it not being a part of my affairs I would not remember it.

Q. Well, you ordered Lieutenant Caziarc to get up certain instructions for the Secretary of the Navy on the 2d of June, as you stated in your testimony. He testifies that he wrote out those instructions on Sunday, and he testifies also that he delivered those instructions to you on Monday the 4th, as he says: "I wrote this on Sunday, but Captain Powell was not at the office at the time I wrote it. It was copied by the clerks and handed

to him in the very opening hours on Monday." You don't remember of his giving you that memorandum or the memorandum coming in your hands at all?—A. I do not.

Q. At the same time you remember of seeing the rough draft?—A. A paper of that tenor, which, as near as I can recollect, was in Lieutenant Caziare's writing.

Q. How did you come to see it?—A. I think Mr. Caziare brought it to me, showing it to me; possibly it was in my hands at the time.

Q. Did you have any discussion with him in regard to the tenor of it?—A. I think not, sir, except that I would not approve anything of that character.

Q. How was that?—A. It was not, in my opinion, what I required.

Q. Did you have any conversation with him about it?—A. I do not recollect any conversation.

Q. Then, as I understand you, you expected that Lieutenant Caziare in preparing that memorandum for the Secretary of the Navy would merely embody in it the views that were entertained by the Chief Signal Officer so far as he understood them, and not to go outside of that?—A. That is what I wished.

Q. Don't you think that when you came to find that this memorandum expressed contrary views you expressed some opinion to him or had some discussion with him about it?—A. It is possible there was some conversation but in the multitude of papers that are brought into the Chief Signal Office it is difficult to pick out any particular paper.

Q. Don't you think it was a very important paper in regard to a very important subject?—A. Yes, sir.

Q. Then, as I understand, you stated positively in your testimony this morning that you did not have that paper in your possession, and that you did not give it to General Hazen?—A. That is my best recollection, sir.

Q. You submitted to General Hazen, then, upon his return, all the papers concerning instructions to Lieutenant Garlington?—A. When the General returned I presented the papers that were then ready—that is, the scientific instructions and this type-writer clean copy of the instructions to Lieutenant Garlington; I presented these to General Hazen.

Q. Then you gave them into his hands, or did you merely lay them on the table?—A. Whether I handed them to him with my own hand or called his particular attention to them on his desk I do not know; it was either way.

Q. Did you examine those papers before doing that, so as to know what you were presenting?—A. Oh, yes, sir.

Q. Was that memorandum among those papers?—A. I think not, sir.

Q. Are you aware that there was a copy of that memorandum in the hands of the Secretary of the Navy? Are you aware that there was?—A. I am not aware, or was not aware of it. I know I did not give any copy of it to the Secretary of the Navy.

Q. Now, Lieutenant Caziare testifies that he not only gave you a copy of that memorandum, which I think he states you told him you would present to the Chief Signal Officer, but there was another copy which went with the instructions to Lieutenant Garlington. So there seemed to be two copies of the paper, one that went through you to the Chief Signal Officer, and another copy that happened to get to the Secretary of the Navy

in some other way; at any rate there were two copies of the memorandum. State if you know anything about that.—A. I do not know, sir; I do not know why a copy should have been made of the paper, for it was not an official paper, in the sense that it was not addressed to anybody, not signed by anybody.

Q. Did you have any conversation with General Hazen on that morning in regard to these papers you presented to him, the tenor of the instruction to Lieutenant Garlington?—A. I think not, further than to call his attention to them, I having had them hektographed and proper copies made ready for him.

Q. Have you any recollection or can you give from memory a list of the papers that were submitted?—A. No, sir; not other than that there were the scientific instructions.

Q. Were the instructions to Lieutenant Garlington among the papers?—A. Yes, sir; but they had not yet been hektographed or completed, and I did not know but that General Hazen would still have some changes to make.

Q. But still the papers were there for General Hazen?—A. I think so.

Q. You are not certain of it?—A. I am reasonably certain of it.

Q. Might not this memorandum have been among those papers and you not have noticed it?—A. Yes, sir; it is possible it was on the desk, but I think not.

Q. Why do you think not?—A. I do not think I ever saw any other copy than the rough notes.

Q. Did you hear anything about the memorandum after that date?—A. No, sir; I did not know what instructions, and did not know anything about the instructions finally given to Lieutenant Garlington.

Q. So you did not know whether the instructions contained in that memorandum were given to Lieutenant Garlington?—A. I did not.

Q. You are not therefore one of those who thought after the disaster that Lieutenant Garlington had disobeyed these orders?—A. Not at all.

Q. You knew nothing about it?—A. I did not know in what shape they were given to him.

By the RECORDER:

Q. Can you remember how many days before the 4th of June, when General Hazen on that Monday morning returned to his desk, it was that you saw the Secretary of the Navy?—A. I might fix that date as being the date of the telegram to General Hazen at Saint Johns, to know what would be the northern limits of the voyage. I could only fix it in that way.

Q. It was the same day?—A. The same day, I think.

Q. Then how soon after that telegram did you instruct Mr. Caziare to make the memorandum for the use of the Secretary of the Navy?—A. I think it was the same day.

Q. How soon after that did you see these rough notes?—A. A day or two subsequently.

Q. Do you remember what time of day it was when Lieutenant Caziare showed you these rough notes?—A. No, sir, not at all.

Q. What day of the week?—A. No, sir.

Q. They were shown to you before General Hazen's return, however?
—A. Yes, sir.

Q. Do you remember whether you were at the office on Sunday, the day previous to General Hazen's return?—A. I might have dropped in for a moment, as I usually do, but not for any special work.

Q. Was it your custom to go to the office on Sunday?—A. To just drop into the office in the morning.

Q. You have no recollection of being there that day and seeing Lieutenant Caziarc?—A. No, sir.

Q. Then, if he prepared those rough notes on Sunday, June 3, and showed them to you before General Hazen's return, and you were not at the office or had no conversation with him on that Sunday, they must have been shown to you on Monday, prior to General Hazen's return?—A. Yes, sir; under that hypothesis.

Q. Now I will ask you when you received the instructions to Lieutenant Garlington and the memorandum for scientific work which you think you turned over to General Hazen—how many days before June 4, when General Hazen returned?—A. It was several days before the general's return.

Q. Before or after your interview with the Secretary of the Navy and the day you sent the telegram?—A. I should think it was before, or about the time of my interview.

Q. Did you take those instructions to the Navy Department when you went to see the Secretary of the Navy?

The WITNESS. Mr. Garlington's instructions?

The COURT. Yes.

A. I did not, sir.

Q. From whom did you receive the copy of those instructions?—A. I suppose from Mr. Caziarc; I cannot say definitely.

Q. Do you remember what the Chief Signal Officer's reply was to your telegrams? I think they were in evidence; but I cannot find them in the Appendix just now.—A. I think there were two telegrams from the general.

Q. What is your recollection of the tenor of them?—A. I would rather see the telegrams; perhaps they would refresh my memory. One was to withhold the instructions until his return, and I think the other was that the vessel would not be required to go into dangerous ice, or something to that effect.

Q. Did Lieutenant Garlington, prior to his sailing, have any conversation with you about the memorandum or the subject of it?—A. No, sir.

Q. And you don't remember any conversation with Lieutenant Caziarc subsequent to General Hazen's return respecting that memorandum?—A. No, sir; I think there was none.

Q. Do I understand that you had only one interview with the Secretary of the Navy?—A. I think that after getting General Hazen's telegrams I showed them to the Secretary of the Navy.

Q. You saw him after receiving the telegram?—A. Yes, sir.

Q. What took place at that interview?

The WITNESS. Does one of those telegrams say when the General would be back?

The RECORDER. They are on page 75. You can look at them.

A. I think I saw the Secretary of the Navy and explained to him when the General would return and the general purport of these telegrams. I think that was all. I merely conveyed to him what I knew on that subject.

Q. Did you have interviews with other officers of the Navy Department?—A. Commodore Walker was present—I think it was Commodore Walker.

Q. At this second interview?—A. At the first interview, I think.

Q. And not at the second?—A. And possibly at the second.

Q. Did you have other interviews with them separately?—A. Not in connection with this work, sir.

Q. Not in connection with Lieutenant Garlington's expedition?—A. No, sir.

Q. Up to the time of your being relieved by General Hazen on June 4, do you know of instructions to Lieutenant Garlington being furnished to the Navy Department?—A. No, sir; I do not. I did not furnish them nor order them furnished.

Q. And you think it was as early as May 20, that you instructed Mr. Caziare to prepare a memorandum for the use of the Secretary of the Navy, do you?

The WITNESS. My telegrams to the general are not here, are they?

The RECORDER. No, sir.

A. I think it must have been at that time.

Q. And you cannot fix with any certainty how soon after Lieutenant Caziare showed you this paper?—A. Except that it was very soon afterwards. I needed the paper before I knew that the general would return—this compilation before I knew when the general would return, and I had no use for it after knowing definitely when the general would return.

Q. When you knew on the 21st that he would be back about June 2, you did not care about seeing it?—A. There was no necessity for completing the matter.

Q. Have you any further knowledge, Captain Powell, upon the subject of this expedition?—A. No, sir; I do not know of anything further bearing upon the inquiry.

Q. There is a letter here in the appendix addressed to Lieutenant Garlington, informing him that he must be responsible for seeing that the stores were furnished, that the expedition was properly provisioned. What induced the writing of that letter?—A. That his personal care should be directed to it; I did not know it was needed, but as a precaution, so it could not be afterwards said that he was not informed, so that he would personally see to it.

Q. It referred to the shipment in New York, did it?—A. To all the work; I think that letter referred specially to the shipment in New York, though; some stores to be shipped from Washington, too, I think. It was not called for by any idea that there was any lack of zeal on Mr. Garlington's part.

By the COURT:

Q. You stated in your testimony that you gave instructions to Lieutenant Caziare to get up this memorandum for the Secretary of the Navy?—A. Yes, sir.

Q. And he afterward showed you the memorandum he had prepared for the Secretary of the Navy?—A. Yes, sir.

Q. And you decided not to do anything about it, but to await the return of the Chief Signal Officer?—A. Yes, sir.

Q. Didn't you suppose then that that memorandum would be presented to the Chief Signal Officer?—A. Lieutenant Caziare in his position as Adjutant-General I knew would know just what had been done with the paper, and that he could present it to the Chief Signal Officer again if he wished to.

Q. Was it not your intention that it should be presented to the Chief Signal Officer?—A. No, sir; I did not give any orders on the subject.

Q. Then, what was the use of having the letter prepared?—A. The papers were not called for at all. It was not what was in my mind.

Q. Then, did you not tell Lieutenant Caziare that it did not come up to what you intended in your instructions?—A. I cannot recall what I said to him, but it would be in my mind to have done so, I think.

Q. If you had done so don't you think it would have been contrary to your orders, his submitting it to the Chief Signal Officer who had not called for it himself?—A. I do not think I did submit it.

Q. That he should have submitted it himself?—A. I do not quite get at your meaning.

Q. When he submitted the paper to you if you had disapproved it or expressed to him that it was not the paper you expected him to prepare, that it did not embody the views of the Chief Signal Officer, &c., don't you think he would have destroyed the paper instead of submitting it to the Chief Signal Officer himself when he did not do it through you?—A. I think that would be natural, unless he was so interested in the matter that he saw fit to bring it up himself to the Chief Signal Officer.

Q. I think he said in his testimony that he didn't have any interview with the Chief Signal Officer at all. He supposed that you had.—A. His position as Adjutant-General would have brought him in constant intercourse every moment of the day almost with the Chief Signal Officer on matters connected with the office.

Q. Do I understand you to say that you rejected, in your own mind, this memorandum prepared by Lieutenant Caziare because it did not embody the views of the Chief Signal Officer, as you understood them?—A. That is the impression I have now, sir.

Q. What led you to think so?—A. I suppose principally the question of landing on Littleton Island.

Q. On the way up?—A. Yes sir.

Q. There had, then, been some conversation with the Chief Signal Officer to give you that impression?—A. I cannot say as to that as well as to the fact that he seemed to be giving a plan of operations for Lieutenant Garlington to work on when the instructions had been already determined upon by the Chief Signal Officer, and these were new apparently—an addition and a change.

Q. Well, didn't it occur to you there were some very wise suggestions in that memorandum?—A. I did not study the subject to ascertain sufficiently to determine that, it not being in my division of work.

Q. Then it was only from reading the draft of instructions as you had seen them that you got the impression that those views embodied in the memorandum were not in accordance with the views of the Chief Signal

Officer?—A. I think the impression made on me was that they were Mr. Caziarc's views.

Q. Yes; but how did you get the impression that they were not also the views of the Chief Signal Officer—that they were at variance with the views of the Chief Signal Officer?—A. I think principally on account of the Littleton Island matter. It opened a new scheme in connection with the work which I thought had been already settled and determined upon by the Chief Signal Officer.

Q. Settled and determined upon by the preparation of the draft of instruction, or how was it settled upon?—A. This long letter to Lieutenant Garlington in explanation of what should be done, and which had passed from one officer to another through the bureau for note or suggestion.

Q. But those instructions were still open for change, were they not?—A. Yes, sir; but the general plan as to the work was delineated in that letter.

Q. But the instructions were still open to modification?—A. Yes, sir; open until officially signed.

Q. Until the expedition got beyond reach, I suppose?—A. Yes, sir.

Q. Who gave you the papers that you presented to the Chief Signal Officer on that day?—A. They must have been given to me by Lieutenant Caziarc. I do not know of any other way I could have gotten them.

Q. Don't you remember whether he did give you those papers?—A. No, sir. I think that Lieutenant Powell was acting adjutant, and he might have handed them to me. They would have come through the channel of the executive office, the adjutant-general's office of the Signal Corps. There was no other way I could get them.

Q. You don't know whether those are the very papers that General Hazen acted upon?—A. No, sir; I do not know what papers General Hazen acted upon at all.

Q. You are not positive that the memorandum was not among those papers?—A. To the best of my recollection it was not, sir.

Q. You remember now distinctly whether you looked over those papers, examined them all separately?—A. Not further than in a general way to know that the instructions were there together.

Q. But the memorandum might have been in there and you not have noticed it?—A. Yes, sir; but I think not.

Q. And you think so because you do not remember seeing it?—A. Yes, sir.

Q. Lieutenant Caziarc says that early on Monday morning when he came to the office the clerks had copied that memorandum; that rough sketch had been copied, and that it was a copy of that which was furnished to you?—A. Yes, sir.

Q. And that you informed him that you had given that copy to the Chief Signal Officer. Do you remember anything of that, does that recall it to your mind?—A. No, sir; I do not recollect any such conversation.

Q. It must probably have been copied into the books of the office?—A. It was not in such shape as to have ever gone into the books.

Q. From this rough memorandum he had a copy made, and that copy he said he had furnished to you?—A. Yes, sir; but it probably could not have been on the books in the office, because it was not really an official paper.

Q. He said it was copied by the clerks. If there was only one clerk probably there was only one copy made?—A. I do not recollect any copy. To the best of my recollection there were only the rough notes—the originals.

The court then took a recess for half an hour.

AFTER RECESS.

Lient. LOUIS V. CAZIARC, Second Artillery, was recalled and examined, as follows:

By the RECORDER:

Question. The Court desires to inquire of you with reference to the time when you prepared the memorandum, Enclosure No. 4. It appears on your testimony, on page 75, that two telegrams were received from General Hazen, the latter on May 21st, "Will be back about June 2; hold all instructions until I come. Tender to be at St. John's, say, June 25th." It is Captain Powell's recollection that his first interview with the Secretary of the Navy was before those telegrams were received, and that at the time of sending the first telegram, about May 20, he gave you instructions to prepare a draft of instructions to Lieutenant Garlington, and that it was in consequence of those instructions that you submitted to him this rough memorandum. Do you remember definitely when you submitted to him first that rough draft?—Answer. I am very clear so far as my recollection can serve me that I prepared that memorandum on the 3d of June in accordance with Captain Powell's direction on the day previous, and I am confirmed in this recollection by a comparison of the date with the General's return two days subsequently, on the 4th, and by the fact of my having made a comparison with Mr. Garlington the day between. Those facts are clear to my memory.

Q. Do you remember in reference to those telegrams? Do you know anything about the telegram sent, of May 20, being in consequence of Captain Powell's interview with the Secretary of the Navy?—A. That I do not know. I am not well advised about the interviews that took place between those two officers—how many, or what the nature of them was, or when.

Q. You don't remember Captain Powell's instructing you, about May 20 or 21, to prepare a memorandum for the use of the Secretary of the Navy?—A. No, sir; I am sure that he did not, for I remember it to have been on Saturday, and that I prepared it on Sunday, and May 20 or 21 do not run to those days of the week sufficiently near, even if my recollection did not serve me otherwise, even if I were not so positive in my recollection that the matter was placed in his hands Monday when the general returned, and the action passed over to him. Of that I am clear.

Q. You remember it was given to him the same day General Hazen returned, early in the morning?—A. Yes, sir.

Q. General Hazen returned in the morning?—A. Yes, sir; and was in his office on the 4th of June.

Q. Did you hand Captain Powell that memorandum and copies at that time yourself?—A. Yes, sir.

Q. You did, yourself?—A. Yes, sir.

Q. Did you hand him any other papers with that memorandum?—A. No, sir; he had the papers in his hand.

Q. When did he get them?—A. He had taken the subject in his hands and prepared that memorandum of instructions in accordance with the general's desire, and he turned that letter over to the general as part of the unfinished work on the desk of the chief, as I understand.

Q. So that the only papers you handed to him on that Monday morning was the copy of that rough draught—memorandum?—A. Yes, sir; I may have returned to him with them such papers as I borrowed from him on Sunday for the purpose of looking over the instructions that had been prepared; not otherwise.

Q. You did not hand to him on that morning the instructions of Lieutenant Garlington, and if he got them he got them from a clerk, or somebody else?—A. He had them already in his hands.

Q. You gave him a copy of this memorandum, you are positive, on that morning?—A. Yes, sir.

Q. Did you ever see that copy afterwards?—A. No, sir.

By the COURT:

Q. You said in your previous testimony that there was another copy made?—A. I think that I said that the copy that went to Mr. Garlington was not that copy.

Q. You said you had this rough draught, and two copies were made?—A. Yes, sir.

Q. One went to Captain Powell, and the other was got into the papers to Lieutenant Garlington?—A. Yes, sir.

Q. Do you know how that second one got among the papers of Lieutenant Garlington?

[No answer.]

Q. Then I will ask you the question in another way. The papers that Captain Powell had in his hands when you handed this memorandum marked 4, were those papers the instructions to be delivered to Lieutenant Garlington?—A. Yes, sir.

Q. Then if there were two copies what became of the second copy?—A. I will have to go into details a little minutely.

Q. Let us have them.—A. Captain Powell delivered me those papers, from which copies were made in my division, most of them by hektograph.

Q. That is prior to June 4?—A. On the same day of June 4—between the morning of June 4 and the evening of June 5. The instructions were prepared from the memorandum which Captain Powell held in his hands on the morning of June 4, including this memorandum in question. The papers which he then held were used as the basis of the original instructions which were prepared in my division from those papers; and by some means this memorandum was called for and was copied from the original or from the rough and was added to those instructions. They were all placed before General Hazen for his signature.

Q. Be a little more explicit in the details. I want to know who did it and when and how?—A. Yes, sir; I can't say whether they were all received together from General Hazen or not.

Q. That is at the end. Begin at the beginning.—A. Captain Powell had, on the 4th day of June, in his hands copies of the instructions to

Lieutenants Garlington and Greely, which he held to be submitted to the general.

Q. How do you know that he had them?—A. Because I saw them; because they came to me in order to have copies made which were to go to these officers, and are still in my possession.

Q. Then you made copies of those during that day and the next?—A. Yes, sir.

Q. And those copies did you return to Captain Powell?—A. Those copies I returned all together to General Hazen.

Q. Yourself?—A. Myself.

Q. Did you place them in General Hazen's hands at that time, or on his table?—A. In General Hazen's hands.

Q. Did those copies contain a copy of that memorandum?—A. They did.

Q. Was that copy the same that you had handed to Captain Powell?—A. It was.

Q. What became of the second copy? Was that copy the same?—A. No, sir; that was the second copy.

Q. Was it the first copy you gave to Captain Powell that disappeared?—A. That disappeared.

Q. Captain Powell in his testimony this morning stated that those papers which gave the instructions to Lieutenant Garlington—that he presented all those papers. Laid them on the desk in the presence of the Chief Signal Officer on the morning of the 4th.—A. My recollection is, that most of the days of the 4th and 5th of June were spent in the preparation of these instructions, and that Captain Powell was in conference with the general a considerable part of those two days, the general not talking much to me about these instructions. I may have received all the papers from him together, or as each was reduced to hektograph. I remember I asked the general to get them as rapidly as possible in order to have them hektographed, as we had to make quite a number, some for the press as well as the officers. I have a further definite recollection that before the orders were laid before the general for his signature, they were all put together, and that they included at that time a copy of this memorandum; that they were given into the general's hands for his signature before they would be sent, and I have a further recollection of some missing paper, but what I cannot now say. There was, perhaps, a list of the stores shipped to St. John's, or some other paper had been omitted.

Q. When you showed Captain Powell the rough draft of the memorandum what conversation passed between you?—A. I do not remember distinctly.

Q. Do you remember whether he took any exception or expressed any opinion that it did not embody the views that he expected would be embodied in it?—A. I do not remember.

Q. Did he give you any instructions in regard to the use that should be made of that paper?—A. No, sir; it was given to him to be given by him to the Secretary of the Navy.

Q. But that was when you showed him the rough draft?—A. No, sir, he never saw the rough draft.

Q. He only saw the copy?—A. He saw the copy made from that rough draft.

Q. When you gave it to him what did you suppose he intended to do with it?—A. Give it to the Secretary of the Navy.

Q. He says he never gave it to the Secretary of the Navy; still there is testimony that it was in the Navy Department. How did it get there?—A. I understood from General Hazen that he took it there.

Q. General Hazen says that he never saw it or knew anything about it until it was shown to him by Lieutenant Garlington?—A. My recollection is I called General Hazen's attention to it two or three different times, and that on the first or second of those times he informed me that he had not used it, and on the last time he told me he had taken it to the Navy Department, and that instructions would be drawn in conformity with it.

Q. He must have taken it the 3d, 4th, 5th, or 6th of June?—A. I do not think it was earlier than the 6th of June.

Q. You say that the copy was made by the clerks and handed to Captain Powell. Was that at the same time entered on the regular books?—A. No, sir. That was my purpose when I asked General Hazen whether it had gone into the papers, so as to make it a matter of record. But it never was made a matter of record.

Q. You mean at that time, do you not?—A. Never except as an inclosure to Mr. Garlington's instructions.

Q. As such it is recorded?—A. Yes, sir, as such it is recorded, with the errors that have been noted.

By Mr. KENT :

Q. I want to ask one question. You stated that several copies of Lieutenant Garlington's instructions were made, and among others some for the press?—A. Yes, sir.

Q. Do you remember whether or not any of those copies for the press embraced what is known as the supplemental instructions?—A. They did not, those that were distributed at first, before the departure of the expedition.

Q. In point of fact the instructions were published in the National Republican here as of the 9th of June, I think, or about that date. Were those instructions given out from your office?—A. They were. That is, I presume they were. They were given to the press generally, to any that applied.

Q. The papers known as the supplemental instructions were not furnished as part of the instructions at that time?—A. No, sir; not before the departure of the expedition.

By Captain POWELL (by permission of the court):

Q. Were not the rough draughts of papers which you prepared generally read from your own handwriting to the Chief Signal Officer—before being acted on, I mean?—A. No; I think not.

Q. I mean papers that had not been copied, but contained merely your views or those of the Chief Signal Officer as to what action should be taken on general subjects. Were they not generally in your own handwriting?—A. That is a difficult question to answer. Where the direction of the chief is clear, and it admits of easy preparation, the matter is generally submitted to him in a form for signature, read by him before he signs it.

and amended as he may require and taken back; otherwise our business would be too slow. But where a paper is prepared for him by me it is often by dictation to a stenographer, as often as in my own handwriting.

Q. Generally are not his papers submitted in your handwriting?—A. I think not. I never laid any stress on that point. A good deal of my work is done by dictation to a stenographer, and of course never appears in my handwriting at all.

By the COURT :

Q. What is your idea now of the reason you furnished Captain Powell with a copy of that memorandum?—A. I furnished him a copy in clear writing without any of the interlineations or erasures which will be found in the original, that he might take it as he had asked to the Secretary of the Navy. My own manuscript would have been unsuitable for that and would have removed the only original there was.

Q. Were there clerks in the office on Sunday?—A. The usual Sunday detail.

Q. And a copy was made on that Sunday?—A. To the best of my recollection.

By Captain POWELL :

Q. Then the copy that was presented by you as written by that clerk was the first that was presented by you?—A. Yes, sir; the first and only one.

Q. Then you assumed that it would be adopted and go to the Secretary of the Navy without any change or recommendation whatever?—A. Not at all; I assumed that any changes that were proper would be made in it, but it was in such shape that if adopted without change it might be immediately used.

By Mr. KENT :

Q. Do you know what day copies of the instructions were furnished to the press before the departure of the expedition, or about the time of it?—A. I do not.

Q. Do you know who made the copies for the press?—A. The copies furnished were only of those papers that were hektographed, and they were all made I think by one clerk, probably by Mr. Thelon, of my division, who has the best hand for hektograph work.

Q. Who furnished him instructions to copy?—A. I did.

Q. Were these instructions on record; had they been copied on the books of your office?—A. No, sir.

Q. Then you took them from the memorandum copies, the original copies?—A. Either from the rough or the hektograph copies or memorandum copies made for the purpose.

Q. Was the paper commonly designated as Inclosure 4 among the papers?—A. It was; I think you will find that in the testimony before more distinctly.

By the COURT :

Q. Why didn't you furnish a copy of Inclosure 4 for publication at that time?—A. None of the inclosures were furnished, nothing but the original hektograph letter to Lieutenant Garlington, so far as I remember.

By Mr. KENT:

Q. I think that the copies of Inclosure 4 that have been furnished here are all in the same handwriting, are they not?—A. That I do not remember.

Q. You don't know whether those furnished to Lieutenant Garlington were in the same handwriting?—A. I do not know.

Q. Did any clerk have access to those papers to furnish copies other than such as given by yourself?—A. My chief clerk had charge of them.

Q. In point of fact do you know how many copies of those instructions were among Lieutenant Garlington's papers finally before he left?

The WITNESS. What instructions?

Q. How many copies of instructions known as Inclosure 4 were among Lieutenant Garlington's papers?—A. Not more than one, so far as I know.

Q. I understand you do not now know who copied the memorandum that was given Lieutenant Garlington?—A. I do not now know.

By the RECORDER:

Q. You can ascertain?—A. Without doubt; I will ascertain if you wish to know. The original of the paper is in the hands of the court, I think.

Q. Perhaps it would be well that Lieutenant Caziarc should now ascertain who copied it, and send over here the clerk who copied it. Will he do so?—A. It is possible I can tell by looking at this. [Looks at the paper.] No; I do not know, but I will ascertain.

The recorder informed the court that General Hazen had furnished an affidavit of Maj. John P. Hawkins, commissary of subsistence, in reference to the stores furnished to the expeditions under the command of Lieutenants Greely and Garlington, together with a list of those stores, which the recorder offered in evidence and the court directed to be attached to the record as an exhibit.

The paper was then read and is so attached. It is an affidavit that he performed this duty, and that the stores were of the very best quality and most carefully selected.

The court then (at a quarter past 2) adjourned until 11 o'clock tomorrow.

WASHINGTON, D. C.,

Thursday, December 20, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of the proceedings of the previous day was read, corrected, and approved.

Lieut. LOUIS V. CAZIARC was recalled, and examined as follows:

By the RECORDER:

Q. When you were here yesterday you were asked to ascertain what clerk in your office copied Inclosure No. 4, called the supplementary instructions to Lieutenant Garlington's orders. Have you ascertained that fact?—A. It was Private Connor, of the Signal Service.

Q. Is he at present in the office?—A. He is now at Tatoosh Island, Washington Territory, off Cape Flattery.

Capt. WILLIAM H. CLAPP, of the Sixteenth Infantry, was then introduced as a witness, duly sworn, and examined as follows:

By the RECORDER :

Question. During what time, captain, were you last on duty in the office of the Chief Signal Officer in this city?—Answer. I was there on duty from early in July, 1881, until the 20th day of last June.

Q. What branch of the duty was last in your charge?—A. I was in charge of several branches of duty during that time; the division of printing and lithographing was one of my duties, and I was also in charge of the division of observation and research in the Arctic seas for a time.

Q. During the whole time?—A. I think from the time that division was established, in December, 1881, if I remember correctly, until the date of my going on leave of absence, which occurred on the 20th of June, this year.

Q. State in the form of a narrative, as concisely as you can, without omitting any material matter, what you know respecting the fitting out of the expedition under charge of Lieutenant Greely.—A. The original expedition of Lieutenant Greely had been undertaken and he, with his party, had sailed prior to my joining the office for duty. At the time the Arctic division, as it was commonly called, was created, there were in the property division and correspondence division quite a mass of papers bearing on the subject of Lieutenant Greely's expedition, which covered everything relating to the matter from its inception up to that time. These were sent to me for examination, and I had them in my possession during the winter of 1881 and 1882, and for some time subsequently. General Hazen especially directed me, when taking charge of that division, to make myself not only familiar with the papers and the action which had already been taken, but with the various conditions of Arctic life and travel, so as to become thoroughly conversant with the whole subject and be able to render assistance when expeditions or reliefs should be fitted out. I did so; and in the spring of 1882 such a relief expedition was fitted out and went to those waters.

Q. Did you, under the direction of the Chief Signal Officer, supervise the details of the fitting out of that expedition?—A. I should, perhaps, explain that the expedition of 1882 had for its object simply the supplying of Lieutenant Greely with additional stores, and replacing by new men such of his men as might have become disabled. The work devolving upon that expedition was very much less than that of the expedition of this year. There was very little to do with regard to the expedition of 1882 except to obtain from the proper departments of the Government such stores as Lieutenant Greely had asked and see them sent. I obtained such stores upon requisition, inspected them in New York, and saw them on board the steamer for St. John's, them and the party together. The instructions which were given to the person in charge of the expedition were not prepared by me, and my recollection is I had nothing to do with their preparation.

Q. By whom were they prepared, you may state?—A. I am unable to say.

Q. Who commanded that expedition?—A. It would be difficult to speak of any one as having been in command. Mr. Beebe was sent up, more in charge than command, I should say.

Q. Who was Mr. Beebe?—A. He was at that time, I think, a general-service clerk on duty at General Hazen's office, and afterwards employed under the new rules of the War Department. I do not know the exact term to be applied in regard to him.

Q. He is now deceased, is he not?—A. I so understand it.

Q. He had been an officer in the military service?—A. Yes, sir; he had served during the war, and after the war as captain in the Thirty-eighth Infantry.

Q. Proceed, coming to your narrative about the expedition of 1883.—A. The expedition of 1882 failed in some measure to accomplish all that was intended or desired, and by reason of that failure the work of 1883 was made more necessary, and certain things were required to be done which would not have been necessary had the expedition of 1882 been a complete success. On the return of Mr. Beebe's party the work of preparing for the expedition of this year was immediately begun. I had endeavored by careful study of all I could find in print on the subject, and by repeated conversations with the chief engineer, Mellville, and Lieutenant Berry and Seaman Ninderman, to become acquainted with all the necessities of life in that region, and with the best mode of effecting the relief of Lieutenant Greely and his party. The conditions to be met with—I had also some years ago quite an acquaintance with Capt. Clements Markham, of the English navy, and had studied his reports, as well as those of Captain Nares. In these various ways I was prepared to suggest to the Chief Signal Officer all that seemed to be necessary to make the expedition of this year a success; I mean with reference to the supplies obtained, the amount and kind of clothing necessary, food, the boats, tents, sledges, traveling gear of all kinds, which would be best suited for the work the men were expected to do. I had very many and frequent conversations with the Chief Signal Officer on these subjects, and it was usual with me to keep private memoranda of suggestions and ideas as they might be obtained or occur to me, and take them to the general and converse with him on the subject. He impressed me as at all times during the winters of 1882 and 1883 as extremely desirous to promote the success of the expedition, and as wishing to adopt the safest and most prudent plan for the expedition in every way. In almost all things which I suggested to him he expressed his concurrence, and so far as the outfit of the expedition was concerned I think he fully approved of the plans which I submitted to him at various times. Some of the supplies for the expedition had been obtained, or were in prospect of being immediately obtained, at the date Lieutenant Garlington reported here for duty in connection with the work, and very shortly after his arrival I was directed by the Chief Signal Officer to transfer to Lieutenant Garlington all matters from the Arctic division relating to his proposed relief expedition. I did so, and after that time had very little to do with the carrying out and completion of these plans of which I have spoken. I had, however, numerous conversations with Lieutenant Garlington on subjects relating to the expedition, and conversed with him freely in regard to the supplies, and what might be needed. Subsequent to being relieved of

this work, as I have stated, my further connection with the matter was to draft, by General Hazen's direction, a plan of instruction for Lieutenant Garlington, which I did informally, I think, making a very rough draft, which I took to the Chief Signal Officer and read to him, expecting to make a clear copy before submitting it. He, however, retained the paper, and although I saw it several times afterward, I think I had nothing further to do with it.

Q. I understand you to say you familiarized yourself with the history of the Greely expedition from the papers and records of the office?—A. I did so, most thoroughly.

Q. Did you ascertain the amount of stores and supplies, subsistence stores, that Lieutenant Greely had on his departure?—A. I did obtain the information from the Commissary-General regarding such stores as had been furnished by that Department, and then by reference to the purchases made for Lieutenant Greely by the proper officer I was able to know what stores he had.

Q. At the time you prepared the draft of instructions what period of time did you estimate those stores would last?

The WITNESS. The stores Lieutenant Greely had with him?

The RECORDER. Yes, sir.

A. I do not think a definite estimate on that subject was ever made. It would have been very easy, of course, to ascertain how many rations, or the equivalent of how many rations, his stores would amount to, but knowing, as was well known, that the conditions of life, food, and supplies are very much different from those which have to be encountered here, and that there was always the question of game and how much might be obtained, it was difficult at any time to say just for how long a period Lieutenant Greely's party was rationed. It was generally understood that he was rationed until the fall of this year, but it was known he had a very liberal allowance, and probably in one way and another that supply of food would last a longer period if necessary.

Q. But he was rationed according to Army allowance?—A. No, sir; he was supplied, but I would not restrict it that way.

Q. On what basis in reference to the Army rations; on what percentage added?—A. I am unable to say what percentage was added, but on a liberal allowance for climate and the wants of his men it was known that he had an abundance until late this fall, and without doubt something more.

Q. Was that conclusion or idea the basis of the information contained in Lieutenant Garlington's instructions as to when his supplies would be likely to become exhausted?—A. Yes, sir; it was understood at the time Lieutenant Greely left that he had with him full and ample supplies for two years. In general terms his supplies would be expected to be out this fall; that was understood with a margin always.

Q. And for that reason Lieutenant Garlington was instructed accordingly?—A. Yes, sir; the supplies to be taken by Lieutenant Garlington were based upon the possibility, or perhaps the probability, of his party being unable to reach Lieutenant Greely and being required to winter in the vicinity of Littleton Island, when the combined parties would be expected to be fed with the stores taken by Lieutenant Garlington.

Q. He had supplies for the combined parties for how long?—A. The general idea was to obtain ample supplies for forty people for fifteen months,

that being the estimated number of the combined party, including the Eskimo, of whom we had not definite information.

Q. State fully what you know, if anything, in reference to the proposed plan of making a large depot of supplies before the relieving ship should encounter the most dangerous ice of Smith Sound.—A. Lieutenant Greely in his letter, I think of August 17th, after his arrival at Discovery Harbor, had sketched a plan of operations for the relief party of 1882, and in the event of the failure of the party, for the relief of himself and his men in 1883. In that he had especially requested that the plan be followed exactly, and that no deviation or latitude should be permitted to the rescuing party. In various conversations I had with General Hazen, he had stated to me that he would not approve of any deviation from the plan submitted, furnished by Lieutenant Greely, but in studying the subject it had appeared to me that in the event of Lieutenant Greely having to retreat southward he could only do so by the west coast of Kennedy Channel and Smith Sound until reaching about the neighborhood of Cape Sabine.

Q. State your grounds for that opinion.—A. Simply because of the impracticability of any other route, and I am not aware of any sledge journey having been made on the east coast of those two bodies of water. The travel has been in all cases, so far as I am informed, along the west coast. Not only that, but the condition of the currents in those waters forces the ice against the eastern coast and impedes the navigation very much more than on the western coast. It had occurred to me, with that in view, that the party if required to winter could do so just as well upon the western coast as upon the eastern, and that by establishing the winter quarters and depot of supplies at or above Cape Sabine, on the west coast, there would be an increased measure of safety for Lieutenant Greely's party; that at least he would not be required to cross thirty miles of broken and grinding ice lying between Cape Sabine and Life Boat Cove or Littleton Island, and it also occurred to me that as most vessels visiting those waters had been at times imperiled from the ice, and that the Neptune, the relieving vessel in 1882 had been seriously and dangerously nipped in Smith Sound, that it would be a measure of safety to establish a depot of provisions while the vessel was on her upward trip. I recommended this to General Hazen, and urged it as strongly as I thought proper. He replied to me that Lieutenant Greely, who had been there and personally had seen the conditions to be encountered, had with evident care and thought made out the plan for his relief.

Q. When was this that he first made that reply to you?—A. I am unable to give the date.

Q. How long before the expedition sailed?—A. I think my conversation was had with the Chief Signal Officer on several occasions.

Q. I refer to the earliest of them, in which he expressed this opinion, that it would be a deviation from Lieutenant Greely's plan, and was not therefore to be considered?—A. I should think some time during the late winter or early spring of this year.

By the COURT:

Q. Before Lieutenant Garlington reported for duty?—A. I think so, as after that time I did not feel free to make suggestions, the matter having been taken from my control.

Q. Then you did not make any suggestions after Lieutenant Garlington reported?—A. Yes, sir, I did; but it was not so much my duty or privilege, perhaps I might say, as prior to that time.

Q. You can go on.—A. As I stated, General Hazen had at all times in connection with this matter impressed me with the wish to follow out very closely the request made by Lieutenant Greely in his letter of August 17, 1881, and gave that as a reason for refusing to adopt my suggestion.

By the RECORDER :

Q. Did you not then point out to General Hazen that there could be no objection against a deviation from Mr. Greely's plans that would be in the direction of greater safety; that the modifications would involve no disappointment to Lieutenant Greely in his retreat, but be an additional precaution to insure his safety, and could not injuriously affect his chances?—A. I did so, and, as I stated, called his attention to the fact that Lieutenant Greely's party must retreat by the way of the west coast to Cape Sabine in order to reach the proposed winter depot.

Q. What did he think of that?—A. I am not able to say what he thought of it; I can only say he did not adopt the view, and expressed to me his determination not to adopt any views which were in conflict with Lieutenant Greely's plans of operation.

By the COURT :

Q. Was it your opinion that it was in conflict with his plan?—A. It seemed to be only a modification of Lieutenant Greely's plan in the direction of greater safety, and not in any way involving a departure from it.

By the RECORDER :

Q. Did General Hazen at any other time favorably consider, as you understand, or take into consideration the suggestion that there should be a large depot made before the ship entered far into Smith Sound?—A. I never heard him express concurrence in any such view.

Q. Did he ever refer to the sending of a naval tender as answering the same purpose?—A. No, sir; not to me in that connection.

Q. When did you first hear of his wish or intention to ask for naval assistance on the expedition?—A. Some time after Lieutenant Garlington arrived, and then I heard it spoken of incidentally. I think I had very little conversation with General Hazen on the subject, simply referring to the matter, and asked, perhaps, if it was true, to which he replied it was true, and he desired to have a naval tender go. It was not, however, spoken of in that connection, or in my hearing at any time, as answering the purpose of a depot, but as being simply a movable point to which the crew of the relieving ship and the expedition could fall back in case of disaster, which was not expected.

Q. Was the matter of disaster fully considered; was it fully considered how the expedition under the command of Lieutenant Garlington should provide for the possible wreck of the ship?—A. From what happened subsequently I should think it was not fully considered.

Q. Do you know why more specific instructions were not given with a view to such a contingency? In the way, I will say, of directing how the stores should be readily got at and of provisioning the boats?—A. I had some conversation with Lieutenant Garlington—our desks being near

together in the same room—touching the possibility of disaster to the vessel. I recall the subject of having certain stores available for use if recourse to the boats became necessary at any time, and making to him certain suggestions in regard to the matter in an unofficial, personal way, as I did often.

Q. Your connection with his instructions ended when he took charge, and before you knew, as I understand, that the naval tender was to be applied for?

The WITNESS. My connection with his instructions?

The RECORDER. Yes.

A. No, sir; you misapprehend; my official connection with the relief expedition ended on Lieutenant Garlington's arrival and assuming charge of those matters by direction of the Chief Signal Officer.

Q. Was not that before you knew that the naval tender was to be sent?—A. Quite so; but subsequent to his so arriving I was specially directed to make a sketch of instructions for him. I suppose it was given me to do simply because I was familiar with the matter.

Q. Were the instructions you drew up made in connection with the idea that the naval tender was to go up there?—A. No, sir; that was not considered at that time. I had not heard of that at that time.

Q. Then you do not perhaps know why more specific instructions were not given in reference to that matter?—A. No, sir. Although I was not relieved from the Signal Service until the 30th of June, I went on leave on the 20th of June, and those matters arose and were disposed subsequent to that time—no, I should not state that, that is not correct. I might say they were disposed of subsequent to my being relieved by Lieutenant Garlington.

Q. What knowledge have you, if any, of this paper spoken of as the supplementary instructions, Inclosure No. 4?—A. None whatever. I heard of it first in the published account which appeared soon after the loss of the Proteus was known.

Q. It, however, embodied the idea which you say you entertained of the advisability of making a depot?—A. Not entirely.

Q. Except as to the place of making the depot?—A. Except the place. My impression now is, without being able to state positively, that I spoke of this matter informally to one or more officers. I think that Lieutenant Caziarc and myself had some conversation with regard to it. I know we did touch on the desirability and feasibility of establishing a winter station at Cape Sabine, but whether in that conversation the question of the depot of stores to be made on the way going up was discussed I am unable to say. I have an impression that allusion at least was made to it.

Q. What time do you refer to now?—A. I am referring now to one of the conversations I had with the general on the subject, but the date of it I cannot give.

Q. While you were in charge?—A. Yes, sir.

Q. We have testimony before the court in regard to the amount of supplies, subsistence stores Lieutenant Greely had; do you know what amounts of ammunition he had?—A. I do not.

Q. Do you know whether he was well supplied?—A. I am unable to state of my own knowledge what supplies were taken on the relief expedition of this year.

Q. Oh, no; I refer to Lieutenant Greely.—A. I depended for my knowledge on that subject entirely on the records of what had been transferred to him, and do not remember now what the amount of ammunition was.

Q. Were you impressed with the opinion that he was amply supplied with ammunition and arms?—A. I was so impressed, unless it might be that there was a dearth of ammunition for fowling-pieces, which would be desirable in procuring ducks at certain seasons and water-fowl. I remember having doubts as to the supply of those articles.

Q. There is a telegram somewhere here in reference to procuring ammunition. On page 17 of the Appendix, a telegram dated Washington, June 28, 1881, to Lieutenant Greely, stating that—

The Alliance has only two thousand rounds. Cannot spare a round. Have you got rifle, revolver, or shot-gun ammunition, ordered June 3, or is it at McHenry? Can you wait for express shipment? Schneider's vouchers received, minus pay.

CAZIARC.

Q. Do you know anything of the history of that telegram, which seems to have been only a day or two before sailing?—A. I know nothing on the subject. The original of that was with the other papers relating to Lieutenant Greely's expedition.

Q. You don't know why no answer was ever received?—A. I do not. It was a transaction which occurred prior to the date I joined the office for duty. I did not join until about the middle of July following.

Q. You do not know of any special information as to the precise amount of shot-gun ammunition that Lieutenant Greely had?—A. My present impression is that the papers I have alluded to which were formerly in my charge show those facts.

Q. Were you consulted with reference to the request of Lieutenant Garlington as to proceeding by steamship to St. John's in order to see to the loading of his stores, so as to know where they could be found, in what part of the ship?—A. I was not.

Q. You know nothing about the action upon that matter?—A. I heard the matter spoken of in conversations that occurred at the office at the time, but was not consulted in regard to it.

Q. Do you know whether any, and, if so, please state what, discussion or conversations were held in the Signal Service Office between yourself and the Chief Signal Officer, or between yourself and Lieutenant Garlington or other officers, as to the possibility of disaster to the relief vessel, and what should be done, and what precaution should be taken in view of such possibility?—A. I think I had no conversations with any one on that subject excepting with the Chief Signal Officer and Lieutenant Garlington. The conversations with Lieutenant Garlington were of a desultory character, fragmentary, and never touched upon a plan of operation; it being at all times apparent to me that no one in the office here in Washington, and particularly no one without experience, could attempt to prescribe a plan which could be followed on those seas in case of disaster; that the men so situated must of necessity be governed by the circumstances, almost none of which could by any possibility be foreseen.

Q. My question refers more particularly to the measures to be taken before disaster to provide for such a contingency. To illustrate: for instance, you cannot direct what people shall do in case of a fire in a hotel, with absolute precision, but you can instruct them to have plenty of

buckets of water, and have a fire apparatus in reach.—A. I think the only conversations I had with the Chief Signal Officer on that subject were at those times when I urged upon him the propriety of making a depot of stores in going up, in which I cited the experience of the Neptune of the previous year—called his attention to the fact that she had been seriously nipped in the ice. I do not think I heard discussed any general plan of operations in anticipation of the loss of the relief vessel.

Q. Or any special provision for saving the provisions?—A. No, sir; I did not, those of necessity being governed by circumstances.

Q. From your reading and examination of this subject generally, what is your opinion as to the practicability of retreating in latitude 82 as late as September 1st?—A. I do not think it practicable. The retreat by sledges, if made at all, can only be made in the spring of the year.

Q. Spring or summer?—A. I was alluding to retreat by sledges. Of course it may be done by water any time the water is open.

Q. Do you think retreating by boats, under the conditions prevailing in Arctic regions, practicable?—A. I should not think it practicable. The young ice would by that time have prevented a vessel from working through, unless under very exceptional circumstances. The ice by that time would have been usually four or six inches in thickness.

Q. Would not the trouble be that the ice could not be depended upon to be strong enough to hold sledges, and at the same time might be thick enough to cut the boats in the water?—A. Just that, with the additional trouble caused by these grinding floes of old ice continually being heaved about by the currents and winds.

By the COURT:

Q. Captain, did you have any conversation with Lieutenant Garlington with regard to making a depot at Littleton Island on the way up?—A. I think not.

Q. The subject was never discussed with him?—A. I think I had no conversation in regard to the depot at Littleton Island; my idea having been that such a depot should be established on the west coast. I do not know that I heard the suggestion by any one that a depot should be established at Littleton Island.

Q. Then, in regard to establishing a depot as he went up, instead of doing so coming down?—A. The most which was said on that subject occurred in conversation between the Chief Signal Officer and myself. I do not now recall that I discussed the subject with Lieutenant Garlington, but did discuss with him, as I recollect, the question of establishing the winter station upon the west coast in order to save the trip across the sound.

Q. That is on the way coming down?—A. Yes, sir; that was in reference to where the depot should be established in obedience to Lieutenant Greely's suggestion.

Q. Now, captain, it has been given in evidence here in reference to the stores that were taken by Lieutenant Greely in 1881, that he had rations of meat for his entire force for thirty-six months; he had rations of bread-stuffs for his entire force for thirty-five months; he had rations of beans, rice, &c., for his entire force for fifty-five months; rations of coffee and tea for fifty-five months, &c.; besides other extra stores. Now, that being

the fact, as given here in evidence, I would like to know why in the original instructions to Lieutenant Garlington this remark should be found :

You are aware of the necessity of reaching Lieut. A. W. Greely and his party with the expedition of this year. This necessity cannot be overestimated, as Lieutenant Greely's supplies will be exhausted during the coming fall, and unless the relief-ship can reach him he will be forced, with his party, to retreat southward by land before the winter sets in. For these and other reasons which will occur to you no effort must be spared to push the vessel through to Lady Franklin Bay.

As I believe you got up the original draught of these instructions, can you state why these remarks were put in?—A. I think so, sir. It was well known that while Lieutenant Greely's original supplies of provisions had been as stated, still it was known that he had taken from those stores to establish caches at several points, and to renew spoiled stores at others, and in that way had depleted his stock of provisions to some extent. It was also, as I before stated, speaking generally, understood that he was fully and amply rationed for two years, and that while the supply of provisions which he would probably have with him could be eked out and made to last for a considerably longer period, he himself, when fitting out the expedition, had considered his party to be rationed generously for something over two whole years, or generally speaking, for two years ; it was also believed that while he might have a superabundance of certain stores, possibly of all stores for a considerably longer period than the fall of this year, still he must, of necessity, have been in want of certain things which might have spoiled, been found improperly put up, have been lost by accident, or in other ways, so that it was considered very necessary and desirable that he should be supplied with fresh stores by the expiration of this year.

Q. And therefore in making up those instructions you were satisfied of the urgency, the great urgency, of getting that ship up there during the summer and as soon as possible?—A. I was.

Q. Was it the intention in putting that in his instructions to impress upon Lieutenant Garlington the absolute necessity of his getting up to Lady Franklin Bay as speedily as possible?—A. I do not recollect that the question of his arriving at an early period in the season was considered. It was deemed important that the relieving vessel should reach Lieutenant Greely during the summer of this year, but so that might be done before the close of navigation up there, if navigation is open there at any time, I think that was deemed sufficient. Another reason for desiring to push the relief party through was the known anticipation of Lieutenant Greely and his people that such a party would be sent and get through. This was made all the more urgent by reason of the failure of the previous year.

Q. You stated that you had for a year or two made this whole subject of Arctic exploration your study, with a view to advising the Chief Signal Officer in regard to the best method of getting up a relief expedition, and so on. And I notice that the Chief Signal Officer says that every possible contingency must be provided for. Do you think that in the instructions to Lieutenant Garlington every possible contingency was provided for?—A. I do not.

Q. And why were they not?—A. Because of the desire of the Chief Signal Officer to adhere to Lieutenant Greely's plan ; because that plan

does not, in the light of the facts that now appear, anticipate just what occurred.

Q. Do you not think that one of the probable contingencies of such an expedition is that the vessel will be crushed by the ice and be lost?—A. No, sir; I would not say it was probable, but always possible.

Q. Has it not very frequently occurred in polar expeditions?—A. In those waters, I think not.

Q. What happened to the steamer Neptune the year before?—A. A bad pinch in the ice, from which she was presently relieved and came away without injury.

Q. Was there not another contingency that the vessel might be caught in the ice and kept there for a winter or two? Was not that a probable contingency?—A. No, sir; not a probable contingency. It was of course possible, but the currents and the movement of the ice render getting out of those waters in the fall of the year very much more easy than going up into them.

Q. Then do I understand you to think that in going into those waters there is only possible danger, not probable danger? A. There is always probable danger.

Q. And ought not probable danger then, or possible danger, be provided for as far as possible?—A. Undoubtedly.

Q. Was it so provided against in these instructions?—A. These instructions were to Lieutenant Garlington, who commanded a relief party. It was not expected that he was familiar with marine matters, and particularly with Arctic navigation. It was the purpose and intent to employ not only a vessel, but a crew and master familiar with those waters; and with the contingencies which would naturally be expected to arise, and necessarily and properly, to such a master, with his experience, would be relegated all those things connected with the safety of the ship, as well as her conduct in attempting to get through the ice.

Q. In the instructions that were given to Lieutenant Garlington there were two points considered in that respect. One was that he should go up to Lady Franklin Bay. That if he did not get up there he must return and cache provisions at two points. Therefore, the only contingency was that there would be ice that he could not get through and he would have to return, just as happened the previous year. He had instructions, therefore, what to do in that case, but in the dangerous navigation of those waters there is a possibility that the vessel would be crushed and sunk, just what actually happened, and yet there were no instructions given him as to what he should do in such a contingency. That is what I want to get your opinion about.—A. No such contingency had evidently been foreseen by Lieutenant Greely.

Q. I am speaking of what is done here.—A. I will come to that; and his plan of relief did not take into account any such contingency. Now, the Chief Signal Officer had concluded to follow out the plan of relief sketched by Lieutenant Greely, and the contingency does not appear in the instructions. In drawing those instructions I may say that I was directed by the Chief Signal Officer to adhere strictly to Lieutenant Greely's plan. Those instructions did not then nor do they now seem to me to cover all that might have been prudently said on the subject. That is my opinion.

Q. That is what I want to get at, you having made this matter a study.

Therefore do you not think that in the instructions given to Lieutenant Garlington this contingency ought to have been provided against, as to whether the ship should be caught in the ice and kept there indefinitely, or that it might be sunk, as actually happened?—A. To answer the question involves a criticism upon the manner in which the expedition was conducted and upon General Hazen's views on the subject. I should prefer not to answer it, especially as my opinion on the subject could do no one any good.

Q. It may do the court good; that is what the court is here for—to find out. We do not ask your criticism on General Hazen, but merely your opinion from your knowledge of the subject.—A. Very well. The fact, then, that as a matter of greater security, and with the recollection that ships were often nipped in these waters, and sometimes dangerously, I advised that a depot of provision should be left while going up would be an answer to the question.

Q. In your opinion, if that contingency had been taken into consideration, a cache of provisions should have been made going up?—A. The events as they occurred clearly established that, I think.

Q. And therefore it would have been the part of wisdom to have done that? I am asking your opinion.—A. If the disaster could have been foreseen, it would certainly have been wise to have provided against it.

Q. Don't you think that your ideas of establishing a depot on the way up could have been carried out, and yet the views of Lieutenant Greely have been met at the same time, fully and completely?—A. Except in so far as the establishing of this depot was not provided for in his request of August 17, the general plan of relief and the certainty of his relief would have been promoted by so doing, I think.

Q. But what I mean is this: Lieutenant Greely desired that there should be two deposits of provisions made at certain points that he designated. Why should not your idea of making a deposit on the way up have been carried out and the two deposits that he required have been made also?—A. That would have been practicable.

Q. And there were provisions enough on the ship to have made them?—A. My plan would have been to have landed the house for winter quarters, and the bulk of the stores of all kinds, so that in case of disaster to the ship those who were rescued should have not only food but shelter. I would also have landed such coal as could have been spared from the ship.

Q. So you think there would have been no difficulty in carrying out the ideas of Lieutenant Greely, and also have made these further deposits on the way up?—A. I did so think at the time.

Q. As it was determined under the law that the party of Lieutenant Greely should be withdrawn from Lady Franklin Bay in case the ship got up there, what was the necessity of carrying all the provisions to Lady Franklin Bay, as they evidently intended to do, if they were not needed there?—A. In the event of Lieutenant Greely being brought away by the relief vessel, the landing of the stores would have involved their being taken out of the ship's hold, landed at considerable expense of labor and time, and then after Lieutenant Greely and his party had been received on board, the recovery of those stores by the same painful process, all of which it would be desirable to avoid if possible, and as long

as the stores were in the relieving vessel, safe there, they might as well remain as to be landed and reloaded again.

Q. All of this is under the supposition that the vessel would not go to the bottom?—A. Certainly.

By the RECORDER:

Q. Do you remember, captain, that about November 1st, 1882, the Secretary of War returned the copy of the plan of the relief expedition of next year with the remark that it seemed to be much more desirable to endeavor to procure in the Navy the persons that are needed in this relief, and requesting the views of the Chief Signal Officer on that subject?—A. I remember such a paper.

Q. Do you remember the discussion or consultation held, and the reply of the Chief Signal Officer that it would not be better to do so; that the expedition should be entirely under the control of the Signal Service?—A. I heard no discussion upon that subject. Lieutenant Greely's plan for his relief contemplated the detail of men from the Army, and I always understood General Hazen favored that scheme.

Q. You were not called upon for advice upon that subject from your reading?—A. I was not.

Q. From the history of Arctic explorations, what would be your opinion as to the propriety of the conduct of an expedition by water being under direction of the Navy Department rather than the War Department, or in charge of the Army?—A. It seems to me that involves a criticism of even those greater than the Chief Signal Officer.

The RECORDER. I will not press the question then.

The COURT. You might give your opinion.

A. Am I to answer? Then my opinion would be that the conditions of ice travel and navigation through ice and over ice is so much different in every respect from what either landmen or sailor experiences in ordinary life that neither would have much advantage of the other. I think success would be gained more by a resolute endeavor and a properly equipped party, without reference to whether they belonged to the one service or the other.

By the RECORDER:

Q. Still, most Arctic expeditions have been intrusted by all civilized countries to the navy, have they not?—A. I think the majority of them.

By the COURT:

Q. I will ask the question that if in the captain's opinion the ship and crew should be under martial law, such law as would prevail in case of a ship regularly in the service of the Navy?

The WITNESS. You are speaking of the crew?

The COURT. More especially of the crew itself.—A. Undoubtedly the restraint of discipline, the habits of discipline, are as valuable under the trying circumstances likely to be met with there as anywhere, probably more so.

By Mr. KENT:

Q. Do you remember how many expeditions have entered Smith's Sound?—A. I should be unable to answer the question definitely without research.

Q. Can you recall the most prominent, then?—A. There were several English expeditions prior to that of Sir John Franklin, which I think at one time entered Smith Sound. There was the expedition of Dr. Kane, Dr. Hall, and the Hayes expedition. The subsequent expedition of Sir George Nares, which was the last English expedition, and since that this one of Lieutenant Greely. There have been vessels sent for the relief of expeditions there. The Tigress expedition and the Pandora, which was afterwards the Jeannette, wintered in the neighborhood or just below Littleton Island, think. She was there some time at least.

Q. Can you state now which of these ships actually got into Smith Sound?—A. The Alert and Discovery, of the Nares expedition, one of which went to Lady Franklin Bay and the other to a point farther up the coast. Captain Kane's ship entered Smith Sound. The vessels of all the American expeditions have done so. The Pandora was there, and the Tigress, of our Navy. Those and the relief vessels connected with the Greely expedition of 1882 and 1883 are all that now occur to me, though no doubt there have been others.

Q. Do you know where the expeditions that entered Smith Sound made their main depot of supplies? For instance, take the first Sir George Nares expedition.—A. It was the custom of all those expeditions, so far as I now recall, to establish small depots of supplies on the passage up with a view to their availability when retreating in case of disaster. I think all of them had depots of provisions. The caches of food and other supplies made by the Nares expedition are numerous at one of the Carey Islands, Cape Isabella, Cape Sabine, Littleton Island, and at other points on the west coast of Kennedy Channel and Smith Sound. There is still remaining quite a supply of provisions which were cached by the Hall expedition on the east coast, and which in '75 was reported to be in good order; and certain stores were obtained from it by the Nares expedition.

Q. What was the experience of the ships that entered Smith Sound as to their getting out?—A. During the time ships remained in those waters I think none of them escaped being at times in danger. They were generally several times pinched by the ice under different conditions. I do not remember now of any vessel having been crushed and finally lost there except the Proteus. Dr. Kane abandoned his ship, and the Polaris was lost.

Q. How many ships that went north of Cape Sabine ever returned—brought out by their crews?—A. That is a matter of history in which I would very much prefer to consult the records.

Q. I thought perhaps you could answer from your knowledge of the subject?—A. I can name a number: the Alert and Discovery, of the English expedition; then the Proteus and Neptune, of the original expedition, and the relief expedition of 1882. There were several others, but I cannot now recall them.

The court then (at 10 minutes past 2) adjourned until to-morrow at 11 o'clock a. m.

WASHINGTON, D. C.,
Friday, December 21, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members, and the recorder. The record of proceedings of the previous day read, amended, and approved. Whereupon,

Capt. WILLIAM H. CLAPP, Sixteenth Infantry, was recalled, and his examination continued, as follows :

By the COURT :

Q. Lieutenant Garlington reported for duty the 21st of February, 1883. How soon thereafter were you relieved from your duties in connection with the relief expedition?—A. It is a matter of memory, but I think about the last of February, a few days after his arrival here.

Q. You have given in evidence that prior to being relieved, on Lieutenant Garlington's arrival, you had had conversations with the Chief Signal Officer, in which you tried to impress upon him the propriety of caching a large store of provisions near Cape Sabine on the way up. You also stated that you had had other conversations upon the same subject with the Chief Signal Officer subsequent to that, in which conversations the Chief Signal Officer disapproved of making any change from the request of Lieutenant Greely in that respect. Will you tell the court, as near as possible, the date of the last conversation with the Chief Signal Officer upon that subject, in which he expressed his decision that he would not make any change?—A. I am unable to give the date of any of those conversations, and my recollection is now that the most which was said upon this subject occurred a short time prior to the time of the arrival of Lieutenant Garlington; that after that time any allusion to the subject was merely an allusion. I having before learned from the Chief Signal Officer that he proposed to adhere to the plan of relief sketched by Lieutenant Greely, I did not again suggest or urge it upon the Chief Signal Officer. I do not think I urged the propriety of such action at any time, as I did not feel free to do so, but mentioned it as desirable. Neither did I do that afterwards, and any allusions to the subject were allusions merely, and no further effort on my part to induce its adoption.

Q. I understand that. What I want to know is, as near as you can fix it, the date when you last made an allusion to this subject to the Chief Signal Officer.—A. I would be unable even to approximate the date.

Q. Do you think it as late as May?—A. I could not tell, but I was relieved of the responsibility of the relief expedition, and these matters were turned over to Lieutenant Garlington by direction of the Chief Signal Officer, and excepting conferences which I had with him afterwards, especially those relating to scientific work, regarding which I was called in on two occasions, I think I had no formal, set conversation with him on the subject, but he sometimes alluded to the matter and sometimes I did, but these conversations, occurring as they did in a fragmentary way and at odd times, I have no means of fixing the date when any of them occurred.

Q. You went on leave of absence on the 20th of June. That was more than two weeks after the orders were given to Lieutenant Garlington, as they are of date June 4; therefore if you had any conversations they must

have been between February 21, when Lieutenant Garlington reported for duty at the office, and the 4th of June when the orders were issued?—A. They must have an earlier limit than that. They could not have occurred subsequent to the time when the Chief Signal Officer went to St. John's in connection with the vessel.

Q. What date was that?—A. I do not know; I presume the records will show.

Q. You narrow it down, say, from the 1st of March up to the 1st of May, within those two months?—A. The impression upon my mind is this: that having made this suggestion to the Chief Signal Officer at some date prior to the arrival of Lieutenant Garlington, and receiving from him the intimation that he did not approve it, the matter was not again uppermost in my mind, and particularly not as a subject to urge upon his attention, he having considered and decided upon it, and that anything said upon the subject after that time was merely an allusion in regard to which I am unable to give the particulars or the date.

Q. I understood that was what you stated; but what I want is to get at the date of that allusion as near as you can give it. For instance, whether the last time the subject was alluded to, and you got the idea that the Chief Signal Officer still opposed any change in the programme—whether that took place some time in March, or some time in April, or some time in May?—A. I have a general impression that the matter may have been alluded to, and probably was, subsequent to the date when Lieutenant Garlington relieved me in this matter; but the allusion or reference to it was so very fragmentary and incidental that it could not by any construction be considered as renewing the subject and urging upon the Chief Signal Officer the view which I had formerly mentioned to him; and there is nothing in the character of it or in my relations to the subject which enable me now to place any definite limit of time within which these conversations occurred. I am only mentioning a general impression that some allusion was made, and nothing more than an allusion. Perhaps something was said of it at the time I was directed to prepare, or when I had prepared, the rough draught for instructions to Lieutenant Garlington.

Q. When did you prepare that?—A. Those papers are not here, I think. There may be some memorandum by which I could fix the date. (Witness looks at the paper offered and read in evidence in Lieutenant Caziarc's testimony.) There appears to be no date or suggestion of a date upon this memorandum, and my impression now is that it was prepared quite early in May.

Q. Quite early in May?—A. Yes, sir.

Q. That being the case, then the last time any suggestion was made in regard to a change of programme respecting the stores for Lieutenant Greely must have been made some time in May?—A. I would not say that. I said that possibly, and I will add probably, at the time I was directed to prepare this paper, or at the time when it was prepared and read to the Chief Signal Officer, some allusion to that subject may have been made.

Q. But you are not positive?—A. I am not positive. It would seem reasonable now that such may have been the case, but I cannot speak definitely on the subject.

The COURT. The reason I have asked you this is because you testified, on page 165 :

Q. Then you did not make any suggestions after Lieutenant Garlington reported?—
A. Yes, sir, I did; but it was not so much my duty, or privilege, perhaps, I might say, as prior to that time.

By the RECORDER :

Q. On page 169 of your testimony, in answer to a question by the court, you state, "Still it was known that he had taken from those stores to establish caches at several points and to renew spoiled stores at others; and in that way had depleted his stock of provisions to some extent." Now, was not the amount used in that way reported by Lieutenant Greely?—

A. The amounts were so reported, but having been left at points below his present station were not to be considered as available stores at that station.

Q. Was there anything more than a very small amount, such as 225 bread and meat rations, at Carl Ritter Bay? Was there any more deposited by him than that?—A. Only a relatively small amount of provisions, as I now recollect, were left by him, but whatever they amounted to it was so much from the original stores taken by him.

Q. Well, he has not reported anything else except what I have stated?—
A. My recollection does not serve me.

Q. It seems a rather inconsiderable amount, and that is why I wished an explanation.—A. It would appear to be; my impression at the time I gave my testimony was that he made two or three very small deposits of stores at points on the west coast. Now that my memory is refreshed, I do not think that he did, but in any event the amounts so reported were very inconsiderable as compared with the bulk of his stores.

By General HAZEN :

Q. I wish to ask of Captain Clapp whether he does not remember that in our discussion of the depot which he proposed to be established at Cape Sabine, it referred rather to the position, whether it should be at Cape Sabine, or where Mr. Greely preferred, rather than whether it should be deposited going up or coming back?—A. I do so remember, that the burden of the conversation was of that nature, but with the recommendation by me at the time that it would perhaps be well to do that on the way going up.

Q. I would be glad if the captain would explain more explicitly to the court the attention which he gave, under my direction, to the subject of supplies; that is, to the subject of preparing sledges, tents, and boats, and traveling gear generally, that were to be used in the expedition?—A. From what I had been able to learn on the subject of Arctic travel, I was impressed with the idea that much of the trouble which had existed in former expeditions had arisen from the defective construction of sledges used. Travelers over the ice had found the loaded sledges built upon any pattern which had been used, even the McClintock sledge, as it is called, which was adopted by the later English expedition, were extremely liable to break down, and that that arose from the fact of their construction,—being frame. No plan had seemed to be reached by which a better mode of construction could be adopted. I talked on the subject with

Chief Engineer Melville, and he drew me a rough sketch of a plan which had suggested itself to him while on the *Jeannette*, and suggested that it combined the elements of strength and lightness desirable in a sledge. One or two modifications of his plan were suggested by me and approved by him. The sledges were constructed upon that plan after a good deal of thought and by procuring the very best material which the country afforded, the iron being specially rolled and made for the purpose. Then there were questions regarding the proper tents to be used. The ordinary tent, requiring to be pitched with poles and pins, could not be substantially set up on an ice floe, could not be pegged down or made secure; and tents were especially constructed, and of a dark color in order that they might have the additional advantage of being seen at a distance on the ice, and that they might better shelter such men as slept in them during the day, and the implements of all kinds, as well as the boats, were of dark color, or painted black in order that they might readily be seen and be distinguished. The boats were provided or were to be provided in the plan with complete appliances of every kind for repair in case of being stove by the ice or of springing a leak. Each one carried a ditty-bag containing material such as tallow, copper nails, &c. A proper amount of sheet lead was required to be fastened on the inside of the boat in order to be available in case of accident. A few tools such as might be necessary for the repair of the boat were expected to be taken in each boat. It was deemed sufficient that two large whale-boats should be provided, and the dingy was made upon a plan furnished and of the dimensions recommended by Chief Engineer Melville. After these plans were submitted to me by him and somewhat talked over, I had conversations with Lieutenant Berry, of the Navy, in which I showed him some of the plans, and talked to him with regard to them, and the desirability of such articles, my idea being to obtain a knowledge of what would be required and to have such articles of the best possible construction and quality, and not take impediments along of any kind, as in such travel every superfluous pound carried is a disadvantage. The sleeping bags for the sledge parties were also constructed upon plans which Chief Engineer Melville gave and which were the result of his experience during several sledge expeditions whilst the *Jeannette* was in the ice; also of further experience when her crew was making their retreat through the *Lena Delta*. An earnest effort was made not to omit anything that was necessary or desirable for the safety or efficiency of the party.

Q. Please state in regard to the house and the precautions against scurvy?—A. The house was planned in reference to affording shelter for the combined parties. It was made only sufficiently large for that purpose, but as was thought to secure in its furnishing, heat and the necessary ventilation, so that the combined parties might be housed with safety, and with reference to their health during the winter. The air supply allowed for each individual who was expected to occupy it was not as large as would be given in lower latitude, yet still deemed sufficient. I had in reference to scurvy several conversations with Lieutenant Garlington, and ventured to suggest to him the great desirability of enforcing regular habits on the part of the men, should he be required to winter in this house, that the men would be very much more apt to be contented and healthful if their hours and duties were made regular, if they were not per-

mitted to lounge around the quarters during the long season of darkness. More particularly with reference to scurvy it had come to my knowledge that the crew of the *Jeannette* were during the whole of their long imprisonment entirely free from scurvy, and this was attributed, and probably correctly, to the care which was used to obtain absolutely fresh water for drinking and cooking purposes. I was informed that Dr. Ambler, the surgeon of the ship, often caused water to be condemned and thrown aside because it contained a trace of salt, and that all water which was used was subject to severe and critical tests in order to determine that it contained absolutely no salt. It was also apparent that crews wintering in these regions on former occasions had been often unaccountably attacked by scurvy, as was the case in the Nares expedition. The crews of both ships in that case having been badly attacked in the spring of '76, and that none of these precautions against salt water were used, but the ice was mined near the ship and melted without any proper care regarding the matter. I consulted several persons in regard to the matter, and had several conversations with Lieutenant Garlington and with the surgeon who accompanied the expedition, in which I set forth these views and which were concurred in by them. I mentioned the subject also to the Chief Signal Officer, and was by him directed to speak about the matter to those gentlemen.

Q. I will now ask if the orders pertaining to the preparation of the expedition were not studied and considered in the most careful manner in every respect, as you have already delineated in these few respects?—A. I have never thought otherwise, and should have been willing and glad to have risked my life in those waters on the outfit as directed to be made, and as I supposed was furnished.

Q. Were you not regularly called into my office for consultation during all this time?—A. Very often.

Q. Did it occur to you that any of these matters which were so important were neglected or failed to receive that careful consideration which they seemed to demand?—A. I know of nothing which was neglected or which did not receive the most careful consideration both by yourself and those who were working under your direction.

By the RECORDER:

Q. Do you know whether those provisions for the safety of the boats were carried out; that the boats were actually furnished and equipped as you described?—A. I am unable to state that. I only know the original plans provided for them; and I was informed by the proper officers of the Navy Department that those articles had been ordered.

Q. The boats being furnished by the Navy Department for the expedition?—A. Yes, sir; for the expedition.

Q. How many boats were to be furnished?—A. Three, two whale boats and the 12-foot dingy.

Q. Were any directions given, any plans adopted, for putting up the house in such a form as to be readily portable—I mean for carrying the house?—A. It was understood that the house, the material of the house, should be provided in St. John, and that in any and all possible ways the material should be cut and fitted so that it would go together when the occasion arose in the least possible time and with the least trouble. No arrangements for its removal after its being once erected were considered.

Q. I mean in reference to the packing.—A. No, sir; it was understood that the parts and pieces of the house would be fitted and numbered in readiness, but just where they were to be stored, in what order, was not mentioned, so far as I am aware, in the instructions or in conversation.

Q. No discussion as to how the house should be carried or stored so as to be readily got at in case of wreck?—A. That would depend upon the ship's cargo and her stowing capacity.

Q. I will ask you in further illustration of your testimony if you recognize this as a letter addressed by you to the Chief Signal Officer, a copy of which was furnished by you to the War Department [handing witness a paper]?—A. I wrote a letter at that time, of which this appears to be a copy.

Q. Is it a copy that you yourself made or had made, verified by your signature?—A. Yes, sir; it was verified and compared by me.

The RECORDER. I will offer this letter in evidence and request that the official copy furnished by the Adjutant-General be attached to this day's proceedings, marked Exhibit I.

And the court so ordered.

The WITNESS. I desire to state that in that paper where it is written Lieutenant Barry it refers to Lieut. Robert M. Berry, who commanded the Rogers, and who subsequently made an extended sledge tour, or more than one through Northern Siberia.

By the RECORDER :

Q. I will ask you to look at this letter addressed to the recorder of this court and state if it is one you wrote at its date and from the place of its date?—A. I recognize this letter, which was written by me on the date appearing upon it.

The RECORDER. I ask that this should be attached to this day's proceedings, marked Exhibit K.

The court so ordered.

The court desires the witness to submit the letter of the Chief Signal Officer, which he received, and to which the paper submitted is a reply, if he is able to find it among his papers.

By the RECORDER :

Q. Is there anything in these letters you desire to qualify upon the record?—A. So far as they contain statements of facts, there is not, while they are not such letters as I had supposed would appear in print—contain matters which are not relative to this inquiry.

JOHN MORIARTY was then duly sworn, and testified as follows :

By the RECORDER :

Question. State what position you occupy, if any, in the Signal Service.—Answer. I am a private, Signal Corps, on duty as clerk in the office.

Q. How long have you been so?—A. Since February the 1st, last.

Q. You were on duty there in June last, were you?—A. Yes, sir.

Q. Look at this paper I now show you [being the rough notes referred to in Lieutenant Caziare's testimony of the Memorandum No. 4, inclosure to Lieutenant Garlington's instructions] and state if you ever saw it be-

fore.—A. I have not seen that paper before, sir. I have seen it in another paper, but not that paper.

Q. Explain what you mean by that; you say you have seen this?—A. I have seen its sense, and have copied it from another paper.

Q. Well, when and where?—A. So far as my recollection goes, I was on duty on Sunday—I think it was about the 3d of June—and I copied a paper of which I think that is part of it or the whole of it. I do not know. I know the paper that I copied on that date contained the matter that is on that paper.

Q. At whose direction did you copy it?—A. Under Sergeant Beale of the Signal Corps.

Q. What duty was he on?—A. He is chief clerk of that division.

Q. Whose division?—A. Lieutenant Caziarc's division.

Q. And how do you fix in your mind that it was on the 3d of June?—A. It was the only Sunday I was ever on duty under Sergeant Beale in the office.

Q. How do you remember it was Sunday?—A. Because there are men of our division detailed every Sunday for opening the mail, and I recollect there was a great deal of work, unusual work, on that Sunday that I did not expect, and I was sent for others to assist in getting out orders, instructions for the Arctic expedition.

Q. It was the only Sunday you were ever on duty?—A. With Sergeant Beale; he is Lieutenant Beale now.

Q. That seems to fix the day of the week. How do you fix the day of the month?—A. I fix it in this way in my mind: I think it was the Sunday that preceded the departure of the expedition.

Q. The departure from where?—A. From Washington.

Q. What was the date of the departure, if you remember it?—A. I do not know, sir, other than I know it occurred in the month of June.

Q. You know the departure of the expedition occurred then?—A. Yes, sir.

Q. How many copies of that paper did you make?—A. I made one on that Sunday.

Q. What did you do with it?—A. I handed it, with the original, to Sergeant Beale.

Q. At what time in the day?—A. In the afternoon; I do not know the exact hour.

Q. Had you had your dinner?—A. I didn't have any dinner on that day.

Q. Did you make any other copies at any other time?—A. No, sir; I don't think I ever did.

Q. Have you referred to the roster of the office to see what day it was?—A. I have not.

Q. Will the roster show?—A. The roster will show.

The RECORDER. Please step over and refer to it.

[Lieutenant Caziarc, who was present, stated that he would send for the paper.]

Q. Now, on that day did you copy any other papers relating to the Arctic expedition?—A. I do not recollect, sir.

Q. Do you remember what else you were doing that day?—A. I was assisting in getting out printed orders and instructions.

Q. Do you remember doing any other copying?—A. No, sir; I do not recollect doing any other copying on that day.

Q. Then you don't think you saw any paper of similar tenor to this at any other time?—A. I have no recollection of ever seeing any at any other time but that.

Q. Nor of copying any other paper like it?—A. No, sir.

Q. Now, look at this paper, furnished from the Signal Office, and signed by Lieutenant Caziare, and headed "Office Report for week ending Saturday, June 9, 1883, Correspondence and Record Division," and state what you find there bearing upon this question?—A. I find that Sergeant Beale and Private Moriarty were on duty Sunday, June 3, from 9 a. m. to 4.30 p. m.; Privates Bain and Jones were on duty Sunday, June 3, from 3 p. m. to 4.30 p. m. That is all on the roster bearing on that question.

The court then (it being 2 o'clock) adjourned until to-morrow at 11 o'clock a. m.

I.

[Copy.]

CAMP AT PINERY, NEAR FORT DAVIS, TEXAS,
December 1, 1883.

SIR: I have the honor to inclose herewith copy of a letter of this date to the Chief Signal Officer of the Army, which letter is in reply to a request from him (covering a printed copy of his letter of November 22, ult., to the judge-advocate of court of inquiry) that I will furnish a sworn verification of his statements made in that letter regarding the care and judgment used in selecting and providing supplies and stores for the Proteus relief expedition. I cannot but feel that I am in danger of unmerited official censure as, in common with those in any way connected with the expedition, I am, through the press, receiving public censure for my alleged responsibility therein.

I earnestly request that this letter and inclosure may be brought to the attention of the honorable Secretary of War, who I doubt not will take any action appearing necessary or proper in the premises.

I remain, general, your obedient servant,

W. H. CLAPP,
Captain Sixteenth Infantry.

The ADJUTANT-GENERAL OF THE ARMY, *Washington, D. C.*

[Inclosure.]

CAMP AT PINERY, NEAR FORT DAVIS, TEXAS,
December 1, 1883.

GENERAL: Your letter of the 23d November, with slip inclosed, is just read, having been received to-day. I have given to the subject considerable thought, in view of such detached portions of the testimony as have reached me, and the newspaper comments thereon. The few papers I see are indeed my only information regarding the object for which the court was called, or the testimony adduced. It appears from this source of information that the court's duty is to determine upon whom the responsibility for the failure of the expedition of this year is to rest. This involves an inquiry into the acts and responsibility thereof of every one in your office in any way connected with the plans for the Proteus expedition. Next to yourself, and up to the arrival of Lieutenant Garlington, I was most responsible, made so by the position in which you had placed me. I am published to the country in the sworn evidence, and in your letter to the court, as having been in charge of the "Arctic Division" from December, 1881, to July 1883, and so in the event of an adverse finding by the court will be certain to come in for censure of an official character, as I most certainly am doing, and will continue to do, together with others, in the Signal Office, from the newspapers and the public.

Now, this is in every way unfair to me. I am stationed in a log camp, twenty miles from Fort Davis and the nearest post-office, and 2,000 miles from Washington, and am being investigated without a chance of being heard in defense or explanation. It is true that

from December, 1881, to June 20, 1883, I was in charge of the "Arctic Division" of the Signal Office, but the statement needs qualification: with regard to the relief expedition of 1882 I had little to do in any way beyond making requisitions on the several staff departments for such stores as Lieutenant Greely had asked. I was not consulted as to the men who were to go, or the line of conduct to be followed by the person in charge. Except that I obtained the stores requested, inspected them, and saw them and the men on board the Cromwell steamer in New York, I did nothing. Everything else was taken out of my hands. The expedition of this year was something different. I had officially asked of you to be sent, and for a time had hopes of going. I, however, never received any reply, either written or verbal, to my request. But not on this account did I do less to make the expedition a success, and to provide it with everything necessary to its complete outfit. You did direct me to obtain all of the information possible on this subject, and I did so, bringing the information and suggestions obtained to your notice. These, with but few exceptions, you approved. One of these exceptions was regarding the procurement of snow-shoes, disapproved upon my recommendation and later procured upon Lieutenant Garlington's. Another, that the depot of stores and the house for winter quarters should be established at Cape Sabine and another, that they should be landed on the passage up. These last you emphatically disapproved, as they involved departures from Lieutenant Greely's plan. Regarding the supplies and stores selected for the last expedition, I will say that the plans for them were made after a very thorough study of the conditions to be encountered and the object to be attained.

In reaching conclusions, the published works and reports of Captains Kane, Hall, Hays, Markham, Sir George Nares, and others, were read and studied, and frequent interviews obtained with Chief Engineer Melville, Lieutenant Barry, and Seaman Ninderman, of the Navy, all of whom were largely experienced in the nature and conditions of Arctic life and travel. I had also, since his return from those waters, many long conversations on the subject with Capt. Clements Markham, R. N., and in these ways had obtained as good a knowledge of the subject as was possible for one who had not actually been there. At the time of Lieutenant Garlington's assignment to duty in Washington the plans for most of the stores and supplies had been perfected and approved and measures taken to obtain them, at which time the entire conduct of all matters relating to that expedition was taken from me and given to Lieutenant Garlington. I was directed to turn over to him all papers and memoranda on the subject, which I did on the day the order was issued. Of the various plans submitted by me, and approved by you, I was suffered to see none of them carried out under my own supervision except the construction of the sledges and tents. I saw and inspected these, and saw one of the sleeping-bags, but saving these I do not of my own knowledge know anything of the stores obtained or sent for the relief expedition of this year, my responsibility for these matters and all matters pertaining to the expedition having entirely ceased when I, by your order, transferred them to Lieutenant Garlington. I thought this an injustice to me, which was a small matter, and likely to impair the efficiency of the expedition, which was a large one.

I spoke of this last view of the case to Lieutenant Caziarc in such language that his account of the matter to Lieutenant Garlington caused that officer to feel aggrieved towards me personally.

I had, as you well know, nothing to do at any time with the *personnel* of the expedition, except only the surgeon; was not in the least consulted in regard to the ship sent, her officers or crew, or the persons who were employed as ice-masters, sealers, &c. My further connection with the matter was to draft by your direction the order to Lieutenant Garlington, taking care to follow in every particular the letter of instructions of Lieutenant Greely. This you particularly insisted upon. I am therefore compelled to except to so much of your letter to the court as makes me responsible, even as an adviser of yourself, for anything whatever relating to the expedition after the date Lieutenant Garlington relieved me, or for the character of the vessel selected, her crew, or condition of fitness. I know nothing of any stores or supplies sent, excepting the ice-sledges and tents, and the sample sleeping-bag which I saw and suppose to have been taken. In the matter of the recommendations I had the honor to make, I am convinced they were judicious, and comprehended all that was needed, having been so pronounced by Chief Engineer Melville. They covered necessary and ample food, suitable clothing, boats, with equipment therefor, sledging-tents, ice-chisels, and paddles, sledges for ice travel, sleeping-bags, alcohol-stoves and utensils, and other articles of minor importance; but I have, as I before stated, no knowledge of how these plans were carried out. I protest therefore that I should in no event be censured or held in any degree responsible for the failure which will probably prove so lamentable, and which is at present the object of inquiry by the court.

From my location here, and without having at command any letters or records relating to this subject, I am unable to make the sworn statement you request, but furnish

the foregoing as covering the points in the case which now occur to me. In view of the possible conclusion to be reached by the court, and in justice to myself, I have forwarded a copy of this letter to the Adjutant-General of the Army.

I have the honor to be, general, your obedient servant,

W. H. CLAPP,
Captain Sixteenth Infantry.

General W. B. HAZEN, *Chief Signal Officer.*

A true copy of the original.

W. H. CLAPP,
Captain Sixteenth Infantry.

[First indorsement.]

WAR DEPARTMENT, ADJUTANT-GENERAL'S OFFICE,
Washington, D. C., December 31, 1883.

Official copy respectfully referred to Brig. Gen. S. V. Benét, president court of inquiry, &c.
By order of the Secretary of War.

R. C. DRUM, *Adjutant-General.*

K.

CAMP BATTALION, SIXTEENTH INFANTRY,
Pinery, near Fort Davis, Texas, November 27, 1883.

SIR: Having seen in the prints some accounts of the testimony given, in which I am mentioned as having made the original draft of instructions to Lieutenant Garlington, I feel that in justice to myself and to the inquiry being made I should place the facts before you for such use as may seem proper. There was at the Signal Office from some time in the latter part of 1881 up to the date of my being relieved from duty at that office, June 30, 1883, what was known as the "Arctic division," of which I was in charge. To this division were referred all matters relating to the stations at Lady Franklin Bay, at Point Barrow, Alaska, and the questions arising in regard to the relief expeditions of 1882 and 1883, up to the date of Lieutenant Garlington reporting for duty, were (under the supervision and orders of the Chief Signal Officer) settled by me. Subsequent to the failure of the expedition of 1882, and while that for 1883 was being prepared for, I had numerous conversations with the Chief Signal Officer regarding it. In one of these conversations, and prior to Lieutenant Garlington joining, I made to the Chief Signal Officer two recommendations. One, that the depot of supplies and winter station should be made at Cape Sabine, or higher, on the west coast, and second, that this should be done as the relief vessel went up.

I remember urging this, in view of the severe "nip" sustained by the Neptune in those waters in 1882, and the possibility of disaster from similar cause to the expedition then in contemplation. Both these suggestions involved departures from Lieutenant Greely's plan, but, as I considered, not serious ones, and only in the direction of greater security.

It was evident that Lieutenant Greely in the event of having to retreat could only do so along the west coast of Smith Sound, and that the proposed change of location for the supplies and winter station would save him and his party the troublesome ice between Cape Sabine and Littleton Island, and could not in any event increase his danger. The Chief Signal Officer heard me patiently, and then informed me that he would not consider or approve any departure from Lieutenant Greely's instructions as contained in his letter. He repeated this with emphasis. When, therefore, I was directed to prepare a "rough" of instructions for Lieutenant Garlington these instructions were followed, and the paper put in evidence was the result.

I had conversations with Lieutenant G. after his arrival, particularly with reference to the location of the station, and remember stating to him (in which he agreed with me) that the station should be on the west coast. I do not remember having spoken with him on the subject of landing supplies on the way up, though I may have done so. We did discuss the danger to the ship from ice, and with this in mind I recommended that the men reporting to him should be practiced in rowing and managing the whale-boats and in signaling; both of which recommendations were carried out. We also spoke of stowing the stores in the relief vessel, and of having supplies in the whale-boats during the passage up to be ready in case of disaster. Regarding the outfit for the expedition, it was, I think, most complete, and embraced everything needful.

The kind and character of the boats, their equipment, the sledges for ice travel, the tents, ice-chisels, foot gear, and other less important matters were decided on after several consultations which I had with Chief Engineer Melville, Lieutenant Barry, and Seaman Ninderman, of the Navy, and after much anxious thought and study my recommendations regarding all these matters were approved by the Chief Signal Officer and carried out, or at least were in process of being carried out when, on Lieutenant Garlington's arrival, I was relieved from further direction of them. The inquiry now being made is, I believe, with regard to the Chief Signal Officer and his subordinates in so far as they were connected with this expedition, and I therefore request of the court to be heard in person or by deposition, in the event of there being any testimony directly or indirectly making me responsible for the errors committed. I had requested to be sent in command of the last expedition and selected stores, outfit, &c., in view of possibly being sent. I therefore neglected nothing which seemed necessary for the safety of the party to go and the accomplishment of the purpose in view.

With the request that you will bring this letter to the attention of the court, I have the honor to remain,

Your obedient servant,

W. H. CLAPP,
Captain Sixteenth Infantry.

Maj. HENRY GOODFELLOW,
J. A. Court of Inquiry, Washington, D C.

WASHINGTON, D. C.,
Saturday, December 22, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of proceedings of the previous day were read, amended, and approved; whereupon Capt. William H. Clapp was recalled, and his examination continued as follows:

By the RECORDER:

Q. Have you made search, as the court requested, for the letter of General Hazen to which your reply is in evidence?—A. I have made such search, but without avail. I have not been able to find the letter.

Q. In reply to a question by General Hazen, when you said that everything possible was done and considered in the office, did you or did you not refer to the outfit, the supplies of material furnished the expedition, or were you testifying then as to the instructions to Lieutenant Garlington? Before answering the question refer to your testimony on page 178.—A. I refer to everything connected with the expedition, as I do not for a moment suppose that General Hazen's decision to adhere to Lieutenant Greely's plan of operations had not been well considered by him before making it. I presume he considered that subject as much as any other.

Q. Have you any distinct recollection of any conversation with Lieutenant Caziarc, or of any at which he was present, before the instructions were finally given to Lieutenant Garlington in reference to the advisability of landing stores on the voyage up northward?—A. Just about the time, and I think immediately subsequent to the occasion when I expressed these views to the Chief Signal Officer, I think I had a conversation with Lieutenant Caziarc in which I stated to him what I had recommended to the Chief Signal Officer, he not having been present at that interview. I am not able to state definitely that at that time I referred to the subject of landing stores on the passage up, but know I did mention to him the recommendation that the winter quarters should be at or above Cape Sabine, rather than in the vicinity of Littleton Island. His reply to me was: "I don't agree with you."

Q. I observe on page 165, in answer to the question, "Was the matter of disaster fully considered; was it fully considered how the expedition under the command of Lieutenant Garlington should provide for the possible wreck of the ship?" you said, "From what happened subsequently I should think it was not fully considered." Again, on page 169, the court asks, "Do you think that in the instructions to Lieutenant Garlington every possible contingency was provided for?" and you answer, "I do not," and, upon being asked why they were not, you say, "Because of the desire of the Chief Signal Officer to adhere to Lieutenant Greely's plan; because that plan does not, in the light of the facts that now appear, anticipate just what occurred." How do you reconcile this with your answer that everything was fully considered?—A. It appears to me that a matter might be fully considered, and not be correctly considered; in other words, that what was deemed a due consideration of any subject might be given to it at the time it was being considered, and in view of future events it might be found that the determinations then made were not warranted, were not the best that could have been arrived at; and I think that was in my mind, or something like that, when I made those answers to which you refer.

Q. I am asking from the point of view you had then, and you have answered the question in regard to the possible danger of the crushing of the ship, that all possible dangers should undoubtedly have been considered. Now, do you think the possible dangers to the Proteus, in the light of the experiences previous to that time, of the perils of Arctic exploration, were fully considered, or do you think that danger was fully considered?—A. I think it was fully considered, but, with reference to what happened, not accurately considered.

Q. I am asking in view of what was known to the whole civilized world, or all those who took the trouble to inquire in reference to the history of Arctic explorations, whether, as appears from those instructions themselves, there had been any consideration of what ought to have been done in case of the wreck of the ship, and what was necessary to provide against disaster to Lieutenant Greely's party in case of the wreck and total loss of the ship and cargo?—A. It was in view of such contingency that I made my recommendation to the Chief Signal Officer that the stores should be deposited on the upward voyage. The impression left upon my mind was that he considered those chances, and did not deem the danger of disaster to the ship sufficient to warrant a deviation from Lieutenant Greely's plan, and thus occasion a possible delay to the vessel.

Q. What knowledge had you that he had fully considered and investigated the subject beyond his mere reply that he would not consent to it?—A. I think I could hardly say that I had knowledge of such consideration on his part, but presumed it from his reply and the decision he arrived at and what I knew of his determination to adhere to Lieutenant Greely's plan of relief thoroughly.

Q. Lieutenant Greely's plan of relief contemplated the making of two deposits of provisions in Smith Sound, and the establishment of a station in the event of the vessel not being able to reach Lady Franklin Bay at Life Boat Cove. You proposed not to vary that plan, but simply to adopt an additional precaution for his safety. General Hazen, as you testified, at the very first suggestion of that to him, declined to entertain the propo-

sition because it was not in harmony with Lieutenant Greely's plan. Now, how can you believe that he ever considered the matter when everything that Lieutenant Greely asked for was to be done, and something additional was to be done that in no manner conflicted with Lieutenant Greely's own request?—A. I apprehend that my suggestion to the Chief Signal Officer involved two quite important departures from Lieutenant Greely's plan; one to establish a depot on the west coast instead of the east coast of Smith Sound, and that should be prior to the vessel entering the ice-pack and getting in any serious danger. Lieutenant Greely provided for the establishment of such depot only after the ship should be found unable to go through the ice; and these variations from his original plan were material ones, although as I think, and have testified, they were only deviations in the direction of greater safety.

Q. Did your plan contemplate that after making that depot of provisions, and attempting to reach Lady Franklin Bay and failing to reach it, the expedition should not also establish a station at Life Boat Cove?—A. I would have abandoned all thought of wintering at Life Boat Cove, for the reason that the winter station could be quite as well established and maintained upon the west coast, and that if such station was established it would be desirable to shorten, by every means possible, the weary miles of travel between Lieutenant Greely and that point.

Q. Then you hold that would have substantially complied with Lieutenant Greely's wishes; if the station was to be established on his route and nearer to him than he had asked for it, nearer Lady Franklin Bay than he had suggested, where was the material departure?—A. None whatever, except in the direction of greater security.

Q. That being so apparent, so manifest, how could it have been fully considered and rejected?—A. It is extremely manifest to-day when the fate of the expedition is known; it was not so manifest then.

Q. I will ask, in the light of what was known of the dangers of Arctic travel, the possibility of the ships being crushed there, the fact that many ships have been crushed—in view of all that, what reason could there have been found against such a departure from Lieutenant Greely's plan in the direction of greater safety, and how could the matter have been fully considered and an adverse conclusion reached?—A. It might have occurred that necessary delay caused by unloading the stores making the supply depot on the way up might have prevented the vessel from taking advantage of the favorable leads going through Lady Franklin Bay. It might have been possible that the bringing away of Lieutenant Greely and his men by the vessel from his station would have been defeated by that sort of proceeding, simply because of the necessary delay. That was an element to be considered.

Q. Could it be expected that there would be any material advantage of one period of time over another, within a few weeks or days, in navigating those waters?—A. I so understand; that it is a question of chance or luck; that sometimes, on rare occasions, those waters are found open, and then again, on other occasions, when there would seem to be quite as much reason to expect open water, the ice is found to be impassable; that the condition of the ice depends more on the tides and winds than upon the temperature of the previous winter and the accumulation of ice.

Q. Could not that have been counterbalanced by departure a few days

sooner, in order to avoid the delay of about a week necessary, at the utmost, to make such depot?—A. The departure at an earlier date could not have been expected to result any better, as the time the Proteus reached Smith Sound is as early as navigation has ever been practicable there.

By the COURT:

Q. The Proteus was crushed the 23d of July?—A. Yes, sir.

By the RECORDER:

Q. Is there any reason for supposing, the Proteus having reached Littleton Island about the 20th or 21st of July on her way up, that if she had started five days earlier from St. John's that she would not have arrived there five days earlier and had time to make the depot either at Life Boat Cove or Cape Sabine and still have had the same period of time in which her chances of entering the ice and getting through would have been as good?—A. I understand the passage of the Proteus through Melville Bay to have been an exceptionally quick one, with less trouble than usual from the ice. Had she attempted it any earlier, or even at a later date, these favorable conditions might not have existed. She might have met with disaster in the waters of Melville Bay before reaching Smith Sound. In regard to those things it would be chiefly a matter of conjecture.

Q. I am not asking in the light of the history of the expedition, I am asking merely in the light of the history of Arctic explorations generally, would not her chances have been just as good if she had started earlier from St. John's; I believe you have already testified that no urgency of getting to Lady Franklin Bay at a very early time was contemplated at the office.—A. No attempt was made to fix the date of her arrival there, only so that the relief should be had this last summer. It would seem that this supposition you have mentioned might have been properly made and entertained, but to answer the question definitely would involve an opinion regarding navigation beyond that which I have, and of the conditions of the ice there, of which I know nothing except at second hand. I am not an Arctic navigator.

Q. Now, in reference to the advisability of such an expedition being in charge of one or the other branch of the Government, you answered yesterday that you thought that under the peculiar conditions of the Arctic regions one branch of the service was as available as the other for such purposes. Don't you think, so far as the taking of a ship up there and the navigation by boats if it became necessary, that men of the Navy would have greatly the advantage; that while sailors can walk the ice as well as soldiers, they can also navigate boats and sail ships, which soldiers cannot ordinarily do?—A. Some of the most successful Arctic expeditions have, I believe, been under the charge of landmen; and when it comes to hauling heavy loads upon sledges over ice, or sometimes embarking those loads in boats in order to cross bits of open water, I imagine that the knowledge of marine matters which a sailor has would aid him very little.

Q. Possibly, but could not he pull as hard as a soldier?—A. As hard, and no harder.

Q. But then when it comes to getting into the boats, packing a cargo, trimming a boat, sailing a boat, or rowing a boat, would not the sailor be in his element and the soldier not?—A. Undoubtedly the sailor would be

on his element, but the soldier or the landsman would very easily and very readily acquire all the nautical knowledge that would be necessary; and in so far as navigation of those waters is concerned, the precautions to be taken against danger, and the methods of extricating a ship from danger, I would sooner trust the experience of competent whalers and sealers, who have years of experience in such work, than either persons of the Army or Navy who had not had such an experience. In the conduct of this expedition it was expected that in those matters the experience and practical knowledge of the master and crew of the Proteus would be available, not only as means of preventing danger, but of extricating the people from danger.

Q. Sealers and whalers are sailors?—A. They become so.

Q. Professional seamen?—A. As a rule they are.

Q. Don't you suppose they are always so before they are considered competent to go sealing or pilot a ship through the sea?—A. Certainly, before they are competent to pilot a ship through the seas; but many of those men go on chance voyages from Newfoundland and other points, and there is a time when their experience as sailors begins, and crews of green men are not infrequently shipped, as I am informed.

Q. Could not the Navy command the assistance of that special talent among pilots and sealing men, as well as any other branch of the Government?—A. Perhaps quite as well, but I do not see how in any way better, as it would be simply the selection of such workmen, and their engagement to do the work, which might be done by any branch of the Government or by an individual.

Q. It might be better to have it done under professional seamen instead of landsmen?—A. Such might be the case.

Q. In regard to those Arctic expeditions that were commanded successfully by men who had not been bred to the sea, were not the crews and officers used composed of seamen?—A. To a considerable extent I believe such to have been the case.

By the COURT:

Q. The passage of the Proteus on the original Greely expedition from St. John's to Lady Franklin Bay was a rather remarkable passage from the fact they found few obstructions and got up there without much difficulty?—A. Quite so.

Q. Do you think that Lieutenant Greely after his arrival there was a better judge of what should be done for his relief (except the fact that he should know that there were caches of provisions at certain points) than those who had studied the matter here and had never been up there; that is, did his trip to Lady Franklin Bay give him such large experience that his views ought not to be changed?—A. His trip up there afforded him an experience simply with regard to the conditions as he found them, and not as they probably would be found by somebody else at another time; therefore beyond a knowledge of the headlands, the location of caches, and a few matters of that kind, the mere fact that he had sailed up Smith Sound and Kennedy Channel in a season of open water would not at all acquaint him with the condition of the ice there in seasons when the channels were closed.

Q. Then his views and opinions in regard to what might be done for his relief would be of no special value beyond the placing of provisions at

certain points where he would expect to find them, should he have to return?—A. His experience would be valuable, but would not be entitled to paramount consideration, except in so far as it comprehended the various conditions. I remember to have had with General Hazen, when speaking of this matter, some conversation like this: I said, "Lieutenant Greely's view of what he wanted August 17, 1881, is not at all Lieutenant Greely's view now of what he wants." I said, "Just as the views of men who volunteered early in the war were very much changed, and they came to believe that certain things they wanted originally were not needed at all." I remember that conversation.

Q. I ask that question because in General Hazen's testimony, on page 26, he speaks in this way: that Lieutenant Greely's letter "was of that nature and character, written, as it was, after he had arrived there, knowing all the facts as no other man in the world could know them, that I felt that I was excluded from giving Lieutenant Garlington any orders that would in any manner conflict with his directions." That is the reason I ask the question whether the experience that he had in going up to Lady Franklin Bay through practically an open sea would have given him such knowledge of the wants of those regions as to make his requirements a law unto those who had charge of the affairs here?—A. Manifestly not; and it was with that in view, and the belief that he had not experienced all the conditions which might be encountered, that I suggested to the Chief Signal Officer certain changes from his proposed line of action.

There being no other witness present (1.45 o'clock), the court adjourned until Wednesday the 26th of December, 11 a. m.

WASHINGTON, D. C.,
Wednesday, December 26, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of proceedings of the last meeting was read, amended, and approved.

Whereupon,

General WILLIAM B. HAZEN, Chief Signal Officer, resumed the witness stand, and made the following statements:

In the report made of my testimony, on page 189, it seems that what I intended by it is not quite understood. It was not that Lieutenant Greely, being there, having gone up through Smith Sound, knew more about what would be best to be done than any other man in the world, but it was this, that Lieutenant Greely had studied the subject as no other man had done, he going there and risking his life and the lives of his men there, and his men depending on the plan which he had made. Then, the weight that was given to his plan was not that it was a superior plan to any other, but it was a preconcerted plan made by Lieutenant Greely; it was a preconcerted plan which could not be departed from without possibly misleading him. No plan for a rescue of that sort could be efficient and effective unless it is prearranged between the rescuers and the rescued. To make departures from such a preconcerted plan would render it not only useless, but it would mislead the parties to be rescued.

As to the reference made in Captain Clapp's testimony to there being

no special time to arrive at Lady Franklin Bay, I wish to say that every effort was made and every possible movement attended to to cause the expedition to arrive at Littleton Island the very first moment of the season that it was possible to get into Smith Sound. That of course did not contemplate any specific time, but it was to take the chances, the first opportunities that offered of getting in there.

In regard to adhering to Mr. Greely's plan of placing the depot on the east side of the channel and not upon the west side, that decision was based upon other reasons than what seemed to appear. Littleton Island, Life Boat Cove, is a point more certainly reached in the spring or the summer than Cape Sabine. Besides this, it is a point very favorable to animal life. It is a point that has been made a winter's rendezvous, as Sir George Nares and others have said, of the natives who go to that region for a long period. In that respect it has very many advantages as a winter camp over the west side, which was pronounced and was understood also by Mr. Greely himself to be much more barren, and almost destitute of animal life, and for that reason not desirable for that purpose. That was very largely the controlling reason with him, and with me it was that, and also that Mr. Greely had selected that point himself. Captain Clapp made the point that Cape Sabine was directly on their line of retreat. Although it is on their general line of retreat, it was not quite clear to me but that they might have departed from that line so as to have passed it for some reason; not looking for and expecting it, would have passed such a point, and would have found themselves thirty or forty miles away from it in an exhausted condition, and not been able to return to it.

Captain Clapp also tells me he remembers a conversation which really was held in regard to the landing at Littleton Island. It was perhaps as controlling with me as anything else, when these matters were discussed, the delay that might result in first landing at Littleton Island and losing the time which might have been availed of in going north, and in case the ship arrived there when there was a clear atmosphere, if it would not by all means be better to take advantage of that rather than to run the risk of delaying and having the time taken up in landing stores. That was the reason—no other reason why it was not thought best to order that this landing should be made.

In regard to Captain Clapp's statement in one of his letters that no reply, either verbal or in writing, had been made to his application to go north, it probably had escaped his memory; but to show that there was no want of harmony in all these discussions, Captain Clapp was at the time verbally informed in as delicate a way as possible that I was not prepared to send him out, which I thought was all that was necessary at the time.

It also appears in the testimony in regard to the rations, that I have said Lieutenant Greely had about five years' rations. That was arrived at upon the computation of rations which was handed in, which you remember was found to be erroneous and was returned. When the calculations were corrected it was found that the meat and bread rations, the main rations, instead of being for four years, were for about three years. I think it proper that that should be corrected.

I will say in regard to Captain Clapp's work while he had charge of the Arctic division that he was always zealous, and he afforded me very ready and very prompt and earnest attention in that work all the way through.

To show more fully, up to the very last, the interest and the earnestness which I had in this work, I would like to submit in testimony a series of telegrams which I sent to Washington from Washington Territory when the loss of the Proteus was first known here. They do not seem to appear in the exhibits as they have been printed. If permitted, I will read them.

General Hazen then read the following telegrams:

NEW TACOMA, W. Ter., *September 15, 1883.*

Captain MILLS:

Was nothing left in caches for Greely anywhere?

W. B. HAZEN.

NEW TACOMA, W. T., *September 15, 1883.*

To Captain MILLS, *Washington:*

It may be necessary to send men with money and authority to Upernavik to organize and send sledging parties with food north to meet Greely, who is now probably at Littleton Island on his way south. See the Secretary about it, and if the President can authorize the money Congress will approve. It will have to be done by telegraph to St. John's, Malloy sending man and money by small steamer. It will cost but a few thousand dollars. Give the subject careful study.

HAZEN.

PORT TOWNSEND, W. T., *September 17, 1883.*

Captain MILLS, *Signal Officer, Washington, D. C.:*

It is very important to get a capable man with money as high up in Greenland as possible to send sledge parties with native food and clothing under pay and bounties to meet Greely. See the Secretary and do it if possible by telegraph to Malloy.

HAZEN.

PORT ANGELES, W. T., *September 19, 1883.*

Captain MILLS, *Signal Officer, Washington, D. C.:*

Get orders from Danish legation for men going to Greenland for all Danish authorities to give all possible assistance it can. Telegraph it to St. John's.

HAZEN.

NEAH BAY, W. T., *September 20, 1883.*

MILLS, *Signal Officer, Washington, D. C.:*

If it is too early for sledges, parties must start up in boats.

HAZEN.

NEW TACOMA, W. T., *September 22, 1883.*

MILLS, *Signal Officer, Washington, D. C.:*

Has question been asked St. John, can vessel reach at or near Upernavik? Greely will retreat south.

HAZEN.

On receipt of that I received a telegram from Washington that the Secretary of the Navy and the Secretary of War had determined to do that. I then wrote this dispatch, and before it was sent I received another dispatch that the Secretary of the Navy had determined not to do it, but I will read this as part of the series:

TACOMA, W. T., *September 22, 1883.*

MILLS, *Signal Officer, Washington, D. C.:*

Do all in your power to prevent delay of preparation. What I want done requires no preparation. Time is more valuable than all else.

HAZEN.

Of course, I meant by the term preparation that they should select such stores as could be obtained in a day or a very short time.

There being no other witness present, the court then (at 12 o'clock) closed the doors for the purpose of deliberation. At 3 o'clock p. m. the doors were reopened, and the court adjourned until 11 a. m. to-morrow.

WASHINGTON, D. C.,
Thursday, December 27, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of proceedings of the previous day was read, amended, and approved.

Capt. RICHARD PIKE sworn.

By the RECORDER:

Question. Where do you reside?—Answer. St. John's, Newfoundland.

Q. What is your occupation?—A. Master mariner.

Q. What vessel did you last command?—A. The Proteus.

Q. How long had you commanded her?—A. Nine years.

Q. State how you were employed while in command of that vessel.—A. Sealing, chiefly.

Q. Did you command her in 1881?—A. Yes, sir.

Q. When Lieutenant Greely and party were on board of her on the expedition to Lady Franklin Bay?—A. I did.

Q. To your knowledge what repairs were done to the ship after that?—A. She was docked three times after that.

Q. Where was she docked?—A. At Sidney, Cape Breton.

Q. Was anything done to her machinery?—A. Nothing that I know of, of any consequence; the boiler has been all new stayed since then.

Q. Did you regard her at the time you sailed with Lieutenant Garlington and his party in a thoroughly seaworthy condition?—A. Yes, sir.

Q. What boats had she of her own?—A. She had four, three of which were saved and one lost.

Q. Describe them.—A. One was a long boat called a life-boat, a jolly-boat, and two sealing boats.

Q. How many men would they accommodate altogether?—A. They could accommodate twenty-two. There were three boats that took the twenty-two men.

Q. What was the condition of those boats when you sailed?—A. All the boats were good enough.

Q. How old were the boats?—A. The same age as the ship.

Q. How old was that?—A. I think she was ten years old.

Q. Had they been kept in repair from time to time?—A. Yes, sir.

Q. Do you think they were stanch, safe boats?—A. Well, they must have been, to stand what they did stand.

Q. State to the court what nautical education and experience you had prior to that time.—A. I had thirty-five years; I have been twenty-seven years master of a ship; I have been to the Brazils, the Mediterranean, United States, Germany, and been all around England.

Q. For that service you are required to have some license or commission, are you not?—A. A certificate from the board of trade.

Q. From what board of trade did you receive this?—A. From the Newfoundland Board of Trade, which is connected with the English Board of Trade; it is all the same.

Q. Say what experience you had in northern waters among the ice prior to sailing the last time in the Proteus.—A. So far as ice, I have been at it over thirty years. I was only fourteen years of age when I went into it at first.

Q. What character of ice were you accustomed to encounter?—A. Just the general run of ice we would meet on the coast of Newfoundland, and sealing; sometimes heavy and sometimes light.

Q. Did you supervise or superintend the loading of the Proteus?—A. Partly.

Q. Who else attended to it?—A. The chief mate. Had to break out stores after Lieutenant Garlington arrived—nearly all of them. He was looking after some things he could not find.

Q. Do you know where the arms and ammunition were stored?—A. I do not know.

Q. You didn't see them stored?—A. No, sir.

Q. Do you know who attended to stowing them?—A. The same as all the rest; nobody could tell which was the box wanted; just as we took them up on board. No person looking after it from the proprietors of the expedition.

Q. To identify them?—A. No, sir. We broke out nearly all of them; Lieutenant Garlington was looking for some things all one day. There were some things he could not find.

Q. The packages were not marked?—A. Not that we knew; we had nothing to show; they were mixed.

Q. They were not marked with a description of the contents?—A. No, sir.

Q. Captain, what was the character of the crew and officers under your command on the Proteus?—A. The crew were pretty good men; of course you cannot expect to get the same sort of men always, but the men did their work very well.

Q. When did you ship these men; how long had they been sealing?—A. Oh, I shipped them nearly a month before I left. I made a trip after I shipped them before sailing on the expedition.

Q. Had you a chance to get a good choice of men, or was the season unfavorable?—A. The season was unfavorable to get a regular picked crew of men, but I got a very good crew.

Q. Had you known any of them before?—A. Half of them had been a-sealing before.

Q. With you?—A. Yes, sir, with me.

Q. And were the other half sealers?—A. Sealers all their life, so far as I know.

Q. The half you did not know personally?—A. They were all men used to going to the seal fisheries.

Q. Is there any custom or law that you know of, applying to ships sailing from Newfoundland, by which the men can regard themselves as discharged from their duty of obedience, upon the wreck of the ship?—A. Well, as a general rule, I believe the rule is that when the ship is lost the men's wages are supposed to cease. That is, I believe, the law. But these

men obeyed their orders ; but of course sometimes in a case like that, when there is excitement, you can see one running here and another there.

Q. Do you know of any flagrant disobedience among the crew?—A. No, sir.

Q. Do you know of any defiance of their officers?—A. No, sir; heard nothing.

Q. Nothing of the kind?—A. Nothing of the sort.

Q. Now, on that voyage was there or was there not harmony between you and Lieutenant Garlington as to what ought to be done?—A. Me and Lieutenant Garlington had not a word while I was on board the ship.

Q. There was no disagreement?—A. None whatever.

Q. As to the course the ship was to take?—A. None whatever, sir.

Q. Was the ship judiciously managed in the ice?—A. So far as I know, she was.

Q. Was she subjected to unnecessary peril?—A. No, sir.

Q. After the ship was lost, was there any disagreement between you and Lieutenant Garlington as to what ought to be done, as to the course to be pursued?—A. No, sir. After the ship was lost, me and Lieutenant Garlington and Lieutenant Colwell got together to see which would be the way to proceed. Of course we made up our minds to get all the provisions we could ashore.

Q. What became of the mails for Lieutenant Greely?—A. I know nothing about that.

Q. Do you know where they were stowed?—A. I do not know. I do not know anything about them. I did not have them in charge.

Q. You didn't see any of them saved, did you?—A. No, sir.

By General HAZEN :

Q. I would like to ask the captain if during all this time he has been in the employ of the Stewarts, or at least how long he has been in their employ.—A. Ten years.

Q. How long as captain of the Proteus?—A. Nine years.

Q. I would like to ask him also if he made any disparaging remark to the effect that his crew were a set of rascals.—A. No, sir; none. The only remark I made to Lieutenant Garlington, I said I had not as good a crew as I had the year before, on the whole.

Q. Did you consider it a good crew?—A. Yes, sir.

Q. In all respects did they perform their duties while on the ship?—A. Yes, sir.

Q. Had you any occasion at any time to find any fault with any of them in the performance of their duties?—A. None whatever. They sometimes would not be smart and jump up as quick as I wanted, and I might sing out to them about it.

Q. What sort of a trip did you make, did you consider, up to the time the ship foundered?—A. A very quick one.

Q. Was it a good trip in every way?—A. Yes, sir; I considered it was.

Q. How far up on the coast of Greenland have you been accustomed to go in sealing?—A. I did not go there sealing at all.

Q. How far did you go—what is the range of sealing?—A. The range is from St. John's as far as 52 north; that is about the general range.

Q. How did you consider the equipment of the Proteus?—A. Very good, sir. I do not think there was anything wanting.

Q. How old was she when she was refitted?—A. It was usual to be newly refitted every year.

Q. Her equipment was efficient and good?—A. Efficient and good; nothing wanting that I know of.

By the RECORDER:

Q. For how long was your ship provisioned for your own crew?—A. Eighteen months.

Q. I would like to ask you in reference to a matter with which you are probably familiar, professionally. How long would it take to land at a convenient point, say on Littleton Island for instance, fifty barrels of stores?—A. I could not exactly say; it would depend on how the weather was, a great deal.

Q. Suppose you had a good lee?—A. I suppose you would land it in four hours.

Q. You think you would land fifty barrels in four hours?—A. I think so.

Q. With the force you had on board?—A. Yes sir.

Q. A hundred barrels in about eight hours?—A. More or less; I could not exactly say. Of course it might take time to get the boats out and the things with them.

Q. Suppose you could have hauled up close to shore and hoisted the barrels right out, how long would that have taken you?

The WITNESS. On the shore?

The RECORDER. Yes.

A. Do it in an hour, I suppose.

Q. Fifty barrels in an hour?—A. Yes, sir.

Q. What is the character of the shore at Littleton Island? Could you approach close at places?—A. Yes, sir; we went at one time within six cables' length.

Q. Tell the court how much that is in feet?—A. Ninety fathoms—from sixty to ninety.

Q. How is it in Pandora Harbor? How near can you go to the beach there?

The WITNESS. With a ship?

The RECORDER. Yes.

A. There is a place you can get right close—go within a few cables' length. There is a place within a cable's length.

Q. How is it at Life Boat Cove?—A. I never was there.

Q. Do you think everything was saved that could have been saved when the wreck took place?—A. Yes, sir; there was more saved than was got ashore.

Q. Was everything got ashore that could have been got ashore?—A. No, sir; there were some things on the floe that floated away.

Q. Was everything done that could be done?—A. I think there were some things that could have been got. When we got there first some things were left on a floe, and the floe wheeled outside the island, and after we landed the floe wheeled again, and I said to Lieutenant Garlington that we could save them; and he says "No, I can not let my boats go any more." So then two of my boats went and brought a load of stuff. Some of the men went

in my boats; Sergeant Kenney was one, and I think Murphy was another man.

Q. What reason, if any, did Lieutenant Garlington assign for declining the use of his boats for that purpose?—A. I do not know, sir.

Q. Was the ice dangerous to the boats?—A. Well, of course it was. They had to get through some ice—through a little.

Q. What amount of stores that were not saved could have been saved by the greatest diligence?—A. We could have got another boat-load or two, at any rate, if we had had the boats.

Q. Do you know what amount of provisions were cached on Cape Sabine?—A. No, sir; I do not know; there was a very little. I know there was a large cache of clothing made there, but provisions there was not.

Q. You don't know how much?—A. No, sir; I know there was a barrel of molasses left there, and some tea, two or three bags of bread—but the bread would be of no use, it would be wet—and some clothing was left there that belonged to the ship, which was saved and covered with a sail belonging to the ship.

Q. Well weighted down with stones?—A. It was covered over. There was some clothing, some that belonged to myself, I know; some I did not bring with me, I hadn't room for it.

Q. I understood you to say that your crew were all sealers?—A. They were all men used to going to the sea and going to the seal fisheries, all but one of them; that was the assistant steward.

Q. And you said that at least half of them were personally known to you?—A. Yes, sir.

Q. And had served with you before?—A. Yes, sir; had served with me before.

Q. What was your idea as to the probability of the Yantic reaching Littleton Island?—A. I was of the opinion that the Yantic would reach Littleton Island by the way the ice trimmed in Melville Bay.

Q. Did you or not deem it advisable to go to Littleton Island and wait for the Yantic?—A. It would be advisable, I thought. It was my opinion the Yantic would get there all the time.

Q. Did you advise that the boat should go there?

The WITNESS. Where?

The RECORDER. To Littleton Island from the wreck?

A. Pandora Harbor was where we proposed to go.

Q. Did you advise the boats to go to Pandora Harbor?—A. Yes, sir. It was intended that we should wait, and I spoke to Lieutenant Colwell about the course—that we would have time enough to wait for a few days and get some provisions over from Cape Sabine. The next day we went on the boats and came south.

Q. Did you assent to that as advisable?—A. There is no use of one boat staying and the rest going. It was my belief that the Yantic would get there.

Q. Did you express that belief to Lieutenant Garlington?—A. I think I said to Lieutenant Garlington that we ought to stop two or three days, something like that.

Q. At Pandora Harbor?—A. Yes, sir; at Pandora Harbor.

Q. Were you well provided with logs?—A. Yes, sir.

Q. How many had you?—A. We had a common log, and a patent log which we lost.

By the COURT:

Q. I would like to ask how long the Proteus would have been delayed on her upward voyage if she had stopped to land supplies of provisions at Littleton Island and Cape Sabine to the extent of three tons at each place.—A. I expect it would take three or four days—three days.

Q. She would have been delayed how long to each ton?—A. I could not tell exactly how long.

Q. I simply want your estimate of how long it would take at each place to land a ton additional of other stores than provisions.—A. Perhaps it would take two or three hours to land a ton some places; perhaps she might have some trouble in getting there, on account of the ice foot.

Q. I am speaking of Littleton Island, and Cape Sabine only.—A. There is no ice foot there.

By the RECORDER:

Q. You anchored at Littleton Island?—A. Not this time; I did two years ago.

Q. When you anchored there two years ago how near were you the shore?—A. Not more than forty yards.

Q. And how near could you have got to the shore at that point?—A. Could get the stern of the vessel alongside, but then it was right alongside a mountain, and you could not land there anywhere.

Q. At the time your vessel was chartered for this purpose in 1883, was there any vessel in the harbor that could have been chartered that was better adapted to the service?—A. No, sir; not one that I know of.

Q. Was there any person in the harbor or near there who had had more ice experience than yourself?—A. No, sir; I do not think so.

Q. Or more Arctic experience?—A. No, sir.

Q. Did you have an interview with Lieutenant Garlington in the presence of an agent of the Messrs. Stewart soon after your return?—A. Yes, sir; we had.

Q. State briefly what took place at that interview?—A. Well, Lieutenant Garlington wished to have an interview, and it was spoken of about the time we got into Payer Harbor. We went to Littleton Island and did not land there, and after we left there we went along by the island dead slow; and after we passed around the island Lieutenant Garlington said "Go ahead; we won't wait;" and we went north full speed about an hour and a half, maybe two hours; then we met solid ice in Smith Sound. There was no water to be seen at all—not a crack in it. We went over to the west side then, and there was a little drain of water running from Cape Sabine over toward Cape Albert. So I saw there was no chance, and proposed to go into Payer Harbor and watch for a chance to get up, until some of the ice came down. I said to Lieutenant Garlington that unless some of the ice came down we cannot get up. We are too early. So we went into Payer Harbor, and Lieutenant Garlington went ashore on the cape, as he said, to examine the cache of provisions that was left there by the Neptune. We entered Payer Harbor, I think, about 5 o'clock, and anchored, and about 7 o'clock Lieutenant Garlington came on board. I was lying on my bed, and he came

to the stateroom door and called me and told me he could see open water away north towards Cape Hawks. I told him I didn't think that was any good, and that I was not ready to go. I wanted to get some fresh water and fill my bunkers. I also told him that I was as anxious to get north as he was. He says, "I can see open water, and I want to go," and said, "You shall have my men to help fill your bunkers." I said I would go, and we left there about 7 o'clock in the evening, or half past seven.

Q. I understand that this interview at St. John's was in reference to the matter you are speaking of, was it?—A. Yes, sir; those are the words that I said before Mr. Syme, before Lieutenant Garlington and Lieutenant Colwell.

Q. Now, did you hear any complaint by Lieutenant Garlington or Lieutenant Colwell of the conduct of your men on the way down from the wreck?—A. I heard them speak about it, but I did not see anything wrong with the men; I heard them speak about the men, that they were this and they were that.

Q. Did they make any complaints of depredations committed by your men?—A. No, sir; not on the way down; they did after we left Cape Sabine, after the wreck.

Q. What were those complaints about?—A. About stealing clothes.

Q. Did you investigate them?—A. I know when the ship was lost Lieutenant Garlington let each of my men have a buffalo coat, but, as I said, they were to give them up when we went on board the Yantic, if we got on board of her; but the day after when we landed Lieutenant Garlington demanded the coats from them again, but the officers of the ship could keep theirs until they got aboard the Yantic or arrived at St. John's.

Q. Those clothes, were they cached?—A. No, sir; they were on the floe of ice before we landed at all.

Q. Were they afterward cached?—A. I saw the men give them to Lieutenant Garlington; I do not know whether he cached them or not.

By General HAZEN :

Q. What was the quality of the officers that were with those boats?—A. The officers were good enough. Both of them had been officers for two or three years in sealing.

Q. From your knowledge of ships are there any better ships that you know of for that purpose than the Newfoundland sealers?—A. I do not think there are.

By the RECORDER :

Q. How did the Proteus compare with other ships?—A. The Proteus was about as good a ship as there was, something like the Bear and the Neptune.

Q. The Proteus was as good as any of them?—A. Yes, sir.

Q. I believe Lieutenant Greely was very well satisfied with her?—A. Yes, sir; he was.

Q. Did he not make some complaint at that time that the machinery was too light?—A. None that I ever heard, sir.

By the COURT :

Q. How far north had you ever sailed in your ship prior to taking Lieutenant Greely to Lady Franklin Bay?—A. About 55, sir.

Q. You had come in contact with some pretty heavy ice, in your experience?—A. Yes, sir; I have, very heavy, but the ice on the Labrador coast is broken up more—not like the Arctic ice at all.

Q. You had never been before in Baffin's Bay?—A. Never before I went with Lieutenant Greely.

Q. On your way you found very clear water all the way up?—A. Yes, sir; very little ice, nothing worth speaking of.

Q. And you made a very remarkable trip up there?—A. Yes, sir.

Q. Do you know whether there is such open water there as far as the point to which you went every year?—A. I could not say.

Q. How was it on your return trip from Lady Franklin Bay?—A. We found a good deal of ice, coming back.

Q. You had no trouble getting down?—A. No, that ice passed us while we were at Discovery Harbor.

Q. How did you find Smith Sound on your way down?—A. No ice in Smith Sound.

Q. You came down without any difficulty?—A. Without any difficulty.

Q. Do you remember how late that was?—A. I think we passed through Smith Sound the 29th of August.

Q. Then your trip coming down did not give you much experience with ice?—A. No, sir.

Q. And even your trip going up did not give you any great experience of that kind?—A. We had to come back somewhere about eighty miles, to dodge the ice and let the floes pass, and work our way up.

Q. During your trip with Lieutenant Greely in 1881 did you get any very great experience in regard to ice and its movement in Smith Sound at certain periods of time?—A. No, sir; I know nothing about Smith Sound; seen none there going up or coming down.

Q. So that the trip did not give you experience as to the amount of ice in Smith Sound?—A. Not in Smith Sound.

Q. You had no other opportunity of learning anything of that kind?—A. No, sir.

Q. Just now you testified that when Lieutenant Garlington spoke to you about leaving Payer Harbor and going north, that he had seen open water, you stated it was rather too early.—A. We were rather too early in the season.

Q. Upon what did you base that opinion?—A. Because I expected some ice would be breaking up about that time; it should be breaking up and coming down, according to the experience I had the year before.

Q. After the Proteus was lost, what was the condition of the ice in Smith Sound?—A. The ice was going down. There were small floes of ice when we crossed at Littleton Island from Cape Sabine, coming down.

Q. So far as you know from the experience you got there, do you think there would have been any time lost or any opportunities of going up lost by waiting a few days?—A. I believe it would have been all the better if we had not been so soon; we would have had a better chance of getting up.

Q. After the ship went down do you remember whether your men ever disobeyed your orders to do anything?—A. No, sir.

Q. Did they obey your orders with the same alacrity they did before

the disaster?—A. They obeyed my orders right through; in the excitement men would not turn round just as they would at another time.

Q. You found no difficulty about that?—A. No, sir.

Q. They continued obedient after the disaster?—A. Yes, sir; they all obeyed my orders.

Q. Did you think there was any disposition to be mutinous?—A. No, sir; none whatever.

Q. Did they exhibit any disposition of that sort on their way down to St. John's while you were in the boats?—A. No, sir.

By the RECORDER :

Q. Had you made an observation of this ice from Payer Harbor?

The WITNESS. Before we went in?

The RECORDER. Yes.

A. Yes, sir.

Q. From what point had you made the observation?—A. I saw it from the deck; the officers, when they were in the crow's-nest.

Q. What did the officer in the crow's-nest say about that ice?—A. Reported that there was not a drop of water to be seen north.

Q. Where had Lieutenant Garlington observed it from?—A. Cape Sabine.

Q. From the shore?—A. From the shore.

Q. How high is the headland there?—A. It comes down to a low peak—perhaps two hundred or three hundred or four hundred feet.

Q. Were you at any time consulted in reference to landing stores or making caches on the way up?—A. No, sir.

Q. Did you give any advice on that subject?—A. No, sir.

Q. You did not regard it within your province at all.—A. I had nothing to do with it.

Q. Did you tender any advice to make arrangements to meet the Yantic?—A. No, sir.

Q. You were not consulted upon that point?—A. No, sir.

By the COURT :

Q. Why were you certain the Yantic would get to Littleton Island?—

A. Because I knew by experience. We could get around west of the Cary Islands and avoid the ice in that way.

By the RECORDER :

Q. Did you get out of your course in Melville Bay?—Yes, sir; we did.

Q. How did that occur?—A. I would like to know any man that could keep a course when sometimes we were going dead slow and sometimes at full speed, sometimes northeast and sometimes going southwest.

By Mr. KENT :

Q. What officer was in the crow's-nest when you left Payer Harbor?—A. The second officer, I think.

Q. Was Lieutenant Colwell in the crow's-nest?—A. Not when we left Payer Harbor.

Q. When was it he got into the crow's-nest?—A. About 10 o'clock in the evening.

Q. What time did you leave Payer Harbor?—A. About half past 7.

Q. I understood you to say that there was never any conflict between you and Lieutenant Garlington, or any disagreement of any kind?—A. None that I know of.

Q. Was there any disagreement as to the propriety of going north at that time?—A. None whatever. I would not have went if Lieutenant Garlington had not spoken as he did to me ; but then of course I would leave no stone unturned to do what I thought was right.

Q. You did not, however, object to going?—A. Oh, no, I did not object.

Q. Are you positive that you told Lieutenant Garlington that the water that was seen was no good?—A. The water that was seen was no good.

Q. When was that?—A. Before we went in Payer Harbor.

Q. But when you came out of Payer Harbor going north?—A. There was some water there then.

Q. Nothing of the kind said then, was there?—A. No, sir.

By the RECORDER :

Q. Didn't I understand you to say that you advised against going out then?—A. No, sir ; that was in the harbor that I said I did not think it was any use—that I wanted to fill the bunkers.

Q. That was before you started out. When was it that you said Lieutenant Garlington came aboard from examining the cache?—A. That was in Payer Harbor.

By the COURT :

Q. That was after he had been on the mountain to see?—A. Yes, sir.

By the RECORDER :

Q. But you thought it was your duty to defer to his wishes?—A. Yes, sir ; that was the way I understood it, and that if we could not get ahead we would have no difficulty in getting back again.

By the COURT :

Q. Would a delay there of as much as a week have been detrimental to the object of the expedition?—A. I think it would not have been ; if she had been there a week it would have been all the better.

By the RECORDER :

Q. Did you express that opinion at the time?—A. The only thing I said to Lieutenant Garlington was that we were here too early.

Q. Did he ask you what you thought about the advisability of going out then?—A. No, sir ; he did not speak to me about going out to sea.

Q. He did not ask your opinion?—A. No, sir.

By Mr. KENT :

Q. Can you fix with greater definiteness the time and place of the conversation of Lieutenant Garlington when he spoke of the open water and you said it was no good?—A. That was before we went in. I told him in my opinion the water was not much good, but we could go and see when we came out.

Q. That was before you went into Payer Harbor?—A. Yes, sir.

By the RECORDER :

Q. Referring to the time that Lieutenant Garlington came on board

from examining the cache and requested you to go out?—A. I said I did not approve, that I did not think there was much water there.

Q. You stated at that time also?—A. Yes, sir; stated at that time also.

Q. Now what was the strength of your ship's company?—A. There were twenty-two, all told.

Q. And you had provisions for eighteen months?—A. For eighteen months.

Q. And estimating that Lieutenant Garlington carried provisions for fifteen months for forty persons, that being very nearly twice the amount of your provisions, suppose half those provisions of Lieutenant Garlington should have been landed at Littleton Island or Payer Harbor, how much less water do you estimate your vessel would have drawn?—A. Oh, it would have drawn 18 inches less water, that is if the house and coals and provisions were landed there.

Q. I do not mean the whole of them, I mean half.—A. Perhaps about 6 inches as you are talking about provisions, perhaps 6 or 7 inches.

Q. Would not the chances of escape from a nip have been much better then?—A. Yes; because the ship would rise better.

Q. How much water did you draw as you entered?—A. About 18 feet.

Q. What would you have drawn with the lightest ballast?—A. About 14.

Q. With the lightest ballast?—A. Yes, sir.

By Mr. KENT:

Q. I understood you to say in answer to a question that you said to Lieutenant Garlington that you thought you were up there too early.—A. Yes, sir.

Q. When did you so state that?—A. Before we went into Payer Harbor.

Q. You had a conversation before you went into Payer Harbor?—A. Yes, sir.

Q. When did you state that you were as anxious to get north as he was?—A. That was in the cabin before we left Payer Harbor.

That was in Payer Harbor?—A. Yes, sir.

Q. Do I understand you to say that your objection to leaving at that time was that you wanted to fill your bunkers, and some other things you wanted?—A. Yes, sir; wanted to fill the bunkers and get fresh water. I said I was not ready to go.

Q. You did not object, then, because you did not wish to proceed?—A. I did not. I did not object to going at all.

By the RECORDER:

Q. You remarked you didn't think the water was good?—A. Yes, sir.

By Mr. KENT:

Q. When did you make the remark about the water not being good?—A. Before we went in, and I remarked it again to Lieutenant Garlington that I did not think there could be a great deal of water there, after Lieutenant Garlington came on board.

Q. Do you remember who was present when you had the conversation with Lieutenant Garlington before entering Payer Harbor?—A. Lieutenant Colwell and Dr. Harrison.

By the RECORDER :

Q. Was Lieutenant Garlington in the habit of asking your advice as to going into the ice?—A. No, sir.

By Mr. KENT :

Q. Captain, you were the officer responsible for the navigation of the ship as her master?—A. Yes, sir; I believe I was.

Q. Did Lieutenant Garlington ever interfere with you in the discharge of your duties at all?—A. No, sir.

Q. He had never made any suggestions to you?—A. That was the only suggestion; he saw the open water and wanted to go.

Q. He had never interfered with you in passing through Melville Bay?—A. No, sir.

By the RECORDER :

Q. I also understand he did not ask your advice; did not say, "Captain, do you think we can go into the ice safely?"—nothing of that kind at all?—A. No, sir.

Q. Simply expressed his wish to go into it?—A. He saw the open water and he wanted to go.

By Mr. KENT :

Q. How was that request made by Lieutenant Garlington? Do you know the language he used in regard to it?—A. I said, "I am not ready to go; I want to fill up the bunkers; I want to get fresh water;" and he says to me, "I can see open water; I want to go. You can have my men's help in filling your bunkers."

Q. Didn't he say that he at least wanted to try to get through?—A. That is the remark he made: "I see open water and I want to go."

Q. If you had gone out there and found no open water, would there have been any difficulty in getting back at that time; would there have been danger or peril if you had found no open water?—A. If we saw no open water we would not have been in the ice at all.

By the RECORDER :

Q. You were not able to get back?—A. We were trying to get back when we lost the ship.

Q. That was the next evening?—A. Yes, sir; the next evening.

Q. How far had you gotten from Payer Harbor when you lost the ship?—A. I suppose about 10 or 15 miles from Cape Sabine when we lost the ship, but we had been further north. We had been nearly in the line of Cape Albert.

Q. Did you bring the ship's log with you?—A. No, sir; but I had my own diary. The ship's log was pretty much melted; could not keep it dry.

Q. Will you leave this diary with me until to-morrow?—A. Yes, sir.

Q. These entries were all made at the time?—A. From day to day as we came along, sir.

Lient. JOHN C. COLWELL recalled and examined.

By Mr. KENT :

Q. You have heard the conversation repeated by Captain Pike as

having occurred between himself and Lieutenant Garlington in your presence on board the steamer Proteus at Payer Harbor. Will you please give to the court your recollection of what occurred at that time, and exactly what was said by either of the gentlemen?—A. I was in the cabin when Lieutenant Garlington came off from shore and Captain Pike was in his room asleep. Lieutenant Garlington knocked on his door and Captain Pike put his head out and wanted to know what was wanted. Lieutenant Garlington said “I have seen open leads of water, clear along the coast as far as I can see,” and said, “I would like you to get the ship under way and try it.” Captain Pike said “I would like to lay here awhile and fill my bunkers and get some fresh water.” Lieutenant Garlington said, “You can have my men to help coal ship.” The Captain said, “I am as anxious to get north as you are; we can go out and have a try at it.” He went on deck and got the ship under way about 8 o'clock and she passed out of the harbor. I went in the crow's-nest as she was passing out and remained there until she was stopped that night about half-past 10 o'clock or 11 o'clock.

Q. Did you hear Captain Pike at that time say anything to Lieutenant Garlington about not going because the water was no good water in his opinion, or anything to that effect? Was that his reason for not going?—A. No. The only reason for not going was that he was not ready to go, that he wanted to fill his bunkers, and he said something about water. That is my impression; he wanted to fill up; that was his objection, and the coal.

Q. Did you hear him say anything to Lieutenant Garlington that they were too early, that by waiting later it might be better?—A. I did not.

By the COURT :

Q. He might have said that without you having heard it?—A. He might have said that some other time; I never heard him make any such remark.

By Mr. KENT :

Q. Did you ever hear him make any such remark at any time on that vessel?—A. Never.

Q. You heard Captain Pike testify in reference to his application to Lieutenant Garlington, requesting Lieutenant Garlington to send one of his boats to get some stores that were on the ice-floe. Do you remember what occurred in respect to that request, and state what occurred, what the facts were, and why it was not done?—A. I was there when Captain Pike said his men would like to have our whale-boat to go for some of the things on the ice. I told Lieutenant Garlington not to let them have it.

Q. What was your reason for that?—A. I had just gotten back with my boat, which was the last one that had been out. Captain Pike was on that floe with a party of his men. When one of his boats got within about two hundred yards of the vessel Captain Pike left the party I was with working, shifting stores, and clambered over the intervening ice, got into that boat with his son and I think one other man, and shoved off, and I saw them pull for shore, leaving some of the crew of his boat on the ice. Those men stood on the ice cursing him for deserting them. They all seemed very much demoralized. They did a good deal of talking about remaining on the ice, and not trying to go to the shore, and several of

them suggesting, as they had my whale-boat, they would keep that boat and keep on down the west coast. It was probably half an hour before I could get those men to work with me. I called them together, and told them I would take them on shore, would unload the boat partly and then would take them all on shore. They finally decided to do it, to go with me, and I partly unloaded my boat and took those eighteen men all told and got on shore, but from the time I heard this, their talk of not keeping with the party, not trying to find the Yantic, but to take one of our boats and what stores they could gather and keep on down the west side, I did not think it advisable to let a boat go off with a party of the Proteus crew. For that reason I advised Lieutenant Garlington not to let our boats go. The captain said he would let two of his boats go back—that is, for those stores that I had thrown out of my boat, and what other things that were on the ice. A number of our men went along. I think there were six, and as many of the Proteus crew, making a mixed crew. They loaded those two boats up and came back. At the same time I heard threats from the men against Captain Pike.

By the COURT:

Q. What men?—A. Those men that were left on the ice by him. When they got on shore I heard one of them state he would never get back to St. John's. That those men he left on the ice will never let him go back there. Knowing that mutinous spirit, I did not think it advisable to let any of the crew have any of our boats, as our own safety depended on them.

By MR. KENT:

Q. Can you state what provisions were finally left on the floe, how many or can you approximate it?—A. There were two barrels of assorted canned goods which were packed to be left on the way up. There was a quantity of scattered tin goods, no whole packages, some scattered clothing, a few blankets and some buffalo overcoats and some lumber. A great deal of this stuff was brought away, principally the clothing, by the two boats that went back with the mixed crew, but exactly what they left on the ice I do not know. What was left on the ice was what I threw out of my own boat to land the men, because I could not find room for them, loaded as my boat was. Also a dingy loaded full, which I intended to tow in, and a sledge load which I had hauled across the ice to load my boat. The greater part of them was brought away by the two boats of the Proteus with the mixed crews. There were also some instruments left on the ice.

Q. You have made a study, I suppose, of the history of navigation in Smith Sound. Can you state succinctly what expeditions have entered Smith Sound, and how many passed north of Cape Sabine?—A. Dr. Kane's expedition was the first one, and got as far as Rensselaer Bay and laid there two years and was abandoned. Dr. Hayes got as far as Foulke Fiord with a schooner, wintered there, and returned next year; and during the next spring he sledged to Smith Sound, crossed over and sledged as far as Lady Franklin Bay. Captain Nares' expedition—two ships—steamed to Smith Sound, but before Captain Nares' was the Polaris expedition. It steamed up Smith Sound up to the head of Robeson Channel, wintered opposite to Lady Franklin Bay, was drifted south during the next year, and was finally abandoned at Life Boat Cove, back of Littleton Island. Captain Nares' expedition steamed up Smith Sound, two ships,

one wintering in Discovery Harbor; the other kept on up Robeson Channel, wintered near Cape Joseph Henry, and both ships succeeded in getting out next year and returned to England. Those are the only expeditions that have been up Smith Sound.

By the COURT:

Q. And the Proteus?—A. The Proteus, of course, on the first expedition with Lieutenant Greely, in 1881.

By the RECORDER:

Q. Captain Inglefield got as far as Cape Alexander?—A. He did not go further with the ship than Cape Alexander.

By the COURT:

Q. Which of these ships, or how many, succeeded in getting out?—A. Captain Nares' two ships went up and came back. The Polaris got back as far as Littleton Island, was abandoned there, destroyed there, and the Proteus went up with Lieutenant Greely and returned safely.

Q. The Kane ship?—A. It was abandoned at Rensselaer Harbor.

By the RECORDER:

Q. Did you mention the Neptune?—A. The Neptune, I should have said; she did get into the entrance of Smith Sound, or what is marked Smith Sound. It is marked on some of the British admiralty charts as Smith Channel, and the wider space above as Smith Sound. The Neptune got just above Cape Sabine.

By MR. KENT:

Q. Can you recall how long it took Sir George Nares to pass from Cape Sabine to Discovery Harbor?—A. It was either twenty-three or twenty-five days.

Q. How long did it take him to get out when he started?—A. About the same.

Q. You had frequent conversations with Captain Pike yourself, did you not, just before you went into Payer Harbor?—A. I do not remember anything in particular; when we were at dinner—when we got alongside the solid ice—there may have been something said. I remember nothing in particular.

Q. In the general conversation you had with him at or about that time, how did he impress you as to his opinion as to getting to Discovery Harbor; how did he speak about it?—A. When we were at Littleton Island and on the morning of the day we got to Payer Harbor, there was no ice in sight from the mast-head. Captain Pike was evidently in very good spirits, and spoke of having Lieutenant Greely the next day; said we would have him back here in a few days. I don't remember what else he said on the subject.

By the COURT:

Q. That was at Littleton Island?—A. Yes, sir.

Q. Could you then see Cape Sabine?—A. Yes, sir; no ice in sight.

Q. What headlands could you see from Littleton Island from the mast-head?—A. Could see Cape Isabella, Cape Sabine, Cape Alexander, Bache Island, which includes Cape Albert and Victoria Headland, and Cape Hawkes, and land beyond Cape Hawkes.

Q. There was no ice in sight?—A. No ice in sight from the mast-head at 9 o'clock in the morning.

Q. Of course you could not see ice as far north as Cape Hawkes?—A. No, sir; we sighted ice a little after 11 o'clock.

Q. What would be the horizon from the elevation of the masthead, what distance?—A. We could see a dark body a very great distance, but ice cannot be seen very far.

Q. What would be the horizon for that elevation, about what distance?—A. I cannot say exactly.

Q. That would be the surface of the water at the furthest point which you could see?—A. Yes, sir.

Q. At St. John's or whilst you were on board the Proteus did you take notes and make any inventory of the equipment, take notes of the equipment of the Proteus?—A. While on board of her I took a description of the vessel and also my opinion of her equipment, a detailed description of the vessel and the boats.

Q. You have that, have you?—A. I have.

Q. And if desired you can produce it?—A. I can read what I have there; but it is in my private note-book; and I could not submit my note-book.

By the COURT:

Q. You have already testified to those facts, have you not?—A. Yes, sir; but I presume it refers to my detailed notes.

Q. Your general testimony corresponds with the notes?—A. Taken at the time.

By the RECORDER:

Q. That was before going up?—A. That was on the way up.

Q. What was cached in the way of provisions at Cape Sabine, or near there?—A. The first boat-load. Do you mean in the vessel by us?

The RECORDER. Yes.

A. The first boat-load that went in I took in myself. It was a whale-boat, as full as she could stand with provisions.

Q. What were they?—A. There were two large tarpaulin bags and three barrels of bread, a large quantity of sides of bacon, and assorted canned stores, probably three or four hundred pounds. Among these was a canister of tea, a tin can of matches, a can of five pounds of gun-powder, and a few scattered articles of clothing, some blouses and things thrown into the boat before the provisions were placed in, and the two tent flies, with which I covered the whole and weighted it down with stones. At Cape Sabine our party left no provisions, as we needed all we had for ourselves, but we did leave a large quantity of clothing, including that which was gotten from the crew of the Proteus by Lieutenant Garlington. It consisted of flannel blouses, uniform trousers, flannel shirts, woolen socks, mits and gloves, arctic overshoes, fur caps, woolen blankets, all covered with rubber blankets and weighted down with stones. The Proteus people left some provisions they were not able to carry in their boats; just what, I do not know, but among them were two or three barrels evidently of beef or pork—something of that sort. The first boat-load was cached about three or four miles west of Cape Sabine, and a general de-

scription of the cove in which they were cached was left in the record at Cape Sabine.

Q. On Brevoort Island?—A. On Brevoort Island; that was where we left our record.

Q. Do you know where the mails for Lieutenant Greely were, what part of the ship?—A. No, sir; I do not; one of them floated up out of the main hatch as the ship went down, and went floating down the stream. It was a cylindrical tin can, and I was told it was mail.

Q. None were saved to your knowledge?—A. No, sir; that can was beyond reach; we could not get it.

Q. How many rations do you estimate were left at Cape Sabine by your party?—A. I think the first boat I carried in had at least seven hundred rations in it, full rations, and the clothing we left.

Q. I refer particularly to the subsistence stores?—A. What the Proteus left I do not know exactly. I saw generally what were left when they found they could not get them in their boats.

Q. State how much clothing?—A. I think the clothing was sufficient for twenty-three men for at least six months, fitting them all out well.

By Mr. KENT:

Q. Captain Pike testified that after the loss of the Proteus, when you had crossed over in your boat from Cape Sabine to Pandora Harbor, that a conference was had between himself and Lieutenant Garlington and yourself respecting the proper course of action after that time; and that he advised that you should wait a few days at Littleton Island or Pandora Harbor. Have you any recollection of any such conference as that?—A. None at all; there was none.

Q. You had determined at Cape Sabine the course you would pursue?—A. Yes, sir.

No other witness being present, at 1 o'clock and 15 minutes the room was closed for consultation, and at 3 o'clock the court adjourned until 11 o'clock a. m. to-morrow.

WASHINGTON, D. C.,
Friday, December 28, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of proceedings of the previous day was read, amended, and approved, Captain Pike and Lieutenant Colwell being present at the reading of their testimony.

Whereupon,

Capt. RICHARD PIKE was recalled, and his examination continued as follows:

By the RECORDER:

Q. Have you any additions to make to your testimony?—A. No, sir.

Q. Or have you anything further to say to the court?—A. There is one thing that Lieutenant Colwell and myself talked over the night the ship was lost. He said the first thing in the morning that we ought to do was to get the big whaleboat out and look for the Yantic. We would get all the stores we could and go over to Littleton Island; fill one boat and go right away and hunt for the Yantic at once. That was on the floe.

And the first boat load of provisions was brought by the mixed crew, half my men and half the men from the expedition, and I think the second was a mixed crew the same way.

Q. Do you remember anything about those men being left on the floe by yourself?—A. I recollect some men on there. I do not know how many were left.

Q. How did that happen?—A. Well, there were boats there and the men were going back and forth on each boat.

By the COURT:

Q. Did you think the idea of Lieutenant Colwell a good one, to take the boat and look for the Yantic?—A. Yes, sir; I thought so.

Q. Why didn't he do it?—A. I do not know. That was what was proposed on the floe, on that night.

By the RECORDER:

Q. Did you hear these men that were left on the floe make any complaint of having been left there?—A. None whatever. I heard none of it; not a word.

By General HAZEN:

Q. The impression made by Lieutenant Colwell's testimony is that your going on shore with your son, and leaving a number of men on the ice floe, showed an intention on your part to abandon the men and leave them there. I would like to hear a little further explanation.—A. That was not my intention. In the boat we went ashore in, I had the chronometer and nautical instruments and other things, and there was I think five men in the boat going ashore.

Q. It was your intention to look after the crew, and not to leave them, then?—A. I expected to go through. We didn't know at that time that the boats would not go back and forth several times.

Q. A witness has testified before this court that the crew of the Proteus was made up of beachcombers, longshoremen, and not sailors. I wish you would state explicitly the character of those men.—A. Those men I suppose for years has been going sealing, all but one I think, that was the assistant steward. He was never sealing, I do not think.

Q. Then that description does not apply to those men?—A. No, sir, it is not true.

The RECORDER. I offer in evidence a certified statement from the Signal Office of Lieutenant Greely's command, and ask that it be printed in the appendix.

No other witness being present, the court (at 12.30 p. m.) then adjourned until 11 a. m. to-morrow.

WASHINGTON, D. C.,
MONDAY, *December 31*, 1883—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of proceedings of the previous meeting was read, amended, and approved.

The doors were then closed for deliberation, and (at 3 o'clock) the court adjourned until 11 o'clock a. m. January 2, 1884.

WASHINGTON, D. C.,

Wednesday, January 2, 1884, 11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder. The record of the proceedings of the previous meeting was read and approved. The doors were then closed and the court was engaged in deliberation until 3 o'clock, when it adjourned until to-morrow at 11 a. m.

WASHINGTON, D. C.,

Thursday, January 3, 1884, 11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder.

General HAZEN, being present in court, then made the following statement :

I will state that I have already stated to the court my reasons for sending Sergeant Wall to Newfoundland, to superintend the loading of the stores, and requiring Mr. Garlington to go upon the Yantic with his men to take charge of them, and to see that they did not desert, as there was a great disposition to do that. Afterwards a sergeant was brought upon the stand, and testified that there was no such disposition of the men to desert. I wish to state, to confirm my first testimony, that every man brought from the Northwest, both in 1882 and 1883, for the purpose of going to Lady Franklin Bay, excepting two, who were discharged by order, have deserted, including the sergeant who was brought upon the stand to testify. I want to add further that I gave the most explicit orders to Lieutenant Garlington that I thought were necessary in the letter which is before the court, signed by Captain Powell, to see with his own eyes that everything went on the ship in New York. That was my letter, dictated to Captain Powell, as I had to leave at that moment. I intended that should cover also his action at Newfoundland in loading the Proteus, but the absolute necessity of sending him with his men prevented that. I supposed, of course, he would have time afterwards before arriving at Lady Franklin Bay to look over and see where everything was, if there should be any mistake.

By the RECORDER :

Q. You speak of the desertion of the men ; I suppose you mean after the return of the expedition?—A. Yes, sir ; I only mentioned it to show that the disposition was manifested ; that they were deserting then, and they have since nearly all deserted.

Q. Do I understand you that Sergeant Kenney, who was here and testified, has since deserted ? I understood him to say when he testified that he was on the police force.—A. I may be mistaken about that ; he may not have deserted, but all the men excepting two have deserted ; he may be one of the two.

Q. I think he must have been honorably discharged.—A. Yes ; it may be.

By the COURT

Q. You said three had deserted before they started?—A. Two had deserted just before they started.

By Mr. KENT:

Q. General, do you remember at what time it was in the morning on the 4th of June that you arrived at your office?—A. It was at 8 o'clock in the morning. It was an hour earlier than usual. I traveled all night to get here, to get that work under way early, and sent forward a telegraphic order for the office to open an hour earlier. I was there all of that morning.

By the RECORDER:

Q. In reference to the time when the naval tender was applied for: the letter is dated May 14, I think, and the Secretary of the Navy testified that it had been intimated to you that the Navy could furnish a war ship, but not an ice-boat.—A. Yes, sir.

Q. Do you remember from whom you received that intimation?—A. Probably from Commodore Walker, but I could not state.

Q. What was the very first time, as well as you remember, that this matter was spoken of between the officers of the War Department and of the Navy Department?—A. I should think about the time the letter was written—perhaps a few days before. It was a matter of my own application and my own initiation.

Q. You stated that it was about the time or some few days before you wrote the letter?—A. Yes, sir. I made application to the Secretary of the Navy or Commodore Walker before the letter was written.

Q. With reference to the making of the appropriation for the expedition, are you able to state why an earlier application was not made for naval assistance?—A. I know of no reason, only that it had not been part of the plan before to call upon the Navy for assistance in this work, and by that time the necessity seemed so great that I was led to do it.

Q. I will state my purpose in asking the question, so that you can answer further if you desire. It seems that it might have been possible to have made better preparation, to have had the ship in better condition to contend with the ice, but the necessity was not apparent, you say, until that time?—A. It did not force itself fully upon me up to that time to induce me to apply to them for aid in this matter, as it had not been the plan of the work to call for this aid.

MR. LINDEN KENT, counsel for Lieutenant Garlington, then addressed the court, as follows:

ARGUMENT OF MR. KENT.

May it please the court:

In availing myself of the privilege granted of appearing in behalf of Lieutenant Garlington, I shall endeavor to confine myself very closely to the consideration only of such matters as relate to his conduct.

Now, in order to ascertain what part of the investigation is directly applicable to him, I may refer at once to the order of the Secretary of War convening this court of inquiry. The duties and powers with which it is charged are:

First. To investigate the organization and outfit of the Greely relief expedition, transported by the steamer Proteus, having particular reference to the orders and instructions issued for the guidance and government of the same.

Second. To make a thorough investigation of the general conduct of the expedition, including particularly (1) the failure of the Proteus to keep in company with the Yantic up to Littleton Island, or some point near there, and (2) the failure to establish a well-supplied depot of supplies at or near Littleton Island.

With reference to the investigation under the first branch of this order Lieutenant Garlington has little concern. Whatever responsibility he may have desired to assume, touching at least the loading of the ship, his request made for this purpose, for reasons assigned, was refused, and he stands acquitted of all manner of responsibility attaching to it.

The orders issued for the guidance and government of the expedition necessarily control and determine the propriety of his action as the officer in charge of the same. But inasmuch as it is now conceded that the unsigned memorandum, inaccurately designated as "Inclosure 4," or "supplementary instructions," in point of fact formed no part of his orders, I shall assume that he stands relieved of the many unjust criticisms on his conduct, made upon the assumption that the "supplementary instructions" did constitute a part thereof. I shall therefore direct your attention to the second branch of the inquiry:

The general conduct of the expedition.—Lieutenant Garlington recognizes the fact that the inquiry into the conduct of the expedition applies directly, of course, to his conduct. After the departure of the ship on its northward course from Newfoundland, on the 29th of June, his important duties and functions began, and subject to the organization and outfit of the expedition, and the orders and instructions issued, and received by him for its guidance and control, he stands before this court properly charged with the whole responsibility of the conduct thereof, although it had the misfortune to result in failure.

In discussing the matters which relate to his conduct I shall endeavor to be brief. In considering so much of the investigation as has any relation to the conduct of Garlington, I have made the following classification:

First. The failure of Lieutenant Garlington to establish a well-provided station of supplies at or near Littleton Island, on the northward course of the Proteus.

Second. The failure of the Proteus to keep in company with the Yantic up to, or near Littleton Island.

Third. The propriety of Lieutenant Garlington's conduct in coming directly south from Littleton Island after the loss of the Proteus, instead of awaiting the arrival of the Yantic.

I think that these may be considered, in the light of the testimony given, the only matters with which Garlington is concerned in the investigation being made.

First, the failure of Lieutenant Garlington to establish a well-provided station at or near Littleton Island on the northward course of the Proteus:

The letter of the Secretary of War of October 31, 1883, addressed to General Hazen, Chief Signal Officer, in reply to General Hazen's letter of the 16th of October, transmitting the report of Lieutenant Garlington as the officer in charge of the conduct of the expedition, having reference to paper marked as "Inclosure 4," and noted as such in the copy furnished of Lieutenant Garlington's instructions, says: "These latter papers were of course supposed by the Secretary of the Navy and myself to be, as stated,

an authentic copy of your instructions to Lieutenant Garlington, and we in our conferences formed an opinion as to his having disobeyed an order which it now appears he did not, in fact, receive as an order."

General Hazen, in his letter of the 16th of October, says :

The strictures upon Lieutenant Garlington, so far as they refer to the question of disobedience, have been unwarranted.

If upon this subject the letter of General Hazen had stopped, after making this concession to Lieutenant Garlington, I venture to say that in view of what the testimony has developed nothing more than simple justice would have been done him. He would doubtless also have escaped the strictures that were made upon him by the Secretary of War, and the public press, properly, I will admit, in the light of the qualifications made in the letter of General Hazen respecting the authority attaching to "Inclosure 4." Notwithstanding the concession thus made to Lieutenant Garlington that he had not disobeyed orders, yet such were the qualifications with which it was made, and so manifest the injustice done him thereby, that he himself, in his letter of the 20th of October to General Hazen, requests that a court of inquiry may be ordered upon his conduct; which, however, not upon his request, and embracing an investigation of other matters not relating to his conduct, was, on the 31st of October, ordered by the Secretary of War.

Now, may it please the court, returning to General Hazen's letter, and begging you to bear in mind that when it was written the true import and history of "Inclosure 4" was a sealed book, unknown to the Secretary of War and every one else outside of the Signal Office (as it perhaps is still), and the most that had been known about it was, that on the 14th of September it had been published by authority of the Signal Office as a part of Garlington's instructions, we find General Hazen using the following language with respect to it, noting first that it was, in conflict with Greely's letter of request, "that no deviation from these instructions should be permitted," &c.

This made it a matter of greatest delicacy to give any directions that in any manner might change the programme there marked out—

Having reference to the programme prearranged between Lieutenant Greely and himself.

The letter continues :

Just before starting Lieutenant Garlington brought a copy of a memorandum that had been prepared for the Secretary of the Navy to aid him in preparing instructions to the convoy, which contained the original condition of first landing at Littleton Island, explaining that it would conflict with the plans of Lieutenant Greely, so far as it should consume the time of the expedition, and in case he should find clear weather and open water beyond, with a fair prospect of getting straight through, while by stopping he might lose the opportunity if he should not at once proceed.

Now, this memorandum was the subject of the conversation between General Hazen and Lieutenant Garlington, and General Hazen directly in that connection, and having reference to what was being said between Garlington and himself respecting the authority to be attached to this paper said :

I replied that the authority and discretion which must always rest with the commander on the spot, must in such case be his guide.

The great delicacy in imposing positive instructions in cases like this seemed to make the simple suggestion in that paper sufficient.

I submit that but one construction can be placed upon this letter, and that is, that though "Inclosure 4" was not given as an order, it was given as calling attention to a matter so manifestly proper to be done that it was not necessary to make it the subject of an order, the mere suggestion being sufficient.

The conclusion to be drawn from that letter is, that it had even greater force than an order; that it was one of those things that in such an expedition addresses itself to the discretion and wisdom of the officer so forcibly that the simple suggestion was sufficient. The conclusion, from the language of this letter, by one having only such information respecting the subject-matter thereof as is therein contained, is irresistible, that this memorandum was purposely and designedly given to Garlington as an authority to be exercised under the discretion with which he was then and there clothed directly with respect to it.

It is manifest that the Secretary of War so construed it, for he says in reference to this very language, in reply to General Hazen's letter:

It is now clear that it was never an order to Lieutenant Garlington, but it is equally clear that, having seen it and having under your orders a discretion, he could not have have done more wisely than to follow the particular suggestion contained in it above mentioned.

And again:

If Lieutenant Garlington had prudently made a base of supplies at or near Littleton Island it would have been a matter of little consequence to him or his party whether the Proteus went to St. John's, or, without loss of life, to the bottom of the ocean.

Assuming that he had authority to do so.

Now we come to consider what discretion Lieutenant Garlington had under his *unquestioned, positive written instructions*, and whether or not that discretion, whatever it was, embraced the authority to make a depot of supplies at or near Littleton Island on the way north.

If he had such discretion he is justly subjected to any proper criticism for his error of judgment in failing to exercise it wisely. If he did not have it, then he ought to stand acquitted at once of all responsibility for such failure.

To ascertain what discretion Garlington had under his instructions brings us directly to the consideration of the testimony of the witnesses speaking of the circumstances and conditions cotemporaneous with the preparation of the instructions, and some consideration in that connection of "Inclosure 4."

As the basis of what I may say on this branch it may be well to fix some standard to determine where discretion ends and disobedience of orders begins. Before this court, it is with distrust that I undertake to say anything upon this subject, but the propositions which I submit as controlling in a matter of this kind are in themselves so fundamental, that I submit them with confidence to the court.

The classification made in respect to orders, for the purposes of my argument, is the following:

First. A general order to a subordinate authorizing and directing the performance of a duty, without anticipating by the superior officer, the conditions which may exist when the time and place are present for its performance, but leaving the manner thereof entirely to the discretion of the officer charged with the duty.

Second. Orders in the nature of specific instructions contemplating on the part of the superior a certain given state of facts at the time and place when and where the duty is to be discharged, and predicating the manner of its execution upon the existence of such facts.

If the facts contemplated are found to exist when the duty is to be performed, then any departure from the instructions given in reference to such a state of facts is disobedience of orders. If, however, the conditions are different from those contemplated as the basis of instructions, the subordinate, with a proper regard for the spirit of the instructions, must exercise his discretion under the unanticipated conditions he finds at the time.

Now, considering the instructions of Lieutenant Garlington under that classification (in view of the familiarity of the court with the instructions and the facts concerning them), I think no argument need be made to show that Lieutenant Garlington's instructions in respect certainly to the matter of leaving stores at Littleton Island, were specific instructions, and that they contemplated conditions that were never so changed as to authorize him under his discretion to make the deposit on the northward course, in direct conflict with his written instructions.

The well-defined written instructions of the 4th of June, 1883, are specific and clear on this point. Moreover, emphasis is given to them from the fact that Greely's letter of the 17th of August, 1881, is made an exhibit therewith.

Then, what first introduced the element of discretion on this point which has created all the confusion, doubt, and trouble in this matter? I submit it was "Inclosure 4." It is the poison which has been infused into all the branches of this investigation. In respect to "Inclosure 4," Lieutenant Garlington says, on page 6 of the record:

Q. I wish you would state the history of the inclosure described as No. 4 and as instructions for the Yantic and Proteus.—A. Between the 15th and 20th of May, 1883, I was in the office of the executive officer of the Signal Office, Lieutenant Caziarc, and he showed me the rough notes of a paper which he was preparing to be furnished the Navy Department as a basis of the instructions which the Signal Office was going to ask to have given the naval vessel which I was informed was to accompany me. In this conversation I learned that General Hazen, previous to his departure for St. John's, Newfoundland, which had occurred some days previously, had asked the Navy Department to detail a suitable vessel to go with us as a tender; but no one in the Signal Office knew that such a request had been made, nor was there any copy of the letter on file that he had sent to the Navy Department. A few days afterwards I learned from Lieutenant Caziarc that this paper had been submitted to Captain Powell, who was then Acting Chief Signal Officer, and that that officer had declined to take any steps in the matter until the return of General Hazen. I remember nothing more of the memorandum until the 5th of June, I think. General Hazen in the mean time had returned from St. John's and I was furnished with my instructions. I was in the office of Lieutenant Caziarc when I got the instructions. I opened them and found in the same envelope with the instructions this memorandum. It was not addressed, not numbered as an inclosure, and bore no official marks whatever except in the lower left-hand corner the initials (O. C. S. O.) of the office of the Chief Signal Officer, June 5, 1883. I had never seen it before, except in the rough notes; I went into General Hazen's office and told him that I had received my instructions, and among them I had found this paper, and called his attention especially to that clause relating to the landing of all my stores at Littleton Island on my way north, and also calling his attention to the fact that it conflicted with my instructions; he said that he did not know how that paper got in there, and I think I remarked that I knew how it got in; that it had been prepared by Lieutenant Caziarc, and perhaps he had probably put it in; after he made the remark that he did not know how the paper got in among my other papers I of course thought that he had not even approved this memorandum, and that it was nothing more than a piece of paper that had accidentally got in among my instructions. We then had some conversation about the expedition, in the course of which he told me that he had the

utmost confidence in me, and that while I should make the attempt to follow as nearly as possible the plan laid down in the letter of Lieutenant Greeley, which had been written from Fort Conger, that I must be governed to a great extent by my own judgment on the spot. I do not think there was anything more of any importance in that conversation.

By the COURT:

Q. Did General Hazen state that the memorandum got in there accidentally or that he did not know how it got there?—A. His words were, "I don't know how that got in there."

Q. Did he made any effort to withdraw it?—A. No, sir. After that I paid no more attention to the memorandum at all and never regarded it as an instruction or suggestion in any light, nor did he in that conversation allude to it in any way as a suggestion or that I was to act upon it as a suggestion.

General Hazen stated in his testimony that those instructions were no part of Garlington's orders.

On page 25 of the record, Lieutenant Garlington says:

Q. When did you first hear, then, of the paper described as the supplemental instructions?—A. I saw it while it was being written by Lieutenant Caziarc.

Q. How long subsequent to the time when you saw the original instructions?—A. It was about the middle of May, after General Hazen had gone to St. John's; I do not remember the exact date; I think it was somewhere between the 15th and 20th of May; probably a little later.

Q. Then you heard no more of those supplementary instructions until you saw them in your envelope?—A. No, sir; nothing at all.

Now, may it please the court, I desire to call attention to the fact that the testimony of Lieutenant Garlington was the first given in this case. That he could not have been in any way biased by the testimony subsequently given on this same point, but it must have been the result of his own unaided recollection, relying entirely upon his own memory for the statement he made, unrefreshed by the history given by subsequent witnesses of the same occurrences. His impression was that Lieutenant Caziarc was drawing up this paper of his own accord to have the paper in readiness if called for.

The next testimony is that of Captain Powell, who was Acting Chief Signal Officer at that time, and I will not trouble the court with more than a general reference to it. He fixes the preparation of this paper at the identical time that Lieutenant Garlington had done. Garlington says it was between the 15th and 20th of May, probably a little later. Captain Powell testifies that on or about the 20th of May he had a conversation with the Secretary of the Navy, in which the Secretary of the Navy desired some memorandum or paper as a basis of instructions to be furnished the tender that was to accompany the Proteus. Moreover at that conversation he testifies, as does also the Secretary of the Navy, that the question was asked whether the Signal Office wanted the Yantic to carry more than her own supply of stores, whether she was to be used as a supply ship, in any sense, and how far north she was expected to go. Now, to fix exactly the time when this occurred: Powell fixes it by reference to his conversation with the Secretary of the Navy. He says that he immediately telegraphed to General Hazen on the subject, and fixes the date by the date of his telegram to General Hazen at St. John's. On page 75 Lieutenant Caziarc testifies as follows:

I find that two telegrams were received on the 21st of May in the order in which I will read them; in answer to a message of the 20th of May, sent by Captain Powell to General Hazen, in which he informed him in substance that "the Secretary of the Navy will send a tender as you requested," he asked the question, "When will she be needed at St.

John's, and what will be the northern limit of the voyage?" and asked him to outline the instructions. To which General Hazen replied in a telegram received at 1.33 p. m., May 21, dated 21st, Halifax:

"Tender to go to southern limits of pack-ice; to leave St. John's about July 1."

The other, received at 1.54 p. m. same day, dated 21st, Halifax:

"Will be back about June 2. Hold all instructions till I come. Tender to be at St. John's, say, June 25."

Referring now to the Record, page 115, Secretary Chandler's testimony, he says that prior to the 4th of June—

Commodore Walker, I think, informed me that Captain Powell had called upon him with reference to the instructions, and I told Commodore Walker that I wished to see Captain Powell in person, and the latter came to my office; I had an interview with him, the substance of which was this: I said to him that in joint expeditions of this kind differences frequently arose as to the measure of responsibility, and that as the naval vessel was to assist in an expedition that belonged to the War Department I desired that a request for the specific instructions to be given the commanding officer of the naval vessel should be furnished by him to the Navy Department. I remember also asking him whether he desired that the naval vessel should carry anything in the way of extra provisions or outfit for parties who might travel upon the ice, or for Lieutenant Garlington's party in case anything should happen to the Proteus, and he said no, he thought not.

His recollection on that subject corresponds with that of Captain Powell:

He may have said that he would consider that question and give a further reply. But I understood at that time that the Yantic would not be expected to take anything in the way of outfit or stores beyond enough for her own purposes, but that the Proteus would carry everything.

Now, you have by the subject-matter of the telegrams fixed the 20th of May as the day upon which Captain Powell says he asked for the very information from Lieutenant Caziarc that was desired by the Secretary of the Navy, which was subsequently embodied in "Inclosure 4." On the 21st he hears from General Hazen, and General Hazen tells him to withhold all instructions, "I will be home the 2d of June." Captain Powell's testimony further is that immediately upon receipt of that, he called upon the Secretary of the Navy and informed him of the contents of General Hazen's telegram, as he naturally would do, and then the Secretary of the Navy informed him that there would be time to get up the instructions after General Hazen's return. General Hazen himself in regard to these papers, in harmony with the recollection of Captain Powell (see page 25), says:

Immediately after my return from St. John's, where I had been to employ the Proteus, I was informed that the Navy Department had asked for a plan of what we wished done in the Arctic seas. I do not think I saw that memorandum. I do not remember of seeing it at that time, but I was told what it contained; that it contained a condition to land the stores on going up. I immediately went to the Navy Department and had an interview with either the Secretary of the Navy, or Commodore Walker, or whoever was in charge at that time, and told him personally what I wanted. It was this: That the tender or escort proceed northward with the Proteus as far as Littleton Island and do such things as were usual for an escort to do or intended to be done on such occasions, and such things as the developments and the facts found upon the spot might seem necessary to be agreed upon. I also carried or sent in place of the memorandum the orders prepared for Mr. Garlington on that trip. I also sent with it the letter which Lieutenant Greely had sent back after having arrived at Lady Franklin Bay, on which Mr. Garlington's order was founded. I thought they were better adapted or suited to the expedition, and they took the place of that memorandum, as I understood. A day or two after, perhaps the next day, Mr. Garlington brought me his packet of orders, and in that packet was this same memorandum. He expressed some surprise at finding it there and asked me how it got there. I told him that I did not know. I told him that it was no part of his orders, and then I gave him the history of the paper as I have given it here.

What is General Hazen's history of the paper? He stated that when the preparation of instructions was first considered, and before the act of Congress providing that the appropriation then made should be used for bringing the party back in the summer of 1883, that he had considered the propriety of establishing (notwithstanding Lieutenant Greely's letter of request) a depot of supplies at or near Littleton Island. It had been a matter that had been fully considered by him, and he had reached a conclusion in respect to it. When the Secretary of the Navy in compliance with the request of the Secretary of War, made at General Hazen's instance, consented to furnish the ship *Yantic* as a tender, he said he thought then that this would so change the conditions that there was no absolute necessity for departing from the strict request and directions of Lieutenant Greely. Now I gather further from General Hazen's testimony, that he intended to impress, and doubtless did impress, upon Lieutenant Garlington that the written instructions were positive and emphatic, and at the same time to what extent he was to exercise discretion in their execution.

I told him also that when on the spot he must exercise in all matters that discretion which every distant commander must exercise, which reposes in him by virtue of his office. I told him that he had my full confidence, and I expected him to exercise his discretion in matters as they would develop themselves on the spot. Mr. Garlington had been selected for known high qualities, and the Greely letter was of that nature and character, written as it was after he had arrived there, knowing all the facts as no other man in the world could know them, that I felt that I was excluded from giving Lieutenant Garlington any orders that would in any manner conflict with his directions.

Further on he says, on page 25:

I was, however, very anxious to order Mr. Garlington to stop at Littleton Island, but it seemed to me under the circumstances that a bare suggestion would be all that I ought to give him; that I ought to leave him with his mind unbiased and unclouded, to act as the circumstances on the spot might dictate, with full knowledge of Mr. Greely's letter; he having this memoranda, which he read to me, it seemed to me that that was a sufficient suggestion, and I said nothing further about it; Mr. Garlington was possessed of full knowledge of the entire scheme and entire plan from the beginning, and I thought it best to leave it to him to exercise his entire discretion in regard to matters so far as he could while carrying out also the letter of Mr. Greely and the instructions which were based upon that; it seemed to me that everything which by very great care and attention could be thought of was placed at his disposal, and I did not feel that I was authorized to give him detailed instructions as to his duties, after he had arrived on the spot, further than to conform to the orders which he already had and that were based upon Mr. Greely's letter.

Four times on one page he alludes to the question of discretion, and each time very properly limits the exercise of that discretion making it subject to Lieutenant Greely's letter requesting that this very thing should not be done which Garlington was subsequently criticised for omitting to do under his discretion. Not only that, but General Hazen testifies further, in answer to a question of the court, I think:

Q. Was any plan of rescue or relief matured with Lieutenant Greely before he left that you know of?—A. Yes, sir. The matter was thought of very carefully and the plan was elaborated. It is contained in his original order establishing his expedition.

Q. Directing him to retreat by way of Grinnell Land?—A. Yes, sir. [Reading.]
 "In case no vessel reaches the permanent station in 1882, the vessel sent in 1883 will remain in Smith's Sound until there is danger of its closing by ice, and on leaving will land all her supplies and a party at Littleton Island, which party will be prepared for," &c.

This is a prearranged plan between General Hazen and Lieutenant

Greely for the operations of the relief party. I read from General Hazen's testimony again on page 31 :

Q. In your letter of October 16, 1883, transmitting to the Secretary of War the first report of Lieutenant Garlington, speaking in reference to this memorandum you state this:

"Just before starting, Lieutenant Garlington brought a copy of a memorandum that had been prepared for the Secretary of the Navy to aid him in preparing instructions to the convoy which contained the original condition of first landing at Littleton Island, &c."

From that it would appear that that memorandum had been originally prepared in your office by somebody for the Secretary of the Navy to aid him in preparing instructions for the Yantic.—A. I was told when I returned that that was the case, and I have no doubt it was the case. But before it was sent over I had considered the subject myself, and saw that that memorandum was not in accordance with the Greely letter, and it was a matter which I had already decided not to make one of the conditions, and I immediately went myself in person and explained what I wanted, and carried, or had sent afterwards, the orders of Lieutenant Garlington and the Greely letter to take the place of that memorandum.

I read this to show how the matter of discretion stands, and what views were impressed upon Lieutenant Garlington in this regard. General Hazen further says, page 32 :

Q. Why did you change your views in regard to that and discuss the idea of going contrary to the views of Lieutenant Greely by making a depot on Littleton Island as the vessel went up instead of carrying out the original intention of making it as the vessel came down?—A. For the reason that it seemed to me that if everything was carried past Littleton Island it would place so much in one boat, and if it was lost there would be so much lost that it would be better to change Mr. Greely's plan that far. As soon as it was determined to have a tender, it then did not seem to me that the necessity was sufficient to deviate at all from his directions.

Q. Because the tender, being at Littleton Island, would actually be a depot?—A. Would actually be a depot; yes, sir.

Now, may it please the court, here is a curious circumstance in respect to "Inclosure 4." General Hazen, the chief of the department, testifies that "Inclosure 4" was not necessary, and that no such departure was required from the positive request of Lieutenant Greely, because the tender was to be supplied, and yet this very paper is marked as a memorandum to form the basis of instructions for the tender, and was prepared in his office for that very purpose, although the granting of the tender was the reason given by the Chief for not adopting such a paper as "Inclosure 4."

It seems that General Hazen never authorized the preparation of this paper at all, and on the contrary has stated that he thought it was not necessary because the Proteus was to have a tender, and yet the existence of that very fact was the reason assigned for preparing this paper which has given so much trouble in the case.

General Hazen testified that as soon as he looked at Inclosure 4 he saw it was in direct conflict with the letter of Lieutenant Greely, requesting orders to be given to the officer in charge of the expedition for his relief. Examine this paper, and you will see but one conflict in it with such requests, but one conflict in it with Lieutenant Garlington's instructions as given, and that is: to permit and authorize the Proteus to land her stores (except the supplies for the more northerly depots) on the way up. That was the one point in that paper, and the only point that was in conflict with anything that Garlington had received, or that Greely had requested. Then when the Chief Signal Officer admits that this paper was in conflict with the instructions, and says moreover that the request of

Lieutenant Greely and the prearranged plans between them respecting the powers to be given the officer charged with his relief, were so definite and fixed that they were a law unto him, and he, with his power to do so as the chief officer, refused and declined emphatically, as Captain Clapp testified, when it was urged upon him to change these orders, because it was in direct conflict with Greely's request and the prearranged plans, how, may I ask, would it be possible to justify the exercise of a discretion on the part of Garlington which General Hazen informs him would be in direct conflict with his instructions on this point? He declines to do it, and it is brought to Lieutenant Garlington's attention. And yet under the very order that is given, based upon that request, criticism is made upon the subordinate that he, under his assumed discretion, declines to do that which his Chief has decided is in conflict with the request of Greely and the orders of Garlington.

General Hazen to Garlington was as emphatic and explicit on that subject as it was possible to be. If the thought of establishing a depot at Littleton Island on the northward course was so wise as a suggestion, why wasn't it made the subject of official action? Let us see how General Hazen considered the request of Lieutenant Greely in answering a question, on page 36, propounded by the recorder:

Q. As I understand, your reasons for making your instructions to Mr. Beebe and to Lieutenant Garlington conform to the requests of Lieutenant Greely in reference to his rescue were in order that there should be no disappointment to Lieutenant Greely, and that there should be such a concert of action that he would know where they would probably meet?—A. The reason was that this plan was prearranged by Mr. Greeley. It was the only possible plan that could be followed on account of his position. To have violated a prearranged plan of that kind, should any disaster come from it, there would be no excusing it.

The officer charged with the preparation of the instructions, with all power respecting them, declines to include in his order, directions to do a certain thing, saying that if it should be done, and any disaster should ensue, there would be no excusing it. What, then, would be said of the officer charged with the execution of duties, in which he is prohibited in terms from doing that same thing, if he so far forgot the spirit and letter of his orders as to have done this prohibited act under the color of some vague and imaginary discretion? Surely it would not be contended by any one that there would be the least pretense of excuse or justification if disaster had resulted under this disobedience of orders.

Now, may it please the court, I submit that the account of the preparation of "Inclosure 4," as given by Lieutenant Garlington, Captain Powell, and General Hazen, in their testimony, is the true history of "Inclosure 4," and I think Lieutenant Caziare, in respect to the time at least of its preparation, must have been mistaken. So far as it affected Lieutenant Garlington with respect to the discretion given to him, I drop it from further consideration.

I have only in this connection considered the history of the paper before June 5, in its effect upon Garlington's instructions. Its further history is a very curious one, which I may speak of in another connection. Then, I say that there was certainly under "Inclosure 4" in the light of the testimony that has been given in respect to it, no discretion under which Lieutenant Garlington could land stores at Littleton Island on his northward course. Was there any verbal order given that authorized it? Garlington says not, and General Hazen says not.

Was there even silence on the subject of Garlington's instructions in the Signal Office, leaving him to construe his own instructions, and to deviate therefrom in the direction of greater safety if he thought best? The testimony shows that this very subject was fully considered by his superior and Chief, and that General Hazen himself passed upon the propriety of the very act and considered it in conflict with Lieutenant Greely's letter of request, and so informed Garlington and Captain Clapp.

Garlington, in his report on page 19, says:

When I found it among my instructions I at once carried it to you and called your attention especially to that clause relating to landing supplies on Littleton Island. You said, in substance, you did not know how that had gotten in there, and impressed upon me the necessity of carrying out, as far as possible, the instructions I had received. These instructions were based upon the letter of Lieutenant Greely (first inclosure of appendix "A"), and you called my attention to the fact that Lieutenant Greely strongly urged that the officer commanding the relief party should have no "latitude of action." The paper was not addressed nor signed, indeed bore no official marks whatever. I did not then, nor have I at any time since, regarded it as an order, and I was surprised to find the statement published that this paper was the "supplementary instructions."

It may be well just here to note how emphatic Lieutenant Greely himself is on this subject:

No deviation from these instructions should be permitted. Latitude of action should not be given to a relief party, who on a known coast are searching for men who know their plans and orders.

But, further than this, Lieutenant Garlington had a chart for his guidance. This was not the first expedition that had attempted to accomplish the purposes and objects for which he was sent. It was not the first expedition that had been embarked under substantially the same orders and instructions, in this particular, that Lieutenant Garlington held. In answer to a question propounded by the court, General Hazen, on page 33, says:

Question. Did the relief expedition of 1882 (ship Neptune, Mr. Beebe in charge) sail with any instructions to establish Depots A and B on the way north or suggestions to that effect?—Answer. It was directed to make those Depots A. and B, not on its way up, but on its way returning, in case it should not get through.

Q. Was the letter of Lieutenant Greely from Fort Conger, dated August 17, 1881, construed by you as specifying that these depots should be established by the relief expedition of 1882 on its way north or only after failure to reach Lady Franklin Bay?—A. It was intended that it should be made only in case they failed to reach him.

Q. Were the instructions to the relief expedition of 1883 (Lieutenant Garlington's) essentially the same as those to the expedition of the previous year?—A. They were, with the difference that the expedition going in 1882 was for the purpose of reaching Lieutenant Greely, and failing to reach him then, after making the Depots A and B, to bring its stores all back to St. John's. The expedition of 1883 was to reach Lieutenant Greely if possible and bring him away, and failing to do that establish its stores about Littleton Island in place of bringing them to St. John's, after making the two Depots A and B.

Q. Did the instructions to Lieutenant Garlington, based upon the Greely letter, contemplate his leaving depots of provisions, &c., at Littleton Island and Cape Sabine on his way north, or only after it should be ascertained to be impossible to get the ship through to Lady Franklin Bay?—A. Only after it should be determined that he could not get it through.

Q. Were the Depots A and B, referred to in the Greely letter, actually established by the Beebe expedition of 1882?—A. They were.

Q. Was any exception ever taken to the course of the expedition of 1882 (Mr. Beebe's) in passing to the northward of Littleton Island without stopping to make a depot there?—A. None whatever.

Q. Did you approve of Mr. Beebe's action in making the depots at Cape Sabine and Littleton Island on his way south instead of on his way north?—A. I did; in my instructions for him to do so and in Mr. Greely's directions also.

Q. Mr. Beebe's expedition of 1882 seems to have construed the letter of Lieutenant

Greely to mean that the Depots A and B should be established when on his way south, after failing to reach Lady Franklin Bay. Has this been your construction also?—A. It has.

Q. And do you still so construe that letter?—A. I do.

Garlington had, as a chart for his guidance, the conduct of that officer which met with the approval of his superiors in attempting to discharge the same duty, and he proceeds to discharge that duty in the very same manner that Mr. Beebe had discharged it, the manner of which was not the subject of any criticism, but met the approval of his superior. In conclusion on that point General Hazen himself says :

Q. Do you not think that I carried out the spirit of my instructions in not stopping at Littleton Island and leaving the greater part of my stores there on the way north?—A. I do. There is one statement that I would like to make with regard to that memorandum, and that is that I have no recollection of that memorandum until it was brought to me by Mr. Garlington, although I may have seen it. Some clerk may have brought it to me, but I have no recollection of it.

It strikes me that this is conclusive upon any inquiry into the conduct of the subordinate. He received his orders from his superior. His superior, in answer to a question propounded, does him the justice to say that he has properly construed the orders, and has carried them out in their spirit. Lieutenant Garlington is relieved of all criticism for disobedience of orders, and at the same time is relieved of any criticism that could be made upon the exercise of his discretion under such orders.

Captain Clapp says he recommended the establishment of a depot of supplies at Cape Sabine, and on the northward course, and that General Hazen was emphatic in his disapproval of it as a departure from Lieutenant Greely's plan.

Now, may it please the court, in conclusion on this point, what are the instructions to Lieutenant Garlington? I will not read them to the Court in this connection, but they are as positive as instructions can be that the one thing is to press forward at all hazards—take advantage of every lead. In this connection I will refer to General Hazen's testimony where he is asked whether or not time had anything to do with the determination of the question to land stores at Littleton Island, and there he again repeats that it was one of the reasons that he took that into consideration; that they could not afford the loss of time for landing these stores at Littleton Island. You have it all the way through impressed upon Garlington that if he finds the conditions such when he arrives at Littleton Island he must push forward. It is explicit and clear. No discretion is given to do that very thing which the letter of request of Lieutenant Greely forbids and which Hazen's instructions emphasize almost in every line.

So in the discussion in Lieutenant Garlington's presence, of this very subject-matter, and General Hazen's explicit words that Greely's letter was law to him and he could not depart from it. Did the conditions exist when Lieutenant Garlington arrived at Littleton Island, as contemplated by General Hazen, to make it his duty to push on to the relief of his comrades? Lieutenant Garlington, on the steamer Proteus, on the 22d day of July, and before the disaster, and certainly having no reference to an investigation of this kind, says :

APPENDIX D.

STEAMER PROTEUS,

United States Relief Expedition, 22d July, 1883.

At 6 a. m. we are rounding Cape Alexander, and will enter Pandora Harbor to leave this record. No ice met between Carey Island and this point, and none to be seen to the

north from the "crow's-nest" with the aid of a powerful telescope. Weather perfect; if it continues I will go directly north and not stop at Littleton Island to leave a record, for it takes but a very short time to change the aspect in these regions.

(Signed)

E. A. GARLINGTON,

1st Lieut. 7th Cav., A. S. O., Commanding.

Therefore I submit to the court that you find here the very conditions that were contemplated by his instructions, and if he had failed to carry them out and had omitted to do the very thing upon which his orders were explicit, he would certainly have had no justification before this court in claiming that he had a discretion—a discretion in direct conflict with orders.

I respectfully submit that the conditions contemplated by General Hazen's orders had not changed when Lieutenant Garlington arrived at Littleton Island, and if he had failed to push forward it would not have been in exercise of a discretion, but a disobedience of orders. When Lieutenant Garlington was standing on the deck of his ship on the 23d of July, urging that under his instructions, which contemplated that he should take advantage of every lead to reach his comrades, that it would be an injustice to them and a want of fidelity to his Government if he failed to take advantage of the open leads, he was doing nothing more than a zealous officer should have done under the circumstances in performing the very duties that were imposed upon him by instructions that he held for the conduct of the expedition.

Now, may it please the court, I come to the consideration of the second branch of the inquiry that relates to Lieutenant Garlington.

The failure of the Proteus to keep in company with the Yantic up to, or in the neighborhood of, Littleton Island.

The language of this order is not exactly in harmony with the language of the instructions either to Garlington or Commander Wildes. Garlington's instructions merely mentioned that "a ship of the United States Navy, the Yantic, will accompany you as far as Littleton Island, rendering you such aid as may become necessary and as may be determined by the captain of the ship and yourself when on the spot." That is all that Garlington had on the subject of the ship's accompanying him. That is, that the Yantic will accompany the Proteus, and not that the Proteus shall accompany the Yantic. The inquiry is why the Proteus did not keep in company with the Yantic. Commander Wildes' instructions were: "You will accompany the Proteus, if practicable," and so on. Commander Wildes' notification was that "You are to act as a tender to the other ship, as the principal ship." It seems not to have been contemplated by the Navy Department anywhere, or by General Hazen, that this ship should go into the ice or encounter any peril. It was not contended, as will appear from the testimony, very conclusively, by any of the Navy gentlemen that this ship was in any way equipped for Arctic navigation, nor, as Commodore Walker says, did they expect her to accompany an Arctic ship. This brings us to the consideration of the relations that these ships sustained to each other, and how the instructions were given. I submit that the obligation is with the tender to keep with the principal ship, and whilst the latter ship should give to the former every facility to this end, her movements are not to be controlled absolutely by the tender. Garlington, in his testimony, says:

I did not consider that there was any necessity of the ships going together from St. John's to Disko, because the chances were that there would be no obstructions whatever, and that inasmuch as there was a certain amount of the stores to be gotten at Disko, and

other matters to be attended to, having to delay there anyway, I concluded that it was best for me to go directly from St. John's to Disko, getting there ahead of the Yantic, which was to come by sail and not by steam, make my preparations, and have everything ready by the time that ship got there, and then if Commander Wildes thought it prudent to go on with me we would proceed in company as far as the ice barrier, and when we met the ice barrier of course the Yantic would have to stop and seek a more circuitous route around it, while I, under my instructions, would go into the pack, and force my way through. My idea all through was that the Yantic was not to interfere in any way with me in my progress north. If she could get along with me, well and good; if not, I was to leave her.

In the arrangement made for the assistance of the Yantic, the Secretary of the Navy testifies as to the purposes and objects for which she was requested. Captain Powell says that he had an interview with the Secretary of the Navy, and at the Secretary of the Navy's request he telegraphed to General Hazen at St. John's to know how far the ship would be required to go. He moreover said to the Secretary that he did not understand she was to be used as a supply ship at all. General Hazen's recollection is the same on that subject. The object and purpose of the expedition, as seems to have been contemplated at the time by General Hazen, is given in his testimony before the court. Now all this testimony may be considered with respect to the duties with which the ship was charged, and does not concern Lieutenant Garlington. The Department had not thought it proper to give Garlington any information on this subject. What information had he in point of fact? First, Garlington's knowledge of the Yantic was from his instructions, which merely inform him that "the United States ship Yantic will accompany you," &c. Second, the conditions, as he understood in the Signal Office, upon which she was asked. Third, the information derived from Commander Wildes and the general talk of the officers of the Yantic on the trip from New York to St. John's. And fourth, the condition of the ship itself, in respect to its fitness for Arctic navigation.

Now, first, as to Lieutenant Garlington's instructions. His instructions for getting north were mandatory and positive in every particular. This is simply a notification that the ship will accompany him; and one question to be considered, which I shall consider in another connection, is whether or not this notification in the last paragraph, which was added on the 4th of June by General Hazen on his return from St. John's after the instructions had been agreed upon, imposes a duty paramount to that which arose under the positive declarations and directions of his orders.

In respect to the conditions, as he understood them in the office, upon which the ship was asked, and the information derived from Commander Wildes, I read from page 8 of the record. Garlington's testimony, after stating in answer to a question by the court that he had not been furnished with a copy of Wildes' instructions and had never seen them until after the expedition returned, is:

Q. You did not know what the instructions were?—A. I did not know anything except that his orders were not to enter the ice, or to place his ship in no position where he would run the risk of having to remain a winter in the Arctic regions. That I gathered from conversation with Commander Wildes and the officers of the ship on the way up, and I knew that the letter that had been prepared in the Signal Office had made that a condition—that the ship was not expected to go into the ice or to place itself in any unusually dangerous position.

In respect to the fitness of the ship itself for Arctic navigation and the

improbability of the Yantic's getting to Littleton Island he says, in answer to the court :

Q. And with that opinion you were induced to enter into that agreement with the commander of the Yantic, because you did not believe she could keep up with you in any way?—A. Yes, sir; that was my belief, and that was the belief, as far as I could learn, of every officer on board the Yantic. None of them anticipated going into the ice. They were not prepared to go into the ice. There was no Arctic clothing on the ship. The crew, instead of being decreased, received a draft of men in New York while we were getting under way almost.

By the RECORDER:

Q. The complement of the ship was eighty men?—A. One hundred and thirty-four, I think.

Q. The ordinary complement was eighty men?—A. No, sir; her complement was one hundred and thirty-four men, I think. I think she went within two or three men of a full complement.

Commander Wildes himself says the ship had the same equipments as to men and officers for that region that she had for the West Indies. Therefore Lieutenant Garlington might well have assumed from the knowledge he had of the ship and the opinion of her officers that she could not accompany him.

You will bear in mind, then, that Lieutenant Garlington's entire knowledge in respect to the Yantic was derived from these four sources. There never was any joint instructions for the co-operation of these two ships, though Lieutenant Garlington says he made that request that there might not be any conflict between them. General Hazen was asked by the court if he did not think it would have been better if such had been the case. He thought it would have been, and could not say why it was not done. No copy of the Yantic's instructions were furnished either to the Signal Office or to Lieutenant Garlington. The commander of the Yantic was an officer superior in rank to Garlington and in no wise under his command or subject to his order or direction.

Now I go back to the peculiar phraseology of this order of the Secretary of War; and if the inquiry to determine why the Proteus did not accompany the Yantic is proper, we must assume that it is so because the obligation to accompany the Yantic rested upon the Proteus. If Garlington's duty then was to accompany the Yantic until she actually got into ice that she could not go through, when he found the Yantic could not or would not accompany him, then it could only have been such upon the hypothesis that the notification in his orders that the Yantic would accompany the Proteus, was paramount to any other duty thereby imposed, and further that the notification that the Yantic would accompany the Proteus meant in effect that the Proteus should accompany the Yantic. In other words if it was for him to follow the Yantic until she actually struck the ice, if the Yantic would not follow him, then the practical effect of it would have been, that until they actually did strike ice which the Yantic could not enter, Lieutenant Garlington, the officer charged with the expedition upon the principal ship, would have been subject to the movements of the Yantic and under the control, and to that extent subject to the orders of her commander. This I will assume surely was not contemplated. Then it was, owing to the failure on the part of the two Departments to furnish these two officers with joint orders and instructions for their guidance, and in compliance with a suggestion in Commander Wildes' instructions prepared by Commodore Walker, that

they at St. John's entered into an agreement for their government in the event of the ships becoming separated.

I say in the absence of any joint instructions for their guidance these officers entered into an agreement between themselves. That agreement was made as the result of consultation with Commander Wildes when he informed Lieutenant Garlington that he intended to sail from St. John's to Disko and not use his coal. Now, may it please the court, let me refer in this connection to this agreement.

[Copy.]

APPENDIX B.

MEMORANDUM OF AN AGREEMENT BETWEEN LIEUTENANT GARLINGTON, U. S. ARMY,
AND COMMANDER WILDES, U. S. NAVY.

Yantic to proceed to sea with the Proteus and remain in company as long as possible. Yantic will proceed to Disko under sail, will leave letters for Lieutenant Garlington at Disko and Upernavik.

Cairns inclosing bottles or tins will be left at Cape York, S. E. Carey Island, or Hakluyt Island, Pandora Harbor, and Littleton Island. Yantic will remain in Pandora Harbor not later than August 25, Disko not later than September 20.

Lieutenant Garlington to leave letters in Disko and Upernavik and records on S. E. Carey Island, or Hakluyt Island, Littleton Island, and Pandora Harbor if entered.

Proteus to endeavor to communicate with Yantic at Pandora Harbor before August 25. Should Proteus be lost, push a boat or party south to Yantic.

Pandora Harbor will be headquarters, but before departure Yantic will run up to Littleton Island.

In my examination of Lieutenant Garlington on the subject of the agreement entered into between himself and Commander Wildes, I think the impression was left on the mind of the court at the time that I was attempting to show that there was some compulsion in the execution of that paper on the part of Wildes. That was not my design. On the contrary, that agreement was made between these gentlemen after divers and sundry conferences on the subject, and with a perfect understanding, and neither of them desires to repudiate it. What I did attempt to show was that Commander Wildes had an independent command; that he was an officer of superior rank to Lieutenant Garlington, and recognized himself as in no degree under Lieutenant Garlington's commands or orders; that he had his own positive instructions what to do, which Garlington had never seen.

Under those conditions he informed Lieutenant Garlington what he intended to do with his ship; hence it was not an agreement that the ship should sail to Disko made by Lieutenant Garlington, it was not an agreement that the ship should go to Upernavik made by Lieutenant Garlington, but it was an expression of Commander Wildes' purpose to do such things; and under those conditions, which made the early separation inevitable, the agreement was entered into. What I want to impress upon the court is that, Lieutenant Garlington had nothing whatever to do with the movements of the Yantic, and he had to make such agreement as was best to be made, based upon the contemplated movements of that ship as given to him by her commander, although she was his tender. His instructions simply said that she was going with him. Then they enter into this agreement which Commodore Walker says was perfectly proper in his opinion. He gives it, and their construction of his order in authorizing them to do what they did in respect of this agreement, the sanction of his approval.

They leave for Disko and they naturally separate, as one is sailing and the other steaming. Garlington gets to Disko on the 7th of July. He stops there to take on stores, preparing stores, &c., and is delayed several days. He says in his report:

From the 7th of July until the 16th I remained in the harbor of Godhavn, the crew being engaged in shifting cargo, filling coal bunkers, and generally trimming ship. My own men were employed in preparing stores for forming depots as ordered (four of these were prepared of two hundred and fifty rations each), moving stores so as to be easily accessible in case of having to abandon ship, airing skin clothing, and getting alongside stores which had been left here by the expedition of last year.

When Lieutenant Garlington gets to Disko, notwithstanding the agreement with Wildes, which contemplated that they should meet somewhere else, he waits for the arrival of the Yantic. Wildes gets there on the 12th. He informs Garlington that his boilers are in bad condition, which will necessarily detain him for some days, and that he will stop at two or three places to coal on the way up to Upernavik. If they start together, what do these gentlemen naturally anticipate? That at best they will have to separate in a few days. The Yantic would accompany only until they met the ice pack; and the experience of navigation in those waters had been without exception the presence of the ice pack in Melville Bay.

Garlington reasons thus: "My orders in every paragraph urge me to *push on*. Shall I wait here three or four days, or four or five days [I will show to the court that in point of fact if he had undertaken to follow the Yantic he would not have left Upernavik on his northward course until July 31st], or shall I push on, and, in the language of my instructions, let nothing hinder my northward course?" He says in answer to a question of the court:

Q. What was your understanding when you left St. John's; was it that the two ships were necessarily to be together after you left there?—A. No, I expected to see the ship at Disko.

Q. And after leaving Disko that they should not necessarily be together or leave together, but that the Yantic should reach Littleton Island at some time in the future if it could get there?—A. If it could get there.

Q. But you did not expect it necessarily to leave Disko in your company?—A. Not necessarily. I intended to wait at Disko until the arrival of the Yantic there and to proceed in company with her if she would go along; but I did not intend to wait any length of time at Disko in order to have her accompany me.

Q. And that was the understanding between you and Captain Wildes?—A. Yes, sir.

Then, looking at it from Lieutenant Garlington's standpoint, at that time controlled by his instructions, what did he anticipate? He was, as I say, to anticipate ice in Melville Bay after a few days out from Disko. That was as far as she could go with him, and in order to get that much advantage from her company shall he wait for that time and then go with her to the coal fields and Upernavik, or shall he push on, &c? Now, may it please the court, in this connection I want to call your attention to the fact, and I beg it may be considered also in connection with the first branch of this argument, that if there was one thing in connection with his instructions that seemed to have been impressed by General Hazen, the Chief Signal Officer, upon Lieutenant Garlington, that seems to have been impressed upon the whole situation, it was, that time was of the essence, that time was one of the leading elements. General Hazen himself, on page 190, in reference to Captain Clapp's testimony as to time, says:

That there was no special time to arrive at Lady Franklin Bay. I wish to say that every effort was made and every possible movement attended to to cause the expedi-

tion to arrive at Littleton Island the very first moment of the season that it was possible to get into Smith Sound. That, of course, did not contemplate any specific time, but it was to take the chances, the first opportunities that offered of getting in there.

General Hazen, as he testifies, thought it wise even to withhold from the Secretary of the Navy the view that he had in contemplation of making the Yantic a supply-ship—a store-ship. Secretary Chandler testifies, on page 116 of the record, in reply to an interrogatory of the court :

I either asked General Hazen the question whether he did not desire the Yantic to carry some outfit and additional supplies, or referred to the fact that he did not desire it, and his reply was that they would not require anything of that kind except that the Yantic should go well fitted to take care of herself and her own officers and crew, and to be at hand in case of an emergency.

General Hazen, on page 124, says :

It seems to be proper that I should say something as to the reason why there was no request made to the Navy Department to put on extra supplies. *Time was becoming an element of the greatest importance, and I wished to do nothing that should cause any delay.* Being satisfied that the Yantic would take such ample provisions of her own stores as to do for all hands, including Mr. Greeley's party in case of an emergency, I preferred to rest on that rather than make any request or suggestion *that by any possibility could consume time ; that is, I considered time more important than any further preparation.*

And as before stated, in respect to the landing of stores at Littleton Island, General Hazen considered one of the elements in that connection to be time. Lieutenant Caziarc attributes all the blunders that were made by the clerks in the office (putting papers in the wrong places, &c.), to the hurry of the moment. In the hurry and flurry of getting up these instructions for this important expedition time is so much the essence that accuracy and truth become secondary, and we have the confusion and error that result. Again and again all the way through this is impressed upon Garlington. Is it possible, then, that the officer charged with this duty under these circumstances could be properly criticized for at least undertaking to respond in some degree to the spirit of his instructions in not frittering away his time !

Now, may it please the court, I have not considered heretofore at length the instructions that were given to Lieutenant Garlington, nor do I propose to do so now, but merely to call your attention to what I am satisfied you have observed again and again, and that is that, if it were possible by language to make one thought the leading and controlling one in that paper, it is accomplished by the language chosen to impress upon Garlington the urgency and importance of permitting nothing to delay him in his northward course.

The first line of his instructions reads :

SIR: You are aware of the necessity of reaching Lieut. A. W. Greeley and his party with the expedition of this year.

The first line of the second paragraph reads :

For these and other reasons which will occur to you, *no effort must be spared* to push the vessel through to Lady Franklin Bay.

The first line of the third paragraph reads :

In the event of being obstructed by ice in Smith Sound or Kennedy Channel, you are advised to try to find a passage, &c.

The first line of the fourth paragraph reads :

Should the vessel be unable to get through the ice to Lady Franklin Bay or to reach, &c.

The first line of the fifth paragraph reads :

If it should become *clearly apparent* that the vessel cannot be pushed through, you will, &c.

Every mandatory paragraph in his instructions begins with a recital that the one paramount duty is to "push the vessel through to Lady Franklin Bay," and every other duty imposed in each paragraph is predicated upon the failure to accomplish this.

This duty is first and above all, and "it must become clearly apparent that the vessel cannot be pushed through" before other duties and powers arise under the terms and provisions of his instructions.

He turns to the last paragraph but one in his instructions, and there he finds the same thought repeated almost in the form of an appeal.

I believe and expect that you will zealously endeavor to effect the object of the expedition, which is to succeed in relieving your comrades, since upon your efforts their lives may depend, and you cannot overestimate the gravity of the work intrusted to your charge.

He turns again to the first paragraph of his instructions and there he is told that—

This necessity cannot be overestimated, as Lieutenant Greely's supplies will be exhausted during the coming fall, and unless the relief ship can reach him he will be forced, with his party, to retreat southward by land before the winter sets in.

The truth seems not to have presented a situation sufficiently critical, and the erroneous statement "that Greely's supplies will be exhausted during the coming fall," is inserted, it would appear, to impress upon Garlington to a greater extent than the facts justified the importance of relieving his comrades at the earliest moment.

Has language ceased to have meaning, that the reputation of an officer who acts under orders so explicit as these is to be thus imperiled !

Now, if there was one suggestion that Lieutenant Garlington got from "Inclosure 4," and that was in perfect harmony with his instructions, it was, "that nothing in the northward movement should be allowed to retard the progress of the Proteus," but that he should "take advantage of every lead to get up to Lady Franklin Bay." The last line in the very paper that was to be made the basis of instructions for the government of the Yantic, as if to preclude the conclusion that this paper might be construed as hindering the Proteus in her course, that she might have the Yantic's company, is that nothing shall retard the northward course of the Proteus.

Hazen himself candidly says in regard to Garlington's question :

Q. Was I not correct in my conclusion that I was to allow the movements of the Yantic to interfere in no way with my progress to the northward ?—A. You were specially directed by me not to permit the Yantic to hinder your movements to the northward ; if it appeared that she could not proceed with you, you were to go on, and do the best you could without her.

This indeed seems conclusive.

But let us now consider it from the stand-point of the choice of a different course on the part of Garlington, than that which he actually adopted.

Suppose Lieutenant Garlington had assumed that the paramount duty imposed upon him under his orders was to follow the Yantic, and not to push ahead at all hazards if the Yantic couldn't or wouldn't proceed with him, what would have been the result ? And would there have been any justification for his conduct if disaster had resulted by reason of such

action? He is informed at Disco by the commander of the Yantic that he will not be ready to leave until a certain time, and then that he was going to two or three places for coal, as detailed on page 176 of the appendix, being the report of Commander Wildes to Commodore Walker of the part the Yantic took in this expedition. Then, that he was going to Upernavik. Lieutenant Garlington arrived on the 7th of July at Disco. The Yantic arrived on the 12th. Lieutenant Garlington remained from the 7th to the 16th, and he was consequently there four days with the Yantic. The commander of the Yantic says in his report :

—Repairs on the boiler detained me here six (6) days, when the brig Peru arrived and the inspector gave me 15 tons of coal from her. After waiting two days longer for fog and thick weather to clear, I sailed on the 21st for Kittenbank, Governor Khuntzen having promised me twenty (20) tons of coal.

I arrived there early in the morning, and by night had taken most of it in, but the weather becoming bad and the anchorage being very insecure I was obliged to shift my berth. Having partially cleared next morning I finished coaling, and at 11 a. m. sailed for the Kudlisit coal mine, which was reached at 6 p. m. The weather was thick and rainy and land marks could not be seen, and I only recognized the place by seeing the tent of our Eskimo laborers sent ahead to get the coal out.

On landing I found that they had done nothing and were in a state of starvation, so next morning, 25th, I sent our men ashore, and up to 4 p. m. of the 26th had taken on board about thirty tons. The coal is very light and I did not stop to weigh it, but the decks were full, and I dared heap up no more.

At 6 p. m. I sailed for Upernavik, having clear, fine weather. Off Ominak Fiord swung ship for compass deviations, surrounded by hundreds of bergs. Reached Upernavik at 10 p. m. July 27th, and remained until noon July 31st, waiting for thick foggy weather to clear.

Therefore the Yantic was from the 12th to the 31st of July at and between Disco and Upernavik. She was a day or two between those places, but from the 12th to the 31st she was almost continuously in port. Garlington arrived on the 7th. If he had followed her around from Disco to Upernavik, being able to go that distance in a very short time, after lying with her first at Disco until she was ready to go, then following her around to the coal mines, then going to Upernavik and lying some six or eight days with her there, it would have been twenty-four days between his arrival at Disco and his departure from Upernavik, and most of the time lying in port waiting for the Yantic.

If Lieutenant Garlington had followed the Yantic around, losing twenty days or more, when he had been impressed by General Hazen, and by his orders and instructions, and by all the circumstances of the case, to permit nothing to hinder his northward movement, would there have been any justification for such a course, had disaster resulted, consequent upon such conduct?

The criticism upon Garlington is that the Proteus did not keep company with the Yantic. On the 2d of November the Secretary of the Navy, writing to Commander Wildes, says :

NAVY DEPARTMENT,
Washington, November 2nd, 1883.

SIR: The receipt of your letter of October 16th is acknowledged. In the present aspect of the case the Department condemns (1) the agreement inclosed in your letter of June 25th, between Lieutenant Garlington and yourself, contemplating the separation of the Yantic and the Proteus until August 25th; (2) your failure to accompany the Proteus from Disco Island after you had there rejoined her; (3) your unnecessary visit to Upernavik on July 25th, to inquire of the Danish authorities how the ice was probably moving between yourself and the Proteus, the six days of your delay at which point would have brought you to Littleton Island before the party of the Proteus went south; and (4) your failure, when you found at Littleton

Island that the demoralized party of the Proteus had gone south in search of the Swedish steamer Sofia, at Cape York, to land materials for a habitation, clothing, and some food for the forgotten Greely party.

What action, if any, will be taken by the Department has not yet been determined.

Very respectfully,

WM. E. CHANDLER,
Secretary of the Navy.

Commander FRANK WILDES, U. S. N.,
Commanding U. S. S. Yantic, Navy-Yard, New York.

Now, we have here the Secretary of the Navy criticizing Commander Wildes for not accompanying the Proteus when he had rejoined her at Disco; for his unnecessary visit to Upernavik, and for his delay at that point, although his orders were most liberal. The criticism upon Garlington by the Secretary of War is that, the Proteus did not sail around after the Yantic, in her meanderings, and thus fritter away twenty-four days that were so precious in the estimation of his superiors for accomplishing the purpose of the expedition—to do the very thing for which Wildes was criticised. But further than that, the uncertainty of Arctic navigation must be taken into consideration. Notwithstanding the agreement made with Commander Wildes that he would not remain at Littleton Island later than August 25, such were the dangers, in his opinion, that he felt justified in leaving Upernavik before the 24th of August, because it was not safe for him to keep his ship there, although Lieutenant Garlington and his party had not arrived, and he knew that they were out in open boats between Littleton Island and Upernavik. Surely it must have been, in the opinion of that officer, a very clear and patent duty which would have induced him under those circumstances to leave Upernavik, and return without any news from Garlington and his party.

The record found at Littleton Island informed him that the Proteus had been lost, and that they were in open boats on an Arctic ocean, and yet such was the condition as he found them at Upernavik, that he felt it his duty for the safety of his ship to get away at once. He could not remain there with safety, and left before the 24th of August and before either Lieutenants Garlington or Colwell had arrived. One other consideration as to time as an element. Captain Clapp, on page 169, with regard to Greely's supplies, says:

Q. Was it the intention in putting that in his instructions to impress upon Lieutenant Garlington the absolute necessity of his getting up to Lady Franklin Bay as speedily as possible?—A. I do not recollect that the question of his arriving at an early period in the season was considered. It was deemed important that the relieving vessel should reach Lieutenant Greely during the summer of this year, but so that might be done before the close of navigation up there, if navigation is open there at any time, I think that was deemed sufficient. Another reason for desiring to push the relief party through was the known anticipation of Lieutenant Greely and his people that such a party would be sent and get through. This was made all the more urgent by reason of the failure of the previous year.

Now, Lieutenant Garlington had not only instructions to get through to Greely, but his instructions were if possible to get back that year. That had been the condition imposed by the act of Congress granting the appropriation. With the exception of the Proteus in the expedition of 1881, which by every one is spoken of as an exceptional trip, it is a part of history that no ship ever got into Smith's Sound and got out the same season. Garlington had to go to Lady Franklin Bay, if it were possible to do so, and

he had to get back the same season before navigation closed. Now, let us see what Captain Clapp says upon this subject :

Q. From your reading and examination of this subject generally, what is your opinion as to the practicability of retreating in latitude 82 as late as September 1st?—A. I do not think it practicable. The retreat by sledges, if made at all, can only be made in the spring of the year.

Q. Spring or summer?—A. I was alluding to retreat by sledges. Of course it may be done by water any time the water is open.

Q. Do you think retreating by boats, under the conditions prevailing in Arctic regions, practicable?—A. I should not think it practicable. The young ice would by that time have prevented a vessel from working through, unless under very exceptional circumstances. The ice by that time would have been usually four or six inches in thickness.

Lieutenant Garlington, on the 23d of July, off Cape Sabine, had to go up to Lady Franklin Bay, load stores, and get back, if possible, the same season. According to the testimony here, and according, I believe, to the generally accepted history of Arctic navigation, and the conditions existing in those regions, it would have been impossible to have gotten out with his ship from Lady Franklin Bay after the 1st of September. Now, how long would it have taken him to have arrived there, leaving out of account the remarkable passage of the Proteus, in 1881, when she did not encounter any ice at all until within 10 or 15 miles of Discovery Harbor? Take the history of other ships. Sir George Nares, with the two ships, Discovery and Alert, went up to Lady Franklin Bay, but was unable to get back the same season and had to winter there. It took him twenty-five days to go up, and twenty-five days to get back; therefore, you have this element in addition to what I have before referred to as giving emphasis to the fact that "the officer in charge of the expedition should not lose any time in getting to Discovery Harbor if he should at all contemplate the probability, or cherish the hope, of returning the same season."

In this connection there is but one other piece of testimony to which I would wish particularly to direct your attention. Commodore Walker testified that he was the officer that had these matters in charge in the Navy Department, and in point of fact prepared the instructions under which the Yantic was navigated.

On page 104 he says, in answer to question by the court :

Q. In the instructions it was stated that the vessels should accompany each other. To what extent did you suppose that was to be construed?—A. I did not myself suppose that they would accompany each other. I supposed it would be practicable for the Proteus to go on where it would not be for the Yantic, and that they would soon separate for that reason. The Proteus was built for going into the ice and the Yantic was not.

Q. Then your expectations were that the Proteus would get to Littleton Island far ahead of the Yantic?—A. Oh, yes; that was my opinion.

And then, on page 106, with respect to the agreement between Wildes and Garlington, he further says :

Q. Now, under the instructions, as you remember them, do you think there was any impropriety in those two gentlemen entering into that agreement in the prosecution of the work?—A. I think not.

Q. You think that was proper under the circumstances?—A. I think that that was perfectly proper.

I submit, in behalf of Lieutenant Garlington, that he strictly, conscientiously, with zeal and fidelity, carried out the instructions and orders that were given him. General Hazen, who was the author of the instructions,

does Garlington the credit to say that he was explicit in his orders that he should not be detained by the Yantic. Therefore, I submit to the court that Lieutenant Garlington's conduct, under the circumstances and the conditions as he knew them to exist, was perfectly proper, and if he had failed to act as he did, and had frittered away his days following the Yantic, his tender, he would have responded without any proper defense or justification, to the charge made for the loss of his ship, or for the failure of the expedition. Nothing is more uncertain or more treacherous than Arctic navigation, and what you see to-day at this hour may be entirely changed an hour hence, therefore, the wisdom of the orders that "You shall take advantage of every lead to push your ship forward." It was not contemplated that he would find open water, and he was expected to be on hand at the earliest possible moment to take advantage of any lead to work his ship through. With the risks that accompany such navigation, if damage or loss result it must be attributed to the perils of Arctic navigation and the treachery of Arctic water and Arctic ice and wind and tide, unless it can be brought home that there was a violation of orders on the part of the officer charged with the conduct of such expedition, or that there was such an unwise exercise of the discretion reposed in him as to charge him with the responsibility of the failure.

I now come, may it please the court, to the consideration of the third and last branch of the investigation to which I shall address myself.

At this point the court took a recess for fifteen minutes, and upon reassembling Mr. Kent resumed as follows:)

May it please the court,

Up to the present time I have been considering Lieutenant Garlington's conduct in relation exclusively to his orders and instructions. A contingency, however, not contemplated in his orders and instructions occurred, to wit, the loss of the ship; and I now come to consider the propriety of his conduct in coming directly south from Littleton Island after the loss of the Proteus. In placing before you so much of the testimony as may be pertinent to this branch of the investigation, I shall make very little comment upon it. It is a matter of judgment and opinion to be formed by the court upon Garlington's conduct upon a condition and state of facts that he found to exist at a certain time, which called for the exercise of judgment, discretion, and wisdom on the part of this officer, independent of any instructions and orders for his guidance. The question is, with the light before him, was the judgment that he formed and the course that he adopted then, such as would commend itself to the wise exercise of his powers? The results are not to be taken into the consideration. These he could not foresee. I feel naturally incapable of forming any opinion that would be worth anything on a subject so foreign to my manner of thought, and therefore I can do little more in aid of the court than to collect, as I have done, the testimony that I think is pertinent to the situation existing at that time as controlling and governing his conduct in coming directly south from Littleton Island after the loss of his ship. Lieutenant Garlington finds himself on the evening of the 23d of July in a situation that is more graphically and accurately described by this photograph [exhibiting same] than could be by any language at my disposal. Dependent upon himself and his own resources for his own safety and that of his men, and for any relief that he might possibly

give to Greely, I submit to the court that at that time, if what we have heard testified in respect of Greely's stores be accurate, Lieutenant Garlington on an ice-float with his party was in far more peril than Greely in his house at Discovery Harbor, with the plentiful supplies and stores accredited to him. At any rate, the only possibility under which he could render any service to Greely was to communicate directly with the Yantic. This he at once attempted to do. Lieutenant Colwell puts it well when he says that at once they all thought the only thing that could be done was to put themselves in communication with the Yantic, or, in his language, if they failed to meet her, they would have to take their chances of getting to the Danish settlements by themselves. Not only was he acting with a view to the relief to be given Greely, but also considering at the same time the safety of his own party. Garlington, in his report in connection with this subject, says :

The prime object of the expedition was now defeated ; what was the best course to follow to be able to accomplish something looking to the relief of Greely was the great problem to be solved. To have gone north in small boats was altogether impossible, and therefore out of the question, and even had it been feasible would have been useless under the circumstances. If the Yantic should reach Littleton Island or Pandora Harbor the question would become one of easy solution. I could get from her all the stores she could spare, including clothing, coal, and canvas, establish a station at Life-boat Cove, remain there with two or three men, and send the rest of the party and crew of the Proteus to St. John's. A sealer could then have been secured and sent north. But could she reach Littleton Island? This was the point I had to settle in my mind from my knowledge of the condition of the ice as I found it on my way north from Disko Island, taken in connection with Commander Wildes' instructions as far as I knew them. The Yantic crew was large, about one hundred and forty men, had a limited supply of provisions, and was not at all adapted to contend against the ice. It had taken the Proteus, especially built for ice navigation, three days to force her way through the ice in Melville Bay. The commander of the Yantic, as far as I was informed, had specific orders not to go into the ice, or to place his ship in any position which would risk having to remain in those regions during the winter.

Again, in his supplemental report, he says :

After the Proteus was lost I determined to communicate with the Yantic as soon as it was possible to do so, to get from her all the supplies that could be spared and establish a depot at Life-boat Cove. I intended to remain there with a small party, while the Yantic could proceed to St. John's, report the disaster, and endeavor to secure a vessel suitable for ice navigation and come north with additional supplies. If anything was to be done this season looking to the relief of Lieutenant Greely, it was of the greatest importance to communicate with the Yantic at once. When the Proteus encountered the pack in Melville Bay no one on board that vessel thought the Yantic would cross the bay. This opinion was formed from the known intention of the commander of the Yantic not to put his vessel into the ice.

The Proteus had run into the "middle pack" about one hundred miles northwest of Upernavik, and it was very nearly four days from that time until she arrived off Cape York. The ice in the bight of Melville Bay had not broken this season, and if the "middle pack" should move off to the westward, leaving a passage around the edge of the fast ice, this ice was still to break up, and would form a pack which would prove a barrier to the Yantic. As it turned out, to every one's surprise, the Yantic saw no ice in Melville Bay, and had an unobstructed passage to Littleton Island.

If I had remained a fortnight at Littleton Island for the chance of the Yantic's arrival, my supplies would have been reduced to a dangerously small margin. If she did not arrive, I would have had to commence my retreat during a rapidly closing season, with inadequate provisions. It would probably have been necessary to force our way through much young ice, which at even that date formed one-quarter of an inch thick during calm nights.

This would have delayed the progress of the boats, and prevented communication of the disaster to the Yantic in time that she might render any assistance to Lieutenant Greely, if it did not prevent me entirely from reaching the Danish settlements this season, and the sending of the news of the disaster home this year. If I had remained in that region until it was too late to reach the Danish settlements, it would

have been necessary to draw on the supplies already deposited for Lieutenant Greely, and if he should arrive he would find his own supplies diminished and the addition to his party of another body of men no better off than his own party. If I started at once, I would secure the arrival of my party at the Danish settlements before the close of the season. If the Yantic succeeded in crossing Melville Bay, there was nothing to prevent her reaching Littleton Island, the Proteus having encountered no ice north of Carey Islands until she ran into the ice-fields of Smith Sound, and that ice had not yet moved out to obstruct the channel. I therefore reasoned that she would at once, after finding my record on Littleton Island, proceed along the coast, following my indicated line of retreat, steaming in a day the distance it would take me a week to cover. If she should miss my boats in thick weather, I thought she would endeavor to communicate with me at Cape York, which was my stated objective point. It would then still be early enough to carry out my original plan of remaining at Life-boat Cove with supplies from the Yantic, while that vessel proceeded to St. John's with the news of the wreck.

I left Littleton Island on the 26th of July, and on the 7th August had made but one hundred and thirty miles.

I reached Cape York on 10th August, and was confirmed in my belief that the Yantic had not crossed Melville Bay. The natives at Cape York had not seen any vessel pass to the northward and westward lately, and they knew nothing of the Swedish steamer Sofia, which was to have come there for a series of scientific observations. This fact convinced me that the Sofia had not been able to get through the Melville Bay pack, and if she had not I thought the Yantic most certainly had not.

And, again, in the same supplemental report, he says :

4th. "Why you started south with forty days' supply, in place of leaving a large portion of them for Lieutenant Greely, when the country was full of game, seals, walrus, and fish, and the party well supplied with means for its capture, which was an ample source of food?"

Answer. The exact amount of supplies I had for my party of fifteen men (afterwards increased by one man) when I left Cape Sabine was as follows:

Six hundred pounds of hard bread in bags, a great deal of which got wet and soured and had to be thrown away; three hundred pounds of bacon, eighty pounds of tea, one-half barrel of sugar, one hundred and forty pounds of pemmican, from last year's stores, about half of which was spoiled; about four hundred pounds of canned meats, vegetables, and fruits, and one-half barrel of alcohol.

This was a smaller quantity of food than was taken by any party retreating from that region. I could not foretell the exact length of time necessary to make our journey. Dr. Kane retreated from a short distance north of Littleton island to Upernavik, taking with him all the provisions he could carry in his three boats. It took him eighty-four days to make the journey. I made the distance from Littleton island to Upernavik in twenty-nine days.

The Polaris people started south with supplies for two months and a half, but were picked up a short distance from Cape York by a whaler, after having been in their boats twenty-three days. At that time of the year I could not expect to meet a whaler, for they only visit the vicinity of Cape York in the early season on their way to the whaling grounds of Pond's Inlet and Jones Sound, where they remain until September, when they are able to cross Davis' Strait, for the southward, homeward bound.

In my answer to your first question I have stated why it would have been impossible for me to have killed sufficient game to subsist my party and at the same time make rapid progress to the southward. I saw no fish in that region, and if I had, I had no means of catching them. If I had left any of my small stock of provisions at Littleton Island I would have seriously endangered the safety of my men to no purpose. *As it was, the short rations of sometimes one and never more than two meals a day began to tell heavily upon them by the time I reached Upernavik.*

After leaving Cape York I saw no game, except two or three seals, until I reached the islands about Tessnisak.

In passing upon the propriety and wisdom of another's judgment it is very difficult to leave out of consideration the consequences that flow from it, and yet, it is just, to consider only those things that have occurred or are present at the time the judgment is formed. The experiences of the past and present, and not the undisclosed future, furnished the material upon which Garlington's judgment was founded. We all know now that the Yantic did arrive at Littleton Island, and I will venture to say that nine-

teen-twentieths of the opinions formed and criticisms made upon his course have been colored by the knowledge of that fact. On the 23d of July Garlington's course had to be determined, not upon this prophetic information, but upon the *probabilities* of the Yantic's reaching Littleton Island. Suppose she had never arrived there, and the probabilities were, as will appear from the history of Arctic navigation, that she neyer would—suppose he had waited and she had not come—in a word, the consequences would simply have been *fatal*. His supplies of provisions were dangerously small; and, as it was, before he got to Upernavik he says that his men lived sometimes on two rations and then down to one a day. He then had to determine what action he would take, based upon the experience of Arctic navigation, his own experience in Melville Bay, and the opinions expressed by the commander of the Yantic, as to his entering the ice or putting his ship in peril. Notwithstanding the fact that the Yantic did get to Littleton Island, Commander Wildes testifies, that he had always thought that under any circumstances, or instructions, his getting there was extremely problematical. I do not think that I overstate the force of his testimony when I say that he himself never expected to get there, though as a zealous and efficient officer he intended to make every effort to do so. Lieutenant Garlington had doubtless been impressed by the commander of the Yantic with his views on that subject, and these were taken into consideration when he determined whether or not he ought to take the risk of remaining there. The chances were that if she got north of Melville Bay, being in open water, they would meet her going down. Garlington was about ten days going 170 miles from Littleton Island. But when they passed each other Commander Wildes was between 20 and 30 miles away from shore, driven off by the ice. Therefore they failed to meet. But the probabilities were all that they would meet. Colwell said, in his request to go directly south, "I thought we should meet the Yantic at Upernavik," and this was the reason, as he says, why they determined to go south. He never supposed that she would get through Melville Bay, but there was the chance, and if she did get through they would meet her, and if she did not get through their own safety depended upon getting away at once, because the young ice was already forming, and in Melville Bay was some obstruction.

Garlington says:

That while I was confident that he would go to Littleton Island, if he deemed it prudent and consistent with the safety of his vessel and crew, I did not believe he would succeed in getting through Melville Bay, where we had met so much ice. But I also thought if the conditions had changed in Melville Bay in the mean time, and if the Yantic should cross and reach Littleton Island, she would find my record, know of the disaster, and easily follow us along the coast and pick us up very soon, if she did not sight us on her way north. It was my honest opinion that the Yantic would not cross Melville Bay. I therefore determined to cross Smith's Sound at the first favorable opportunity, and to proceed to the southward as rapidly as possible for the purpose of opening communication. There was a possibility of meeting relief at Cape York, in the Swedish steamer *Sofia*. I considered the chances of her crossing Melville Bay more favorable than those of the Yantic, as she was smaller, properly equipped, and commanded by a master of extensive Arctic experience.

In this connection it may be proper to call attention to Commander Wildes' letter of the 16th of October to the Secretary of the Navy; the history that he gives of the navigation in Melville Bay. He says:

The body of water known as Melville Bay is so little understood generally that a short description may not be out of place here. From Cape Shackleton, which may

be regarded as the southern point, the coast trends northerly 150 miles to Cape Walker, thence westerly 150 miles to Cape Dudley Digges. The coast line is one vast glacier, the rocky headlands only projecting, which constantly discharges multitudes of icebergs, many of enormous size. These, drifting to the westward and grounding in the shoal water south of Cape York, frequently hang up for a whole season the vast fields of ice which accumulate during the winter. When not so hung up by bergs the "main" or "middle" pack, which is out of the influence of the current from Smith's Sound to Davis' Straits, drifts back and forth with the prevailing winds, at times leaving open water between it and the fast ice and again closing.

The North Star was caught in August, 1849, and luckily broke out after "hair-breadth escapes" on the twenty-fifth of September, and succeeded in getting into Wolstenholm Sound, where she wintered. The first Grinnell expedition, in 1855, was caught in the pack early in July and not released until August 15. In 1857 the Fox was caught south of Cape York and drifted all winter in the pack. In 1875 the Alert and Discovery met the pack just outside the Brown Islands, near Upernavik and were thirty-four hours pressing their way through. On the twenty-second of July, 1876, the Pandora was beset for eight days in the pack and only succeeded by great exertions in freeing herself, having been in imminent danger of being crushed. Many whale ships have been lost in this bay. During one year the governor of Upernavik states that he had 200 men thrown on his bounty whose ships had been crushed in the ice. (See proceedings U. S. Naval Institute, December 11, 1873.)

Commander Markham, second in command of the Alert, an Arctic navigator of no mean repute, says: 'The dangers connected with a passage through Melville Bay are now so well known to all who have taken any interest in Arctic affairs, or who have devoted any time to the perusal of Arctic literature, that it is needless for me either to explain or dwell upon them at any length. Many a well-equipped ship has been caught in the fatal embrace of this bay. What tales of woe and disaster could its icy waters unfold,' &c.

Captain G. S. Nares, commanding the British polar expedition of 1875-76, having been thirty-four hours in the middle pack, says: "Although we made so successful a voyage through a locality justly dreaded by experienced ice navigators, the conclusion must not be hastily arrived at that a similar passage can always be commanded. Had a strong breeze set in while we were among the ice we should have been beset in the pack, and, at the very least, delayed several days."

This information respecting the history of navigation through Melville Bay was a part of the material upon which Garlington, situated as he was, had to make up his judgment at that time, and I refer to it in that connection.

Now, I shall not go over the testimony at all closely, but I beg to refer the court particularly to the testimony of Lieutenant Colwell, who bears in the service a reputation for ability and skill, to which is added great zeal and love for his profession. He testifies as to the conduct of Lieutenant Garlington and his party in saving stores, and on the subject of the Yantic so getting through Melville Bay testifies as follows:

Q. Therefore you had formed the opinion at the time of the wreck of the Proteus that Captain Wildes would not enter that ice?—A. That he would not enter it.

Q. That he could not cross Melville Bay?—A. That he would not do it.

Q. That he ought not, under his instructions?—A. That he ought not, under his instructions as I understood them.

Q. Do you think the Yantic could have accompanied you through that ice?—A. No, sir; it could not have accompanied us.

Q. Do you think that the Yantic could have passed through the ice in Melville Bay, through which you passed, with safety to herself?—A. It would have been possible, but it would have been inadvisable, fitted as the Yantic was and with her crew, with the possibility of being beset in the ice or caught in it for the winter.

Q. You think it would have been of unusual danger to a naval vessel?—A. Yes, sir.

Q. Had the Yantic any special equipment for service in the Arctic regions?—A. Her battery was taken off, all her ordnance stores were landed, and she was sheathed from the bow to a little abaft of foremast with oak planking spiked on the outside of her copper.

Q. To what thickness?—A. About 3 inches abreast of the foremast. It was thicker right on the bow, probably 6 inches at the cut-water.

Q. You read Lieutenant Garlington's instructions on your way up?—A. Yes, sir.

Q. And were familiar with those instructions?—A. Yes, sir.

Q. And with Lieutenant Greely's letter of advice as to what should be done with a view to his safety?—A. Yes, sir.

Q. Did you have any conversation with Lieutenant Garlington with reference to this "Inclosure No. 4," as it is called?—A. Not until after we got back to St. John's.

Q. Did you know of its existence?—A. No, sir.

Speaking further as to the conclusion arrived at:

Q. And you think that under all the circumstances of the case you two gentlemen did the best that could be done?—A. According to our knowledge we did the best we could do.

Q. There was no difference of opinion between you as to coming down after the wreck?—A. No, sir.

Q. Except as to the point at which you should separate?—A. Yes, sir.

The only testimony to the contrary as to the experience of ships in getting through Melville Bay is that of General Hazen, who says, on page 100:

Q. Did any of the naval authorities with whom you consulted at any time express any doubt that the Yantic could reach Littleton Island?—A. I do not remember that they did. There were a great many doubts expressed about it, but whether they were expressed at these interviews with the Secretary of the Navy or Commodore Walker I do not remember. But I was left with the impression that there was a good deal of doubt in their minds as to her getting there.

Q. As to her reaching Littleton Island?—A. As to her reaching Littleton Island.

Q. Did you have any doubt yourself?—A. I had none.

Q. None at all?—A. Yes, I had the same doubt that I would have of any ship on a perilous expedition, but my experiences had led me to believe that those preconceived difficulties usually passed away upon reaching them, and I had scarcely a doubt but with proper effort the Yantic could get through.

Q. And therefore you were perfectly willing to risk the safety of the expedition upon the Yantic reaching Littleton Island?—A. Yes, sir.

Q. And remain there as a base?—A. And remain there as a base. I considered that that would add largely to the chance of the expedition being a success.

Pardon me if I shall protest against having Garlington's conduct judged by the standard of General Hazen's knowledge of Arctic navigation.

This is the only testimony that I have been able to find in the record that underrates the difficulties to be expected in navigation through Melville Bay, and, therefore, without any comment, I submit it. I beg to refer to the testimony of Commander Wildes speaking of packs of ice in Melville Bay:

Q. It is the history of navigation of those waters that those packs are to be expected there?—A. They nearly always have been met there. There is a choice of passages across Melville Bay—the northern, middle, and southern passages, depending on the state of the winds.

Q. But none of them can be counted upon with any certainty to be free from ice?—A. No, sir; you cannot count on crossing Melville Bay until you get across.

Q. The nature of your instructions then rendered it very problematic whether you could reach Littleton Island?—A. It did; problematic in any case, with any instruction.

Then, again, as to his ship's equipment—

A. The ship had a sheathing of oak plank extending from her water-line to about 7 feet below. The oak plank was about 2½ inches thick, being a little thicker about the cut-water. That is all the protection she had. She had no more equipment for officers and crew for that region than she had to go to the West Indies.

Q. You regard her as entirely unfitted for a winter in the Arctic regions?—A. Entirely.

Q. Do you consider that your delay at Upernavik on your passage north materially affected the course of events to the prejudice of the object of the expedition?—A. I do not.

He then gives the experience of the Pandora and the Alert and other ships, which I will not go into, and testifies as follows:

Q. When you left St. John's had you any idea that you would be able to get up to Littleton Island?—A. I thought it hardly probable, but I meant to make a trial of it.

Q. In your opinion, from all the information that you had upon the subject, not having been up there before, did you think the chances were unfavorable to your getting up there?—A. Very much in favor of my not getting up.

Q. And that was the idea, as I understand from others, that prevailed among the officers of your ship?—A. I will not undertake to say in the way of testimony what they thought.

Q. Did you consider that the Yantic was a proper ship to have been sent upon that work in order to do the work that was expected of the ship; that is, to go to Littleton Island?—A. No, sir.

Speaking of his experience through Melville Bay, he says:

Q. You had no difficulty in your way finally in getting from Upernavik to Littleton Island?—A. We met the pack, a very heavy pack—that is, a great quantity of it, not particularly heavy ice—on the northern side of Melville Bay. We went through a number of loose streams of ice, some of it quite heavy, that struck us pretty hard, and a portion of the time, for about six hours, where there seemed to be a greater quantity of ice, the fog was very thick; sometimes it would lift so that we could see a quarter of a mile, and at other times it would shut down so that we could not see beyond the ship's flying jibboom. When it raised we could see the ice still streaming away to the southwest, and I thought then and think now that we were in about the only open water that there was there. The southerly winds I believe had not only packed the ice up in the northern side of Melville Bay, but it kept the ice coming out of Lancaster Bay from going south and drifted that north. I think the northern part of Melville Bay was full of it, and on the 10th of August I never could see more than a mile or two. It was quite as heavy as the Smith's Sound ice.

Q. How did your ship behave? Did you feel that you were in any danger while working through the pack?—A. There was danger of the fog shutting down thick and of finding ourselves embayed in the ice, the shifting of the wind bringing it down behind, or ahead, or in any direction. I could not tell where it was coming, and was, I thought, running a great risk in doing what I did, but I thought I would try it.

Q. Do you think that the chances—not speaking of your after knowledge, but the knowledge you had then or the knowledge which the Proteus portion of the expedition had acquired on their way up—were sufficient to lead them to doubt the practicability of the Yantic reaching Littleton Island so as to justify them in leaving that island without waiting at least a few days for her arrival?—A. I do.

Q. That is, the party could not place any dependence upon your being able to get up there?—A. None whatever, sir.

Commodore Walker, on page 104, says:

By the COURT:

Q. Did the Navy Department give General Hazen to understand at any time during those negotiations that there was a probability that the Yantic would reach Littleton Island?—A. I cannot say that we did, but I should not like to dispute it either, because in my mind there was very little doubt but that some time during the season she would reach Littleton Island.

Q. In your opinion were the probabilities for or against her getting to Littleton Island?—A. In my mind the probabilities were that she would reach Littleton Island, perhaps not directly, but some time during the season, although it would not have surprised me if she had failed to reach there, still I thought there was a probability that she would succeed.

Now this is all the testimony that I desire to call to the court's attention particularly in respect to this matter, and I have no comments to make upon it; it stands to speak for itself.

I may, I think, with confidence submit to the court that between the pages of the testimony taken in this investigation, that I have had the honor to consider in your presence, there has not been shown any disobedience of orders on the part of Lieutenant Garlington. I think I may go further and say that he has executed and carried out his instructions in the language of his chief not only "according to their spirit," but according to their letter as well. I think, may it please the court, that in view of the information he had, as the material upon which his judgment was to be formed at the time when his ship went under the ice on the evening of the 23d of July, that he did, in the exercise of his judgment and discretion, the only thing under the conditions that it was possible for him to

do, or that promised safety to his own party, or the least probability of succor or relief for Greely's. The two naval officers who testified were emphatic in their approval of his course—Lieutenant Colwell at the time and Commander Wildes after he got there.

“Good judgment, fidelity, persistency, and courage” are the qualities that Secretary Chandler ascribes to a good officer. They indeed constitute “the splendid rigging of a noble manhood.” It might well be the high ambition of any officer to stand upon a pedestal constructed of such virtues.

Viewing Garlington's conduct from the experiences of Arctic navigation; viewing it in the light of his own experiences through Melville Bay; considering it with reference to his knowledge of the Yantic, and the information derived from her commander; that it was the accumulated judgment of all, that the *only thing* was to come directly south; the fatal consequences if he had erred on the side of remaining, had the Yantic failed to reach him—taking these all into consideration, I submit that the only safe thing for him to do, was the course that he adopted. I will therefore mark one stone “good judgment,” and put it in its place. His fidelity has not been questioned; mark another “fidelity,” and place it.

Persistency was his fault; and it is charged that his too great zeal in pushing his ship forward precipitated the disaster. Upon this stone might be inscribed his own language, on the deck of his ship on the evening of the 22d July: “I would be unfaithful to my comrades that I am sent to relieve, and my Government that sent me to relieve them, if I did not take advantage of this lead to push on to their rescue.”

Amid dangers where a less steady courage might have been wary, no one has questioned his. I therefore inscribe “courage” on the last stone, and put it in its place to complete the pedestal, and I respectfully submit that upon this pedestal so constructed, Lieutenant Garlington's conduct of this expedition entitles him to stand. In what, then, has he been guilty to have merited the imputations that have been made upon his record as a soldier? Upon his arrival at St. John's he telegraphed on the 13th of September to his chief the sad information of the loss of his ship, and the failure of the expedition. He well knew that he must suffer the consequences of distrust and suspicion which attach to the failure of an enterprise in which human life is involved, and the public deeply interested; his assurance was in the magnanimity of his profession, which he knew would withhold censure until he was heard. Imagine his surprise, then, with the consciousness of having discharged his duty under his instructions with fidelity to his chief, that the first blow should have come from his own Department. On the 13th September he telegraphed the loss of his ship; on the 14th of September “Inclosure 4” comes back into this case to do its cruel work. It comes now charged with all the authority that can be given to it from the Signal Office, as the specific instructions and orders of Lieutenant Garlington. It goes forth to the world in company with the “surprise of the Secretary of War that Lieutenant Garlington should have disobeyed his positive instructions.” Categorical questions were sent to Garlington by the Secretary of War by telegraph to know “How it is,” &c., and on the 14th Lieutenant Garlington telegraphs, “It was not in my programme; see my instructions,” &c. Lieutenant Caziarc testifies that upon examination made, after Garlington's telegram is received, he found out, on the next day, the

15th, upon a close examination of the inclosure, that this "Inclosure 4" was not referred to in the body of the instructions, and hence was not a part of Garlington's orders, although he testifies that he knew in June that this paper was not referred to in the body of the instructions. Yet he gives it out to the press for publication as Garlington's order. On the morning of the 15th it was known in the Signal Office that Garlington, at St. John's, had in his possession his original instructions; *then* it is found out in the Signal Office that there is a mistake about "Inclosure 4" being a part of his orders, but the justice of publishing this correction was not done. In its stead we find in the public press a dispatch of this character sent from Washington:

The Department refers to the supplemental orders as evidence that it had foreseen and provided for such a misfortune as overtook the Proteus, by directing that the stores be landed before entering Smith Sound. Lieutenant Garlington, on the other hand, claims that he acted upon his original instructions.

And this issue is never abandoned by the Signal Office until the testimony introduced before this court shows that it was false.

Lieutenant Caziarc says that he did all he could to correct the injustice done Garlington, "but that he had to be guarded." Why guarded? If an error was published on the 14th, and on the 15th discovered, why guard against the publication of the truth on the 16th? The high duty of the office was, to guard and not assassinate the reputation of an officer who had come to its service accredited by his superiors as possessing the high qualities requisite for the perilous duty he had been assigned to discharge. The only guard that it furnished was the escort to the error that went forth from the office under its sanction.

I submit, to say the least of it, that it was a cruel, merciless, and unwarranted tampering with a soldier's reputation, under circumstances that demanded the most scrupulous protection and care for it, in his absence.

Lieutenant Garlington's report was made on the 2d of October, complaining of the injustice done him, but not until the 16th of October was the report transmitted to the Secretary of War by General Hazen. Then for the first time Garlington was relieved of the stigma of having disobeyed orders. The qualification, however, under which it was done, I have considered in another connection, but, as I there pointed out, it was far from doing him justice.

Now, I want in this connection to say something more in respect to "Inclosure 4" and the part it played subsequently. I think it clearly shown in this case that General Hazen's recollection, Captain Powell's account, and Lieutenant Garlington's statement, constitute the true history of that paper, and of the date of its preparation. In justice to Lieutenant Garlington, amid all the confusion that has come to light respecting these transactions, and the differences of understanding and differences of recollection on the part of various officers concerned with them, I will say that there is but one single issue upon it made, so far as he is concerned, and that, is that he saw the paper on June 3d. He is positive and emphatic that Lieutenant Caziarc is mistaken in stating that he showed it to him on Sunday, the 3d of June, the day upon which Lieutenant Caziarc fixes it. He denies that on that, or on any other day he expressed his approval, either in language or in any other manner, of the supplemental instructions, "Inclosure 4." He gives his reason for being positive on the subject, that although he was

the officer who was to take charge of this expedition, still Captain Clapp was retained after he had been put in charge, with authority to get up his orders, because of his long study of Arctic matters and of the information he was supposed to have touching it; that he declined to make even any suggestion upon the memorandum that was sent around by General Hazen to all officers in the office, giving as his reason that in the event of failure he did not wish to be in a position to divide any responsibility of that kind with any one.

Caziarc testifies that the paper was prepared at the instance of Captain Powell on Sunday, June 3d, and he says Captain Powell came to him on Saturday, June 2d, and requested it; that he came to the office on Sunday to work it up. He fixes the date of its preparation first, from the fact that the next day General Hazen returned from St. John's, and the other fact of his having a conversation with Lieutenant Garlington respecting the matter on Sunday, which Lieutenant Garlington denies. Garlington says that the only conference he ever had with Caziarc on the subject was about the 20th of May, or perhaps a little later, which corresponds exactly with the time given by Captain Powell.

I here give Caziarc's own version of how the false copies were made. On page 46 he says:

During the first two or three days after the dispatch of September 13, possibly the 15th or 16th, Mr. Chandler was away, and Commodore English, I think, was Acting Secretary of the Navy; the papers were freely carried back and forth from our office; such papers as any particular inquiry rendered necessary, either in the form of roughs or of complete copies, or rough copies, to save carrying the large record-books of the office to and fro, as is constantly the case, and after the return of Secretary Chandler, when he took up the examination of the whole subject, those papers again went back and forth; sometimes they would be in our office and sometimes in the Navy Department; but on the conclusion being reached by the Secretaries that nothing further could be done, or some time after that, the Secretary of the Navy asked that he should have the papers that had been used in the course of those conferences, and then they were made up, and transmitted to him with such completeness, as Captain Mills thought necessary, to give him the *data* which had been used during the conferences.

On the 15th he had found that "Inclosure 4" was not a part of Garlington's instructions, and yet sometime subsequent to that, he furnishes to the Secretary of War for the Secretary of the Navy, a copy of "Inclosure 4" from his office, in which this paper which he had found before was not even an inclosure, is not only put in as an inclosure, but actually the instructions themselves refer to it in red ink in the body thereof as an inclosure. Now the explanation of how that "Inclosure 4" got in there is made on page 47 of the testimony, and I will not detain the court by any comment upon it. I don't know enough about the irregularities of the office to appreciate such testimony.

Lieutenant Caziarc says in justification of his publication of "Inclosure 4," on the 14th of September, that he looked at it casually and he thought it was a copy, and he sent it out as such, and gave it as a part of the instructions. Yet, when the paper was fresh in his mind, a few days after he prepared it, and after he had known, as he says, that it was in conflict with Lieutenant Garlington's instructions, when he comes to furnish a copy of Garlington's instructions for the press, from the same bundle of papers, as I understand, from which he subsequently furnished copies for the Secretary of War and the Secretary of the Navy, he did not furnish this paper

as a part of his instructions. This was before the departure of the expedition. On page 61 he says:

Q. On the 4th of June that paper was in your hands?—A. Certainly.

Q. On the 3d of June, I understand, you had prepared the memorandum instructions referred to here?—A. On the 3d of June.

Q. Did it become apparent to you, upon the knowledge of those two papers that you had at that time, that there was a direct conflict between them?—A. Not so direct as had been assumed. There was a direct conflict between them to one extent: so far as affected the orders to Lieutenant Garlington. In that respect they were in direct conflict, and one or the other should have been amended.

Very well. He knew that the original instructions prepared by General Hazen and which met his (Hazen's) views had not been amended. He knew before the expedition departed that a copy had been furnished to the Navy Department. It strikes me, in view of the fact that no superior informed him, according to his own testimony, that this paper had been adopted, that it would have been a reasonable inference to have drawn that it had not been adopted, when it was, as he says, in direct conflict with the instructions which had been furnished Garlington, so far as "Inclosure 4" related to him, which instructions he knew had not been amended to harmonize with "Inclosure 4."

Lieutenant Caziarc testified that this paper was given to Captain Powell, who informed him he gave it to the Chief Signal Officer. Lieutenant Garlington says Captain Powell informed him that he had not taken it when Caziarc showed it to him, and consequently had not given it to Hazen. Captain Powell says he has no recollection of having given any such information to Caziarc and that he never gave the paper to Hazen. Lieutenant Caziarc says he never gave it to General Hazen, and never sent it to the Navy Department. The Secretary of the Navy says he never saw it. When Commander Wildes' instructions were prepared it had not reached the Navy Department, according to Commodore Walker. General Hazen says he never carried it; on the contrary, he took the genuine instructions which he understood took the place of the memorandum instructions.

On the other hand, Commander McCalla is quite positive that he saw it in the Navy Department. Neither Commodore Walker or the Secretary of the Navy remember having seen the paper. McCalla says that Commodore Walker gave it to him. Now, coming back to the time when Lieutenant Caziarc prepared this paper. He says he prepared it on Sunday, and in the early hours of Monday morning it was given to Captain Powell, who was then acting Chief Signal Officer. It comes out this morning, as General Hazen informs us, that on Monday, the 4th of June, he arrived at the office an hour earlier than had been his custom, and had sent telegraphic orders to have the office open at 8 o'clock, that he might be there, in order that the earliest attention might be given to this very subject. Lieutenant Caziarc must be mistaken. It is not probable that he, as adjutant-general of the office, should have given to Captain Powell a paper which was intended for General Hazen, in the early hours of Monday morning, when General Hazen was there to receive it himself, and General Hazen is quite positive in his recollection that he did not receive it.

It is another part of the history of "Inclosure 4," that the objects for which it was being prepared, the purposes and ends which it was to serve,

seem to have been all in confusion. As I stated before, General Hazen thought it was not necessary in view of the fact that the Proteus was to have a tender. It was being prepared by the officers in his department in view of the fact that there was to be a tender, and made necessary for that reason. We have it appearing in all sorts of shapes. Sergeant Beale is charged with some of the confusion in copying and putting it in the wrong place. Everybody who touches it seems to have trouble with it in some way. It turns up in every place. It is impossible to get any correct or true history of it so far as I have been able to discover. We find it always serving some purpose. I think, without any injustice to the Signal Office, the observation in "Little Dorritt" with respect to the Circumlocution office may be applied to it. That "whatever was required to be done the Signal Office was beforehand with all the other public departments in the art of perceiving how not to do it."

The Secretary of the Navy asked for instructions. This paper in the absence of Hazen is prepared. It was not what was asked for, and this should have been the end of it; but it is brought into the case, and with it all the difficulty. But to get the paper into the case at all, the genuine "Inclosure 4," which was among the papers, had to be gotten rid of.

In order to get this paper, which is exhibited as "Inclosure 4," into the case I will merely refer to Cazare's testimony, which is an attempt to explain it. That is all there is on the subject in the testimony.

In view of the history of "Inclosure 4" and the general treatment of Garlington as developed in the testimony, I think, when the Secretary of War comes to review this case, he will have no occasion to regret the suggestion in his letter, that if Garlington had lost his life his record would have suffered from the imputation of having disobeyed his orders.

In the light of subsequent developments, I am justified in saying that if Lieutenant Garlington had had the misfortune to have lost his orders with his ship, that this Court would never have been convened; but ere this Garlington would have responded to charges and specifications before a Court-martial and been dismissed the service in disgrace, for disobedience of orders. Fortunate for him, that in the wreck, he saved these papers, for with them, he saved his reputation as a soldier, and his commission in the service.

With these he now comes before a court where all the light that can be thrown upon this transaction has been turned on; no requests have been denied, to grant facilities for explaining circumstances that might create suspicions. Witnesses to testify have been brought from Newfoundland and from Texas, because it was claimed that they could explain things that were not clear.

He comes now freed from the suspicions and unjust criticisms that have been made by some, in view of the fact that he was the officer in charge of the conduct of the expedition that failed. He has suffered the consequences which always attend such failures, a suffering to a soldier far keener than the physical discomforts of sleeping in an open boat, anchored to an iceberg, in an arctic ocean. He comes now in a presence where prejudice, suspicion, and distrust are strangers; before a court organized for the purpose of inquiry into his conduct. That conduct is to be measured by the absolute standard of justice and strict accountability for action. A sol-

dier's reputation formed by any other standard isn't worth the care of its keeping.

In this presence all are silent to hear the judgment. From out the bitter blasts of wrong and detraction, more piercing than Arctic winds, he comes before this court, bringing in one hand his orders, and in the other the clean, pure record made thereunder, amid the ice of the Arctic regions, and places them before the court, with the assurance that he will at last realize, in this presence, the reminder of Richelieu to his king—

* * * For JUSTICE,
All place a temple, and all season, summer.

I beg that it may not be deemed out of place if I venture to tender to the court, in conclusion, my grateful acknowledgments for the courtesy which has extended to me the privilege of appearing before you in behalf of Lieutenant Garlington, and, what I prize much more highly, the continued courtesy and kindness with which my presence has been received in the discharge of the duties devolving upon me.

General Hazen then read to the court as follows:

STATEMENT OF GENERAL HAZEN.

The Lady Franklin Bay expedition was authorized by statute, and the character, outfit, and scope of its work practically determined before I became Chief Signal Officer; and I succeeded to this with the other duties of my office. It differed from expeditions that had preceded it to the Arctic regions in this, that, while their purpose had been mainly exploration and discovery, largely experimental, the objects of this one were distinctively and thoroughly defined. It was to proceed to a well-known spot, and establish there a small observatory, in conjunction with many observatories of like character at other points about the pole, established by other nations, for the purpose of taking, with similar instruments at the same absolute moment of time, certain meteorological observations for future comparison and study. This greatly simplified the problem so far as referred to the transportation of the expedition, which was merely to carry it in a safe and expeditious manner, suitably supplied with stores and a ready-made house, to the point already chosen, leave it there, and then bring the ship home and discharge it. The United States established a second station at Point Barrow.

Thus it was not thought necessary to establish any one main depot on the line of retreat, but in place of it many small ones, several being already there, having been established by Sir George Nares in 1875.

The officer chosen to command the expedition, carry it to the spot, and then have charge of its scientific work had for many years given exhaustive study to the whole subject, and in almost all things was its author, and is believed to be admirably fitted for it. As this work was to continue several years, it was thought best to send up a ship each summer, and it was decided to make the journeys as efficient, and at the same time inexpensive, as possible.

For the first trip in 1881 a steamer was chartered from the Newfoundland fleet of sealing vessels, at the total cost of about \$25,000. She was selected and chartered by the officer in charge of the expedition, Lieutenant Greely, and sailing from St. John's, N. F., the 7th day of July, reached Lady Franklin Bay, latitude 81° 42' north, August 12th, with very little obstruction from ice, discharged and returned safely to St. John's the 12th

of October, or in the unprecedentedly short time of 67 days, and without accident of any kind. This ship was the Proteus. In 1882 the sister ship of the Proteus, the Neptune, was chartered and sent from St. John's supplied with a choice selection of stores, but on reaching the locality of Cape Hawkes, latitude $79^{\circ} 20'$, she found the ice in Smith Sound unbroken, and after remaining in Smith Sound forty days, making every effort to make a passage north, and until the season had arrived when it was not possible to find such a passage, there being none, the Neptune returned to St. John's and was discharged.

The last Congress decided to recall both the Lady Franklin Bay and Point Barrow expeditions, although not completing by one year the work agreed upon by the several nations, and the same ship, the Proteus, with the same Captain Pike, who made the successful trip of 1881, and brought back Mr. Greely's commendations, after having been inspected and pronounced suitable by an engineer officer of the United States Navy, was chartered and sent to Smith Sound. She left St. John's the 29th of June, and proceeded safely and in a thoroughly satisfactory and efficient manner, till reaching the locality of Cape Sabine, latitude $78^{\circ} 52'$, when she was nipped in the ice, the 23d day of July, and sank. Up to the sinking of this ship the progress and conduct of these vessels, as shown to this court, was in every respect efficient and satisfactory, while the voyage of 1881 was the most successful one in point of time ever made in high latitudes.

The questions which seem to require notice here, are :

1st. Was the subject of these expeditions carefully studied?

2d. Were the ships suitable for the purposes required of them?

3d. Were the officers in charge properly chosen and instructed?

There can be no reasonable doubt that extended and careful study was given the whole subject from its inception. Mr. Greely had himself in the most comprehensive manner carefully investigated it, and has given us a practical and most successful example of what he wanted, and how he wanted it done, and afterwards reduced his plans to writing. The evidence upon this point, of the system and methods by which this study was carried on, are before the court.

As to suitability of the ships there is no room for doubt.

It is in evidence, and a well-known fact among maritime men, that for ice service the Newfoundland sealing fleet is the best afloat. It is the development of more than two hundred years' experience in ice service, and her steamships are built in the very best navy-yards in the world. Her trade is of the most profitable kind, which has naturally made her ships what they are. It is a well-known fact, and in evidence, that the Proteus was among the best and most suitable vessels for the purposes of this expedition of any in that fleet.

Each of these ships, before being contracted for, was carefully inspected by an officer of the United States Navy, sent for that purpose, and pronounced suitable for the voyage, both in hull, machinery, and equipment.

The owners of the Proteus, a firm of more than one hundred years' standing both in St. John's and Dundee, and of the highest respectability, who guard their business integrity as a soldier does his honor, sent with her the captain with whom they had trusted one of their best ships for ten years — a captain whom the entire community of Newfoundland pronounced the best for our purposes sailing in those waters. The owners

also placed in her a good crew, and one and one-half years' supply of fresh provisions, and it is difficult to see wherein any improvement could have been made in respect to these ships.

The instructions under which they sailed were substantially those of Mr. Greely, who, from his studies of the expeditions (and they were thought to be sufficiently full and complete) and his position at Lady Franklin Bay could, and did, speak with weight and power. This he did just at the time the Proteus was leaving him to return home, as no other man could, upon this subject, and in a manner which no one could properly disregard. It was at a time when no reply or change was possible, and in the most emphatic terms, made under circumstances peculiarly grave and full of responsibility—a plan on the loyal execution of which depended his own life and the lives of his party. It had the force of being made on the spot, with the admonition not to depart from it in any particular, and it had to me, and always has had, the power of an absolute command; not because Mr. Greely's plan was better than any other plan, but it was the preconcerted plan of rescue, and it seemed that any departure would be not only treasonable to Mr. Greely and to a sacred obligation, but in every sense unjustifiable; and when propositions were suggested to depart from it, as appears in evidence was done, I was emphatic in my disapproval.

No one can know what controlled Mr. Greely in directing these measures, what bearing each measure may have upon the others, only that it was a plan by which the lives of his party were to be saved; nor has any one a right to say he did not know what he wanted. All that can be known is, that it was his prearranged plan for rescue, which ought to be inviolate. When Congress introduced into the question a new element, by requiring the recall of the expedition this season, it did seem necessary to depart from it so far as to land the winter depot going up, but the convoy, afterwards determined upon, did away with this necessity. Still I was anxious to do this, and only for the reasons given should have ordered the landing on the way north; and it was still in the discretion of the officer in charge when on the spot to do it, for such discretion then must of necessity be almost without limit. Its exercise would have been proper in case it could be done without loss of time, as from ice or other causes of delay, which could only be known on the spot.

This whole subject had been most carefully considered, and while I was always favorably disposed to this upward landing, I could not order it; and when it was proposed to make the depot on the west side of Smith Sound, some thirty miles from the point selected by Lieutenant Greely, on an inhospitable barren coast, nearly destitute of animal life, while the point chosen on the east side was greatly preferable in all these particulars, I most emphatically declined to entertain it. Nares speaks of the vicinity of Life Boat Cove in the highest terms as a place favorable to animal life, while of Cape Hawkes he says, "We could find only the very smallest trace of vegetation; indeed any but an enthusiastic botanist would call the country perfectly barren." Cape Sabine is not much better.

A prearranged plan for rescue in a distant land must be literally observed in all its particulars, else it is misleading and a snare, and all plans not prearranged may fail, as was the case in the long and tedious search for Sir John Franklin; and so important is prearrangement that Mr.

George Henry Richards, in writing the introductory remarks to Nares' narrative, says of the want of it in that case, "This is the fatal mistake which experience has taught us, and which can never be reproduced;" and he says further, "Much has been written by theorists after the event to prove that the long and fruitless search was made in the wrong direction."

"This is specious enough." * * * "Instructions to the leaders of such expeditions can be considered only as advice to be followed under certain assumed conditions, but in the uncertainties of Arctic navigation circumstances are almost certain to occur which may render it impossible to act upon instructions, however ably conceived." These remarks apply equally in all cases of Arctic navigation; and whenever escape from shipwreck in these seas has been effected the conditions of the moment have and must govern. The simple preparations of readiness are matters which no careful commander will neglect.

The advantage of the upward landing would have been in shortening the period of sea perils for the depot of supplies, which fact, now in the light of after-events, seems to stand out very prominently. But the *Polaris*, the *Jeannette*, and the *Rogers*, except north of where lost, made no such depots, nor had any previous American polar expedition. The successful expedition of Mr. Greely, in 1881, did not do it, nor did that of 1882, nor did Mr. Greely in any way refer to such action, but on the contrary sketched out a different course, and forbade any departure from it. It would have separated Lieutenant Garlington from his depots, and should it happen that the ship on arriving at Littleton Island should find clear weather and an open sea to the north, no one could tell the effect it might have upon the success of the expedition by delaying to unload.

This fact was most vividly sketched by Captain Clapp when this subject was under discussion before the expedition sailed. This very condition of things did occur when the *Proteus* arrived at that point, Captain Pike remarking, "We will have Greely to-morrow." The main idea and purpose of the expedition was to reach Mr. Greely at Lady Franklin Bay, and the *Proteus* did go on. Had she been as fortunate as she hoped to be, and as it seemed to those on board almost certain she would be, and as she had been under precisely similar circumstances two years before, or even as the *Neptune* had been, this question of not landing her stores on the way up would never have been heard of. Like the successful assaults of troops in a campaign, these ships in Arctic service, to ever succeed must be intrepid and face danger.

Memorandum No. 4, that appears conspicuously in this inquiry, I had no hand in except to reject it. It was the plan of a staff officer, well intentioned, but not in accord with Mr. Garlington's instructions nor Mr. Greely's plans, was without date or signature, and without existence as a paper of any importance except in the light of after-events.

The question was asked me in court if I was refused the money necessary to carry out fully my plans for the expedition, to which I replied, that all the money had been given that I had asked for.

The reluctance of Congress in granting the necessary appropriations for the Signal Service, however, which terminated in the rejection of part of them, did deter me from asking for the money necessary for sending two ships, which would have been the better plan.

A word is necessary upon some portions of the testimony. I disclaim

any intention to reflect upon what any one has said, but there is something in a regular military service that disqualifies some men from exercising a broad and fair judgment upon an irregular one. There has been a disposition not warranted by the facts to belittle the quality of this work; to disparage the fitness of the ship, her equipment, and her officers and crew. But it is in evidence that all these were good and efficient.

It was stated upon the stand and circulated in the public press that the crew was inefficient, mutinous, thieving, and disobedient, but close inquiry brought out the fact that all the time these men were on board the Proteus they performed their duties unexceptionally well, and after the shipwreck, when there was dilatoriness more than disobedience (and Captain Pike says there was not even that), it was because by their customs and laws the wreck of the ship discharged them from any authority, while the charge of thieving is not sustained.

It was said that Captain Pike was an inefficient officer. The evidence does not substantiate this, but quite the opposite. Is it possible that the entire community of Newfoundland is wrong upon this point, or that a great shipping firm like J. S. Stewart would for ten years give one of their best ships in charge of an inefficient captain? It was said that he could not use his compass in those high latitudes. But it is known that after passing the Arctic Circle the compass may as well be laid away by all captains. It was said further that he even passed Godhavn without noticing the harbor. But the truth is, that nine out of ten ships do the same thing, on account of the blindness of the passage into the harbor and the thickness of the atmosphere.

Complaint was also made of the Proteus's boats, but they brought her crew safely to Upernavik, and that for fear these men would steal the better boats of Mr. Garlington a guard was kept over them. To do this was simply a duty at all times. It was also said that on two occasions the ship struck bottom, when the facts are that the smooth, ice-worn rocks and muddy bottoms in that sea are not dangerous when slowing the ship, and touching bottom is not unusual; that in the Bay of Fundy ships are half the twenty-four hours high and dry out of water, and by Sir George Nares's narrative his ships touched frequently, and in those waters it is not a matter of any seriousness.

The testimony of Commander Wildes was largely denunciatory of everything connected with the expedition, and especially so of the Proteus, her captain and crew. I will merely call attention, as an example, to his answer to my question, after he had denounced the ships and their equipments which were used in 1882-'83: "If any ships could have gone further or done more than the Neptune, when, in 1882, the solid ice in Smith's Sound did not break up, or the Proteus in 1883, up to the time she was nipped and sunk," he answered "that they could not," and afterwards added, "equipped as they were," when he knew perfectly well that no equipment in the world would have carried the Neptune or any other ship further, nor saved the Proteus or any other ship from sinking. To his allegation that the Proteus's crew was made up of longshoremen, beach-combers, and not seamen, Captain Pike simply says, "It is untrue."

These several expeditions to the Arctic regions, and especially the one of this year, were elaborated with very careful and complete study and preparation. The greatest care was given to the quality of the food, and

the quantity was ample. It is probable that no expeditions to the Arctic have ever been sent so well provided. The one at Point Barrow, now returned, in two years never had a man on the sick report, and there was no discomfort at any time. The best ships afloat for the purpose were secured, they were well officered and manned, and they performed their part in all respects, so far as any ships could do it, in the most satisfactory manner. Such expeditions are always fraught with great danger, and are undertaken with a full knowledge of that fact. These three expeditions and three others on the Pacific side were all made to the Arctic seas, and, so far as is known, without the loss of life and with the loss of one ship, which found herself in a position where no ship in the world could live.

Compare this with the last three ships besides these sent out for polar exploration: the *Polaris*, the *Jeannette*, and the *Rogers*, all lost, and in each case with loss of life. If the *Proteus* should go into that lead, on the 23d of July, only those present could decide, and if it was a mistake, no one can say. Had she gone through, as she was near doing, the act would have met only commendation. The officer on such responsible and distant duty, like a commander in battle, must not be hampered, and, excepting the general directions of Mr. Greely, I left the officer in charge all the latitude I could. And when I was assured a tender would go, and when I knew that she would carry rations enough for all hands in case of disaster, I was satisfied, preferring to raise no formal question of supplies that might consume time, feeling confident the commander would fully recognize that his responsibility for their safety, in case of any unforeseen emergency, covered and embraced all persons in that region, whether on or off his ship.

No orders could have added to the measure of this responsibility, and with Lieutenant Greely's plan of relief before him, that he should have left those regions, as it appears to me, fifty days before it became necessary, knowing that plan would bring Mr. Greely there some time within that period and that he would be in need of succor, and that he should have brought back to St. John's what would have been a year's supply of food for Greely's party and left nothing for him, is certainly what could not have been anticipated.

I do not view Mr. Greely's situation, with all these disappointments, as one of jeopardy. He may have reached the Danish settlements, and, if not, quite probably those of the Esquimaux; in either case he will be fairly off for the winter. Or it is possible he may have returned from Cape Sabine to Lady Franklin Bay, where he has probably ample food. Or he may make his camp at Life Boat Cove, gather in the several small depots within reach, and supplement his winter's stock with native food. Of this vicinity, the winter quarters of the *Polaris* party of 1872-'73, Sir George Nares says: "It must have been a favorite and productive station for the natives for a long course of years. Reindeer and walrus bones are most prominent; remains of seals, foxes, and hares are very abundant, and there are thousands of sterna of little auks."

Mr. Greely reports from Lady Franklin Bay on the 15th of August, it being but three days after his arrival, that he had already secured three months' full rations of native meat. This shows what can be done in those regions where game exists. He was specially instructed to thoroughly inform himself upon the whole subject of native food, expressly to be in readiness for such a contingency as now exists. On the 1st of Sep-

tember he would still have at Lady Franklin Bay forty-seven twenty-four-hour days of the long day left, with a meridian sun of 16 degrees; and should he have water, and travel south at the rate of twenty-five miles a day, he would at no time have less sun at mid-day. But should he stop at Littleton Island after traveling south at that daily rate, he would still have about fifty twenty-four-hour days before the long night would begin—ample time for suitable preparation for his winter camp.

The long night there, which at no time is darker than twilight, extends from October 27 to February 15, or 111 days.

The main source of apprehension comes from the fact that the Proteus party left promises of succor this season, which was not rendered. This may lead to neglect of necessary preparations for the winter, and to discouragement.

In this connection I desire to call attention to what my wishes and recommendations upon the subject of reaching the Arctic with succor were, during the past autumn, after tidings of the disaster reached here, and call attention to my telegrams from Washington Territory upon this subject.

From the beginning I have labored for the success of this work with zeal, industry, and earnestness, and often under circumstances of discouragement.

The court then at 3 p. m. adjourned until to-morrow morning, the 4th instant, at 11 o'clock.

JANUARY 4, 1884—11 a. m.

The court met pursuant to adjournment. Present, all the members and recorder, and remained in consultation until 3 o'clock, when the court adjourned until to-morrow at 11 a. m.

JANUARY 5, 1884—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder, and remained in consultation until 3 o'clock, when the court adjourned until Monday, 7th, at 11 a. m.

January 7th, 8th, 9th, 10th, 11th, and 12th, from 11 a. m. to 3 p. m. each day, the court was in deliberation and engaged in preparing its report.

REPORT OF FACTS DEVELOPED BY THE INQUIRY.

In 1875 Lieut. Karl Weyprecht, of the Austrian Navy, proposed a scheme of international circum-polar research in as high latitudes as practicable. Under date of May 20, 1879, he wrote to General A. J. Myer, then the Chief Signal Officer of the Army, in regard to the matter, suggesting that the United States establish and maintain a station at Point Barrow, and that they send a representative to a conference which was to meet at Hamburg on the 1st of October, 1879. The Chief Signal Officer

replied on the 8th of September following, and encouraged Lieutenant Weyprecht to expect the co-operation of our Government.

Up to this time no mention is made, in the papers before the court, of any proposition to establish a second station. Early in 1880 it appears that a bill was introduced in Congress providing for an Arctic expedition, which authorized the establishment of a temporary station to be continued through a series of years at some point north of the eighty-first parallel, on or near the shore of Lady Franklin Bay, for the purposes of scientific observation and exploration, and to develop or discover new whaling grounds, &c. This bill further authorized the President to accept the loan of the steamship *Gulnare*, and to fit her out for the purposes of the expedition. This bill became a law on May 1, 1880, under the title "An act to authorize and equip an expedition to the Arctic seas." The act was simply permissive and made no appropriation.

By act of Congress of March 3, 1881, the sum of \$25,000 was appropriated under the head—

Miscellaneous objects under the War Department, Signal Service :

For continuing the work of scientific observation and exploration on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location and return.

In accordance with this act a force was organized for the work, under the direction of General W. B. Hazen (who had succeeded General Myer as Chief Signal Officer of the Army), consisting of three commissioned officers, nineteen enlisted men, one acting assistant surgeon, and two natives of Greenland (all of whom were volunteers for the service), First Lieut. A. W. Greely, of the Fifth Cavalry, being in command. The party left Saint John's, N. F., on the 7th July, 1881, on the steamship *Proteus*, Capt. Richard Pike, master, and after a remarkably quick voyage reached the southeast point of Lady Franklin Bay on the 4th, and Discovery Harbor on the 11th of August. The *Proteus* landed her passengers and cargo, and started on her return to Saint John's about the 18th, but being delayed by ice a few miles southeast of Discovery Harbor, Lieutenant Greely was able to communicate with her as late as the 25th. She got clear of the ice on the 26th, and reached Saint John's about the 12th of September, having been gone but a few days more than two months, and bringing back with her the latest information from the party at Lady Franklin Bay. Amongst the communications from Lieutenant Greely to the Chief Signal Officer was the important one dated August 17, 1881, suggesting a programme of operations for the government of the relief party to be sent to Lady Franklin Bay in 1882 and 1883.

By joint resolution of June 27, 1882, the sum of \$33,000 was appropriated and made immediately available for—

Continuing the work of scientific observation and exploration on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location and return, and for continuing the work of scientific observation at Point Barrow, &c.

Under the provisions of this law, the Chief Signal Officer of the Army organized a relief expedition for Lady Franklin Bay, for which purpose Mr. Wm. M. Beebe, jr., of the Signal Service, under instructions of, and authority from, the Chief Signal Officer, chartered, at Saint John's, N. F., the steamship *Neptune*, Wm. Sopp, master. She sailed from Saint John's on the 8th July, 1882, with the relief party and supplies on board, and Mr. Beebe in charge. In the early morning of the 29th she passed

Littleton Island, but immediately thereafter was stopped by a barrier of ice. She remained in this vicinity until September 5, never reaching a higher latitude than $79^{\circ} 20'$, when, finding it hopeless to make further attempts to reach Lady Franklin Bay, she abandoned the effort, and, in accordance with her instructions in the event of failure to reach Lieutenant Greely, established a cache of provisions upon Littleton Island, and another on Cape Sabine, of 250 rations each. She also left a whale-boat at Cape Sabine, and another at Cape Isabella, and then bore away for Saint John's, bringing the rest of her stores back to that point, where she arrived on the 24th September, 1882. The supplies were landed and stored for future shipment to Lady Franklin Bay.

This failure of the expedition of 1882 rendered it imperative to take active measures for the dispatch of a relief expedition in 1883—now rendered the more urgent, because if Lieutenant Greely were not earlier relieved, he would, under his instructions, abandon his station at a date not later than September 1, 1883.

Under date of November 1, 1882, the Chief Signal Officer submitted to the Secretary of War a plan for a relief expedition during the summer of 1883, to be composed of one officer and ten enlisted men of the Army, with an acting assistant surgeon. This project was promptly returned by the Secretary, with the suggestion that it "would be much more desirable to endeavor to procure from the Navy the persons who are needed for this relief party," and requested the views of the Chief Signal Officer, who replied on the 8th of November that he "would consider the transfer now of any part of this work to any other control as very hazardous and without any apparent promise of advantage."

The organization of the relief party was then proceeded with, and on February 6, 1883, First Lieut. Ernest A. Garlington, Seventh Cavalry, was directed to report to the Chief Signal Officer for duty in connection with the relief expedition, he having volunteered for the service. He duly reported at Washington, and on the 28th February was assigned to all duties connected with the expedition, relieving Capt. W. H. Clapp, Sixteenth Infantry, who had theretofore performed them, but who continued to act to some extent as an adviser to the Chief Signal Officer in regard to matters relating to fitting out the expedition, and in preparing instructions for the government of Lieutenant Garlington.

By act of Congress, approved March 3, 1883, under the head, "Signal Service, to be expended by the Secretary of War," the sum of \$33,000 was appropriated

For completing the work of scientific observation and exploration on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location and return, and for completing the work of scientific exploration at Point Barrow, * * * the same to be immediately available.

The same act

Provided that the above work near Lady Franklin Bay and Point Barrow shall be closed and the force there employed shall be returned to the United States within the year eighteen hundred and eighty-four.

The following indorsement by the Secretary of War appears upon a memorandum taken to him by the Chief Signal Officer about the 1st of April, 1883 :

The Arctic expeditions originated in the Signal Office, and no other Bureau seems to have taken the slightest interest in them. It was solely upon the urgency of the Chief Signal Officer that the Secretary of War, not without reluctance, took the steps which have placed these expeditions on foot. * * *

Preparations for the dispatch of the proposed relief expedition had been meanwhile continued, and on May 10 the Chief Signal Officer applied for authority to visit Saint John's, N. F., for the purpose of securing the best vessel available for the purposes of the expedition, and also the services of certain experienced persons to accompany it. On the same day he requested that application be made for the detail of an officer of the Navy to inspect such vessel as to her suitability for the intended service. The orders for General Hazen's journey to Saint John's bear date of May 16, and those to Lieut. Commander B. H. McCalla, the officer of the Navy designated to make the inspection, were dated May 17. On or about May 18 they left for Saint John's, and the result was the engagement of the steamship Proteus, the same vessel, with the same master, that had so successfully transported Lieutenant Greely to Lady Franklin Bay two years before. The crew, however, with very few exceptions, was entirely different.

On the 4th of June General Hazen returned to Washington, and on the same day signed the instructions which were to govern Lieutenant Garlington during his absence upon the expedition.

Previous to his departure for Saint John's, that is to say, on May 14, the Chief Signal Officer requested that "the Secretary of the Navy be communicated with, with a view to his sending a ship of that branch of the service as escort, to bring back information, render assistance, and take such other steps as might be necessary in case of unforeseen emergencies," stating that "she need not enter the ice pack nor encounter any unusual danger."

In accordance with this request, the U. S. S. Yantic, being the smallest and handiest ship available for the purpose, was designated for the service referred to, by letter from the Navy Department to Rear-Admiral George H. Cooper, commanding North Atlantic Squadron, dated May 31, 1883, and on the 2d of June Admiral Cooper directed Commander Frank Wildes, commanding the Yantic, to prepare his vessel for the above-mentioned service, and urged haste. She went alongside the dry-dock at the New York navy-yard on the same day, and into it on the 7th, coming out again on the 12th of June. The ship was prepared to some extent to encounter ice by a sheathing of oak plank about $2\frac{1}{2}$ inches thick (a little thicker about the cut-water), and extending from her water-line to about 7 feet below, and her battery and ammunition were landed in order to give her greater carrying capacity. She carried a ship's company of one hundred and twenty-four enlisted men and twenty officers, with eight months' provisions for eighty men.

The Yantic sailed from the New York navy-yard June 13, carrying Lieutenant Garlington and his party (except Sergeant Wall) as passengers, and arrived at Saint John's on the 21st, where the relief party transferred to the Proteus. Whilst at Saint John's Lieut. J. C. Colwell, United States Navy, at his own request, strongly supported by Lieutenant Garlington, was detailed for service with the relief expedition, and reported for duty accordingly on the 23d of June.

Previous to leaving New York Lieutenant Garlington applied for authority to precede the party to Saint John's, to personally superintend the stowing of the cargo of the Proteus, but this was denied him by the Chief Signal Officer, who had dispatched Sergeant Wall (one of Garlington's

party) for this purpose. Upon reaching Halifax, Wall, claiming to have been seriously injured by accident, left the ship upon which he was a passenger, and returned to the United States, and the important duty with which he had been intrusted was not performed by any one connected with the relief expedition. In consequence of this Lieutenant Garlington was ignorant concerning the manner and place in which his stores had been stowed. He endeavored to remedy this after joining the ship, by breaking out and restowing the cargo, but was only partially successful. Amongst other important stores which he failed to find were the arms and ammunition which had been provided for the party.

The Proteus, with a total crew of twenty-two men, sailed from Saint John's on the 29th of June, in company with the Yantic, but the two ships soon separated, the former reaching Godhavn on the evening of July 6, whilst the latter did not arrive there until the 12th.

Esquimo dogs to the number of twenty-two were taken on board the Proteus at Godhavn on the 14th, and upon the clearing up of the weather she sailed from there on the 16th, intending to stop at a point about fifteen miles up Disco Fiord, to get another Esquimo, whose services had been engaged. The ship got aground two hours after leaving Godhavn, and received some slight injury to her main injection-pipe, which was soon repaired, however. She soon got clear of the bottom, and a whale-boat, with Lieutenant Garlington in charge, and accompanied by Lieutenant Colwell, with a crew made up from Lieutenant Garlington's party, went in to get the Esquimo, returning to the ship at 4 p. m., and the voyage was at once resumed. The ship encountered some difficulty in getting through Melville Bay, but reached Southeast Carey Island on the 21st July, where Lieutenant Garlington landed and examined the cache left by the Nares expedition in 1875. Pandora Harbor was reached at 6 a. m. on the 22d, and Lieutenant Garlington landed there to leave a record. At this time "the weather was perfect—calm, warm, delightful, and the hills were green with the pretty flowering moss of those regions, with occasional patches of grass of luxuriant growth. There was no ice as far as could be seen from the crow's nest with the aid of a very powerful telescope." Lieutenant Garlington, under the pressure of the opening paragraphs of his instructions, determined to take advantage of the auspicious circumstances to push forward to Cape Prescott. At 9.45 a. m. they passed Littleton Island without stopping, everything still remaining favorable; but at 11.30 a. m. the ship was alongside the ice, which then presented an unbroken front. Lieutenant Garlington then decided to go to Cape Sabine "to examine cache there, leave records, and await further developments." They reached Payer Harbor at 3.30 p. m., made a landing, and expected to remain there long enough to get a set of observations. Lieutenant Garlington went in person to search for the cache of 1882, and after finding it, put some men at work to place the cache in better condition, meanwhile going himself to higher ground, whence he saw open lanes of water leading to the northward. He returned to the ship at 6.30 p. m., informed the master of the Proteus of what he had observed from the shore, and requested him to get under way. Captain Pike replied that he would like to remain in the harbor awhile to fill his bunkers with coal (from the store on board) and get some fresh water. Lieutenant Garlington tendered him the men of the relief party to assist in moving coal, and

with this assistance the ship was gotten under way about 8 p. m., and passed out of the harbor. At this time Lieutenant Colwell, at the request of Lieutenant Garlington, went into the crow's nest with the mate of the vessel, and remained there until she was stopped by ice at about 10.30 or 11 p. m., about "4 miles from Cape Albert, and about 600 yards from the open water." "Captain Pike thought the ship could be forced through" by ramming, and succeeded in accomplishing "about half the distance," when that process ceased to effect anything. About midnight the attempt at this point was given up, and a lead tried more to the eastward, with fair progress up to 2 a. m. on the 23d of July, when the ship became jammed and unable to move in any direction, being then only 200 yards from open water. At 5 a. m. the ice immediately in front separated, and the ship was "in the open water which had been in her immediate front the night before." "On arriving within 4 miles of Cape Albert" * * * "the open lane of water seen the night before had disappeared," and its place was occupied by the solid pack.

"The attempt to proceed north was then relinquished for the time, and the ship was turned to the southward to make its way out of the pack." She "proceeded in this direction until 11 a. m., when the ice closed in, and effectually checked further progress. The ship was held here until 1 p. m.; the ice was much broken, and there was no danger of a 'nip.'" As soon as possible she started again, "and made good progress for some time, by frequently changing course and following the most favorable leads." * * * "About 2.45 p. m. the ship was brought to a standstill within 400 yards of open water, and movement in any direction was impossible. She was lying east and west. The ice in front and along the crack we were following immediately began to show signs of enormous pressure. The ship was in a most dangerous situation," and it was realized that she would be "nipped." The men of the relief party were quietly called and put "to work getting stores ready to be thrown on the ice at the first evidence of the ship sustaining serious injury. * * * The pressure against the ship's sides was incalculable; the heavy ice, from 5 to 7 feet in thickness, as it came against her sides under this powerful strain, broke and rafted up on the floe amidships and astern, but still there were no signs of giving way. * * * At 4.30 p. m. the starboard rail gave way with a crash."

At this time Lieutenant Garlington was in the "main hold" with part of his detachment getting out provisions; another detail, under Sergeant Kenney, was in the "fore peak," getting out the prepared depots. Lieutenant Colwell came to the main hatch, and informed Lieutenant Garlington that the bulwarks had given away, and was directed to look after getting the boats clear. Sergeant Kenney reported the depots on deck. Almost immediately thereafter there was a loud crash; the ice had forced its way through the ship's side into the starboard coal-bunker; "the planks began to rise, and seams to open out." The men were set to work throwing provisions overboard, and all the stores on deck were thus disposed of, but nearly one-third were lost by falling too near the ship, and for that reason drawn under. At 6.50 p. m. all hands finally left the ship. At 7.15 p. m. she began to sink, and slowly passed out of sight on an even keel.

A detailed statement of what occurred is given in Lieutenant Garling-

ton's report of October 2, 1883, which is sworn to by himself, and corroborated by Lieutenant Colwell, and from which the foregoing quotations are made. (Page 199. Appendix.)

By 12 m. on the 24th July all hands were on the rocks at Cape Sabine, but the prime object of the relief expedition had been defeated. It only remained for Lieutenant Garlington to determine what he should do under these unforeseen and unprovided for circumstances.

On the 25th, while still at Cape Sabine, Lieutenant Colwell suggested to Lieutenant Garlington that he (Colwell) take a boat with a picked crew, and lightly equipped start south, with a view of communicating with the Yantic at the earliest moment possible, expecting that she would then make a more determined effort to cross Melville Bay than she was likely to do under her instructions. This suggestion was not adopted by Lieutenant Garlington, and at 3.20 p. m. the boats were launched, and leaving about 500 rations and a record cached in the vicinity of Cape Sabine the party started across Smith's Sound.

The boats separated in the fog, and at 12 p. m. those containing the relief party reached a small cove on the east side of the sound, just above Life-Boat Cove. It rained and snowed all night, but cleared up in the morning, and the boats left for Pandora Harbor, stopping at Littleton Island to leave a record of the loss of the Proteus and the condition of the relief party. They reached Pandora Harbor at 7.50 p. m., and found there the crew of the Proteus. Lieutenant Garlington deposited a record, and being detained by fog until 4.45 p. m. of the 28th of July, then left Pandora Harbor for the southward, heading for Northumberland Island, which was reached at 7.10 p. m. on the 29th, where the party was detained by stress of weather until 4.40 p. m. on the 30th. Reaching a point 7 miles north of Cape Parry on the morning of the 31st, further progress was delayed for two days by a heavy storm. Unfortunately, this storm prevented an attempt to land at Carey Island, as originally intended, where the Yantic stopped at 9.30 p. m., of August 2, whilst the retreating party left their camp north of Cape Parry at 8.30 a. m. of the same day, and at 9.20 p. m.—coincident with the Yantic's visit to Southeast Carey Island—landed at Saunders' Island, about 40 miles east of Southeast Carey Island. It is very evident that if the weather had permitted the retreating party to go to Carey Island the Yantic would have been intercepted there.

From this point the retreating party and the Yantic moved in opposite directions, and it is unnecessary to follow the details of the journey of the former, which are fully given in the reports of Lieutenants Garlington and Colwell.

On the 16th August, at 1 p. m., Lieutenant Colwell, with the second whale-boat, separated from the other boats a short distance south of Cape York, under instructions from Lieutenant Garlington to proceed to Godhavn and endeavor to communicate with the Yantic. He reached there at 8.30 a. m., August 31; found the Yantic in the harbor, and at once boarded her, reporting the state of affairs to Commander Wildes, who got his ship under way at 6.30 p. m. for Upernavik, where he arrived on the morning of September 2, and took on board the remainder of the retreating party, which had reached Upernavik at 11.30 a. m. on the 24th of August.

After the Proteus left the Yantic, at Godhavn, on the 16th July, the latter vessel was detained until the morning of the 21st, when she sailed for Ritenbank, and during the rest of the day, and the early morning of the 22d, took on board 20 tons of coal. She left Ritenbank at 11 a. m. of the 22d, for the Kudlisit coal-mine, where she arrived at 6 p. m. During the 25th, and until 4 p. m. of the 26th, she was engaged in taking on board 30 tons of coal, a portion of which was, during this time, mined by her crew. This was all it was deemed safe to attempt to carry.

At 6 p. m. of the 26th the Yantic sailed for Upernavik and reached there at 10 p. m. of the 27th, where she was detained by fog until noon of the 31st. She then left for the north with fine weather and fair wind; passed close to the Duck Islands at 2 a. m. August 1, and at 1 a. m. Cape York was sighted. At 9.30 p. m., August 2, she reached Southeast Carey Island, where a landing was made and a record found stating that the Proteus had arrived there at 3 p. m., July 21. An hour later the Yantic proceeded northward; passed Hakluyt Island at 2 a. m. August 3. At 10.30 a. m. the ship was on the western side of Smith Sound and within 12 miles of Cape Isabella. She was then headed for Cape Alexander, and reached there at 1 p. m., when she continued up the coast to Littleton Island, where Commander Wildes found Lieutenant Garlington's record of July 26 detailing the loss of the Proteus, and the movements of his party, as well as the quantity of stores left by him and others near Cape Sabine. No mention was made of the crew of the Proteus in this record, and Commander Wildes concluded that they were still at Cape Sabine. He therefore, notwithstanding his instructions directed him not to go north of Littleton Island, determined to make an effort to reach them. This was prevented by fog, and after depositing a record on Littleton Island he ran down to Pandora Harbor, where he anchored at 10 p. m. Here he found two records, one from Captain Pike of the Proteus and the other from Lieutenant Garlington. The former simply mentioned the fact of their presence in the harbor and the proposed movements of the crew, the latter stated that he had forty full days' rations, and that he would go south, keeping close inshore and calling at Carey Islands to Cape York, &c.

The Yantic was immediately gotten under way, and, passing Cape Alexander at midnight, ran down the coast to Cape Robertson, within a mile of the beach, keeping a sharp lookout for cairns, boats, or men. Seeing nothing, she ran across Murchison Sound, skirted the north shore of Cumberland Island, and stood across to Hakluyt Island, which was closely examined. Finding nothing, she rounded the southern end and stood down the western shore of Northumberland Island, passing the southwest point at 10 a. m. on the 4th of August. Fog caused her to lay close under the cliffs until 6 p. m., when, the fog lifting, she stood across Whale Sound, to a point 7 miles east of Cape Parry, reaching there at 8 p. m.

The Yantic passed Cape Parry within half a mile, and ran a short distance south of it, when the Carey Islands became visible, and she ran over to the southeast one of the group, arriving there at midnight, finding the records undisturbed, and nothing from the retreating party.

Unwilling to leave this vicinity without further news of the retreating party, Commander Wildes then ran back to Hakluyt Island, and made further examination of the eastern shore, and then around the northern and eastern shores of Northumberland Island, passing the southeast point

at noon of August 5, and running across Whale Sound to a point 12 miles east of Cape Parry, and close along shore to that point.

Depositing a record at Cape Parry he rounded it and proceeded southward, arriving at a point 5 miles northwest of Saunders Island at 8 p. m. The ice ahead and to the westward now compelled him to run off shore in a west-southwest direction, but he soon closed with the pack, and everything being unpromising, he returned to Whale Sound seeking an anchorage. Missing Bardin Bay, and seeing the passage between Northumberland and Herbert Islands through the mist, Commander Wildes rounded the southeast end of the former and anchored at 5.30 a. m., August 6. The same evening remains of a recent camp were found on the island, and the remains of another were found next day.

Being now certain that the retreating party was south of him, Commander Wildes felt no doubt about proceeding south as soon as the ice would permit.

The conditions being favorable on the 9th, a cairn was made on the island, and at 3 p. m. the ship rounded the northern end of Northumberland Island, and stood to the south to continue the search.

At 10 p. m. the pack was encountered, and, without entering it, the ship was kept moving in a circle until the weather cleared sufficiently to permit a glimpse of Southeast Carey Island, when she was headed for it, but a second examination failed to furnish any trace of the retreating party. She was then headed for Cape York, the ice preventing a nearer approach to Cape Dudley Digges than about 20 miles.

At noon of the 10th August the conditions were such as to plainly indicate to Commander Wildes the propriety of proceeding southward to Upernavik as rapidly as practicable, and the ship was headed for that port, which she reached on the 12th. Here he chartered a launch, and sent it with fifteen days' supplies for thirty-seven men to Tessuisak, with arrangements for the dispatch of a whale-boat to Cape Shackleton to await the arrival of the retreating party.

On the 14th the fires of the *Yantic* were hauled, under the determination of Commander Wildes to remain at Upernavik until the season was well advanced, unless the retreating party arrived earlier. But the ship was subjected to so much annoyance and even danger from drifting icebergs (of comparatively small size) that on the 22d August—the short summer of this high latitude being then at an end—she proceeded to the Kudlisit coal cliffs, in Waigat Straits, after having arranged with Governor Elborg for the transportation of Lieutenant Garlington to Disco, provided he reached Upernavik before the middle of September, and with the full assurance from the governor that he could take care of the whole party through the winter, should they arrive after that time.

After remaining at the coal cliffs four days, during which she took on board 50 tons of coal, the *Yantic* reached Godhavn on the 28th August. Here, at 9 a. m. on the 31st, she was joined by Lieutenant Colwell, and after taking on board 6 tons of coal, sailed in the afternoon for Upernavik, where she arrived on the morning of September 2 and took on board the remainder of the retreating party. Obtaining 6 tons coal, she left for Saint John's under sail. On the 11th when 250 miles from that port, she was put under steam, and reached Saint John's at 10 a. m., September 13.

JANUARY 14, 1884—11 a. m.

The court met pursuant to adjournment. Present, all the members and the recorder.

The court proceeded to deliberate, and, after continuing in deliberation until 3 o'clock, adjourned until to-morrow afternoon at 1 o'clock.

JANUARY 15, 1884—1 p. m.

The court met pursuant to adjournment. Present, all the members and the recorder.

The court directed the following statement to be entered of record :

On the 26th of November last the court, at the request of the Chief Signal Officer of the Army, forwarded, through the proper channels, to the United States consul at Saint John's, N. F., a series of interrogatories (of which a copy is attached to this record), for the purpose of obtaining the testimony of Mr. Molloy, the consul, and others in response to the care and efforts of Général Hazen in the outfit of the Proteus expedition of 1883. While the court was advised by a telegram from the consul to the Adjutant-General that depositions of the witnesses named in the interrogatories were mailed on the 29th ultimo in the steamship Coban for New York City, and while the Signal Office advised the court that that steamship arrived in New York on the 9th instant, nothing further has been heard of the depositions.

As the subject-matter of those depositions has been otherwise fully investigated, so far as necessary for the ends of this inquiry, the court determines not to wait further for the testimony in question, but to proceed to its findings (requesting, however, that if the depositions should hereafter be received that they may be printed and bound up with the record of this court and the appendix thereto.)*

The court reports the facts developed by this inquiry as stated in the last printed pages from the proceedings of the 12th instant, on page 251 to the end of page 259, and presents further its findings and conclusions as follows:

THE ORGANIZATION AND FITTING OUT OF THE RELIEF EXPEDITION.

The organization of the expedition is regarded as originating in a plan submitted by the Chief Signal Officer to the Secretary of War, November 1, 1882. (Page 88 of Appendix.) The suggestion that its *personnel* should be obtained from the Navy, which the Secretary of War made to the Chief Signal Officer on the same day (page 89, Appendix), was, as has already been stated, strongly advised against by the Chief Signal Officer, who reported that the control of the business should be left with his office. He stated that—

To manage it with a mixed control, or even with mixed arms of the service under a single control, would be hazardous, and such action is strongly advised against by the many persons of both Army and Navy I have discussed the subject with. The ready knowledge of boats and instruments is but a very small part of the indispensable requisites in this case. This whole work has required a great deal of attention and study from the first, &c. (Page 89, Appendix.)

* Deposition number 47 will be found on page 243 of the Appendix.

The knowledge and skill of mariners, always desirable in maritime expeditions under ordinary conditions, were all the more essential when the question concerned the navigation of seas rendered especially difficult and perilous because of Arctic ice. There could have been nothing anticipated in the nature of the service to be performed in the Arctic regions, either on the ice or on the land, which could not be as well accomplished by seamen as by landsmen, and their superiority when on their accustomed element must be manifest.

Under the great emergencies likely to arise during Arctic service the advantages of strict discipline are beyond question. These would have been secured in the naval service quite as well as in any other.

For the foregoing reasons it would have been wiser for the Chief Signal Officer to have consented, not only that the men to be sent on this errand should be seamen of the Navy, but that the vessel conveying them should sail under the American flag and naval discipline.

While General Hazen, in November, 1882, deprecated the idea of a mixed control of the two branches of the national forces, in May following he applied for, and was glad to obtain, the assistance of a naval vessel to accompany the one which he chartered; but at that late date, when no vessel fitted for service in the ice was to be had, he could only ask for such company on that part of the voyage where it was least needed.

The next step in the enterprise was to obtain an appropriation, and the duty of asking for money devolved in the first instance upon the Chief Signal Officer, who limited his estimate, however, to the smallest amount that would be necessary, on account, as he says, of the indisposition of Congress to appropriate freely for his branch of the service. But it is the opinion of the court that such a disposition, even if known to exist, did not relieve him from the responsibility of devising adequate measures of relief, and of making known to the national legislature what would be required to carry them into effect, leaving to that body to determine whether all or only a portion of the funds asked for should be granted.

In view of the vital importance of the enterprise, two vessels fitted for service in the Arctic regions should have been asked for.

As to the *personnel*. More than one commissioned officer should have been provided for a command that it was contemplated might alone, and independent of all other visible control, have to occupy a station so remote and isolated as that at Life-Boat Cove, and perform a service so important as that intrusted to it, of saving the lives of comrades in a still more remote and less-known region.

The outfit of the expedition, so far as sledges, tents, and other materials, provisions, &c., are concerned, appears to have been managed with commendable judgment, energy, and care. The selection of the steam sealer Proteus, with her master, seems to have been as good as practicable from vessels of her class. They had the convincing recommendation of having performed a similar duty with marked success; in carrying Lieutenant Greely and his party to Lady Franklin Bay in 1881. Previous to chartering her, the vessel, its machinery and appurtenances, were inspected by a naval officer, who accompanied the Chief Signal Officer to Saint John's for that purpose. Some question has been raised in evidence as to the fitness of her boats; but as these boats brought the ship's company back in safety on the perilous journey from the scene of the wreck to Upernavik, it is thought

that they must have been better than they seemed to be to some of the witnesses. The crew was also charged with irregular and disorderly acts and expressions, but as this alleged misconduct occurred subsequent to the loss of the Proteus, and did not in the least affect the result of the expedition, the court has not felt bound to reconcile or scrutinize too closely the testimony on this point, and only remarks that the conflict of testimony probably arises from differences of opinion formed from different stand-points, or from the different maritime customs of different services and countries.

It is considered by the court to have been extremely fortunate for the expeditionary force that the one officer sent with it, and who commanded was so ably aided and supported by the services of Lieut. J. C. Colwell, United States Navy, who volunteered for a duty so much more severe and perilous than that to which he had been regularly assigned on board a naval vessel, and who brought to the duty he assumed so much capacity, courage, and special knowledge.

INSTRUCTIONS FOR THE EXPEDITION.

The history of the instructions of the Chief Signal Officer to Lieutenant Garlington, as commander of the expedition of 1883, involves some reference to the instructions to the original expedition of 1881, under command of Lieutenant Greely, and to the latter officer's directions contained in his letter under date of August 17, 1881, from Lady Franklin Bay. So far as all these relate to the question of the relief or rescue of Lieutenant Greely, they may briefly be stated as follows:

The instructions from the office of the Chief Signal Officer, dated June 17, 1881, page 7, Appendix, provides:

It is contemplated that the permanent station shall be visited in 1882 and 1883 by a steam sealer or other vessel, by which supplies for and such additions to the present party as are deemed needful will be sent.

In case such vessel is unable to reach Lady Franklin Bay in 1882, she will cache a portion of her supplies and all of her letters and dispatches, at the most northerly point she attains on the east coast of Grinnell Land, and establish a small depot of supplies at Littleton Island. Notices of the locality of such depots will be left at one or all of the following places, viz: Cape Hawks, Cape Sabine, and Cape Isabella.

In case no vessel reaches the permanent station in 1882, the vessel sent in 1883 will remain in Smith's Sound until there is danger of its closing by ice, and on leaving will land all her supplies and a party at Littleton Island, which party will be prepared for a winter's stay, and will be instructed to send sledge parties up the east side of Grinnell Land to meet this party. If not visited in 1882, Lieutenant Greely will abandon his station not later than September 1, 1883, and will retreat southward by boat, following closely the east coast of Grinnell Land until the relieving vessel is met or Littleton Island is reached.

The Chief Signal Officer testifies that the above provisions were adopted with the concurrence of Lieutenant Greely, who himself probably wrote the foregoing paragraphs.

It is quite evident that they are substantially identical with the directions which he gave in his letter of August 17, 1881, for the measures to be taken for his relief. In that letter he asked that "in case the vessel to be sent in 1882 cannot reach this point (Lady Franklin Bay), a very possible contingency, a depot, A, of about ten days' rations of food for his party; a whale boat and an eighth of a cord of wood should be made at the farthest prominent point to the north on the coast of Grinnell's Land, which the vessel might reach. 2d, that a similar depot, B, should

be made at Littleton Island, and a notice of such depot having been made placed at Cape Sabine. 3d, that a second boat should be left at Cape Prescott."

Regarding the mail to be brought by the expedition of 1882, he requested (page 213, Appendix):

The letters and dispatches should all be carefully soldered up in a tin case, and then boxed (at Saint John's) and marked or put in a well-strapped, water-tight keg; and should be left with depot A, if such depot shall be at or north or in plain sight of Cape Hawks, and the newspapers and periodicals left at Littleton Island. If depot A is not so far north, the letters and all mail should be returned to the United States. After making depot B, at Littleton Island, the vessel should, if possible, leave a record of its proceedings at Cape Sabine.

For 1883 he requested :

If the party does not reach here in 1882, there should be sent in 1883 a capable, energetic officer, with ten (10) men, eight of whom should have had practical sea experience, provided with three whale-boats and ample provisions for forty (40) persons for fifteen months. The list of all provisions taken by me this year would answer exceedingly well. In case the vessel was obliged to turn southward (she should not leave Smith's Sound near Cape Sabine before September 15), it should leave duplicates of depots A and B of 1882 at two different points, one of which should be between Cape Sabine and Bache Island, the other to be an intermediate depot between two depots already established. Similar rules as to indicating locality should be insisted on. Thus, the Grinnell Land coast would be covered with seven depots of ten days' provisions in less than 300 miles, not including the two months' supplies at Cape Hawks.

The party should then proceed to establish a winter station at Polaris Winter Quarters, Life-boat Cove, where their main duty would be to keep their telescopes on Cape Sabine and the land to the northward. They should have lumber enough for house and observatory, fifty tons of coal, and complete meteorological and magnetic outfit. Being furnished with dogs, sledges, and a native driver, a party of at least six (6) men should proceed, when practicable, to Cape Sabine, whence a sledge party northward, of two best fitted men, should reach Cape Hawks, if not Cape Collinson. Such action, from advice, experience, and observation, seems to me all that can be done to insure our safety. No deviation from these instructions should be permitted. Latitude of action should not be given to a relief party, who, on a known coast, are searching for men who know their plans and orders.

The intention indicated in this letter to retreat in 1883 to Life-boat Cove, near Littleton Island via Cape Sabine was also foreshadowed by Lieutenant Greely in his letter of date two days previous, August 15, in which he says :

I feel it here proper to state that in my opinion a retreat from here southward to Cape Sabine, in case no vessel reaches us in 1882 and 1883, will be safe and practicable.

This being the plan projected by Lieutenant Greely for the relief of his own party, the Chief Signal Officer, in the spring of 1882, directed Mr. Beebe, who was in charge of the expedition of that year, to establish depots A and B, as directed by Lieutenant Greely :

You will observe [says Mr. Beebe's orders] that these depots are to be established only in the event that it is impossible to reach Lieutenant Greely; the supplies therefore under ordinary circumstances will all go to Lady Franklin Bay, and these stores which are needed to establish depots A and B are included.

Accordingly, Mr. Beebe fulfilled these instructions in the manner already stated in the report of the facts developed.

His failure to accomplish anything of importance rendered more imperative a vigorous effort in 1883 for the relief Mr. Greely.

It will be seen from the Chief Signal Officer's letter of November 1, 1882, that his controlling idea in regard to any plan of relief was that

Lieutenant Greely's directions should be followed. He submits in that letter—

A plan which Lieutenant Greely wished followed in the event of a failure to reach him this year, 1882. This seems to leave us only to follow his plans.

Yet General Hazen has testified that he has regretted ever since the return of the expedition of 1882 that its commander, Mr. Beebe, had not been instructed to deposit the bulk of his stores at Cape Sabine, instead of bringing them back to Saint John's, N. F., as he did under Lieutenant Greely's plan.

And Captain Clapp, Sixteenth Infantry, who was in charge in the Signal Office until relieved by Lieutenant Garlington in February last, of the Division of Arctic Research and charged with the duty of drafting the instructions of Lieutenant Garlington, testifies that, impressed by the dangers from which the Neptune, the relief ship of 1882, had escaped, he urged upon General Hazen the advisability of depositing the stores for the winter station on the northward voyage before the ship should encounter the heavy ice of Smith's Sound.

He advised that the station should be made near Cape Sabine on the west coast, which, while involving a deviation from Lieutenant Greely's plan, would be a departure only in the direction of greater safety.

General Hazen, however, insisted upon a strict and literal conformity to the requests of Lieutenant Greely. He testifies that his objection to making a depot on the west coast was that Lieutenant Greely might take a different route to his objective point—Life-boat Cove on the east coast of the Sound. And to the project generally, of making the depot on the way north instead of after it should be ascertained that the vessel could not penetrate the ice and reach Lady Franklin Bay, his objection was that this might involve the delay necessary for unloading the vessel.

The desirability of making a depot before the ice of Smith's Sound should be entered, was also apparent to Lieutenant Caziarc, Acting Signal Officer, whose duties in the office were similar to those of an adjutant. He prepared a memorandum of such a scheme, which was shown or explained to Lieutenant Garlington, whose objection was that the stores might be needed at Lady Franklin Bay, or at some intermediate point between that and Littleton Island, where the ship might be detained in the ice.

The expedition took supplies for 15 months for 40 men—the combined force of Lieutenant Greely's and Lieutenant Garlington's parties; but the latter was advised in his letter of instructions that Lieutenant Greely's supplies would be exhausted in that fall. Hence Lieutenant Garlington, having no other information on this point, was reluctant to proceed to Lady Franklin Bay, leaving behind him any considerable proportion of the stores intrusted to him.

In reference to the amount of provisions at Lady Franklin Bay, General Hazen has presented to the court lists showing that Lieutenant Greely was fully provisioned in the summer of 1881 for over three years; and the Chief Signal Officer is unable to account for the previous statement on this subject in the instructions, except by supposing it to be a clerical error. Captain Clapp, who prepared the rough draft of the instructions, testifies that the statement was made with the intention of being well within bounds after making allowances for possible loss and deterioration of supplies, and for those deposited *en route*.

General Hazen testifies that he long entertained the idea of ordering a large depot to be made on the way north, but abandoned it upon obtaining a naval consort to the Proteus, which he regarded as a substitute for such a depot.

The idea was, nevertheless, embodied in an unsigned memorandum placed with other papers in the packet containing the instructions to Lieutenant Garlington, and which that officer, shortly before his departure from Washington to take command, received from Lieutenant Caziarc, in the Signal Office. The history of this paper, described in evidence as Memorandum No. 4, and which is important as having some time been supposed or assumed in the Signal Office to contain a supplementary order to Lieutenant Garlington, may be here briefly stated.

Respecting the exact point or points of time when it was prepared and copied, and through whose hands it passed, there is the diversity of recollection between various witnesses that commonly attends matters of this kind when not made the subject of official record, but the material facts are established as follows:

On the 14th day of May the Secretary of War transmitted and recommended to the Secretary of the Navy the Chief Signal Officer's request for a naval tender.

On the 20th the Secretary of the Navy sent for Captain Powell, Sixth Infantry, then in charge of the office (in the absence of General Hazen, who had gone to Saint John's, N. F., to consummate the chartering of the Proteus), and inquired what exactly was wanted of the Navy Department, telling Captain Powell, in substance, that the Signal Office must explicitly state its requests and see that the instructions respecting the tender should conform to the necessities of the case, so that there should be no occasion for any eventual division of responsibility respecting an enterprise which belonged to the War Department, and not to the Navy Department, whose part was only auxiliary.

Captain Powell thereupon telegraphed General Hazen one of the Secretary's questions:

What it was desired should be the northern limits of the voyage [of the Navy ships] and to outline instructions.

Two telegrams were received from Halifax in reply:

Tender to go to the southern limits of the ice pack; to leave Saint John's about July 1.

And again:

Will be back about June 2; hold all instructions till I come; tender to be at Saint John's, say, June 25.

Soon after this interview with the Secretary Captain Powell requested Lieutenant Caziarc to prepare a memorandum for the use of the Navy Department in drafting instructions for the naval part of the expedition.

Lieutenant Caziarc prepared the memorandum and showed it to Captain Powell, who took no further action than to have all the papers collected to await General Hazen's return, which was on the 4th of June, when he signed Lieutenant Garlington's instructions.

General Hazen testifies that he was informed that such a memorandum had been prepared during his absence, but does not think he saw it or had it in his hands until it was shown to him by Lieutenant Garlington when the latter received a copy of it with his instructions.

Lieutenant Caziarc states that he understood from General Hazen that he had taken the copy prepared for the Navy to that Department and Lieutenant-Commander McCalla saw a copy in the Bureau of Navigation, where the instructions to the commander of the Yantic were being prepared.

The Secretary of the Navy, however, states that he did not see it, and it is clear that it was not intended by General Hazen to be officially submitted by the Chief Signal Officer to the Navy Department as a basis for any action on its part. On the contrary, he testifies that he never intended it to be used in that Department. Indeed, its most material and pregnant suggestion, that a large depot should be made on the northward voyage, did not concern the Navy at all, being intended solely for the guidance of the expedition in the Proteus. This suggestion is contained in these words:

The Proteus to land her stores, except supplies for more northerly depots, at Littleton Island on her way north.

General Hazen's account of this paper, in his letter of October 16 last, transmitting Lieutenant Garlington's report to the Secretary of War, is as follows:

The question of supplementary orders that Mr. Garlington refers to as having been raised, and in unfairness to himself, is in substance correctly stated by him.

After Lieutenant Greely arrived in Lady Franklin Bay, in 1881, he wrote out and sent to this office full directions for the party that might be sent to relieve him, ending as follows: "No deviation from these instructions should be permitted. Latitude of action should not be given to a relieving party who, on a known coast, are searching for men who know their plans and orders." This made it a matter of greatest delicacy to give any directions that might in any manner change the programme there marked out. Congress had afterwards, however, added another element to the question, in this, that the party should be brought away this summer. This at first caused the instructions to be determined upon that the stores be landed at Littleton Island before going north of that point.

Afterwards it was arranged to send a ship of the United States Navy with the Proteus as a convoy, and this so far obviated the absolute necessity of first stopping to unload at Littleton Island, the convoy itself being a depot, that it was thought best that Lieutenant Greely's directions should remain as Lieutenant Garlington's guide, and that it be suggested only that the landing be first made. Just before starting, Lieutenant Garlington brought a copy of a memorandum that had been prepared for the Secretary of the Navy to aid him in preparing instructions to the convoy, which contained the original condition of first landing at Littleton Island, explaining that it would conflict with the plans of Lieutenant Greely so far as it should consume the time of the expedition, and in case he should find clear weather and open water beyond, with a fair prospect of getting straight through, while by stopping he might lose the opportunity, if he should not at once proceed. I replied that the authority and discretion which must always rest with the commander on the spot must in such case be his guide. The great delicacy in imposing positive instructions in cases like this seemed to make the simple suggestion in that paper sufficient. The strictures upon Lieutenant Garlington, so far as they refer to the question of disobedience, have been unwarranted.

General Hazen testifies, page 25 of the record, that Mr. Garlington brought to him—

his packet of orders, and in that packet was the same memorandum. He, Lieutenant Garlington, expressed some surprise at finding it there, and asked me how it got there. I told him that I did not know. I told him it was no part of his orders, and then I gave him the history of the paper as I have given it here (in court). Mr. Garlington then showed me all his orders and I told him he must be controlled by the orders that I had given him, and also by the directions of Mr. Greely's letter on which they were founded; that the letter of Mr. Greely, written as it was after he had arrived on the spot, was law to me, and that I did not feel I was authorized to change that order or give him any orders that would conflict with it. I told him, also, that when on the spot he must exercise in all matters that discretion which every distant commander must exercise, which reposes in him by virtue of his office. I told him he had my

full confidence, and I expected him to exercise his discretion in matters as they would develop themselves on the spot.

* * * * *

After Congress, last winter, had passed a law requiring that Mr. Greely's expedition be brought back this year, and before a second ship or a convoy was thought of, it seemed to me that it would be necessary for the expedition going up to vary the Greely instructions so far as to land at Littleton Island, and land the stores.

That plan was thought of a great deal, and it was discussed a great deal, as was the plan also of making the depot on the west side of Smith's Sound. But after it was arranged to send a tender, that of itself would be a depot, there being also several small depots along the coast. I determined to revert strictly to the Greely memoranda, and after that I did so. (Attention is invited to the full testimony on that point, page 26, record.)

This memorandum acquired a subsequent importance, however, from the fact that a copy of it was recorded in the Signal Office as an inclosure to Lieutenant Garlington's instructions, and immediately after the report of the disaster to the Proteus was first received in the United States, a copy of the document was furnished the public press as a supplementary instruction, or an inclosure (No. 4) to the orders to the commander of the expedition.

The court deeming it proper to inquire into this matter received a good deal of testimony on the subject, from which it appears that Lieutenant Garlington's instructions were accompanied by papers not referred to in the body of the instructions themselves, as well as by others that were designated by letters or figures in that body. In the first category was the charter party of the Proteus, which it had been intended to mark and record as inclosure No. 4. When the office record was made (as it appears) from rough notes and copies of the original (this method or want of method being, as it would appear, in consequence of haste and limited clerical assistance), no copy of the charter party was at hand, and instead of that paper the unsigned memorandum was by mistake recorded as inclosure No. 4.

When the news of the disaster was received in Washington, the Chief Signal Officer was traveling under orders on the Pacific coast, and the officer temporarily in charge was unfamiliar with the history of the expedition, and had to depend upon the knowledge of Lieutenant Caziare, who was in charge of the Records and Correspondence Division of the office. That officer remembered that he had given or sent to the Chief Signal Officer this memorandum with the instructions and their accompanying papers, and had received them back in the ordinary routine of the office without objection or remark, and had then handed them to Lieutenant Garlington, which was his last knowledge of the matter; he not having been made acquainted by General Hazen, or any one else, with the General's subsequent conversation with Lieutenant Garlington, above detailed, Lieutenant Caziare accordingly supposed that his memorandum had received the approbation of the Chief Signal Officer, and with his implied sanction had been given to Lieutenant Garlington to accompany the latter officer's instructions.

Upon examination subsequently and reflection upon the fact that this paper was neither signed nor referred to in the body of the instructions, and especially as there was some literal conflict between them and the memorandum, he, Lieutenant Caziare, concluded that it conveyed no order to Lieutenant Garlington.

The subsequent action of the Signal Office in furnishing variant and imperfect copies of papers called for by the Secretary of War and the Sec-

retary of the Navy (as referred to in letter of Secretary of War on page 191, Appendix), was also investigated and was found to have been due partly to the error already stated in recording the memorandum and omitting the record of the charter-party, and partly to an honest endeavor to furnish in as brief a form as possible the precise information which, it was supposed was wanted at the particular moment. The court fully exonerates the officers of the Signal Service concerned from any disposition to misrepresent, suppress, or withhold any matter of record.

To return to the official instructions of Lieutenant Garlington. Those material to this inquiry are as follows :

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, June 4, 18-3.

Lieut. E. A. GARLINGTON, *U. S. Army,*
Commanding relief vessel to Lady Franklin Bay :

SIR: You are aware of the necessity of reaching Lieut. A. W. Greely and his party with the expedition of this year. This necessity cannot be overestimated, as Lieutenant Greely's supplies will be exhausted during the coming fall, and unless the relief ship can reach him he will be forced with his party to retreat southward by land before the winter sets in. Such a retreat will involve hardship and the probable abandonment of much valuable public property, with possible loss of important records and life.

For these and other reasons which will occur to you no effort must be spared to push the vessel through to Lady Franklin Bay.

In the event of being obstructed by ice in Smith's Sound or Kennedy channel, you are advised to try to find a passage along the west coast, which, besides being usually the most practicable, will afford better advantages for sighting and communicating with any party sent out by Lieutenant Greely. To make communication surer, your party must be able to readily send and receive messages by flag or heliograph and other means, and the necessary articles should be kept in readiness for instant use when communication is possible.

Should the vessel be unable to get through the ice to Lady Franklin Bay or to reach the west coast at points above Cape Sabine, it will be of great importance that Lieutenant Greely should know of the efforts being made to relieve him, and of the plans for doing so. You will endeavor, therefore, to convey such intelligence and omit no means of informing him or any of his party of the situation. Should any landings be made at prominent points on either coast during the efforts to get through the ice, you will leave a short record of the fact, with such information as it is desirable to convey, so deposited and marked as to render it discoverable by parties traveling southward. If such landings be made at points where caches of provisions are located, you will, if possible, examine them and replace any damaged articles of food, leaving, of course, a record of your action.

If it should become clearly apparent that the vessel cannot be pushed through, you will retreat from your advanced position and land your party and stores at or near Life-Boat Cove, discharge the relief vessel with orders to return to Saint John's, N. F., and prepare for remaining with your party until relieved next year. As soon as possible after landing, or in case your vessel becomes unavoidably frozen up in the ice pack, you will endeavor to communicate with Lieutenant Greely by taking personal charge of a party of the most experienced and hardy men equipped for sledging, carrying such stores as is practicable to Cape Sabine, whence a smaller party more lightly equipped, still headed by yourself will push as far north as possible, or until Lieutenant Greely's party is met. In this and other matters you will follow closely the instructions of Lieutenant Greely, dated August 17, 1881, a printed copy of which is furnished you herewith. (Inclosure I.)

A ship of the United States Navy, the *Yantic*, will accompany you as far as Littleton Island, rendering you such aid as may become necessary and as may be determined by the captain of that ship and yourself when on the spot.

These instructions, Lieutenant Greely's letter of August 17, 1881, together with some charts and notes of signal service work in the Arctic regions, were the material furnished by the Chief Signal Officer as the basis of the instructions to the commander of the *Yantic*.

In the letter of the 14th of May, in which the Chief Signal Officer

asked for a ship of the Navy, it was stated that the ship would "not be required to enter the ice pack or encounter unusual danger."

This limitation was made, as the Secretary of the Navy supposes, because General Hazen had understood that the Navy could lend a vessel, but was not prepared to furnish an ice boat.

Although General Hazen has testified that he regarded the sending of a naval tender as dispensing with the necessity that had been before recognized of landing stores at the entrance to Smith's Sound, yet the evidence is clear that no request was made by the Chief Signal Officer that the naval vessel should act as a depot or be provisioned with a view to the relief of Lieutenant Greely's and Lieutenant Garlington's parties. Captain Powell was asked whether it was so desired, and the Secretary of the Navy's recollection is distinct that the matter was afterward alluded to in his conversation with General Hazen.

The latter officer explains his action by stating that he understood that the Yantic was to be amply and liberally provisioned, and as time was becoming an important element, while moreover, he regarded the order to the naval commander to render such aid as might be needed on the spot, as meeting all the necessities of the case, he forebore to make any specific requests that might involve further delay.

The Secretary of the Navy testifies that he gave instructions early to Commodore Walker, Chief of the Bureau of Navigation—

Notwithstanding no request was made from the Signal Office, to take the heavy weights (armament) off the ship and fill her up with coal, and, also, specially to have a large supply of provisions put on board.

The Yantic having arrived, May 22, in New York Harbor, the admiral of the fleet was instructed, May 31, by the Secretary of the Navy to send her to the navy-yard with orders to get ready for the service as soon as practicable.

On the 2d of June the admiral instructed Commander Wildes to ask—

The commandant of the yard to hasten your preparations and explain to him the urgency of the case. In making your preparations you will bear in mind that your vessel may be absent a long time from port and from depots of supplies, and that she may encounter severe and stormy weather and ice.

General Hazen, having been interrogated as to the considerable delay between the enactment of the appropriation, March 3, 1883, and the request in May, 1883, for a naval convoy, replied that it was not first contemplated at all, and its necessity "did not force itself upon him" until that time.

Such preparations as have been already stated, and as the brief period available admitted of, having been completed, the commander of the Yantic received his instructions, dated June 9 (see page 175, Appendix), as follows :

NAVY DEPARTMENT,
Washington, June 9, 1883.

SIR: The steam sealer Proteus, Captain Pike, has been chartered by the Chief Signal Officer of the Army to proceed to Smith's Sound and Kennedy Channel for the purpose of bringing to St. John's, N. F., Lieutenant Greeley, U. S. A., and the party under his command (about twenty in all, who have been stationed at Fort Conger, Lady Franklin Sound), for the past two years engaged in obtaining meteorological data for the use of the U. S. Signal Service. Lieutenant Greeley's party was conveyed to Fort Conger by Captain Pike, in the Proteus, during the summer of 1881, and last summer an unsuccessful effort was made in the steam sealer Neptune to communicate with the above-mentioned officer.

Inclosed herewith for your information are copies of a letter from Lieutenant Greely to the Chief Signal Officer, written after the arrival of the former at Fort Conger: "Work of the Signal Service in the Arctic regions;" track chart of the steamer Neptune from July to September, 1882; instructions to Lieutenant Greely, and instructions to Lieutenant Garlington, U. S. A., "commanding relief vessel to Lady Franklin Bay."

An examination of these papers will acquaint you with the object of the relief expedition and the importance of its success. You will, therefore, when in all respects in readiness for sea, proceed with the vessel under your command to St. John's, Newfoundland.

After having filled up with coal at St. John's, proceed to the northward, through Davis Straits, in company with the steamer Proteus, if practicable; but before leaving that port you will confer with Lieutenant Garlington, and make arrangements which will enable you to act advantageously in the event of an early separation from the Proteus, which ship, being fitted for cruising in the ice, will probably take advantage of opportunities to reach her destination which you would not feel authorized in taking in the Yantic.

In view of the possibility of the destruction of the Proteus, it is desirable that you should proceed as far north as practicable in order to afford succor to her officers and men in the event of such an accident, and it is desired that you should await there the return of that ship or the arrival of authentic information as to her fate.

Under no circumstances, however, will you proceed beyond Littleton Island, Smith's Sound, and you are not to enter the "ice pack," nor to place your ship in a position to prevent your return this season. You will take on board at St. John's all the coal that you can safely carry below and on deck, as it is very desirable that you reach your destination with an ample supply still remaining for use. It may be possible to obtain a small supply of coal on the coast of Greenland, but this cannot be relied upon.

In cruising to the northward, you will rely to a certain extent upon the ice pilot, and upon the information which is given you by the Danish authorities at Disco and Upernavik, as to the probable movements of the ice in Smith's Sound, based upon their knowledge of the prevailing winds and their effects upon the moving ice.

The length of your stay to the northward of Upernavik must depend upon your discretion, and should you find it imperative to leave the vicinity of Littleton Island or Cape York before the return of the Proteus, you will establish a station on shore (having previously, in consultation with Lieutenant Garlington, settled upon prominent points on the coasts of Smith's Sound or Baffin's Bay for this purpose), in which you will leave information as to your movements.

In issuing the instructions for your cruise the details must be left to your judgment, and the Department considers it only necessary to call your attention to the desirability of cordially co-operating with Lieutenant Garlington, affording him all the assistance in your power.

The report of the Secretary of the Navy for 1873, containing the reports of the cruises of the U. S. S. Juniata and Tigris [Tigress] in search of the Polaris, and an abstract of the log of the Tigris [Tigress], with her track chart, are forwarded herewith.

Two officers of the Army and eight enlisted men will take passage with you from New York to St. John's, together with their baggage and the mail of Lieutenant Greely.

Issue rations and bedding to the enlisted men, and make them and the officers as comfortable as possible.

Good steaming coal can be obtained directly from the mines at Cow Bay or Sidney Harbor, Island of Cape Breton, at about \$1.80 per ton, and upon your return, if you require coal, you will obtain it at one of the above-mentioned ports.

When you have completed this duty you will return with the Yantic to New York.

Very respectfully,

ED. T. NICHOLS,
Acting Secretary of the Navy.

Commander FRANK WILDES, U. S. N.,
Comm'd'g U. S. S. Yantic, New York (Comd't).

THE FAILURE OF THE PROTEUS TO KEEP IN COMPANY WITH THE
YANTIC UP TO LITTLETON ISLAND OR ITS NEIGHBORHOOD.

Lieutenant Garlington received no copy of the above instructions, none being requested by or furnished to the Signal Office. He testifies, however, that he had been informed in the Signal Office of the terms upon which the request for the vessel had been made, and understood in con-

versations with Commander Wildes and her officers that he' was not authorized to enter the ice pack. He hence inferred that it was extremely doubtful whether the ship could proceed to Littleton Island.

It will be observed that the instructions to Commander Wildes contemplate an early separation of the ship; and directed him before leaving Saint John's, N. F., to confer with Lieutenant Garlington—

And make arrangements to act advantageously in case of an early separation from the Proteus, which ship, being fitted for cruising in ice, &c.

Lieutenant Garlington, on his part, was directed to "spare no effort to push the vessel through to Lady Franklin Bay;" and before the court, in reply to his question:

Was I correct in my conclusions that I was not to allow the movements of the Yantic to interfere in any way with my progress to the northward?

General Hazen answered:

You were specially directed by me not to permit the Yantic to hinder your movements to the northward. If it appeared that she could not proceed with you you were to go on and to the northward the best you could without her.

The arrangements made for co-operation, in pursuance of the instructions to Commander Wildes, are in evidence, as follows:

MEMORANDUM OF AN AGREEMENT BETWEEN LIEUTENANT GARLINGTON, U. S. ARMY,
AND COMMANDER WILDES, U. S. NAVY.

Yantic to proceed to sea with the Proteus and remain in company as long as possible. Yantic will proceed to Disco under sail, will leave letters for Lieutenant Garlington at Disco and Upernavik.

Cairns, enclosing bottles or tins, will be left at Cape York, S. E. Carey Island, or Hakluyt Island, Pandora Harbor, and Littleton Island. Yantic will remain in Pandora Harbor not later than August 25; Disco, not later than September 20.

Lieutenant Garlington to leave letters in Disco and Upernavik, and records on S. E. Carey Island, or Hakluyt Island, Littleton Island, and Pandora Harbor, if entered.

Proteus to endeavor to communicate with Yantic at Pandora Harbor before August 25.

Should Proteus be lost push a boat or party south to Yantic.

Pandora Harbor will be headquarters, but before departure Yantic will run up to Littleton Island.

Commander Wildes testifies that he proceeded to Disco under sail, in order to economize his coal, so as to render his ship more efficient for the severe work probably before him farther north. The Proteus was the faster vessel of the two, as well as being constructed and equipped for ice navigation. The reasons for the delays of the Yantic on the coast are fully stated in the reports of Commander Wildes, and in his testimony. No evidence is before the court to impeach the validity of these reasons, which address themselves more properly to the judgment of the naval profession; while Commodore Walker, Chief of the Bureau of Navigation, in reply to a question by the court:

Q. Then I suppose you are very well satisfied with what the commander of the Yantic did in the expedition, under the circumstances?—A. I think he got on faster than we had reason to suppose he would. I think he reached Littleton Island quite as early as we had reason to suppose he would. Such navigation is difficult and dangerous, and subject to delays from many causes.

OPINION.

In view of the express direction to Lieutenant Garlington to spare no efforts to push the Proteus through to Lady Franklin Bay, and especially

of the urgency, of which he was advised, of his so doing for the alleged reason that Lieutenant Greely's supplies would be exhausted in the fall of 1883, and in view also, of the special direction as above set forth, of the Chief Signal Officer that he should not allow the movements of the Yantic to retard his own progress, he is held to be justifiable for having parted company with that vessel at Saint John's, N. F., and again at Disco Island.

It appears to the court, however, that the agreement, above recited, for subsequent co-operation was an extremely vague and defective one.

It is denied by no one that there was an evident possibility that the Yantic would pass Melville Bay, and it was most important that this possibility should be utilized for all that it was worth.

If certain points had been fixed upon at which both vessels should agree to stop, both going and returning, leaving a record of the fact, and should wait on returning, at each point for a stated period, those points could have been resorted to with a reasonable certainty of meeting.

As it was, it happened that at 9 h. 30 m., on the night of August 2, the Yantic was at Southeast Carey Island, on her northward voyage, while the Proteus company, retreating southward, was at Saunder's Island, distant about 40 miles east. If it had been understood that the Yantic would stop at the Southeast Carey Island, both going and returning, the expedition likewise stopping there or sending thither a lightly-laden boat, would have found the record and could have confidently waited there or in the vicinity, giving notice of its position, for the convoy's return.

But, judging of the case merely as the agreement and other conditions existed, the court is of opinion that Lieutenant Garlington should have decided to wait at Pandora Harbor for the Yantic for a period of two weeks, which would have brought the date of his departure not later than the 10th of August. He could not have been ignorant that there was a possibility that the Yantic would arrive there, even though there naturally seemed to him to be a preponderance of chances against that event.

He had in his possession a written agreement, in which it was promised, without qualification, that the Yantic would "remain at Pandora Harbor not later than August 25;" that "the Proteus would endeavor to communicate with the Yantic at Pandora Harbor before August 25."

So far as the court is informed he had no right to believe that the commander of the Yantic would not do his utmost to fulfill his part of the agreement.

Lieutenant Colwell, United States Navy, testifies, page 73, that he thought there was a bare chance of the Yantic getting through the westward passage and reaching Cape York by the time they (the expedition in returning) got there.

Captain Pike, the master of the Proteus, expected (as he testifies) the Yantic to get through, and thought the Proteus party should await her at the appointed rendezvous.

Melville Bay is a region justly dreaded by Arctic navigators, but it is only the threshold of polar exploration on this hemisphere, and steam vessels have seldom, if ever, failed to make the passage in a single season.

A resolution to stay at Pandora Harbor might have involved the expectation of a probable consumption of about one-third of the expedition's remaining rations, against which was to be estimated some advantage in

the lightening of the boats, or an opportunity for hunting and living on game instead of the rations on hand. Lieutenant Garlington reports that on the 22d of July "the cliffs around the harbor were covered with birds, which kept up a deafening clatter." (It is to be remembered that these were migratory birds, which do not remain after the summer.) Larger game, too, might possibly have been found. Moreover, the depot at Carey Island was available in the last resort for replenishment of his provisions—a resource properly to be considered, as the position of that depot promised little for the benefit of Lieutenant Greely in comparison with a well provided one, if such could be made, at or near Littleton Island. He had no reason to suppose that the delay at that season would have increased the difficulties of his southward passage. On the contrary, from the observations of the *Alert* and the discovery of the British expedition of 1875 and 1876, of the *Proteus* in the summer of 1881 (though that was a remarkably open season), and of the *Neptune*, which did not leave the vicinity until September 4, in 1882, Lieutenant Garlington had every reason to believe that the advanced state of the summer would rather improve the conditions of travel toward Upernavik. But whatever the hazards of delay, so far as they are made apparent to the court, the cost ought to have been counted and assumed, in view of the vast gain to be achieved of procuring from the Yantic some provisions—if only a month's supply for its crew, but five times that for Lieutenant Greely's party—with which to make a depot at Life-boat Cove.

The court, however, recognizes in Lieutenant Garlington's action in the premises only a sincere but grave misconception of the case on the part of an officer engaged in a novel and extraordinary duty when in a situation of much embarrassment and perplexity. The difficulty relates back to the failure of his commanding officer to give him proper instructions and advice for his action either in anticipation of the possibility of the great disaster which overtook the expedition in the sinking of the ship, or for his guidance after the happening of such a contingency.

It is considered by the court to have been demonstrated by this inquiry that the Navy Department in providing and equipping a ship for the support of the expedition, did not only all, but more than all, that Department was asked by the Signal Service to do; and that such aid was rendered most willingly and with an earnest disposition to do everything possible to further the purposes and ends of the project.

THE FAILURE TO ESTABLISH A WELL-PROVIDED RELIEF STATION AT OR NEAR LITTLETON ISLAND.

It appears, from the testimony and the papers submitted, that Lieutenant Greely, in his letter to the Chief Signal Officer, dated August 17, 1881, from Lady Franklin Bay, recommended the establishing of "a winter station at Polaris winter quarters, Life-boat Cove," in 1883, should the relief expeditions of 1882 and 1883 fail to reach Lady Franklin Bay, and it is clear that on his return about 1st September, 1883, he expected to find such a winter station with men and stores there established.

This is confirmed by the terms of the original instructions from the Chief Signal Officer to Lieutenant Greely, of June 17, 1881, in these words:

In case no vessel reaches the *permanent* station in 1882 the vessel sent in 1883 will remain in Smith's Sound until there is danger of its closing by ice, and, on leaving,
S. Ex. 100—18

will land all her supplies and a party at Littleton Island, which party will be prepared for a winter's stay and will be instructed to send sledge parties up to the *east side of Grinnell Land* to meet this party. If not visited in 1882 Lieutenant Greely will abandon his station not later than September 1, 1883, and will retreat southward by boat, following closely the *east coast of Grinnell Land*, until the relieving vessel is met or Littleton Island is reached.

It thus appears from the original instructions and from Lieutenant Greely's recommendation from Lady Franklin Bay, that a winter station of men and stores was to be made at or near Littleton Island in 1883, should the relief expeditions of 1882 and 1883 fail to reach Lady Franklin Bay.

To a reader of Arctic explorations, the original expedition of 1881, which took the Greely party to Lady Franklin Bay, made a most remarkable trip, encountering but little obstruction and finding almost continuous open water. No one at all conversant with the condition and movement of the ice in those waters could anticipate a recurrence of such exceptionally favorable conditions more than once in many years. The possibilities and probabilities were largely on the side of failure to reach Lady Franklin Bay by a relief expedition. Lieutenant Greely realized this at Lady Franklin Bay, for, in closing his letter to the Chief Signal Officer, dated August 15, 1881, two days after his arrival, he says :

In my opinion a retreat from here southward to Cape Sabine, in case no vessel reaches us in 1882 and 1883, will be safe and practicable, although all but the most important records will necessarily have to be abandoned.

And this after the most remarkable trip on record. The most judicious course then to pursue for the sure return of the expedition was to make the most ample provision to render his progress southward as easy and safe as possible by caching provisions and stores along his route, and establish a winter station at or near Littleton Island, where the party could be comfortably quartered during the long Arctic winter. This last was of vital importance. The shores of Kennedy Channel and Smith Sound have caches at intervals probably more than sufficient for his retreat south to Cape Sabine, but Littleton Island has only a small deposit of 250 rations left by the *Neptune* in 1882, about ten days' supply for the party. The winter station should have been established at all hazards, as upon it may depend the lives of Greely and his party.

The experience of the *Neptune* the previous year (1882), when she was nipped in the ice, and might have been destroyed, found ice across Smith's Sound, and returned, having cached two hundred and fifty rations not farther north than Cape Sabine, proved the uncertainty, if not impossibility, of carrying out any programme in those dangerous seas. It showed that no dependence can be placed on the ability to progress northward, and that every mile gained must be utilized in making provision for possible future disappointment or disaster. A few hours may change an open sea into an ice barrier, so that each point gained must be made a secure basis for a safe retreat.

But besides these conclusions, flowing naturally from previous experiences, and from the reason of the thing, it is in evidence that the Chief Signal Officer was urged by Capt. W. H. Clapp, of the Sixteenth Infantry, assistant in the Signal Office, "that it would be a measure of safety to establish a depot of provisions while the vessel was on her upward trip," because it had occurred to him—

That most vessels visiting those waters had been at times imperiled from the ice, and that the *Neptune*, the relieving vessel in 1882, had been seriously and dangerously nipped in Smith's Sound. (P. 164.)

This subject was referred to on several occasions, and probably as late as early in May. (P. 175.) This receives confirmation from the Chief Signal Officer himself, both in his testimony (p. 26) and in his letter of the 16th October, 1883, to the Secretary of War, transmitting Lieutenant Garlington's report. (Appendix, p. 223.) In the letter he says:

Congress had afterwards, however, added another element to the question, in this, that the party should be brought away this summer. This at first caused the instructions to be determined upon, that the stores be landed at Littleton Island before going north of that point.

It is also in evidence that Lient. L. V. Caziarc, Second Artillery, assistant in Signal Office, was shortly before the sailing of the expedition directed by the Acting Chief Signal Officer, General Hazen being absent at Saint John's, N. F., to prepare for the Secretary of the Navy a memorandum requiring joint co-operation between the Proteus and the Yantic, the Yantic having been designated for the purposes of this expedition, on the request which had been made on May 14, 1883 (p. 174), for a naval ship as escort. Lieutenant Caziarc prepared the memorandum known as Inclosure 4 (pp. 126 and 40, Appendix), and, as testified to by him, "merely embodied my own views, for adoption or rejection, as the Chief Signal Officer should see fit. No outline of any views was given to me on the subject." "I did not think they were contrary in any essential feature" to the views of Lieutenant Greely. This memorandum, inclosure 4, requires:

The Proteus to land her stores, except supplies for more northerly depots, at Littleton Island, on her way north. * * * Should the Proteus be crushed in the ice her crew will retire on Littleton Island, and the tender will bring to Saint John's, N. F., the officers and crew of the Proteus. The rest of the party to remain at Littleton Island.

This "memorandum" found its way among the inclosnres to Lieutenant Garlington's instructions, and was by him brought to the attention of the Chief Signal Officer in a very marked manner. As on previous occasions, this gave opportunity to the Chief Signal Officer to consider the grave and important question of establishing a winter station at Littleton Island on the way north; and, as before, the idea was again rejected, and the matter was left with positive instructions to the contrary. But the reasons given for its rejection are untenable.

That the expectations of Lieutenant Greely must not be disappointed when the lives of his party might depend on the strict observance of his requirements, goes without saying, and the failure to make a winter depot at or near Littleton Island cannot be excused by mere argument on false premises.

The winter station at Littleton Island was a necessity, was so considered by Lieutenant Greely, and the fact now stands that it was not made, when by more forethought it might have been there to-day. The reason given by the Chief Signal Officer, that sending the Yantic as convoy "so far obviated the absolute necessity of first stopping to unload at Littleton Island, the convoy itself being a depot, that it was thought best that Lieutenant Greely's directions should remain as Lieutenant Garlington's guide, and that it be suggested only that the landing be first made" (p. 224) is surely a misconception. The Yantic was in no sense a depot for Lieutenant Greely; she was only a place of refuge for Lieutenant Garlington

and his party. The instructions to the commander of the Yantic from the Acting Secretary of the Navy were as follows :

In view of the possibility of the destruction of the Proteus, it is desirable that you should proceed as far north as practicable in order to afford succor to her officers and men in the event of such an accident, and it is desired that you should await there the return of that ship, or the arrival of authentic information as to her fate. Under no circumstances, however, will you proceed beyond Littleton Island, Smith's Sound, and you are not to enter the ice pack, nor to place your ship in a position to prevent your return this season. (Appendix, p. 175.)

This shows that the Yantic was to remain at Littleton Island, but a few weeks at most, and could be of no possible help to the Greely party ; while the depot or station was for the quartering, subsistence, and safety of the entire Greely party, not for a few weeks, but for a long Arctic winter.

The strange blindness to this palpable and most urgent necessity of the case, and to the relations between, and functions of, the different portions of the relief expedition is lamentable and incomprehensible.

Another reason given is, that the original instructions to Greely, and Greely's letter to the Chief Signal Officer (Appendix, pp. 7 and 57), stated in terms that the caches should be made in case the ship failed to reach Lady Franklin Bay, and on her return southward. The Chief Signal Officer writes—

That it was thought best that Lieutenant Greely's directions should remain as Lieutenant Garlington's guide. (Appendix, p. 224.)

He testifies (p. 26) that—

The Greely letter was of that nature and character, written as it was after he had arrived there, knowing all the facts as no other man in the world could know them, that I felt that I was excluded from giving Lieutenant Garlington any orders that would in any manner conflict with his directions.

And in regard to Caziare's memorandum "inclosure 4:"

I told him (Garlington) that it was no part of his orders, and then I gave him a history of the paper as I have given it here (p. 25).

This after expressing surprise at finding it among the inclosures to Lieutenant Garlington's instructions.

All this proves that the Chief Signal Officer positively decided to adhere to the letter to Lieutenant Greely's recommendations without addition, subtraction, or modification of any kind whatever. It has already been stated that the caches recommended to be made by Lieutenant Greely ought to be made without fail, but this is no argument against taking other prudential measures for his comfort and safety. All of Greely's recommendations must be carried out of course, but that additional precautions in his interest should not be taken, especially after the failure of the expedition of the previous year, seems as if it had been intended to place the entire responsibility of failure on Greely's shoulders. The Neptune in 1882 brought back quantities of supplies that could have been better placed on the shores of Smith's Sound, and as the Chief Signal Officer has "regretted very much ever since that such instructions were not given, and that his (Beebe) supplies were not all left at Cape Sabine" (p. 100), this fact should have awakened in him a decided purpose to remedy that

neglect; and shows that to that extent he was willing to go beyond the Greely recommendations.

As early as November 1, 1882, in a letter to the Secretary of War (Appendix, p. 88), inclosing a plan for a relief expedition of next year, the Chief Signal Officer says:

In sending the expedition next year every possible contingency must be provided for.

Unfortunately for Lieutenant Greely and his party, the most important contingency was utterly disregarded. The instructions to Lieutenant Garlington contemplate two contingencies, 1st, open water to Lady Franklin Bay; 2d, an ice barrier clear across Smith's Sound. The most vital and far-reaching contingency in its consequences to all concerned, the loss of the Proteus, as actually happened, when thought of and discussed, made so little impression that the only reference to or mention of it in the Signal Office records is to be found in Lieutenant Caziare's memorandum. (Inclosure 4.) And yet such an occurrence is not so infrequent in Arctic waters as to render its recurrence improbable.

That ship went to her destruction without anything having been done in advance for the safety of the thirty-seven lives on board, nor provision made for the delivery of the Greely party in case of such disaster.

It is stated in the first paragraph of the instructions to Lieutenant Garlington (A., p. 118) that the necessity of reaching Lieutenant Greely—

Cannot be overestimated, as Lieutenant Greely's supplies will be exhausted during the coming fall.

And Lieutenant Garlington testifies (p. 126):

I always understood until I came back here from the Arctic regions that Lieutenant Greely's supplies would be exhausted at the end of August, 1883.

It is thus made to appear, and so believed by Lieutenant Garlington, that the Greely party were in such straits that the Proteus must push her way to Lady Franklin Bay as rapidly as possible, and take all the stores and provisions to that point for the relief of the Greely party—nothing to be cached on the way north—when the fact is of record that the Greely party was liberally provisioned until 1884, as testified to by the Chief Signal Officer himself (p. 190), and required no assistance. Add to this the other fact that the act of 3d March, 1883, required that the station at Lady Franklin Bay be abandoned and that the entire Greely party be brought back to the United States, and the taking a large amount of supplies to Lady Franklin Bay, where they were not at all needed, is most inexplicable. Not only so, but most unfortunate, for in the event of disaster caches of these very supplies on the west shore of Smith's Sound and at or near Littleton Island were of the very first importance, upon which the lives of all engaged in that expedition—the relieved and the relieving—might absolutely depend. The day or two lost in making deposits of provisions ought not to have been considered even, under the great stress of reaching Lady Franklin Bay at the earliest moment. In the uncertain and treacherous movements of the Arctic ice, such a delay, as things turned out, might have proved a blessing in disguise.

It may be here stated roughly that from July, 1882, to August, 1883, not less than 50,000 rations were taken in the steamers Neptune, Yantic, and Proteus up to or beyond Littleton Island, and of that number only

about 1,000 were left in that vicinity, the remainder being returned to the United States or sunk with the Proteus.

The failure to establish a winter station at Littleton Island, and to make additional caches on the west side of Smith's Sound, leaves the condition of things as follows:

Lieutenant Greely and his party, under the original instructions, abandoned Lady Franklin Bay and retreated south on or before the 1st September, 1883. The idea may be entertained that as no relief vessel reached him in 1882 and 1883, and he is unaware of the law directing that his station be abandoned, Lieutenant Greely may have decided to winter at Discovery Harbor, to make an early start next spring, with all the conditions of travel most favorable to a successful journey. It is, however, believed by the court that his positive instructions and his own expressed intentions will prevail. If favored with open water, as was the case when the Proteus came back in 1881, finding no impassable ice in Smith's Sound, the party has come "by boat," as instructed, with no more stores than sufficient for the journey—the caches *en route* supplying them with any deficiency in case of accident or delay.

If, however, as probable, Kennedy channel was closed by ice, and Smith's Sound so obstructed, their only line of retreat open to them was over the coast line. Under the favorable circumstance of his dogs being still alive—and Norman, who went with Greely, "thinks Greely's dogs are all dead of disease which made its appearance last year," 1881 (p. 54)—no surplus supplies could be carried between caches, on a journey beset with difficulties almost insurmountable. But in the absence of dogs, the party has had to make the retreat on foot, unaided, over 250 miles of most exhausting travel over ice, dragging their supplies, and depending on the caches ahead to make up what is daily consumed, but looking forward with implicit confidence to the winter station at or near Littleton Island as the happy termination of their labors, troubles, and anxieties.

Lieutenant Greely entertained no doubt of being able to do this, for in his letter to the Chief Signal Officer from Lady Franklin Bay, of August 15, 1881, he says:

I feel it proper to here state that in my opinion a retreat from here southward to Cape Sabine in case no vessel reaches us in 1882 or 1883, will be safe and practicable. (P. 29.)

The records show (map, Exhibit C) that there are caches of provisions on the west side of Smith's Sound as follows: At Carl Ritter Bay, 75 miles from Discovery Harbor, 225 rations; at Cape Collinson, 62 miles further south, 250 rations; at Cape Hawkes, 50 miles further, about 1,500 rations; at Cape Sabine, 55 miles off, about 1,000 rations; at Littleton Island, 23 miles across from Cape Sabine, 250 rations and $6\frac{1}{2}$ tons of coal. The depot of rations at Littleton Island has not been inspected nor visited since it was made in 1882 by Mr. Beebe.

That Lieutenant Greely and party will be fortunate enough to reach Cape Sabine in safety is highly probable; that they will reach Littleton Island by crossing the sound in the rather unsound boat left at Cape Sabine, or on the ice if the sound be closed, is also probable, but only to find themselves on a desolate coast, without shelter and with little food, over one hundred miles from the Carey Islands, containing the only cache of supplies on

the way south, and hundreds of miles from the nearest settlement at Upernavik. To return to their comfortable and well-provided station at Lady Franklin Bay would be as terrible an undertaking as proceeding south, and the heart-sickness and disappointment at being forgotten in the desolation round them, renders it impossible to imagine what their future course will be. The veil cannot be lifted until the next summer's sun dispels the darkness of this Arctic night.

After the disaster, the evidence clearly establishes the fact that Lieutenant Garlington and his party saved all they could from the sinking ship, and that they cached near Cape Sabine all the stores and provisions that could be spared before crossing to Littleton Island.

Without discussing here whether or not he should have awaited there the arrival of the Yantic before starting south, it is due to Lieutenant Garlington to say that he was fully warranted, as the sequel proved, in not leaving a portion of his provisions at or near Littleton Island. It is in evidence that he had about forty days' rations for his party, and it took them twenty-nine days to reach the settlements, leaving no considerable margin for delays that are always to be expected in Arctic navigation in open boats.

Commander Wildes, of the Yantic, had been supplied with copies of Lieutenant Garlington's instructions and of Lieutenant Greely's letter, and while at Littleton Island and vicinity he learned of the loss of the Proteus, and that the expedition had gone south in boats. The Secretary of the Navy testifies (p. 118):

In other words, say four months' full rations were on board when the vessel (Yantic), on August 3, left Littleton Island, and there were brought back to Saint John's full rations for three months.

Knowing, as Commander Wildes did, from these instructions, "the object of the relief expedition and the importance of its success," the desire and intention of establishing a winter station at or near Littleton Island, and its vital interest to Lieutenant Greely and his party, it is greatly to be regretted that, in his earnest desire to succor the crew and party of the Proteus before they should encounter the perils of Melville Bay, he should not have risked the delay of a few hours, or even days, to cache a portion of his surplus provisions and stores to welcome the arrival of Lieutenant Greely and party on that inhospitable shore.

It is true that the furnishing of the Yantic and supplies was, as stated by the Secretary of the Navy, in precise conformity to the requests of the Chief Signal Officer, and the latter did not ask nor expect that supplies for the expedition should be carried by the Yantic, and offers to this effect were made to him by the Secretary and declined, still, with this sole remaining means of making a depot where Lieutenant Greely would expect to find a winter station, and the serious consequences to his party of disappointment in this respect, the landing of a portion of the Yantic's supplies, notwithstanding the risks that such delay would involve, would have been timely and wise, and "in furtherance of the aims and objects of the expedition." In the presence of such dire disaster, with the terrible consequences threatening to follow closely and relentlessly after it, such an act by Commander Wildes could have been worthy only of commendation.

CONCLUSIONS.

Having in the foregoing pages presented a statement of the facts developed by this investigation, relating to the organization and fitting out of the Greely relief expedition transported by the steamer Proteus; and "to the general conduct of the expedition;" and having discussed and reported upon "the failure of the Proteus to keep in company with the Yantic up to Littleton Island, or its neighborhood;" and "the failure to establish a well provided relief station at or near Littleton Island," it remains now for the court only to express its opinion "whether the conduct of any officer of the Army calls for further proceedings before a general court-martial, and the reasons for the conclusions reached."

The court has already pronounced the opinion that Lieutenant Garlington, after the sinking of the Proteus, erred in not waiting longer at Pandora Harbor, with the object of obtaining from the Yantic supplies with which to make a depot for a winter station at Life-Boat Cove, near Littleton Island, the objective point of the retreat which Lieutenant Greely had been ordered to begin at Lady Franklin Bay not later than the 1st of September, 1883.

Lieutenant Garlington's error in this respect is regarded as one of judgment, committed in the exercise of a difficult and unusual discretion, for which, in the opinion of the court, he should not be held to further accountability.

It is also due to him to say, that in the general conduct of the expedition, prior to the loss of the ship, he displayed zeal, energy, and efficiency, as well as afterward in successfully conducting his command through a long, perilous, and laborious retreat, in boats, to a place of safety.

While awarding credit to General Hazen, the Chief Signal Officer of the Army, for the best intentions in devising measures for the rescue of the command of Lieutenant Greely, and for an earnest desire—which it was impossible that he should not have entertained—to restore those adventurous men to their country and homes after two years, exile from the world of humanity; and while further, as has already been said, commending the study and care of General Hazen and of his assistants in the Signal Office, in 1883, in the preparation of the outfit and material of the expedition of that year, and the selection of its *personnel*, the court is of opinion that in many particulars, and in some of the gravest moment, he failed in an adequate comprehension of the necessities of the case, and of the measures and means essential to meet them.

The following grave errors and omissions are noted in his action:

First. In not submitting, in the fall of 1882, to the Secretary of War, for the action of Congress, a sufficient plan, with corresponding estimates for the organization and equipment of a complete and efficient relief expedition, to be conveyed in two vessels fitted for ice navigation, whereby the chances of disaster and failure would have been greatly diminished.

Second. In objecting strongly, in the fall of 1882, to a proposed endeavor by the War Department to obtain from the Navy the men for the relief party of 1883.

Third. In sending an independent command upon a most perilous and responsible, as well as distant, expedition, with only one commissioned officer.

Fourth. In informing Lieutenant Garlington in his instructions that Lieutenant Greely's supplies would be exhausted in the fall of 1883, whereas the means of correct knowledge were within ready reach in the Signal Office to show that Lieutenant Greely's command was fully provisioned for more than three years from the summer of 1881; the natural effect of this error being to urge Lieutenant Garlington to undue impatience and haste to reach Lady Franklin Bay with all the stores intrusted to his charge, and to obscure from his mental vision, after the ship and cargo had gone down, the desirability of advancing as far as possible, northward, notice of the disaster, in order that Lieutenant Greely, before coming down too far to go back, might, being so warned, retire again to his well-provided station at Lady Franklin Bay.

Fifth. His persistent rejection of the wisest measure that it remained possible for him to adopt in the spring of 1883, and which was repeatedly urged upon his consideration, to wit, the making on the northward voyage of the relief ship of a large depot for a winter at or near Littleton Island (the objective point of the projected retreat of Lieutenant Greely), whereby the ship would have been lightened of stores which it was in nowise necessary to carry to Lady Franklin Bay, or to expose to the dangers of Smith Sound, and whereby the subsequent loss of the vessel would have been of comparatively trivial consequence.

The explanations offered by the Chief Signal Officer of his decision not so to make a depot, that it would be a deviation from Lieutenant Greely's own plan of relief, are, as has already been shown, utterly untenable and illogical.

Concert of action between the retreating and the relieving parties was undoubtedly important, but this being secured by compliance with all Lieutenant Greely's requests as to the location of depots or otherwise, how could any intelligent deference to those requests, either in their spirit or letter, forbid that further precautions and measures should be devised and taken with a view to his rescue?

This was plainly the case in the proposed unloading at or near Littleton Island, on the way northward. Lieutenant Greely asked to have a winter station made for him near that place. If one-half or two-thirds of the stores of the expedition had been unloaded at the entrance of Smith Sound there would have been secured a vastly greater approach to certainty of the full attainment of Lieutenant Greely's wishes and urgent needs than when the whole cargo was subjected to the hazards of the heavy ice packs habitually present in that water.

And, while a delay of a few days would have involved no appreciable disadvantage from retarding the voyage to Lady Franklin Bay—which was not essential—the omission to make this depot—which *was* essential—threatens serious danger to the lives of Lieutenant Greely and his command.

The further reason that General Hazen assigns for his action—that the naval tender would be itself a depot—was, as has already been shown, wholly fallacious and unfounded.

Sixth. In failing to perceive a necessity for a second vessel until nearly the middle of May, 1883, or to advise the Navy Department of what such tender was wanted to do, or how far it was wanted to go, until a fortnight later, whereas a definite and explicit request ought to have been made immediately after the enactment of the appropriation which authorized the

expedition, two months sooner, and that much longer notice given to enable a more complete fitting of a ship for the purpose.

Seventh. The omission of proper directions and measures for stowing the cargo of the Proteus, in order that the most important material for the purposes of the expedition should be readily accessible in an emergency, owing to which omission it was unknown to either Lieutenant Garlington or the master of the ship, where the arms and ammunition provided for the party were stowed; and upon the loss of the ship the command was left with only the few arms and comparatively small amount of powder and shot that had been kept in their personal possession.

It was of vital importance that the cargo should be so stowed that its most essential contents would be easily accessible and removable in any exigency.

The instructions to Lieutenant Garlington were insufficient, while he was denied permission to proceed in advance to Saint John's to attend to the matter which was committed to the sole care of a non-commissioned officer who wholly failed to attend to it, not even going to Saint John's for the purpose.

If a sufficient quantity of arms and ammunition had been saved a *cache* of them might have been made for the use of Lieutenant Greely, the amount of whose supply of this indispensable material has not been made known to the court, and however ample it may have been originally, by this time may be entirely exhausted.

Eighth. The lax, negligent, and defective method of keeping the record of public business and conducting the correspondence in the Signal Office, as illustrated by the action of the Chief Signal Officer, in regard to the so-called supplementary instruction or order to Lieutenant Garlington, which, in fact, was no order at all. General Hazen's attention was called to a document in the nature of an order placed by one of his staff, with the orders to Lieutenant Garlington, in that officer's hands, without—as the Chief Signal Officer testifies—his express or conscious authority. He contented himself with telling the lieutenant that the paper was no part of his orders, without calling to account the officer who had thus presumed (from this point of view) to give an order or even a suggestion in conflict with the terms of the written orders signed by himself, the Chief Signal Officer. He certainly ought to have withdrawn a paper containing the contradictory direction or suggestion, to the acting adjutant of the office with orders to cancel it, and if on record, to expunge it therefrom, unless, indeed, he was prepared to make it an order and embody it in the instructions over his signature.

On the contrary, he takes none of these steps, but wholly omits to acquaint his acting adjutant with his conversation with, and last oral instructions to, Lieutenant Garlington, and leaves that adjutant under the impression that the memorandum, which he remembers that he had sent to the desk of the Chief Signal Officer with the instructions for the expedition, and with them received back, without comment, for transmission to Lieutenant Garlington, was a supplementary order or a post-script to the instructions of that officer. From which course of action it resulted that the memorandum was recorded as an inclosure to Lieutenant Garlington's instructions, and afterward published to the country as an indication that he had been guilty of disobedience of orders in failing to make a depot at or near Littleton Island on his voyage northward.

If any further illustration were needed of this mischievous manner of conducting official business, it would be apparent in the reflection that if a fatal accident had befallen the Chief Signal Officer during Lieutenant Garlington's absence, the knowledge of the last interview between those two would have been confined to the survivor, whose testimony, in repelling a charge of violation of his orders, as that of a man deeply interested, would have had to be judged in the light of Lieutenant Caziare's knowledge, only of having sent to the Chief Signal Officer, and received back again for transmission to Lieutenant Garlington, the memorandum in question.

That it was not signed nor mentioned in the body of the instructions over General Hazen's signature, might then have been regarded as matter of form rather than of substance.

Touching this memorandum itself, the court is of opinion that neither was it an order, nor did it properly carry any force as a suggestion, to the commander of the expedition, who was instructed to strictly conform to the letter of Lieutenant Greely's requests. General Hazen had rejected the idea embodied in the memorandum as in conflict with those requests, and so informed Lieutenant Garlington, stating that they were a law to him, the Chief Signal Officer. If he had desired or intended that Lieutenant Garlington, if delayed near Littleton Island on the voyage northward, should make the depot, he could easily have embodied in the orders a proviso to that effect, instead of obscuring such an idea under a vague intimation of the discretion reposed in a distant commander, to be called into exercise according to the facts as they should develop themselves. This discretion, however, can have no application to Lieutenant Garlington's subsequent action, as the very condition of facts that this officer indicated as his objection to stopping at Littleton Island to unload was found there in the clear and unobstructed passage northward.

Ninth. Following the custom when officers of different services, with independent commands, are ordered to co-operate in a single expedition, the Chief Signal Officer should have taken care to have Lieutenant Garlington furnished with a copy of the instructions of the Navy Department to the commander of the Yantic.

While the foregoing grave errors and omissions are regarded as having either directly led or largely contributed to the abortive issue of the expedition, yet as they are all deemed to have been due to the lack of a wise prevision and sound judgment, in the exercise of a wide administrative discretion, and unattended by any willful neglect or intentional dereliction of duty, the court, after mature deliberation, is of opinion that no further proceedings before a general court-martial are called for.

S. V. BENÉT,

President of the Court.

HENRY GOODFELLOW,

Judge-Advocate, Recorder of the Court.

The court then, at 3 o'clock p. m., adjourned *sine die*.

S. V. BENÉT,

Brig. Gen'l, Chief of Ordnance, President.

HENRY GOODFELLOW,

Judge-Advocate, Recorder.

INDEX TO PROCEEDINGS OF COURT OF INQUIRY.

	Page.
Adjutant-General, requested to furnish certain correspondence and reports...	2
requested to obtain address of Commander Wildes and Lieutenant Colwell.....	2
requested to secure attendance of Commander Wildes and Lieutenant Colwell as witnesses	2
correspondence, &c., desired first	2
to request Secretary of Navy for certified copies of certain correspondence, &c	2
Certified copies (3 volumes) received from Secretary of Navy.....	4
Court and recorder sworn	1
Court of inquiry, findings (see Findings, court of inquiry)	251-283
members	1
order convening	1
scope of investigation	1
Exhibit C, presented by General Hazen	54
Findings, court of inquiry	251-283
conclusions	280-283
failure of Proteus to keep in company with Yantic up to Littleton Island or its neighborhood.....	270-273
failure to establish a well-provided relief station at or near Little- ton Island	273-279
instructions for the expedition	262-270
interrogatories to United States Consul Malloy, John Syme, and John Lash. Non-receipt of answers	260
opinion of court	271-273
organization and fitting out of relief expedition of 1883.....	260-262
report of facts developed by the inquiry.....	251-259
Garlington, Lieutenant, permitted to further examine Lieutenant Caziarc, if necessary	53
privilege to appear during proceedings, and intro- duce counsel	2
Garlington's instructions, Adjutant-General to forward originals.....	2
his report, &c., received	4
further examination on subject ended; why.....	57
Greely's command, certified statement, received	209
Hawkins, John P., commissary subsistence, United States Army, affidavit re- lating to subsistence stores selected for expedition	160
Hazen, General, informed certain questions could be submitted orally.....	90
statement of	245-251
Kent, Mr. Linden, argument	211-245
counsel for Lieutenant Garlington.....	3
Letter (copy) of C. S. O. requesting Secretary of the Navy to furnish tender..	24
of Adjutant-General, conveying approval of Secretary of War to re- quest for adjournment, &c	144
of Captain Clapp to Adjutant-General Drum, transmitting copy of letter December 1, 1883, to C. S. O	181
of Captain Clapp, November 27, 1883, to recorded court of inquiry, requesting to be heard in person	183, 184
of Captain Clapp, December 1, 1883, to C. S. O., in reply to his, of November 23, 1883	181, 182
of Lieutenant Garlington, soliciting privilege of employing counsel in his behalf	3
of president of court, suggesting presence of certain witnesses, and re- questing adjournment to December 19	143, 144
requesting General Hazen to state what expected to prove by certain witnesses	120
Records and correspondence, Signal Office (copies), relating to Garlington expedition submitted.....	2, 3, 23
Stenographer (H. H. Alexander) sworn	3
(Maurice Pechin) sworn	144

CAZIARC V. LOUIS, FIRST LIEUTENANT SECOND ARTILLERY.

(Sworn; testimony.)

	Page.
Beebe's Report, in Signal Service Notes No. 5.....	49
Charter party must have been put with Garlington's instructions in great hurry, at last moment.....	42, 43
of Protens, also marked as Inclosure No. 4.....	42, 50
Copies, care taken in comparing with originals; same not observed in copy- ing into record books.....	48
in making, custom is to compare all parts of them.....	48
witness's chief clerk had charge of papers to furnish copies.....	160
Division of Arctic observation and research, Captain Clapp in charge.....	39
Duty, since May 1881.....	39
Garlington expedition, Clapp continued to act as advisory officer after Gar- lington's arrival.....	39
did not specially present views to C. S. O. as to danger taking all stores through Smith's Sound.....	53
Garlington relieved Clapp of so much of work as re- lated to outfit of expedition.....	39
preparation begun in fall of 1882.....	39
selection of Garlington and men for.....	39
Garlington's instructions, and "Inclosure 4," placed in hands of C. S. O. by witness.....	157
by whom copies were made for newspapers.....	159
Mills took the copies prepared in Signal Officer to Department.....	49
copies furnished Commodore English and Secretary of Navy.....	46
copies furnished newspapers by witness.....	44, 51
copies furnished newspapers taken from the rough or hektograph copies.....	159
copies of papers not furnished Secretary of Navy enumerated.....	49
C. S. O. took them to the Secretary of War without the inclosures.....	46
date copies were furnished newspapers not known.....	159
date of their preparation.....	60
does not know Powell's telegram of May 20 was in consequence of interview with Secretary of Navy.....	155
does not remember C. S. O. telegraphed from St. John's to take no action until his return.....	64, 75
draft not submitted to him for comment.....	61
history of.....	40-43
in Mr. Powell's hands when he gave him "Inclos- ure 4".....	156
instructions to make copies for newspapers issued by witness.....	159
knew what took place with regard to their prepar- ation prior to May 2, 1883.....	60
made no suggestion on rough which passed through his hands.....	63
most of June 4 and 5 spent in their preparation ..	157
never heard copies were sent to Secretary of Navy before Garlington's departure.....	45, 46
no record copies were furnished Secretary of Navy before Garlington's departure.....	46
original draft, marginal notes, corrections, &c., read; names of officers making them given.....	54, 55, 56, 57
original submitted and identified by witness.....	44
published in "National Republican" June 9, 1884	152
second draft and "Inclosure 4" being in conflict, one or other should have been amended.....	
second draft not submitted formally, although cor- rections on it and on Greely's letter appear in his handwriting.....	
second draft passed through his hands and was inspected June 4.....	
two telegrams from C. S. O. in regard to, received; former answer corrected to that effect.....	

	Page.
Garlington's instructions, Secretary of War not furnished copies of all papers verbal request by Secretary of Navy for copies; when	47
when furnished newspapers had not been copied on the books	46
witness prepared inclosures placed in envelope ..	159
Inclosure No. 4, additional explanations with regard to last clause	59
after left his hands did not see it until Mr. Garlington's return	75
after its return from C. S. O. assumed it approved; acted upon it as an approved order; why	42
after its return from C. S. O., considered it part of Garlington's instructions	62
among inclosures returned by C. S. O. for delivery to officers addressed	64
among papers, but copy not furnished newspapers; why....	58
among papers handed C. S. O. for scrutiny	159
Clapp considered it a material departure from Greely's instructions	41, 42
circumstance which first conveyed the information that Garlington had not approved it	53
considered part of Garlington's instructions, without full consideration of subject	44
conversation with Garlington in regard to it, after return... ..	64
copied June 4; given personally to Powell	49
copy from original draft one prepared for Secretary of Navy. copy furnished Powell given Secretary of Navy; so informed by C. S. O	61, 155
copy furnished newspapers by witness	60
copy given acting C. S. O. believed to be one taken to Secretary of Navy	62, 75
copy given acting C. S. O. not the one returned to him; never saw that again	44, 51
copy given C. S. O. made before one to go with Garlington's instructions	60
copy made on Sunday, June 3, 1883, first and only one presented by witness	53
copy not furnished newspapers, as part of Garlington's instructions, prior to departure of expedition	159
copy not original draft given the acting C. S. O	158
copy not submitted to Secretary of Navy	59, 60
copy placed with Mr. Garlington's instructions by witness..	44
copy placed with Garlington's instructions made by a clerk (not known)	41
copy placed with Garlington's instructions submitted and identified	60
copy so marked may not have been one had by Secretaries of War and Navy at time of conference	44
C. S. O. informed witness he had not used the memorandum ..	49
C. S. O. informed witness he had taken memorandum to Navy Department	158
date first draft was submitted to Captain Powell; why satisfied as to date	158
did not assume it would go to Secretary of Navy unchanged; if it did, was in shape for immediate use	155
did not discover until Garlington's return that the memorandum was recorded in record books as of that title; when discovered	159
discrepancies in views with regard to it explained	48
does not distinctly remember conversation with Mr. Powell when he gave it to him	64
does not know how it came into its present form	157
does not know whether C. S. O. saw it prior to instructions being handed Garlington	46
does not know who made alterations in copy from rough notes; did not know there were any	41
does not know why views embodied therein were rejected by C. S. O	42
does not remember if C. S. O. had seen copy given Powell before sent in Garlington's envelope	44
	62

	Page.
Inclosure No. 4, does not remember if Mr. Powell took exception to views embodied therein	157
does not remember whether copies furnished court and one given Garlington are in same handwriting	160
does not think it was inside envelope when it came back from C. S. O	59
does not think views contained in it contrary to Lieutenant Greely's in any essential feature	43
efforts made to correct erroneous impressions conveyed to Secretaries of War and Navy	53
extract of letter of Secretary of War, directing inquiry into its history, read	47
first copy (one that disappeared), given to Mr. Powell.....	157
first draft prepared by witness	41
first draft submitted to Garlington; understood him to approve it.....	44
framed merely for acceptance or rejection by higher authority.....	52
Garlington's conversation with C. S. O. in regard to it, not known until Garlington's return	59
Garlington's instructions signed, and returned with inclosures, without remark	62
had no communication with C. S. O. during that officer's absence in regard to it	53
had no conversation with any one as regards views expressed therein prior to framing it.....	58
history of first draft of "supplementary instructions"....40, 41, 42, 43	43
how it came to be added to Garlington's instructions.....	156
how witness came to furnish newspapers with copy of it....50, 51, 52	52
in handwriting of clerk in witness' division	46
in making copies of papers, custom is to compare all parts of them.....	48
in original letter of instructions, no reference made to it....	46
instructed by Acting C. S. O. to prepare memorandum for use of Navy Department.....	58
in same condition as those usually coming from C. S. O. for transmittal	59
its being so marked an error.....	47
memorandum original with witness, despite testimony that views embodied therein had previously been discussed....	58
merely embodied witness' views	43, 58
never entered on regular books except as an inclosure to Garlington's instructions	158
never heard its terms discussed prior to date he drafted them	58
never made matter of record.....	158
never saw copy made after witness gave it to Captain Powell.....	41
not an order; could not be so construed.....	45
not entered in regular books at time he handed copy to Captain Powell	158
not inserted with instructions through any personal wish or desire of witness.....	59
one copy given Acting C. S. O., another to C. S. O.....	60
one copy only among Garlington's papers	160
opinion as to its value at time of Garlington's departure....	58, 59
opinion now fixed not a part of Garlington's instructions...	64
ordered by Captain Powell to get up memorandum.....	43
original rough, retained by witness	61
original shown witness and identified.....	46
placed with "instructions"; why.....	59
positive as to date it was prepared by him	52
positive of date he gave copy to Powell, and that he never saw it afterwards	156
Powell asked him to write it; knew his views.....	52
Powell did not instruct him to prepare it May 20 or 21. Why satisfied as to date	155
Powell gave no instructions as to use to be made of it.....	157

	Page.
Inclosure No. 4, Powell never saw rough draft of it; saw copy made from it prepared by witness June 3, 1883.....	157 61
prepared by witness June 3, 1883.....	61
prepared not as an order to Garlington, but to enable Secretary of Navy to prepare instructions for tender.....	61, 62
record kept of it during Garlington's absence.....	42
second copy; history after it left his hands.....	62
second copy; one placed with Garlington's instructions.....	61, 62
second copy; what became of it.....	156, 157
supposed Powell intended to give it to Secretary of Navy ..	158
thinks C. S. O. took it to Navy Department not earlier than June 6.....	158
two drafts of original made; disposition made of them.....	156
understood C. S. O. that copy furnished Powell had been given Secretary of Navy.....	62, 75
understood C. S. O. took it to Navy Department.....	158
understood C. S. O. to say that it had been delivered to Secretary of Navy, and plan had been or would be drawn in conformity with it.....	44
came back as if it was intention of C. S. O. it should accompany Garlington's instructions.....	59
views contained discussed prior to convoy was thought of..	58
views expressed therein presented to C. S. O. before Garlington's instructions were given.....	62
was either inclosed in or with envelope containing the instructions when it came back from C. S. O.....	59
was not questioned why it was put with instructions sent C. S. O. for signature.....	59
witness called attention of C. S. O. to it two or three times.	158
witness gave no answer to inquiry if he knew how second copy got among Garlington's papers.....	156
witness may have given Captain Powell papers borrowed June 3, with it.....	156
witness's reasons for supposing Garlington approved it at time written.....	50, 54
witness's understanding of what C. S. O. said with regard to views embodied in it.....	62
when Garlington's instructions were received back, no reference was noted that it was an inclosure to them.....	62
when given to Powell, did not hand that officer any other papers.....	156
when it came back, found Garlington's instructions signed by C. S. O.....	59
who copied it; clerk now on duty in Washington Territory.	160
why furnished copy to Powell instead of original draft.....	159
why inserted in envelope containing Garlington's instructions.....	63
Littleton Island, discussion relating to landing stores might have taken place during absence from the office.....	58
had no knowledge that discussion took place, prior to date he prepared "Inclosure 4".....	60, 61
made no suggestion on rough of instructions of June 4, as to propriety of landing stores on way up.....	63
why believed it better to vary Greely's instructions, and make depot there on way up.....	43, 44
Papers, drafts, prepared by witness, not read to C. S. O., from own handwriting.....	158
for C. S. O., as often prepared by dictation to stenographer, as in own handwriting.....	159
Signal Office, usual Sunday detail on duty June 3.....	159
Supplementary instructions, history, and how they came to be marked "Inclosure No. 4".....	47
mentioned in records of Signal Office as "Inclosure No. 4".....	45
Yantic, date of letter asking for.....	52, 58
movements in conformity with "Inclosure 4," so informed by C. S. O.	62

CHANDLER, WILLIAM E., SECRETARY OF THE NAVY.

(Sworn ; testimony.)

	Page
Garlington expedition, no request made for purchase or charter of ship to accompany it	118
would not undertake to say whether he had or had not authority to purchase or charter ship to accompany it.....	118
Yantic, Admiral Cooper's letter to Commander Wildes, conveying instructions, &c.....	116
application for naval tender to accompany Arctic relief expedition of 1883	114, 115
condition of boilers	117, 118
considered the most available ship for expedition; why	118
date of signing sailing orders.....	117
C. S. O. expressly stated in letter of May 14 that ship would not be required to enter the ice.....	118, 119
Yantic's instructions, C. S. O. satisfied with instructions prepared for Commander Wildes.....	115, 116
Yantic, furnished in compliance with request of War Department.....	118
inspection reports of Chief Engineer Smith and Fleet Surgeon Brooks interviews and negotiations, looking to securing naval tender for relief expedition of 1883.....	117, 118
movements from February 25 to May 22, 1883.....	115
preparations for expedition; letter of instructions to Commodore Upshur	116
quantity of rations furnished	117, 118, 119
the furnishing of any part of her stores for use of Greely party	118
what C. S. O. required of her	119
what her commander was expected to do	116
who determined what had to be done to prepare her for trip	119
witness's letter detailing her for expedition	119
witness's letter detailing her for expedition	116

CLAPP, WILLIAM H., CAPTAIN SIXTEENTH INFANTRY, U. S. A.

(Sworn ; testimony.)

Act (Congress) withdrawing Greely expedition	171
Alhambra, not consulted relative to Garlington's request to go on; heard of it	167
Ammunition, don't know amount Mr. Greely had	166, 167
Arctic expeditions, comparison between soldiers and sailors in Arctic waters.....	187
experiences of ships that have entered Smith's Sound	173
locations of their main depots	173
ships that got north of Cape Sabine, and brought back by their crews	173
some of most successful in charge of landsmen	187
(successful) commanded by landsmen, had crews composed of sailors	198
that have entered Smith's Sound, enumerated	172, 173
to whom it should be intrusted; crew, discipline, &c.....	172
whalers and sealers better than soldiers and sailors.....	188
navigation, advantage of one time over another in going up.....	186
dangers, possible and probable, to be provided against.....	170
service, witness's study of the subject	162
Arms and ammunition supplied Mr. Greely	167
Beebe expedition (1882), does not know who framed instructions for it.....	161
(1882), object; what was done to perfect it.....	161
who Mr. Beebe was	162
Depot, cache of provisions should have been made going up.....	171
(Cape Sabine), conversation with C. S. O., referred to its location; recommended making, on way up.....	176
(Cape Sabine), date of last conversation with C. S. O.; landing stores on way up.....	174, 175
conversation with C. S. O. on subject of making one on way up.....	168
conversation with Garlington; making depot on west coast, coming down.....	168
C. S. O. considered establishment, on way north, a deviation from Greely's plan.....	163

	Page.
Depot could be made on way up and still not interfere with Greely's views.	171
establishment on way north, a modification of Greely's plan; not in	
conflict with it.....	165
first suggested establishment, on way north, during winter of 1882,	
or early spring, 1883.....	165
heard no suggestion one should be made at Littleton Island.....	168
how far Greely's views would be met in making one on way up.....	171
made suggestions subsequent to Garlington's arrival.....	165
mentioned advantages, establishment at or above Cape Sabine, would	
be to Greely.....	164, 165-168
never heard C. S. O. express concurrence in any view looking to es-	
tablishment on way north.....	165
no conversation with Garlington on subject of making, at Littleton	
Island.....	168
why C. S. O. refused to adopt witness's suggestions to establish one	
going north.....	165
witness's knowledge of proposed plan for making, on way north.....	163
witness's views and recommendations to plan of making, on way	
north.....	163
made by prior expeditions, entering Smith's Sound, on way up.....	173
Duty, and service in Signal Office.....	161
Expedition of 1883, connection ended on Garlington's assuming charge.....	166
Garlington expedition, advantage of reaching Life Boat Cove or Cape Sabine	
earlier.....	187
Arctic matters turned over to Garlington on his ar-	
rival.....	162
boats furnished; number and description.....	178
consultations, and precautions to make it a suc-	
cess.....	176, 177, 178
conversations; what to be done in case of disaster... 167, 168	
conversation with Caziarc; landing stores, on way up.....	184
conversation with Garlington touching possibility of	
disaster.....	166
C. S. O. approved plans submitted by witness at vari-	
ous times.....	162
C. S. O. impressed him as being desirous to promote	
its success.....	162
does not think provision for possible disaster fully	
considered.....	165-168
efforts of witness to make it a success.....	176, 177
frequently consulted in regard to.....	178
had frequent conversations with C. S. O. on subject of	
relief expedition.....	162
had frequent conversations with Garlington relative	
to it.....	162
had 15 months' supplies for both parties.....	163
if unable to reach Greely, supplies taken to feed both	
parties.....	163
intention to provide master and crew familiar with	
Arctic navigation.....	170
kept memorandum of suggestions and ideas relat-	
ing to.....	162
knows of nothing neglected.....	178-184
knows nothing of history of Caziarc's telegram, June	
28, 1881, or why not answered.....	167
made necessary by partial failure of first relief expe-	
dition.....	162
no attempt to fix date Proteus should reach Lady	
Franklin Bay.....	187
no discussion as to where portable house should be	
stowed.....	179
no plans for packing portable house.....	178, 179
orders of preparation carefully studied.....	178, 184
supplies obtained prior to Garlington's arrival.....	162
unable to state whether provisions for safety of boats	
were carried out.....	178
views why stores were not landed on way up.....	186
whether Greely was the best judge of what should	
be done for his relief.....	188, 189

	Page.
Garlington expedition, winter quarters on west coast, no material departure from Greely's plan	186
winter quarters on west coast not at Life Boat Cove; why	186
Garlington's instructions, based on possibility of Greely's supplies being exhausted	163
clause referring to exhaustion of Greely's supplies; why inserted	168, 169, 176
C. S. O. directed they should conform to Greely's plan	170
explanations of conflicting testimony	185, 186
made a rough draft by direction of C. S. O.	163
not complete; wherein	169, 170
propriety of providing for disaster	170, 171
rough draft retained by C. S. O.	163
saw rough draft several times afterwards, but had nothing further to do with them	163
when drafted	166
when witness drafted them had not heard naval tender would go	166
why more specific instructions were not issued	166
Greely expedition; Greely reported caches made on his way north	176
had an abundance of supplies to last till fall of 1883, and something more	163
history of its fitting out, &c.	161
knew quantity of stores and supplies had on its departure	163
time Greely's stores would last never definitely estimated	163
trip of Proteus to Lady Franklin Bay an exceptional one	188
Greely's experience not entitled to paramount consideration	189
to what limited	188
Greely's plan contemplated relief by the Army	172
heard no discussion relative to relief by Navy	172
propriety of expedition being under control of Navy	172
relief expedition may be successful with Army or Navy	172
Greely relief expedition, date witness was relieved from duty in connection with	174
views as to propriety of its being in charge of Navy	187
Ice navigation, master and crew expected to prevent danger	188
Inclosure 4, conversation with Caziarc; making depot on way up	166
conversation with Caziarc; winter station at Cape Sabine	166
did not entirely embody his idea; difference	166
no knowledge of; when first heard of it	166
Letter of General Hazen, November 23, 1883, not found	184
Secretary of War, relating to Navy taking charge of expedition; remembered	172
Plan of relief did not take into consideration contingency of disaster	170
Proteus crushed July 23, 1883	187
reached Smith Sound as early as navigation is practicable	187
Provisions, no necessity for carrying all, to Lady Franklin Bay	171, 172
Retreat, by boats, latitude 82°, as late as September 1	168
by sledges, latitude 82°, as late as September 1	168
Smith Sound, ships that have actually got into it enumerated	173
Witness does not wish to qualify anything in letters of November 27 and December 1, 1883	179
Witness' letter, November 27, 1883, to recorder of court	183
letter, December 1, 1883, to Adjutant-General Drum	181
letter, December 1, 1883, to General Hazen	181
Yantic, first knowledge of intention to ask for naval tender	165

COLWELL, JOHN C., LIEUTENANT, U. S. N.

(Sworn; testimony.)

Arctic expeditions, number and history of such as passed north of Cape Sabine, through Smith Sound	205, 206
trip, and time made by Sir George Nares, from Cape Sabine to Discovery Harbor	206
Boats, from Brooklyn navy yard, not as carefully fitted as they should be; in what defective	73

	Page.
Brevoort Island, cove in which provisions were cached	208
Cairns, practical use between Carey Islands and Pandora Harbor.....	78
Cape Sabine, list of clothing left; no provisions at.....	207
provisions cached three miles west	207
quantity of clothing cached at	208
quantity of rations cached near	208
Garlington expedition, after wreck, Garlington and self thought best to go south; only difference where to separate.....	75
after wreck, had frequent consultations with Garlington what should be done.....	75
all stores that could possibly be saved secured.....	69
approved Garlington's course after wreck except in one particular; what that was.....	71
arms and ammunition party had after wreck	76
articles left on floe after disaster	205
conversation between Garlington and Pike prior to leaving Payer Harbor	203, 204
course to be pursued determined at Cape Sabine.....	208
description of disaster; wind, ice, tide, &c.....	94
detached from Garlington's command at Cape York..	71
did not hear Garlington remonstrate with Pike as to position of ship when stopped	94
did not hear Pike say water north of Payer Harbor not good	204
did not hear Pike tell Garlington they were too early; might have done so.....	204
don't recall conference with Garlington and Pike after wreck	208
don't recall that Pike advised waiting few days for Yantic	208
Dr. Harrison joined Garlington's boat at Cape York..	74
everything possible done by Garlington and party to save and secure stores	69
ice sighted, little after 11 a. m., July 22	207
Garlington's views as to landing stores and making camp in Arctic region.....	71
going up, had no consultation with Garlington as to best course to pursue	74, 75
headlands seen from Littleton Island.....	206
how far ice can be seen	207
how he connected with it.....	68
how stores were found when came to be used.....	70
landing stores from ice; boats used	204, 205
made suggestion that he should go south at Cape Sabine; Garlington did not act on it.....	76
might have met Yantic in Melville Bay, if had started south immediately after wreck	78
no ice seen from Littleton Island 9 a. m. July 22.....	206, 207
party did not stop at Carey Island on way down; why. Payer Harbor protected from ice	76, 77 93
Pike's remarks at Littleton Island, and on day ship got to Payer Harbor.....	206
practical use of leaving records between Carey Island and Pandora Harbor	78
probable time gained, if permitted to go south at once; water open to Carey Islands	71, 77, 78
Proteus could have got out of ice-pack first night and gone back to Payer Harbor	93
Proteus frequently stopped by unbroken, impenetrable ice	70
Proteus trying to work out of pack when lost	94
Proteus in ice-pack six miles when stopped; should have gone back to Payer Harbor first night	93
remembers nothing in particular that he said to Pike before entering Payer Harbor.....	206
thinks Garlington and self did best they could after wreck	75
thinks Garlington and party did everything possible to carry out object of his instructions.....	71

	Page.
Garlington expedition, thinks result would have been different if Proteus had been commanded by a naval officer	93
views as to what should be done by Garlington at time of wreck	69
who, of Army party, had nautical knowledge	74
witness moved effects on Proteus June 28; sailed from St. John's next day	68
witness an officer of Yantic; when first became acquainted with Garlington	68
witness told Garlington after wreck not to let Pike have whale boat; why	204, 205
witness' account of Pike's request for a boat to take off stores on floe	204
witness' idea was to bring Yantic to Garlington, if permitted to go south	78
witness' general testimony corresponds with notes taken on way up	207
Garlington's instructions, read them and Greely's letter of advice; was familiar with each	70
Garlington's report presents correct and faithful account of what occurred, until parted company	68
Greely's mail, don't know where stored	208
(tin can), floated down stream	208
Ice met in Melville Bay; character and description	69, 70
met in Melville Bay, pack-ice	77
met off coast of Labrador; character and description	69
Inclosure No. 4, had no conversation with Garlington in regard to it until party got back to St. John's	70
Littleton Island, did not think it advisable to go there and wait for Yantic; why	71
discussed with Garlington idea of making depot on way up. time it would have occupied to land 15,000 rations at or near	71
Melville Bay, did not know anything of the western passage	77
exceptional voyages have been made across it when no ice seen. regarded as most perilous part of route of Arctic travel	77
seemed full of ice; ice had not broken out of bight of bay in 1883	77
Pike, Captain, action in keeping Proteus in ice-pack after she was stopped. capacity of that officer and mate	93
conduct after the disaster	204
remarks when ship was stopped	94
Proteus, best ship that could be chartered at St. John's	72
could have been put in good condition before sailing; probable time it would occupy	72
description of her imperfect condition and equipment	72, 73
grapnels and ice-hooks furnished small boats; description	74
heard of no trouble with boiler	72
lost in a fog; devious course made	73
not as well equipped as might have been	72
officers not well fitted for positions; why	73
small boats not provided with water casks	74
stores (1882) shipped before joined; does not know condition in which found	68
when reported to Garlington nearly all stores had been shipped	68
witness entered description of ship and boat in private note-book	207
Proteus' crew, arms, &c., in their possession	95
behavior at time of wreck	68
conduct after disaster	95, 205
depredateions by	95, 96
language used by Captain Pike with regard to them	68, 69
one of them said Pike would never get back to St. John's	205
Pike had no control over them after wreck	95, 96
quantity of stores, and time for which provisioned	76
understood Pike was to take arms and ammunition from them; never did	95
Sabine Islands not on route usually followed across Melville Bay	78
Sealing captains not accustomed to navigate Arctic ice	93

	Page.
Yantic, arrangements made to touch at certain points and leave record of progress	76
believed had a bare chance to get to Littleton Island by going westward in Melville Bay	73
believed would not get to Littleton Island way Proteus did	73
believed the best thing was to go down to Danish settlements and wait for her	74
chances of getting through would not have induced him waiting at Littleton Island	74
complement in officers and men	70
did not touch at Northumberland Island on way up	78
does not think could have accompanied Proteus through the ice	70
expected to meet her at Upernavik	78
found no record or news of her at Cape York	77
if arranged to return to certain points, party could remain at one of them until her return	77
no arrangement made to return to places touched on her way up	76
passage through ice in Melville Bay would have been unusually dangerous to her	70
preparations made for Artic service	70
probable reason ship did not meet them	71
thinks it would have been a good idea if left record at Northumberland Island on way up	78
touched at Carey Island and Pandora Harbor going up	77
understood she carried 8 months' navy rations	70
under the circumstances, does not know why sent up	74
Yantic's instructions, does not recall Commander Wildes telling him his instructions would not permit him to enter ice-pack ..	71
formed opinion Commander Wildes would not cross Melville Bay	70
formed opinion Commander Wildes would not enter Arctic ice	70
had no knowledge except from hearsay	69
what Commander Wildes said about not going into ice ..	69

GARLINGTON, ERNEST, FIRST LIEUTENANT 7TH CAVALRY.

(Sworn; testimony.)

Alhambra, application to go on her to St. John's	9
commissary and medical stores inspected	5
date of arrival at St. John's not remembered	10
present shipping stores; did not verify them	5
reply to application received after ship sailed	9
Sergeant Wall sailed on her, but left ship at Halifax	10
stores carried known	5
Antiscorbutics left by Beebe at St. John's deteriorated	125
Arms and ammunition not found; search made	5, 6
party had, at time of wreck	6
Brevoort Island, record left after wreck	11
Cape Sabine, Depot A as Beebe left it, except boat	11, 12
Greely did not visit on way up	11
notice left in cairn before wreck	11
Clothing, with certain exception, good	125, 126
Conference at St. John's after wreck; who present, and what said	140
Court of Inquiry, witness to be recalled any time by	23
Depot, did not intend to make one at Littleton Island	14-21
orders required winter quarters at Life Boat Cove	21
stores should be landed on west coast; not at Littleton Island; why ..	128
wished to make one at Cape Prescott; why	21
Depot A to be made north of Littleton Island	22
Depot B to be made at Littleton Island	22
Depots, views as to establishment of intermediate	20
Depots A, B, no discussion as to true meaning of Greely's wishes	20
stores for, packed and stored under fore-castle	9
when and where Greely desired them made	22
why materials were prepared at Disko	9

	Page
Duties from February, 1883, until witness left on expedition.....	126
Duty from February, 1883, until left St. John's	4
from graduation (1876) until detailed for expedition	4
movements in January and February, 1883.....	4
Garlington expedition, acted on belief Yantic would not get to Littleton Island	15
by whom ship's movements were directed from first barrier until sunk	140
channel between Carey Islands and mainland	14
consultations with Colwell after wreck	22, 23
conversation with Colwell after wreck.....	14
dates witness sailed from New York and arrived at St. John's	5-10
deemed it inadvisable to wait for Yantic after wreck. delay at Littleton Island might obstruct passage north; why.....	14
delay in getting north might be disastrous.....	22
did what thought best after wreck	14
no stores could not be saved	16
no representative of Signal Service present at St. John's to superintend shipping stores; why.....	5
no suggestion made to Pike after ship left Payer Harbor	140
Proteus shipped stores prior to arrival at St. John's; exception	5
route followed from Littleton Island after disaster..	14
Sergt. Wall did not go with it.....	5
stores shipped from N. Y. and stowed in Proteus at St. John's.....	5
where and how stores were packed on Proteus for emergencies	9
Garlington's instructions as regards Yantic	12, 13
had no official conversation with regard to them.	126
had some general conversation with regard to them	126
Greely's letter August 17, 1881, submitted and iden- tified	17
Inclosure 2, Appendix A (closing scientific work), submitted and identified.....	17
Inclosure 3 (list of stores invoiced to Greely) sub- mitted and identified.....	17
leading thought to reach Discovery Harbor	21
list of stores, where cached, &c.....	17
nothing occurred in Signal Office to lead to be- lieve they intended stores landed on way up	21
original draft submitted to C. S. O.; when.....	127
original shown and identified	6
purposely made no suggestions; why	126, 127
rough draft of it referred to witness	126
subject of landing stores on way up not discussed in his presence	21
taking advantage of every lead paramount to waiting for Yantic	22
when and where first saw them	23
when to land party and stores at Life Boat Cove.	21
Garlington party, Lieut. Colwell and men shipped at St. John's included as practical seamen.....	10, 16
men with witness at time of wreck	16
nautical experience	10, 16
strength on leaving St. John's	5
time for which rationed	5
Garlington's report correct; made from original data	6
duplicate of original shown and identified	6
original submitted and identified	16, 17
Greely expedition, knowledge of amount of supplies in its possession	126, 127
Greely Relief Expedition, volunteered for it; date reached Washington.....	4
Hazen's telegram, to issue no instructions, &c., known to witness	127
Ice (Melville Bay) movements; character.....	15

	Page.
Inclosure 4, Caziarc in adjoining room during conversation in regard to it	7
conversation with Caziarc relating to additional instructions	7, 8
C. S. O. stated he did not know how it got among witness' papers	7, 22
described also as instructions for Yantic and Proteus	6, 7
expressed no approval of it	127
history of paper	6, 7
informed C. S. O. it conflicted with instructions	7, 22
informed C. S. O. it was found among his papers	7, 22
in whose handwriting	17
memoranda placed on it by Caziarc and witness	17
no conversation with Caziarc after interview with C. S. O.; why	8
no marks on it when found	17
only reference to landing stores on way up	21
remarked Caziarc probably put it among his papers	7
submitted and identified	17
viewed it expression of Caziarc's private opinion	8
views in regard to it	127
when first seen by witness; where	23
when next seen; where	23
where memoranda on it were made	17
why marked "Inclosure 5" by witness	17
witness' language to Caziarc in regard to it	127
Life Boat Cove intended as depot, also winter station	14, 21
Littleton Island a barren rock	14, 21
did not contemplate landing anything there	14
duty not to stop there on way up	19
expected to get provisions from Yantic at	19, 20
reasons for believing Yantic would not get to	9
time, landing stores on way up	22
Matches, in water-tight boxes; had plenty	21
Melville Bay, distance across; time occupied in run	14
Payer Harbor, conversation, prior to going into ice	140
Pemmican, left by Beebe at St. John's; condition; where bought	125
Pike, Captain, conversation had at Payer Harbor; who present	140
did not say he was doing anything against his judgment	139, 140
experience as an ice navigator	10
instance where witness deferred to his judgment	140
knowledge of nautical and astronomical instruments	10
not a scientific, educated seaman	10
views as to his careless navigation	139, 141, 142
witness did not advise him to do anything against his judgment	139
Proteus, amount and quality of provisions	138
by whom observations were made	142
engine, rigging, sails, boats, &c	138
naval officer inspected ship	16
navigation on the way up	139
never discussed what should be done if lost	126
never heard any discussion what should be done if lost	126
no instructions given in case of loss	126
not driven out of course by ice; how it occurred	142
owners promised select crew	16
Pike was ice master; no regular one had	10
ship and equipment as compared with other ships	138, 139
Proteus' crew, character of those shipped	16
conduct after ship was nipped	139
misbehavior did not contribute to result of expedition	16
misbehavior prevented additional stores from being put on floe	16
naval officers did not select it	16
no fault found until ship was nipped	139
numerical strength	16
pay ceased when ship sank	139
pemmican issued on retreat	125
Pike's statement with regard to	16
selected by ship's owners	10
Provisions excellent	125
Rockets and Coston lights, had large supply	21

	Page.
Southeast Carey Islands, condition of stores found there	11
visited the cache	11
Subsistence stores, selected, to needs of climate; character	21, 125
Trip from New York to St. John's occupies seven or eight days	10
Wildes' instructions, Caziarc informed him Yantic would not go into ice	8
did not see, until return	8
informed by Commander Wildes, had orders not to enter ice-pack	8
knowledge of them, how ascertained	8, 19
landing stores for expeditions of 1881 and 1883	14
not to go into ice-pack	8, 19
Yantic, chances against getting to Littleton Island	14, 15
could not go into fast ice with safety	18
did not expect her to accompany him; why	12, 13
expected as far north as Cape York	19
expected to meet her on way south; why	19
expected to depend upon himself after left Disko	13
had an ice-master	10
no control over movements	22
no conversation with C. S. O. about naval tender	8
not prepared to go into ice; why	15
sent to satisfy public opinion	15
ships would separate when ice-pack would be met	14
tender should be able to pass through ordinary ice	15
views as to her use to expedition	13, 14
why expressed hope of meeting at Littleton Island	14
Yantic's crew, numerical strength	15
Yantic-Proteus agreement, by whom handed to witness	18
circumstances under which made; assistance expected	12, 13
copied correctly	23
copy submitted and identified	17
copy in witness' handwriting	18
conversations with Wildes	18
did not expect ships to go together	18, 19
made at St. John's	8
no objection or protest against anything in it	23
no other arrangement asked; why	18, 23
not signed by either principal	18, 22
not to interfere with progress north	12, 13
only arrangement made with regard to joint movements	18
original in handwriting of Cadet Howard	18
original in witness' possession	17
prepared by Commander Wildes	18
propriety of arranging more points of rendezvous	128
saw Wildes after receiving it	23
submitted by Wildes as result of conference	22
tenor, best under circumstances	23
what it was; correction made	23, 33
what understood by clause relating to loss of Proteus	19
why made	15
Wildes did not expect Proteus would stay long at Disko	19

HARRISON, JOHN STEWART, ACTING ASSISTANT SURGEON, U. S. A.

(Sworn; testimony.)

Appointment, date of; rank	122
Garlington expedition, accompanied	122
date sailed from New York; arrived at St. John's	122
Garlington's report, a faithful account	122
Kenny, Sergeant, now in city	123
Pike (Captain), abilities and character	122
Proteus' crew, conduct before and after wreck	122, 123
Pike intimated they were scoundrels	123
Pike's statements with regard to them	123
who reported mutinous demonstrations	122
everything done by Garlington party to save	122

HAZEN, WILLIAM B., CHIEF SIGNAL OFFICER.

(Sworn; testimony.)

	Page.
Alhambra, Garlington telegraphed to go with entire party	37
why Garlington's request was denied	38
Arctic expedition, to Lady Franklin Bay, conceived, and law passed prior to entering upon duty as C. S. O	24
Arctic navigation, naval ships not prepared for entering ice found above Littleton Island	35
statements with regard to	110, 111
Beebe expedition, no exception taken to passing north of Littleton Island without landing stores	33
would have been better if it had left all provisions at Cape Sabine	100
Cape Sabine, distance, by ordinary route along shore, to Discovery Harbor ..	38
Caziare, Lieut., only original work performed was to compile "mem."	34
Clapp (Capt.) aided witness in all matters connected with expedition	190
in charge of Arctic matters until Garlington's arrival	36
informed he could not go on 1883 expedition	190
Coal purchased at St. John's for Garlington; not for Greely	30
Greely reported good coal found at Discovery Harbor	30
Depot, why placed on east instead of west coast of Smith's Sound	190
Depots, points at which stores have been landed; quantity, and distance between each	38
to be made by Garlington; where	34
Depots A B, approved of Mr. Beebe's course in not making them on his way north	33, 34
construes Greely's letter to mean, should be established on way south	34
established by Mr. Beebe	33, 34
expedition of 1882 to establish them returning, if it could not get through	33
Greely's letter contemplated making, only in case of failure to reach him	33
Desertions of men brought from northwest in 1882-'83	210
of men occurred after return of expedition	210
Expedition of 1882 did not get within 150 miles of Lady Franklin Bay	24
fitted out in exact accordance with Greely's recommendation	24
history, &c	24, 25
Expedition of 1883, Lieutenant Garlington, Seventh Cavalry, ordered in charge of	25
thinks it should not have been confided entirely to Navy; why	35
Garlington, Lieutenant, intimation he had disobeyed instructions given out by Lieutenant Caziare	34
Garlington expedition, absent when it returned	31
amount of provisions Greely had, known at date of departure	124
appropriation as large as asked	27
carried or sent, in place of "Mem.," orders prepared for Mr. Garlington	25
causes which seemed to require a variance of Greely's plan when to land stores	32
Caziare never charged with work of expedition	34
Commander McCalla and witness remained at St. John's five days	102
correspondence furnished contain all material papers bearing upon rescue or relief of Greely	28
did not discuss with Garlington propriety of landing stores further than stated	36, 37
duty assigned Sergeant Wall; his conduct	27
Garlington had explicit orders to see everything went on ship at New York	210
Garlington had full knowledge of entire scheme and plan for Greely's relief	26
Garlington made application to go on Alhambra to St. John's	27

	Page.
Garlington expedition, Garlington not to permit movements of Yantic to interfere with progress north	37
Garlington unable to find arms, &c	27
history, &c	25
knows nothing which operated to prevent instructions for joint action being made	36
last two or three Arctic expeditions, under control of Navy, unsuccessful	36
on return from St. John's, informed Navy Department had asked for plan of what to be done	25
personally informed official in charge of Navy Department what to be done and what expected of tender	25
plan of making depot on west side of Smith's Sound thought of and discussed	26
plan of rescue or relief of Greely party matured before Greely left	26
plan to land stores at Littleton Island thought of and discussed	26
Proteus nipped in ice and sunk 130 or 140 miles from Lady Franklin Bay	25
provided with three sledges; how made	36
sending a tender seemed to obviate necessity of varying Greely's directions	26
supposed Garlington would ascertain, on way up, where everything was	210
tender obviated necessity of deviating from Greely's plan	32
understood Secretary of Navy said its responsibility must rest with the Army	124
views as to Garlington's stopping at Littleton Island on way up	26
views as to use tender would be to it; what expected of her	32
when Proteus was expected to reach Littleton Island and Lady Franklin Bay	190
why Greely's plan, placing depot at Littleton Island or Life Boat Cove, was adhered to	190
why Wall, and not Lieutenant Garlington, was directed to superintend loading stores at St. John's	35
why thought best, at one time, to land stores at Littleton Island on way up	32
why witness denied Garlington permission to go on Alhambra	27-35
would have been better if instructions for joint action by Army and Navy had been prepared	36
Garlington's instructions, acted upon them immediately (June 4)	97
Captain Clapp framed the first rough draft	36
did not add anything to them June 4	98
did not feel authorized to give Garlington detailed instructions as to duties	26
does not remember when last remark was added	98, 99
does not remember whether Powell presented them for signature	97
does not remember whether he examined any inclosure to them	98
does not think he saw memorandum ("inclosure 4")	25
don't know why it stated Greely's supplies would be exhausted in fall of 1883	101
essentially the same as those furnished the 1882 expedition; where they differed	33, 34
probable effect statement that Greely's supplies would be exhausted in 1883 had on Garlington	101
what intended by inclosures accompanying; witness' recollections	98
why Greely's plan was adhered to in them	189
Garlington party left New York June 13	35
Greely expedition, at time of Garlington's departure amount of provisions had known	124
believes enough stores are on west side of Smith's Sound to support it during winter of 1883	38

	Page.
Greely expedition, error as regards amount of provisions had by Greely	190
Greely asked additional supplies; why	101
Greely asked supplies for 40 men for one year	100, 101
history, &c	24
list of subsistence stores furnished	28, 29, 30
native food obtained at or near Fort Conger	30
provisions, can start south with	38
sailed from St. John's first week in July, 1881	24
views as to Greely cutting loose from base of supplies	38
Greely's instructions, September 1, 1883, fixed by Greely as date to begin retreat	27, 31
to retreat by way of Grinnell Land, read	26
Greely's plan for 1882 expedition sent from Lady Franklin Bay	24
submitted to him	24
Hawkins, General John P., request that he be summoned as witness	96
Hazen, General, arrived at Signal Office June 4 (8 o'clock a. m.)	211
letter reciting what he expected to prove by certain witnesses	120, 121
telegrams forwarded from Washington Territory after disaster	191, 192
Inclosure 4, absent at time copy sent to Secretary of War	34
carried or sent, in place of, orders prepared for Garlington	25
did not intend should be part of Garlington's instructions	98
did not know copy had been furnished until shown by Garlington	34
does not know why defective copy was sent to Secretary of War	97
for Secretary of Navy	98
does not remember who presented papers for his signature	98
does not think original or copy shown chief Bureau of Navigation	98
does not think original, or copy shown Secretary of Navy	25
Garlington expressed surprise at finding among his orders; asked how it got there	25
Garlington found it among orders, and brought it to witness	25
Garlington informed he must be controlled by witness' orders	25
Garlington informed it was no part of his orders	25
Garlington informed of history of "mem."	26-189
Garlington informed witness did not feel authorized to change or give orders in conflict with Greely's letter	97, 98
had no recollection of it until shown by Garlington	31, 32
history, and what induced its preparation	30, 31
knows nothing of correspondence between Signal Office and War and Navy Departments after return of expedition	31
"mem." discussed prior to request for tender	34
never knew copies had been sent Secretary of Navy	34
never knew copy, correct or defective, had been sent to Secretary of War	34
ordered no one to furnish Garlington copy	37
said nothing to Garlington that would lead him to think it witness' suggestion	37
Instructions to Mr. Beebe and Lieutenant Garlington made to conform to Greely's requests; why	36
Kenny, Sergeant; believes he was honorably discharged	210
Littleton Island; believed both ships would reach there; why	32-37
believes Garlington carried out spirit of instructions in not stopping there	37
believes it would have contributed to Greely's safety to have made depot there on way up	38
feasibility of a ship getting there	99
Malloy, Thos. N., U. S. consul at St. John's; request that he be summoned as witness	96
U. S. consul, did not reply to witness' letter of November 13	110
Navy Department, what witness said there	98
Naval tender, request for, made May 14	35
Pike (Captain), copy of Greely's letter commendatory of, read	109, 110
U. S. Consul Malloy's letter, that Pike wished to be examined, read	110
witness' letter to U. S. Consul Malloy, in regard to examination of Pike, read	110

	Page.
Proteus, agent procured boiler-maker for	109
charter party (Signal Service Notes, No. 10)	101
got through to Lady Franklin Bay and returned (61 days)	24
history of chartering	96
impressions as regards captain, officers, and crew	101, 102
inspection by witness and Lieutenant-Commander McCalla	101
observations as regards boats and equipments	102
witness proceeded to St. John's and hired ship	25
witness requests that her captain, agent, and owners be summoned as witnesses	96
Proteus' crew, no special instructions in charter party	101
owners promised it would be of the best character	101
thinks it material to establish it was a proper one	125
Sealers go to northern part of Baffin's Bay; ice met	111
observations in regard to	102
Secretary of Navy, letter of Secretary of War, May 14, 1883, only written cor- respondence known to witness in regard to tender	27, 28
Signal Office, period, in 1883, during which Captain Mills in charge	31
took charge in December, 1880	24
Wildes' instructions, conversations with Secretary of Navy and Commodore Walker	100
does not remember Secretary of Navy asking if they were satisfactory	99
nature not communicated to witness until after disas- ter	99
not furnished Signal Office until after disaster	35, 99
records fail to show request made for them	35
Secretary of Navy said nothing other than they had been issued at witness' request	99
Witnesses, inquiries as to knowledge possessed by certain persons	97
Yantic, application for naval tender made few days prior to May 14	211
Commodore Walker intimated Navy would furnish war ship, not an ice boat	211
date subject of asking for naval tender was first spoken	211
did not specify amount of stores should carry	100
doubts expressed as to reaching Littleton Island	100
interviews at Navy Department subsequent to May 14, 1883	28
made official request that naval ship be forwarded as tender to Pro- teus	25
meaning of telegram, "Tender to go to southern limits of ice-pack" ..	99
no assurance given she would provide provisions for Greeley or Gar- lington parties	28
no request made she should provide provisions for the two expedi- tions	28
to go to Littleton Island	28
told not a fit ship to enter pack	37
why an earlier application for naval tender was not made	211
why witness made no request ship should carry extra supplies	124
willing to risk safety of expedition upon her reaching Littleton Island	100
witness had no doubt she would reach Littleton Island	100
witness satisfied would take a supply of rations sufficient for all emergencies	124
witness' knowledge of ship, and preparations made for trip	37
wrote Secretary of Navy he did not intend ship should go in ice-pack ..	99

KENNY, JOHN.

(Sworn; testimony.)

Deserters from party prior to leaving New York	136, 137
Desertion, no disposition on part of others to desert	137
Differences, knows of none between Garlington and Pike	137
Duty, position on expedition	135
Garlington expedition, failure due to unavoidable accident	135
volunteered to go on it	136
Garlington report, has not read it	136
Pike, Captain, did not hear him disapprove conduct of crew	136

	Page.
Proteus' crew, character of	138
conduct	135
details of intended mutinous conduct	136, 137
precautions against	137
Stores, every effort made to save them	135, 136

LAMAR, WILLIAM H., SERGEANT, SIGNAL SERVICE.

(Sworn; testimony.)

Chronometers (5) saved by Ellis and witness	133
Differences, Garlington, Pike, saw none	143
Pike's statement in regard to	133, 143
Pike's statement not made in Garlington's presence	134
Duty, assigned	131
Garlington expedition, accompanied and returned with it	131, 142
boats and chronometers saved	142
cause of failure	133
in cabin or after deck most of time	143
in Lieutenant Colwell's boat on retreat	134
Garlington report, read it; thinks Garlington mistaken about time ship went down	132, 133
Observations, for latitude and longitude, by witness	134
Photographs taken; when	131
Pike (Captain), views as to his ability as a navigator	134
Proteus sank five minutes after abandonment	131
Proteus' crew, conduct prior to and after wreck	132, 134, 135
Pike's disapprobation of conduct of	132
remark of second engineer in regard to pocket chronometer	143
Rank in Signal Service; length of service in corps	135
Stores, Garlington party did everything to save	132
part taken by Proteus' crew in saving	132

M'CALLA, BOWMAN, LIEUTENANT-COMMANDER, U. S. N.

(Sworn; testimony.)

Garlington expedition, did not see outfit or equipment	108
Garlington's instructions, sent to C. S. O. to obtain a copy	114
Hazen, General, did not see him at Navy Department after interview	114
does not recall conversation with	113
when and how he returned with that officer	108
Inclosure 4, did not see it in Signal Office	113
no conversation with C. S. O. in regard to it	113, 114
what did with it; don't know what became of it	114
when and where first saw it; how marked	113, 114
Inspection, C. S. O. accompanied him twice	108
Inspections, time occupied in making	108
Pike, Captain, officers and crew; impressions as regards	107, 108
opinion as regards	109
what he said to C. S. O. in regard to him	109
Proteus, age of boats	108
comparison between that and other sealers seen at St. John's	108, 109
details of inspection, &c	106, 107
did not make close inspection of boats	108
don't know that engineer he saw went with expedition	109
inspected; when	106
inspection report submitted and identified	106
recommended hiring boiler-maker; why	107
steering compass, boats, &c	111
tonnage; what heard relative to boilers	109
unable to state displacement	112
would have selected ship, captain, and chief engineer for trip	109
Sealers, no previous experience in regard to	108
only saw four at St. John's	111
Wildes' instructions, don't know if furnished C. S. O.	135
Yantic, by whose order alterations made	135
knowledge of negotiations between War and Navy Departments	113
least number of men that could handle her	112
preparation for expedition	112
tonnage, displacement, &c	112

	Page.
Yantie's instructions, does not know why C. S. O. was not furnished copy.....	114
had nothing to do with them	114
prepared subsequent to interview with C. S. O.....	113

MILLS, SAMUEL M., CAPTAIN FIFTH ARTILLERY.

(Sworn; testimony.)

Beebe's report, why furnished Secretary of War a copy.....	66, 67
Coal, Greely's name instead of Garlington's inserted in contract	67
Discrepancies in reports and copies furnished Secretary of War	65
Duty in Signal Office	64, 65
Errors clerical ones; due to haste	67
Garlington's instructions, circumstances under which he would have furnished copies of all inclosures.....	66
intended furnishing all information thought necessary	67
knew nothing of them until after disaster.....	65
papers supposed he should furnish Secretary of Navy	66
papers he understood Secretary of Navy wanted..	66
Secretary of War called for them	66
Secretary of War said nothing relative to omission of inclosures	67
Inclosure 4, informed Secretary of Navy, its making was an error.....	65
informed Secretary of Navy, it was not referred to in Garlington's instructions	65
office record books erroneously shows Caziarc's mem. so marked.	66
original mem. not marked	66
original, was copy of charter-party, not Caziarc's mem.....	66, 67
Interview with Secretary of Navy; what was said	65
Letter of Secretary of War calling for explanation as to discrepancies in reports, and copies furnished	65
Papers, don't know whether copies are compared or not; why	67
Signal Office, had no direct charge of papers or correspondence.....	67, 68
period in charge	65
took records as found, presuming them correct	67, 68

MORIARTY, JOHN, PRIVATE, SIGNAL SERVICE, U. S. A.

(Sworn; testimony.)

Duty in Signal Office; period	179
Inclosure 4, date copied, paper of same tenor.....	180
don't recollect copying any other paper June 3; what did that date	180, 181
knowldge of date copy was made.....	180
made no other copies of it	180
rough notes not seen before	180
who instructed him to make copy.....	180
Signal Office, roster shows witness present, at office, June 3, 1883	181

PIKE, RICHARD, LATE CAPTAIN PROTEUS.

(Sworn; testimony.)

Arctic experience, and character of ice accustomed to encounter	193
distance north, sailed by witness prior to Greely expedition	198
had come in contact with very heavy ice.....	199
ice navigation in Baffin's Bay and Smith's Sound	199
ice on Labrador coast unlike Arctic ice; more broken up.	199
Arctic navigation, Newfoundland sealers, best ships for purpose	198
thinks no person at St. John's had more Arctic experience than self.....	197
Board of Trade, witness required to have certificate from it	192, 193
Buffalo coats taken from crew; don't know whether cached or not.....	198
Cape Sabine, height of headland at that point	200
provisions and clothing cached there, how	196

	Page.
Command, last commanded Proteus	192
Diary, left with recorder of court of inquiry	203
in which witness made entries from day to day, in his possession.....	203
Differences, after Mr. Garlington came from Cape Sabine, witness told him	
water seen was "not much"	202
did not object to go north from Payer Harbor	202
Garlington did not ask witness' opinion as to propriety of leaving	
Payer Harbor	201
Garlington never interfered with him while passing through Mel-	
ville Bay	203
his duty, to defer to Mr. Garlington's wishes	201
no disagreement between witness and Garlington aboard ship ..	194, 200
no disagreement between witness and Garlington after ship was	
lost	194
no disagreement with Garlington as to propriety of going north	
from Payer Harbor	201
officers present when he told Garlington water seen was "no	
good"	202
only suggestion made was when Garlington wanted him to leave	
Payer Harbor	203
said nothing on leaving Payer Harbor	201
told Garlington, in Payer Harbor, it was no use trying to get out.	
told Garlington water seen before entering Payer Harbor was	
"no good"	201, 202
when Garlington requested him to go out of Payer Harbor, told	
him he did not approve	202
why witness objected leaving Payer Harbor	202
Garlington expedition, a week's delay at Payer Harbor better for expedition.	
conference between Garlington, Colwell, and witness	
before ship went down	194
danger in getting back to Payer Harbor if open water	
was not found	203
don't know why Colwell did not go in search of	
Yantic	209
don't know why Garlington declined use of boats;	
what Proteus' boats did	195, 196
everything not brought ashore that could have been	
saved	195
everything saved that could be; more saved than	
brought ashore	195
Garlington did not ask if ship could safely go into	
ice from Payer Harbor	203
Garlington never interfered with witness in discharge	
of duties	203
Garlington not in habit of asking advice about going	
into the ice	203
Garlington's remarks prior to leaving Payer Harbor.	
history of trip from near Littleton Island until	
stopped by ice	197, 198
ice going south when ship was lost	199
Lieutenant Colwell's remarks about going in search	
of Yantic	208
Lieutenant Garlington made ice observation from	
headland at Cape Sabine	200, 201
made observations of ice before ship went into Payer	
Harbor	200
officers reported no water seen north of Payer Har-	
bor	200
officers who made ice observations in Crow's Nest ...	200
Proteus' chance of getting north better if had not	
been so soon	199
Proteus got out of course in Melville Bay	200
provisions; both boat-loads brought to land by mixed	
crews	209
provisions, how some happened to be left on floe ...	209
things could have been done after wreck that were	
not, what	195
thinks Colwell's idea to take a boat and look for the	
Yantic a good one	209

	Page.
Garlington expedition, use of Garlington's boats would have brought off an additional load or two	196
was not consulted as to landing stores on way north ;	
gave no advice	200
when and where told Garlington ship was up too soon	201, 202
Greely's mail, knows nothing of it ; where stored, or what became of it.	194
Ice-foot, none at Littleton Island or Cape Sabine	197
Interview with Mr. Garlington in presence of Messrs. Stewart's agent after return	197
witness' narrative of what he said before Mr. Syme and Lieutenants Garlington and Colwell	197
Life-Boat Cove, never was there	195
Littleton Island and Cape Sabine, time it would occupy to land supplies on upward voyage	197
did not anchor there in 1883 ; did in 1881	197
how near ship could get to shore	195, 197
time it would occupy to land certain quantity of stores at ..	195
Log of ship not brought ; why	203
Logs, wrecked party provided with	196, 197
Nautical education and experience, prior to 1883	192
Occupation, chiefly employed in sealing during nine years he commanded Proteus	192, 194
how long employed by the Stewarts	194
Pandora Harbor, advised that boats go there and wait for Yantic	196
after wreck thought best to go there and wait for Yantic ..	196
how near ship could get to shore	195
Payer Harbor, left too early to go north ; why thinks so	199
when Proteus left	200
Proteus, believes Leint. Greely was satisfied with her.	198
boats considered staunch and safe	192
chances of escape from "Nip" better, if Garlington had landed one-half provisions	202
commanded her during Greely expedition to Lady Franklin Bay ...	192
condition and age of boats, time Garlington expedition sailed	192
condition at time witness sailed with Garlington expedition	192
considered trip to place of foundering a very quick one	194
description and number of boats	192
did not see arms and ammunition stored	193
distance from Payer Harbor when ship was lost	203
docked three times since 1881 ; where	192
drew 18 feet water entering Payer Harbor	202
drew 14 feet water with lightest ballast	202
equipment good ; usual to refit each year	195
had to break out stores after Garlington's arrival ; why	193
lost in endeavor to get back to Payer Harbor	203
never heard Mr. Greely complain her machinery was too light	198
no better ship could be chartered	197, 198
partly superintended loading	193
provisioned for eighteen months	195
repairs to her machinery and boilers since 1881	192
ship managed judiciously through ice	194
ships' company (22) ; provisioned for eighteen months	202
(stores) boxes and packages not marked ; nothing to show contents.	193
would have drawn 6 or 7 inches less water if Garlington had landed one-half provisions	202
Proteus' crew, after wreck, each given a buffalo coat ; to be returned when boarded Yantic	198
character of officers and men	193
considered it a good one	194
day after wreck, buffalo coats taken from them	198
did not disobey witness' orders after ship went down	199
had no occasion to find fault with them	194
heard Lieuts. Garlington and Colwell complain of conduct ; when	198
knows of no defiance of officers	194
knows of no flagrant act of disobedience	194
Lieuts. Garlington and Colwell charged them with stealing clothes	198

	Page.
Proteus' crew, made trip with them, prior to sailing with Mr. Garlington . . .	193
officers with boats good enough	198
no disposition to be mutinous shown; exhibited none on way down	200
not intention to abandon them after wreck	209
season unfavorable for getting picked crew; description of crew hired	193
were not "beachcombers" or "longshoremen"	209
were sealers; number known to witness and who served with him before	196
witness had no difficulty; obeyed orders right through	200
Residence and occupation	192
Sealing, general range of trips	194
in trips did not go on coast of Greenland	194
Smith's Sound, date witness passed down in 1881	199
Wages of crew ceases when ship is lost	193
Yantic, believed would reach Littleton Island	196
why witness was satisfied ship would get to Littleton Island	200

POWELL, JAMES W., JR., CAPTAIN SIXTH INFANTRY.

(Sworn; testimony.)

Arctic exploration, no connection with subject prior to May, '83	145
Duty, in Signal Office; duration	144, 145
Garlington expedition, did not discuss details with C. S. O.	148
knowledge, &c., while in charge	145
Garlington's instructions, date received; from whom	151, 154
did not know; were furnished prior to June 4	152
did not think Garlington disobeyed them	150
either gave, or called attention of C. S. O. to them on his desk	149
Garlington responsible for proper provisioning of expedition	152
no conversation with C. S. O., further than to call his attention to them	150
not with him when went to see Secretary of Navy. presented General Hazen on his return; papers de- scribed	151
rough notes referred for advice, &c.	149
when and by whom prepared	145
Hazen's telegrams, recollections as to tenor	151
Inclosure 4, cannot fix date shown him	147
cannot particularly identify rough draft	147
cannot repeat exact instructions, to Caziarc, to prepare it	148
considered them Caziarc's views, not Hazen's	154
conversation testified to (Caziarc, ans. 2, p. 41) not remembered. conversation with Caziarc in regard to it possible; does not re- call it	148
conversation with Secretary of Navy reported to C. S. O. on his return	149
copy not furnished by witness to any one	146
date Caziarc showed him mem.	146
date first shown by Caziarc	152
date instructed Caziarc to prepare mem.	146, 147
did not care to see mem.; why	152
did not know it had been given Garlington	150
did not know two copies had been made	150
discussion heard as to landing stores at Littleton Island	148
does not remember Caziarc giving it, or its coming into his hands	149
don't think had it in his possession	147
don't think turned it over to C. S. O.	147
don't think it was with instructions presented C. S. O.; why	149, 154
had no discussion with Caziarc; would not approve mem.; why	149
knew it contained ideas not found in Garlington's instructions	148
knowledge that a copy had been furnished Secretary of Navy	149
might have been with papers presented to C. S. O.; thinks not	154
never saw any copy; only rough notes	150

	Page.
Inclosure 4, no conversation with Caziarc in regard to it after return of C. S. O.	151
no conversation with Garlington in regard to it prior to sailing.	151
no recollection of having copy in his possession	146
no recollection of speaking to C. S. O. in regard to it	146
shown after interview with Secretary of Navy	146
shown by Caziarc; may have had it in his hand	149
thinks it was not on desk of C. S. O. when presented instructions; why	150
took no action when shown by Caziarc; why	146
recalls no such conversation with Caziarc as testified by him...	154
requested Caziarc to frame draft for co-operation of vessels	146
rough notes shown before Hazen's return	151
rough notes shown, not copy	155
views with regard to	152, 153
what expected of Caziarc in its compilation	148, 149
when shown, in no shape to go on office books	154
why not satisfied with mem	153
witness' recollections of it	145, 146, 147
Interview with Secretary of Navy; date	150, 151
with Secretary of Navy and Commodore Walker	150
with Secretary of Navy, after receiving Hazen's telegrams	151, 152
Signal Office, period in charge	145
present at, June 3, 1853	151
Yantic, conversation with Secretary of Navy relating to	145, 146
why telegraphed C. S. O., distance north ship was expected to go...	146, 147

WALKER, JOHN G., COMMODORE U. S. NAVY.

(Sworn; testimony.)

Duty, Chief Bureau of Navigation	102
Inclosure 4, recollections with regard to	129, 130
Wildes' instructions, prepared by witness	130
Yantic, accomplished as much as was expected	104
a point to fall back, in case of disaster	104
assistance rendered	104
complement officers and men; war and peace footing	129
C. S. O., no doubt, expected she would get to Littleton Island	104
dangers; necessary delays in going up	105
had boats usually furnished war vessels	130
least number of men that could handle her	129
negotiations which led to sending	103
no addition made to crew when detailed for expedition	129
no request that should be used as depot	103
not to furnish provisions for Greely party	103
object in sending her to Littleton Island	130
preparations; by whom determined	129
probabilities of her reaching Littleton Island	103, 104
reasons for her selection	104
understanding of object of C. S. O. in asking for	103
Yantic's instructions, contingent on condition ice in Melville Bay	103
intended to meet views of War Department	103
to accompany Proteus; construction	104
to go to Littleton Island—not to enter ice-pack, explained	103
Yantic-Proteus agreement, advisability of fixing upon certain places of meeting	105
never read it	105
having read it, thinks it proper	106

WILDES, FRANK, COMMANDER, U. S. N.

(Sworn; testimony.)

Arctic navigation, first experience in Polar seas	84
Capacity in which witness appears	78
Garlington did not go to Upernavik	86

	Page.
Garlington expedition, causes which conduced to failure	84, 86
conferences with Garlington	79
party picked up September 2; sailed for St. John's	
same date	92
should start with Proteus from Upernavik; could not.	85
understood its object	85
Garlington's instructions, and Greely's mem. had been furnished	79, 88
Garlington party, justified in leaving Littleton Island without waiting Yantic.	88, 89
not sailors; knew nothing of boats	83, 84
Ice-pack, constantly met in Melville Bay	80
definition of term	80
when justified in entering a lead	81
Inclosure 4, copy not with instructions	88
knows what it is	88
Inquiry, if persons outside court are permitted to question him	90
questions must be submitted to court, and be approved before put. . .	90
Instructions, observations between St. John's and Upernavik	85
scientific observations to be made	89
(verbal), none given	89
Littleton Island, chances of Yantic reaching	80
may have informed Garlington as to his doubts of getting to	86
views as to reaching	85, 86
Melville Bay, choice passages across	80
description; vessels caught in the ice there	80, 81
Nautical experience, does not refer to Garlington; answers to question 2,	
page 84	89
whether included General Hazen among the non-expe-	
rienced	91, 92
whom he referred to in answer to question 2, page 84 ..	89
Oath, consents to take the oath	79
Pike (Captain), ice knowledge, seamanship, &c	87
knowledge of scientific instruments	83
navigation; incidents	83
not a good navigator	83, 86
Proteus, boats poor; not suitable to carry north	83
comparison in strength and build with other sealers	90
did not urge Garlington to delay at Disko	86
seaworthiness	83
where first learned loss	80
why left Disko before Yantic	86
Proteus' crew, had eleven days to observe them	92
knowledge of conduct derived from letter of Lieutenant Col-	
well	91
poor lot to look at	83
why considered them beachcombers and longshoremen	91
Provisions, scarcity mentioned referred to Yantic	90
Sealers, did not see them; arrived too late at St. John's	90
usual date of leaving St. John's; number of trips	92
why not found at St. John's in summer of 1833	92, 93
Sealing voyages, geographical limits	90
Wildes' instructions, did not furnish a copy to Garlington	88
don't know if Garlington was furnished with copy	88
don't remember he informed Garlington what they were.	88
Garlington could have seen them for the asking	88
no duty that would interfere with them	89
not to go north of Littleton Island	80
not to place Yantic in position to prevent return in 1833 .	80
submitted and identified	79
until read, didn't know ship would go north of Uper-	
navik	89, 90
when received	89
Yantic not to enter ice-pack	80
Wildes' report, embraces correct history of expedition	79
Yantic, boilers bad on reaching Upernavik	85
brought back fair quantity of provisions	88
cause of delay at Upernavik	83
coaling at various points	85
cruising in West Indies prior to expedition	89
dangers working through ice-pack	87

	Page.
Yantic, declines to state views as regards landing stores at Littleton Island..	81
delay at Upernavik did not prejudice object of expedition	82
equipment of ship and crew	82
had all coal could carry leaving St. John's.....	85
in command during summer of 1883	79
influences presence in Arctic waters had over Pike party.....	89, 91
instructions authorized contribution of provisions and stores.....	81
landing stores for Greely party, on loss of Proteus	81
minimum complement of men necessary to work her.....	87, 88
not an ice-boat; if caught could not get back through ice	87
object in visiting Upernavik	83, 90
preparations for cruise	87
re-coaled at Upernavik	85
trip from Upernavik to Littleton Island.....	87
unfit to winter in Arctic region	82
use and effect in expedition	89
why stores were not landed at Littleton Island on loss of Proteus...	81, 82
wisdom of arranging more places of rendezvous.....	88
Protens-Yantic agreement, did not desire a more minute one.....	80
don't remember if Garlington desired more minute one	80
no diversity of opinion in conferences with Garlington	88
no request made in conferences with Garlington to contribute stores.....	81
on basis of conferences had with Garlington.....	79
published in Signal Service notes, 10.....	80

APPENDIX.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, November 9, 1883.

SIR: I have the honor to send herewith, with list of inclosures attached, the principal correspondence relating to the Lady Franklin Bay expedition of 1881.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brigadier and Brevet Major-General, Chief Signal Officer, U. S. A.

Maj. HENRY GOODEFELLOW,
Judge-Advocate, Washington, D. C.

(0.)

Letters sent.				Letters received.			
Book.	Vol.	Page.	Address.	No.	Book.	Year.	Who from.
C. S. O.	5	387	Secretary of War	3573	Mis.	1881	A. W. Greely.
Do.	5	387	Secretary of War.	3571	Mis.	1881	Do.
Do.	11	26, 27	Adjutant-General.	3456	Mis.	1881	Do.
Do.	11	68, 69	Secretary of War.	3659	Mis.	1881	Do.
Do.	11	103, 104	James Beetle.	3402	Mis.	1881	Do.
Do.	7	341	Lieutenant Greely.	3553	Mis.	1881	Do.
Do.	7	253	Secretary of War.	3580	Mis.	1881	Do.
Mis.	15	466	Lieutenant Greely.	2269	Mis.	1881	Do.
C. S. O.	11	101-103	Browning Bros.	3653	Mis.	1881	Do.
o.	11	100, 101	J. de H. Lindeucione.	3577	Mis.	1881	Do.
Do.	11	98-100	F. N. Molloy.	3629	Mis.	1881	Do.
Do.	11	95	Surgeon-General.	3220	Mis.	1881	Do.
Do.	6	399	Adjutant-General.	3479	Mis.	1881	Do.
Mis.	15	441	Lieutenant Greely.	3572	Mis.	1881	Do.
C. S. O.	10	437	Secretary of War.	3217	Mis.	1881	Do.
Do.	6	440	Do.	3579	Mis.	1881	Do.
Do.	7	441	Lieutenant Greely.	3012	Mis.	1881	Do.
				3523	Mis.	1881	Do.
				3241	Mis.	1881	Do.
				3764	Mis.	1881	Do.

ORDERS.—G. O. No. 35, April 12, A. G. O.; G. O. No. 34, May 11, A. G. O.; G. O. No. 97, June 17, O. C. S. O.

INSTRUCTIONS.—No. 72, June 17, O. C. S. O.

MEMORANDUMS.—General Order No. 34, A. G. O., 1881; Special Orders, A. G. O., 1881.

(1.)

[Vol. 5, C. S. O., page 387.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., March 16, 1881.

To the honorable the SECRETARY OF WAR:
(Through the Adjutant-General of the Army.)

SIR: I have the honor to request that the papers prepared by Lieut. Greely, sketching a plan for the proposed expedition to establish an international polar station at Lady Franklin Bay, forwarded from this office on the 8th instant, be returned, as they are indispensable here.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brigadier and Brevet Major-General, Chief Signal Officer, U. S. Army.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

S. Ex. 100—AP—1

(2.)

[Vol. 5, C. S. O., page 357.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., March 16, 1881.

To the honorable the SECRETARY OF WAR:
(Through the Adjutant-General of the Army.)

SIR: I have the honor to state it is very, very important, in connection with the success of the expedition to establish an international polar station at Lady Franklin Bay, that orders in the case of Lieut. Fred'k F. Kislbury, 11th Infantry, be issued without delay, on account of the remoteness of his present station and in order that he may report here at once.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brigadier and Brevet Major-General, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(3.)

MEMORANDUM.

[General Orders No. 34.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
April 5, 1881.

Publishes an act making appropriation for observation and exploration in the Arctic seas.

(4.)

The following special orders from the Adjutant-General's Office refer to the expedition of 1881:

Order.	Par.	Subject.
57	2	Lieut. Greely assigned to command of.
138	4	To proceed to St. John's to take charge of.
81	13	Lockwood assigned to duty with.
96	4	Orders detaching Lieut. Lockwood for duty with, revoked,
113	1	Lieut. Lockwood detailed for duty with.
130	3	To proceed to St. John's on duty connected with.
132	1	To proceed to Baltimore on duty connected with.
117	4	Kislbury to report for duty with.
120	2	To proceed to St. John's on duty connected with.
124	4	Sergt. Rice to proceed to St. John's on duty connected with.
228	2	Corpl. Starr, having returned from, to join his troop.
116	2	Private Carroll relieved from duty with.
120	3	Connell to proceed to St. John's for duty with.
120	12	Ryan to proceed to St. John's for duty with.
129	1	Certain enlisted men to proceed to Annapolis, Md., on duty connected with.
135	7	Enlisted men to proceed to St. John's for duty with.

(5.)

[General Orders No. 35.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, April 12, 1881.

The following order, received from the War Department, is published for the information of the Army:

In order to carry into execution the act approved May 1, 1880, and so much of the act approved March 3, 1881, entitled "An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1882, and for other pur-

poses," as provides for "observation and exploration in the Arctic Seas; for continuing the work of scientific observation and exploration on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location and return, twenty-five thousand dollars," it is ordered:

1. 1st Lieutenant A. W. Greely, 5th U. S. Cavalry, acting signal officer, having volunteered for the expedition, shall take command of the expeditionary force, now organizing under said act, to establish a station north of the 81st degree of north latitude, at or near Lady Franklin Bay, for the purpose of scientific observation.

2. Lieutenant Greely shall have authority to contract for and purchase within the limits of the appropriation the supplies and transportation deemed needful for the expedition; and the appropriation for this purpose made by the act approved March 3, 1881, shall be drawn from the Treasury and disbursed, upon proper vouchers, by the regular disbursing officer of the Signal Service, under the direction of the Chief Signal Officer.

3. The force to be employed in the expedition shall consist of two other officers, who may volunteer their services; twenty-one enlisted men, who may volunteer from the Army or be specially enlisted for the purpose, and one contract surgeon. The latter to be contracted with at such time as he may be able to join the party.

4. The commander of the expedition is authorized to hire a steam sealer or whaler, to transport the party from St. John's to Lady Franklin Bay, for a fixed sum per month, under a formal contract that shall release the United States from any and all responsibility or claim for damages in case the steamer is injured, lost, or destroyed. The said contract shall include the services and subsistence of the crew of the vessel, and shall require that the said crew shall consist of one captain, two mates, one steward, two engineers, two firemen, and seven seamen—not less than fifteen in all. Such steam sealer or whaler shall not be hired until it has been inspected by an officer, to be detailed by the Secretary of the Navy for that purpose, and found by him fit for the intended service.

5. The expeditionary force shall be assembled at Washington, District of Columbia, not later than May 15, and at St. John's not later than June 15, 1881.

6. During their absence on this duty Lieutenant Greely and the other officers of the Army accompanying the expedition will retain station at Washington, District of Columbia. The enlisted men who may volunteer or be specially enlisted for this duty shall receive the pay and commutation allowances (except commutation for quarters and fuel) that accrue to men detached for duty in Washington, District of Columbia.

7. The several bureaus of the War Department will furnish, on requisitions approved by the Secretary of War, the necessary subsistence, clothing, camp and garrison equipment, transportation to St. John's, Newfoundland, and return, medicines, books, instruments, hospital stores, arms, and ammunition. The subsistence stores to be furnished as above directed are for sale, not for issue, to the officers and men of the expeditionary force.

By command of General Sherman:

R. C. DRUM,
Adjutant-General.

(6.)

[General Orders No. 34.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, May 11, 1880.

The following acts and joint resolutions of Congress are published for the information and government of all concerned:

I. AN ACT to authorize and equip an expedition to the Arctic Seas.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States be, and he hereby is, authorized to establish a temporary station at some point north of the eighty-first degree of north latitude, on or near the shore of Lady Franklin Bay, for purposes of scientific observation and exploration, and to develop or discover new whaling-grounds; to detail such officers or other persons of the public service to take part in the same as may be necessary, and who are willing to enlist for such purpose, not exceeding fifty in number, and to use any public vessel or vessels that may be suitable for the purpose of transporting the members of said station and their necessary supplies, and for such other duty in connection with said station as may be required from time to time: *Provided,* That the President of the United States is authorized to accept from H. W. Howgate, and fit out for the purposes of this expedition, the steam-

ship *Gulmarc*, which vessel shall be returned to its owner when the objects of the expedition shall have been accomplished, or when, in the opinion of the President, its services are no longer required: *Provided further*, That the United States shall not be liable to any claim for compensation in case of loss, damage, or deterioration of said vessel from any cause, or in any manner whatever, nor be liable to any demand for the use or risk of said vessel.

Approved May 1, 1880.

II. JOINT RESOLUTION authorizing the Secretary of War to furnish two hospital tents to the Soldiers' Orphans' Home of the State of Illinois.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War be, and is hereby, authorized to loan two hospital tents to the Soldiers' Orphans' Home of the State of Illinois for a period of six months from June first, eighteen hundred and eighty.

Approved May 1, 1880.

III. AN ACT to place William Gaines, late ordnance sergeant, United States Army, on the retired list.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States be, and he is hereby, authorized to place William Gaines, late ordnance sergeant United States Army, on the retired list of the Army, with seventy-five per centum of the full pay and allowances of an ordnance sergeant for and during his natural life, he having served faithfully and honorably in the Army of the United States for more than fifty-one years, having been an ordnance sergeant for over thirty-three consecutive years of said service, and having participated in the siege of Fort Meigs, the defense of Fort Stephenson, and the battle of the Thames in the war of eighteen hundred and twelve.

Approved May 3, 1880.

IV. JOINT RESOLUTION authorizing the Secretary of War to send rations to the sufferers from the recent cyclone at Macon, Mississippi.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War is hereby authorized and empowered to send four thousand rations to Macon, Mississippi, for the use of the sufferers made destitute by the cyclone of April twenty-fifth.

Approved May 4, 1880.

By command of General Sherman:

E. D. TOWNSEND,
Adjutant-General.

(7.)

[Vol. 6, C. S. O., page 399.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., May 23d, 1881.

To the ADJUTANT-GENERAL,
War Department:

SIR: I have the honor to invite your attention to communication of Lieutenant Greely of the 28th ult., transmitted from this office by endorsement of same date, relative to transportation of certain supplies from Boston, Baltimore, and Washington to St. John's, Newfoundland.

As this office has not been informed of any action taken in the matter, and as the time for the shipment to be made is rapidly approaching, it is recommended that the instructions requested by Lieutenant Greely be given.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(8.)

[Vol. 6, C. S. O., page 440.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., May 25th, 1881.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to acknowledge the receipt, by reference from your Department, of a communication from the Hon. Secretary of State, dated the 18th inst., enclosing duplicate copies of the chart and list indicating the position of the several depots of provisions left by the Arctic expedition under Sir George Nares in 1875.

These documents will no doubt prove of great value to the expedition soon to sail, under command of Lieutenant Greely, for Lady Franklin Bay, and I recommend that the thanks of the Department be tendered the British admiralty, through the State Department, for the courtesy of placing this information at our service.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(9.)

[Vol. 15, Mis., p. 447.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., June 10th, 1881.

1st Lieut. A. W. GREELY,
5th Cav'ry, A. S. O., Com'd'g Exped'n to the Arctic seas, O. C. S. O.:

SIR: I have the honor to transmit, by direction of the Chief Signal Officer, a copy of "instructions for the expedition toward the North Pole, from Hon. Geo. M. Robeson," and a copy of "suggestions relative to objects of scientific investigation in Russian America," supplementary to the instructions which will be published in a few days, when not in conflict therewith.

Especial attention is invited to pp. 10 to 14 of the instructions of the Navy Department to Capt. Hall, which should be carefully observed so far as practicable.

I am, very respectfully, your obedient servant,

LOUIS V. CAZIARE,
1st Lieut. 2d Artillery, A. S. O.

NOTE.—The enclosures to this communication were, 1st, Robeson's instructions to Capt. Hall, including papers by member of the National Academy of Sciences, republished on pp. 361-387 of Smithsonian Report for 1881, and, 2nd, Smithsonian Publications No. 207, published in 1867 in Vol. VIII of the Mis. Contributions.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(10.)

[Special Orders No. 97.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, D. C., June 17, 1881.

I. By direction of the Secretary of War, the following-named officers and enlisted men are assigned to duty as the expeditionary force to Lady Franklin Bay:

First Lieutenant A. W. Greely, 5th Cavalry, acting signal officer and assistant.
Second Lieutenant Frederick F. Kislisbury, 11th Infantry, acting signal officer.
Second Lieutenant James B. Lockwood, 23rd Infantry, acting signal officer.
Sergeant Edward Israel, Signal Corps, U. S. Army.
Sergeant Winfield S. Jewell, Signal Corps, U. S. Army.

Sergeant George W. Rice, Signal Corps, U. S. Army.
 Sergeant David C. Ralston, Signal Corps, U. S. Army.
 Sergeant Hampden S. Gardiner, Signal Corps, U. S. Army.
 Sergeant William H. Cross, General Service, U. S. Army.
 Sergeant David L. Brainard, Co. L, 2nd Cavalry.
 Sergeant David Linn, Co. C, 2nd Cavalry.
 Corporal Daniel C. Starr, Co. F, 2nd Cavalry.
 Corporal Paul Grimm, Co. H, 11th Infantry.
 Corporal Nicholas Salor, Co. H, 2nd Cavalry.
 Corporal Joseph Elison, Co. E, 10th Infantry.
 Private Charles B. Henry, Co. E, 5th Cavalry.
 Private Maurice Connell, Co. B, 3rd Cavalry.
 Private Jacob Bender, Co. F, 9th Infantry.
 Private Francis Long, Co. F, 9th Infantry.
 Private William Whisler, Co. F, 9th Infantry.
 Private Henry Biederbiek, Co. G, 17th Infantry.
 Private Julius Fredericks, Co. L, 2nd Cavalry.
 Private James Ryan, Co. H, 2nd Cavalry.
 Private William A. Ellis, Co. C, 2nd Cavalry.

II. In accordance with special instructions from the Secretary of War, Lieutenant Greely will contract at Disco, Greenland, with Octave Pavy, M. D., who will thereafter remain on duty as acting assistant surgeon, U. S. Army, with the expeditionary forces.

III. First Lieutenant A. W. Greely, 5th Cavalry, acting signal officer and assistant to the Chief Signal Officer, is hereby assigned to the command of the expedition, and is charged with the execution of the orders and instructions given below. He will forward all reports and observations to the Chief Signal Officer, who is charged with the control and supervision of the expedition.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

[Instructions No. 72.]

WAR DEPARTMENT,
 OFFICE OF THE CHIEF SIGNAL OFFICER,
 Washington, D. C., June 17, 1881.

The following general instructions will govern in the establishment and management of the expedition organized under Special Orders No. 97, War Department, office of the Chief Signal Officer, Washington, D. C., dated June 17, 1881.

The *permanent* station will be established at the most suitable point north of the eighty-first parallel and contiguous to the coal seam discovered near Lady Franklin Bay by the English expedition of 1875.

After leaving St. John's, Newfoundland, except to obtain Esquimaux hunters, dogs, clothing, &c., at Disco or Upernavik, only such stops will be made as the condition of the ice necessitates, or as are essential in order to determine the exact location and condition of the stores cached on the east coast of Grinnell Land by the English expedition of 1875. During any enforced delays along that coast it would be well to supplement the English depots by such small caches from the steamer's stores of provisions as would be valuable to a party retreating southward by boats from Robeson's Channel. At each point where an old depot is examined or a new one established three brief notices will be left of the visit: one to be deposited in the cairn built or found standing, one to be placed on the north side of it, and one to be buried twenty feet north (magnetic) of the cairn. Notices discovered in cairns will be brought away, replacing them, however, by copies.

The steamer should, on arrival at *permanent* station, discharge her cargo with the utmost dispatch, and be ordered to return to St. John's, N. F., after a careful examination of the seam of coal at that point has been made by the party to determine whether an ample supply is easily procurable. A report in writing on this subject will be sent by the returning vessel. In case of doubt an ample supply must be retained from the steamer's stores.

By the returning steamer will be sent a brief report of proceedings and as full a transcript as possible of all meteorological and other observations made during the voyage.

After the departure of the vessel the energies of the party should first be devoted to the erection of the dwelling-house and observatories, after which a sledge party will be sent, according to the proposal made to the Navy Department, to the high land near Cape Joseph Henry.

The sledging parties will generally work in the interests of exploration and discovery. The work to be done by them should be marked by all possible care and fidelity. The outlines of coasts entered on charts will be such only as have actually been seen by the party. Every favorable opportunity will be improved by the sledging parties to determine accurately the geographical positions of all their camps, and to obtain the bearing therefrom of all distant cliffs, mountains, islands, &c.

Careful attention will be given to the collection of specimens of the animal, mineral, and vegetable kingdoms. Such collections will be made as complete as possible; will be considered the property of the Government of the United States, and are to be at its disposal.

Special instructions regarding the meteorological, magnetic, tidal, pendulum, and other observations, as recommended by the Hamburg International Polar Conference, are transmitted herewith.

It is contemplated that the permanent station shall be visited in 1882 and 1883 by a steam sealer or other vessel, by which supplies for and such additions to the present party as are deemed needful will be sent.

In case such vessel is unable to reach Lady Franklin Bay in 1882 she will cache a portion of her supplies and all of her letters and dispatches at the most northerly point she attains on the *east coast of Grinnell Land*, and establish a small depot of supplies at Littleton Island. Notices of the locality of such depots will be left at one or all of the following places, viz, Cape Hawks, Cape Sabine, and Cape Isabella.

In case no vessel reaches the *permanent* station in 1882 the vessel sent in 1883 will remain in Smith's Sound until there is danger of its closing by ice, and, on leaving, will land all her supplies and a party at Littleton Island, which party will be prepared for a winter's stay, and will be instructed to send sledge parties up the *east side of Grinnell Land* to meet this party. If not visited in 1882 Lieutenant Greely will abandon his station not later than September 1, 1883, and will retreat southward by boat, following closely the *east coast of Grinnell Land*, until the relieving vessel is met or Littleton Island is reached.

A special copy of all reports will be made each day, which will be sent home each year by the returning vessel.

The full narrative of the several branches will be prepared with accuracy, leaving the least possible amount of work afterwards to prepare them for publication.

The greatest caution will be taken at the station against fire, and daily inspections made of every spot where fire can communicate.

In case of any fatal accident or permanent disability happening to Lieutenant Greely the command will devolve on the officer next in seniority, who will be governed by these instructions.

W. B. HAZEN,

Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

Instructions for the commanding officers of the international polar stations occupied by the Signal Service.

I.—GENERAL.

1. Regular meteorological and other observations will be maintained uninterruptedly, both at sea and at the *permanent* station, in accordance with instructions issued to Signal Service observers and those contained in the accompanying extract from the proceedings of the Hamburg conference, to which special notes are appended where needed.

2. The original record of these observations will be kept in the blank books supplied for this purpose, and a fair copy of the corrected and reduced results will be made upon Signal Service and special forms, as supplied in bound volumes.

3. At sea a daily record will be kept, by dead reckoning and astronomical observations, of the latitude and longitude of the vessel, by which the positions at the times of meteorological observations will be deduced, and on arriving at the *permanent* station the local time and longitude will be immediately determined, whence the Washington and Göttingen times will be found by applying the correction for longitude.

4. All meteorological and tidal observations will be made at exact hours of Washington civil time (the longitude of Washington Observatory is $5^{\text{h}} 8^{\text{m}} 12^{\text{s}}.09$ west of Greenwich). The regular magnetic observations will be made at even hours and minutes of Göttingen mean time (Göttingen is $0^{\text{h}} 39^{\text{m}} 46^{\text{s}}.24$ east of Greenwich, or $5^{\text{h}} 47^{\text{m}} 58^{\text{s}}.33$ east of Washington; whence, 12 noon, Washington time, is simultaneous with $5^{\text{h}} 47^{\text{m}} 58^{\text{s}}.33$ p. m. Göttingen time, or $6^{\text{h}} 12^{\text{m}} 1^{\text{s}}.67$ a. m. Washington time is simultaneous with 12 noon at Göttingen).

If hourly meteorological observations of all these phenomena cannot be taken, then, if possible, take bi-hourly observations at the hours 1, 3, 5, 7, 9, 11 a. m. and p. m., or at least six observations, at 3, 7, and 11 a. m. and p. m. On no account will the meteorological observation at 7 a. m., Washington time, be omitted.

5. Upon arrival at the permanent station the local time and longitude will be determined at once, without waiting for the erection of permanent shelters, which will be built for the meteorological, magnetic, and astronomical instruments according to the plans and material as specified.

The meteorological and astronomical observatories will be located conveniently near to the dwelling of the observers, but that of the magnetic observatory will be determined by the consideration that these instruments must be removed from all danger of being affected by the presence of steel or iron, including galvanized and tinned iron. If needed to keep off intruders, a guard or fence should surround the magnetic observatory.

6. The observation of tides will be made as complete as possible in summer by a gauge on the shore, and in winter through an opening in the ice, according to the instructions furnished by the Superintendent of the United States Coast and Geodetic Survey. The necessity for observing the tides will suggest that the dwelling-house should be located as near the sea as is safe and convenient.

7. In addition to the ship's log and the official journal of the party, to be kept by the commanding officer, and the official record of observations, to be kept by the meteorological, magnetic, tidal, and astronomical observers, each member of the party will be furnished with a diary, in which he will record all such incidents as specially interest him. This diary will not be open to inspection until delivered to the Chief Signal Officer for his sole use in compiling the full record of the Expedition.

8. Accurate representations, either by the photographic process or sketching, will be made of all phenomena of an unusual character, or of whatever is characteristic of the country.

9. Carefully prepared topographical maps will be made of as much of the surrounding country as is practicable.

II.—DETAILED INSTRUCTIONS CONCERNING OBSERVATIONS, INSTRUMENTS, AND TIME, BY THE INTERNATIONAL POLAR CONFERENCE, HAMBURG, 1879, OCT. 1ST TO 5TH.

[Translated at the office of the Chief Signal Officer, with added note in brackets.]

1. OBLIGATORY OBSERVATIONS IN THE DOMAIN OF METEOROLOGY.

No. 17. *Temperature of the air.*—The mercurial thermometers should be graduated to two-tenths degrees Centigrade, and the alcohol thermometers to whole degrees, and both verified at a central meteorological station to within one-tenth degree Centigrade.

[The thermometers furnished are graduated to Fahrenheit; they have been compared with the Signal Service standard, and are provided with correction cards.]

No. 18. The instruments should be placed at an altitude of between 1.5 and 2.0 meters (5 to 6 feet), and it is recommended that they be exposed in a double shelter of lattice work, according to Wild's method. The outer shelter to be of wood, the inner of metal. The observations of minimum thermometers can be made under various conditions.

[The shelters furnished consist of an outer wooden louver work and an inner galvanized iron shelter, both framed so as to be easily set up. The minimum temperatures at various altitudes above ground will be observed, and under such various conditions as circumstances suggest.]

No. 19. The alcohol thermometers ought to be compared at the station of observation with the standard mercurial thermometer at the lowest possible temperatures.*

No. 20. Sea temperatures should be observed, whenever possible, at the surface and at each 10 meters (about 33 feet) of depth; as instruments, proper for this observation, the following may be specified: deep-sea-thermometers, as manufactured or invented by Ekman; Negretti & Zambra; Miller; Casella; Jansen.

* For notes on special thermometers, prepared for the Signal Service Stations, see Section III of these instructions.

[While at sea the temperature of the surface-water will be observed hourly, with the Signal Service water thermometer, by the ordinary methods, and the temperature at each 33 feet of depth, whenever practicable; for greater depths, one of the above deep-sea instruments will be used.]

No. 21. The point 0° centigrade [32° Fahrenheit], for all the thermometers, should be determined from time to time.

[The testing of thermometers will be made quarterly, according to the usual Signal Service rules.]

No. 22. *Pressure of the air.*—At each station there must be at least two well-compared mercurial barometers, a reserve barometer, and an aneroid.

No. 23. The standard barometer ought to be compared or read once each day.

[Several mercurial and aneroid barometers are furnished, and all regular observations will be made from a mercurial barometer, selected from among them, which will be compared, once each day, with the standard barometer. All barometers will be fully compared with the standard once each month; such comparative readings will be entered on the regular Signal Service forms for this purpose.]

No. 24. *Humidity.*—The psychrometers (*i. e.* dry and wet bulb) and hair hygrometer will be used with Regnault's dew-point apparatus as a check, according to Wild's instructions.

[Comparative readings, with these instruments, will be frequently made and carefully preserved for future study.]

No. 25. *The Wind.*—The wind-vane and Robinson's anemometer are to be read from within the house (see the method of construction of the apparatus of the Swedish station at Spitzbergen) at the same time; the force of the wind will be estimated according to the Beauford scale, and the wind-direction to 16 compass points referred to the true meridian.

[The points of the compass on the wind-dial will be adjusted to the true meridian as is ordered for all Signal Service stations; self-registering instruments of the Signal Service pattern for the velocity and direction of the wind to eight points will be used. A record of wind-force on the Beauford scale (0 to 12), and wind-direction to 16 points will also be kept and will be entered in the special column.]

No. 26. To aid in deciding the question whether the Robinson's anemometer, with large or with small cups, should be used for determining the force of storms in the Polar zone, it is recommended that both such be subjected to preliminary experiments.

[Anemometers of the Signal Service pattern, having small cups and short arms, are the only ones that it is convenient to furnish. For comparative purposes keep two of these in permanent daily use, exposing them in different but good localities. The extra anemometers should be compared with these during 24 hours on the first Monday of each month, and a full record be kept of such comparisons.]

No. 27. *The Clouds.*—The amount of cloudiness and the direction of the movement of all clouds should be observed to 16 compass points.

[In addition, the kinds of clouds will be noted, and the record kept in the usual Signal Service form.]

No. 28. *Precipitation.*—The commencement and duration of rain, snow, hail, &c., and, when possible, the amount of precipitation is to be observed. As to the amount, however, this is not obligatory in winter.

[There will be recorded regularly, and if practicable hourly, the amount of precipitation, measured if possible; otherwise estimated.]

No. 29. *The Weather.*—Storms, thunder-storms, hail, fog, frost, dew, &c., and the optical phenomena of the atmosphere ought to be recorded.

2. OBLIGATORY OBSERVATIONS IN THE DOMAIN OF TERRESTRIAL MAGNETISM.*

No. 30. *Absolute Determinations.*—For declination and inclination it is necessary to attain an accuracy of 1.0 minute, for horizontal intensity of 0.001. The proper instruments are, for example, the portable Theodolite of Lamont and the ordinary dip-needles.

No. 31. The absolute observations must be executed in close connection and synchronous with the readings of the variations instruments, in order to be able to reduce the data given by the latter to an absolute normal value, and to determine the zero point of the scales. The determinations must be made so frequently that the changes in the absolute value of the zero point of the scales of the variations apparatus can be accurately checked thereby.

No. 32. *Observations of Variations.*—These ought to include the three elements and be made, by means of instruments, with small needles, in contrast to the apparatus of Gauss. In order to obtain an uninterrupted reciprocal control, two complete sets of

*For special instructions in magnetic work, furnished by the Superintendent of the United States Coast and Geodetic Survey, see Section IV of these instructions.

variations instruments are desirable, and recommended, in order to avoid any interruption of the observations, by reason of breakage, derangement, &c.

[One set of these instruments is now provided, but a second set may be sent in 1881.]

33. The horizontal intensity in one, at least, of these systems should be observed with the unifilar apparatus. Because of the magnitude of the perturbations to be observed the scales of the variations instruments must have at least a range of 10 degrees, and the arrangements are to be so made that the greatest possible simultaneity of the readings may be achieved.

34. During the entire period of occupancy of the station the variations instruments will be read hourly. It is desirable that two readings be made; for instance, just before and after the full hour, with an interval of a few minutes between.

35. Weyprecht presented the following separate note on this point: "Since it appears to me that in these regions of almost perpetual disturbances, hourly readings, made at moments not well defined, are insufficient to establish mean values accurately expressing the local perturbations for a given epoch (which data ought to serve as a means of comparison with other localities), and in consideration of the slight increase of labor which will be caused by taking readings at precise moments, I cannot agree with the views of the majority of the conference."

"I state that at least the expedition conducted by myself will take readings hourly of all three variations instruments at 5^{min.} 0^{sec.}; 5^{min.} 0^{sec.}; 60^{min.} 0^{sec.}; 61^{min.} 0^{sec.}; 62^{min.} 0^{sec.}; Göttingen mean time.

"WEYPRECHT."

[Observations will be taken as specified by Weyprecht.]

36. As term days, the 1st and 15th day of each month will be observed from midnight to midnight, Göttingen time. The readings will be taken at intervals of 5 minutes, always on the full minutes, and the three elements are to be read with all possible rapidity; one after the other, in the following order: 1. Horizontal intensity; 2. Declination; 3. Vertical intensity.

37. For these term days, the plan of magnetic work should comprehend continuous readings; for instance, readings every 20 seconds—throughout one whole hour—even though only one magnetic element be observed. It is the opinion of the Conference that the observations should begin so that one of the hours of observation shall agree with the first hour of the 1st of January, and that during the entire period of magnetic work the hours devoted to this continuous observation should be changed on each successive semi-monthly term day.

38. The accuracy of the magnetic observations should be such as to give the declination to the nearest minute and the horizontal and vertical intensity in units of the fourth decimal place.

39. On the term days, observations of auroras are also to be made continuously. Moreover, auroras are also to be observed from hour to hour throughout the period of magnetic observations, and especially in reference to their form and momentary position in altitude and true azimuth. The intensity of the light is to be estimated on a scale of 1, 2, 3, 4.

No. 40. Isolated auroral phenomena must be made the subject of thorough observation in connection, with which the various phases are to be noted simultaneously with readings of the magnetic-variations instruments.

[Those of the party not engaged at the magnetic instruments will observe and record auroral phenomena.]

No. 41. Since the greatest possible simultaneity in the reading is a point of the highest importance, the determinations of the location and of the time are to be made with instruments having firm foundations (such as the universal instrument or instrumental theodolite, the vertical circle, zenith telescope, astronomical transit, &c.); this, however, does not exclude the use of reflecting instruments of a superior class. By all means, therefore, must efforts be made to determine the geographical position, and especially the longitude, of the station as soon as possible after it has been occupied.

[The first approximate longitude of the station, as determined by chronometers, will be checked as frequently as possible by lunar distances, occultations, &c., and the value adopted in the daily work of the station will be revised as often as necessary, preferably at the end of each quarter. The details of the magnetic observations will be regulated according to the instructions published by the Superintendent of the United States Coast and Geodetic Survey.]

3. ELECTIVE OBSERVATIONS.

No. 42. The conference recommends the following observations and investigations most earnestly to the consideration of all those to whom is intrusted the preparation of instructions for an expedition, or who themselves are assigned to such work.

No. 43. *Meteorological*.—The diminution of temperature with altitude, the temperature of the earth, of the snow, and of the ice at the different depths, should be determined.

[The forms of the snow-crystals should be recorded by careful drawings; the amount of hoar-frost accumulated on some well-exposed object should be measured by the use of the scales furnished by the Medical Department. Apparatus is ordered to be provided for the preservation of air and of air-dust for future analysis.]

No. 44 Observations of insolation (or solar radiation) are to be made, as well as observations on spontaneous evaporation, which latter can be made during the winter by weighing cubes of ice and during the summer by the evaporimeters.

[A shallow circular vessel of water, whether fluid or frozen, exposed to the open air and sunshine, should have its loss of weight determined daily or oftener by delicate scales.]

No. 45. *Magnetical*.—From time to time absolute simultaneous readings of all three elements of terrestrial magnetism must be made in order to accurately determine the ratio between the simultaneous changes of the horizontal and those of vertical intensity.

46. *Galvanic earth currents*.—Observations are desired of earth currents in intimate connection with magnetic observations and the auroral phenomena.

[Telegraph lines of well-insulated wire extending a short distance N. and E., and also E. and W., and furnished with resistance coils and deflection needles, are supplied, and every effort should be made to carry out these observations.]

47. *Hydrographic investigation*.—Observations of the direction and strength of the ocean currents and the movements of the ice.

48. Deep sea soundings and observations upon the physical properties of the sea-water for instance, determination of the temperature, specific density, gaseous contents, &c., and these objects should be specially kept in view in the selection of a vessel for the expedition. Observations on tides, when possible, should be made with the self-registering apparatus.

[With regard to tidal observations, the instructions published by the United States Coast and Geodetic Survey are to be followed. Glass-stoppered bottles are provided for preserving specimens of sea-water to be brought back for examination.]

49. *Parallax of the aurora*.—Determination should be made of the altitude of the aurora, by means of measurements, made, for example, with the meteorograph, which must be made by small detached parties of observation, having also, if possible, one party observing simultaneously the variations of magnetic declination.

[Particular attention will be paid to determining the apparent position in altitude and azimuth of bright meteors and shooting stars and of definite portions of the aurora borealis, and to drawings of the appearances presented by the phenomena as seen by observers situated as far apart (say one-half to five miles) as possible. In these drawings the auroral phenomena should appear in their proper positions relatively to the horizon, meridian, fixed stars, &c.; and to that end each member of the party, without exception, will learn the names and configurations of the stars shown upon the map of stars furnished you. A supply of these maps is furnished sufficient to allow of using them as base charts upon which to enter the observed phenomena in special cases. Attention is called to the points of inquiry suggested in the Annual Report of the Chief Signal Officer, 1876, pp. 301-335.]

50. Observations of, 1, atmospheric electricity; 2, astronomical and terrestrial refractions; 3, length of the simple second's pendulum; 4, observations on the formation and growth of floating ice and glaciers.

[Attention is called to the observations on the formation of ice made by Nares and other explorers. The pendulum observations will be made in accordance with special Coast Survey instructions.]

51. Observations and collections in the realms of zoology, botany, geology, &c.

[The instructions given by Professor Spencer F. Baird to the naturalist will be followed by him.]

52. There will also be made special observations relating to the whole polar problem, such as the flight of birds, presence of driftwood and from what direction it came, and other matters as may suggest themselves from time to time and be found practicable.

III.—SPECIAL INSTRUCTIONS RELATIVE TO CARE AND USE OF SPECIAL THERMOMETERS.

(See paragraph 19, page 5.)

The construction of the minimum standard thermometers designed for the Arctic stations having been entrusted to the thermometric bureau of the Winchester Observatory of Yale College, the astronomer in charge of that institution furnishes the following special instructions, which will be carefully followed :

NEW HAVEN, May 30, 1881.

“GENERAL REMARKS AND DIRECTIONS CONCERNING THE SIGNAL SERVICE MINIMUM STANDARDS, NOS. 1 TO 12, INCLUSIVE, CONSTRUCTED BY THE WINCHESTER OBSERVATORY OF YALE COLLEGE.—J. AND H. GREEN, MECHANICIANS.

“*Materials.*—The alcohol, carbon disulphide, and ethyl oxide used are as pure as the chemical processes will admit. For thermometric purposes they may be assumed chemically pure. There is no more air above the liquid columns than is accidentally admitted in the process of sealing the tubes. In this respect these standards are different from the ordinary spirit thermometers. It is probable that the great purity of the alcohol will render it nearly as valuable for temperatures below -80° F. as the carbon and ether thermometers.

“*Directions for carriage.*—It is highly desirable that these thermometers should be kept, as nearly as possible, in the same condition as on leaving the observatory. For this purpose they have been carefully packed in a vertical position, and care must be taken to see that they are so repacked, with the *bulb* down. Owing to the low boiling-points of the ether and carbon disulphide they are not (probably) accurate at temperatures above $+60^{\circ}$ F., but they will remain clear and limpid at temperatures below zero, at which the alcohol thermometers may (but hardly probably) show viscosity. It is desirable therefore that preference be given to these standards over any other standards for extremely low temperatures, and in establishing the meteorological observatory at which the greatest cold is expected special attention should be given to the ether and carbon disulphide thermometers.

“*Suggestions in their use.*—Before mounting these thermometers in their stations they should be carefully swung or jarred so that no spirit can be detected (with a magnifying glass) adhering to their upper ends. They should be inclined (with the bulb end nearest the ground) as far as it is safe, and have the index stand in its place by its own friction against the side of the tube, so that the drainage may be as perfect as possible.*

“All readings should be recorded in millimeters, and it should be remembered that the accompanying tabular corrections (see the correction cards) are meant to give only approximate temperatures. A careful comparison of all the thermometers from 1 to 12 has been made between 0 and 90° , and Nos. 1, 5, and 9 have been kept by the observatory for experiments at temperatures below 0° F.

“These are probably the best thermometers ever sent into the Arctic regions, and special care should be taken to insure the safe return of the records and, though less important, the instruments.”

IV.—SPECIAL INSTRUCTIONS PREPARED BY THE UNITED STATES COAST AND GEODETIC SURVEY FOR OBSERVATIONS IN TERRESTRIAL MAGNETISM AT POINT BARROW AND LADY FRANKLIN BAY.

[These instructions will be applied, when suitable, to the observations ordered in preceding pages, but they will also furnish a guide to the minimum number of observations to be taken in case of accidents occurring to prevent full compliance with the plan proposed by the International Polar Commission.]

As soon as the quarters of the expedition have been fixed upon a magnetic house will be erected, in which the regular magnetic observations, as described below, will be made; other observations will be made when on boat or sledge trips.

Instruments.—For use at the magnetic observatory there will be provided a magnetometer, for absolute and differential declination and for horizontal magnetic intensity, to be permanently mounted on a stone pier. In connection with this instrument a meridian or azimuth mark will be established a short distance off the observatory and visible from it through an opening in the wall. The astronomical bearing of this mark will be carefully determined by means of an altazimuth instrument and solar or stellar observations.

In the same house, but on a separate pier, will be mounted a Kew dip circle, and in the case of Point Barrow a third instrument, a bifilar magnetometer, will also be permanently mounted on its pier. At Point Barrow the magnetometer (or unifilar) and the bifilar instruments will be mounted in the magnetic meridian and at a distance of not less than 12 feet, and the dip circle will be mounted equidistant from these instruments, forming an equilateral triangle. At Lady Franklin Bay the two instruments will be mounted in the plane of the magnetic prime vertical, and not less than 12 feet apart. No iron is to be used in the construction of these buildings, and they should be not nearer than 50 yards to any other building, or double that distance to any large mass of iron. Special reading-lamps (of copper) must be provided for use with the instruments, and they must be tested to make sure that they do not affect the position of the magnets. The use of candles stuck into wooden blocks is preferable to using lamps.

* This method conforms to that followed at all signal stations with minimum thermometers, except as to degree of inclination, wherein these suggestions should be most carefully followed.

When on boat or sledge journeys the party will carry a chronometer, a small altazimuth instrument with circles of about 3 inches diameter (as constructed by Fauth & Co., of Washington, or by Casella, of London), provided with a magnetic needle or compass mounted over its vertical axis, and a dip circle.

Observations at the permanent station.—Hourly observations will be made, for declination and diurnal variation, with the magnetometer on three consecutive days about the middle of each month; besides these observations, extending over 72 hours, there will be made at any convenient intermediate time *each day* (of the three) one set of deflections, followed immediately by a set of oscillations for the determination of the horizontal intensity. At Point Barrow the bifilar will be read immediately after the unifilar. There will also be made at any intermediate time *each day* (of the three) a set of dip observations. In connection with the declination, the mark will be read once each day (unless the instrument should accidentally be disturbed), but it suffices to determine the magnetic axis of the declination magnet on one of the three days. The instrumental constants of the magnetometer will be determined before leaving Washington, and the observers will use the Coast and Geodetic Survey magnetic blank forms for their records, or, in case no special forms are provided, they will use small (octavo) note-books; they will also compute, as soon as the observations are completed each month, the magnetic mean declination, diurnal range, and turning hours; also the horizontal force in absolute measure (English units) and the dip, tabulating the results for each day.

Extra observations on other than the three days about the middle of each month will be made during all occurrences of auroral displays; but as they are likely to be very numerous at Point Barrow, observers there may confine their extra observations to the more conspicuous displays only. On these occasions the declinometer (and the bifilar at Point Barrow) will be read, say, every 10 minutes, or at shorter or longer intervals as the state of the needle may appear to demand, the object being to establish a connection between the appearances of the aurora and the motion of the magnetic needle.

When landing on a boat-journey, or during a sledge-journey at suitable stations (not less than 10 or 15 miles apart), the time, latitude, and azimuth will be determined by the altazimuth instrument, and the declination by the same instrument (the hour and minute of the observation is to be noted, in order that the diurnal variation may be allowed for); the dip will also be observed, and in case time is pressing, reversal of circle, reversal of face of needle, and reversal of polarity may be dispensed with, but the needed correction to the result, from the single position of the instrument, must be ascertained at the permanent station. Observations of deflections (with magnetic needle and with weights) will be made with the dip circle, as arranged for relative and absolute total force, the data for the latter to be supplied at the permanent station.

It is highly desirable, especially in the case of the Lady Franklin Bay party, that all stations within reach and formerly occupied by other parties for magnetic purposes be revisited, in order to furnish material from which to deduce the secular change during the interval; besides, all opportunities should be taken when landing on the way up to secure observations for declination, dip, and intensity—the latter best by oscillations of the intensity magnet. The winter quarters of the late English expedition should be connected magnetically with the present quarters.

[All magnetic observations will be made on Göttingen time, as provided for by the Hamburg Conference.]

All magnetic records will be kept strictly in conformity with "Notes on Measurements of Terrestrial Magnetism," United States Coast Survey, Washington, 1877, and other records in connection therewith should be equally clear and complete, and all computations should be made by the observer in separate books. Duplicates of all records will be made, compared with the original, and the latter returned annually, if practicable, to the Chief Signal Officer for the Superintendent of the Coast and Geodetic Survey, Washington, D. C. The observers should also provide themselves with copies of the "Admiralty Manual of Scientific Enquiry," the "Arctic Manual and Instructions," 1875, and "Aurora, their characters and spectra," by J. R. Capron, 1880; also with "Terrestrial and Cosmical Magnetism," by E. Walker, 1866, and any other work they may require for their information.

V.—ADDITIONAL SPECIAL INSTRUCTIONS.

The rules prescribed in "Instructions for the Expedition toward the North Pole," as published (in pamphlet) by authority of the Hon. George M. Robeson, Secretary of the Navy, and those contained in "Suggestions Relative to Objects of Scientific Investigation in Russian America," both of which are furnished, will be followed as closely as circumstances permit.

VI.—MEMORANDUM OF OUTFIT.

List of apparatus to be furnished to Point Barrow and, with some exceptions and additions, to Lady Franklin Bay.

GEOGRAPHICAL AND ASTRONOMICAL APPARATUS.

- 1 Surveyor's Compass and Tripod.
 - 1 100 feet Chain or Steel Tape.
 - 1 Prismatic Compass.
 - 1 Set of Pins.
 - 1 Altitude and Azimuth, six-inch circles.
 - 1 Meridian Transit, about 2 or 3 inches aperture.
 - 2 Extra Level Tubes for low temperatures for Meridian Transit.
 - 3 Sextants.
 - 3 Artificial Horizons.
 - 8 Marine Chronometers—mean time. { If practicable these will be rated at vari-
 - 1 " " —siderial. } ous temperatures at the Horological Bureau
 - 2 Pocket " —mean time. } of the Observatory of Yale College.
 - 1 House (Astronomical Observatory). [Plan to be supplied.]
- Charts of the Alaska coast from the United States Coast and Geodetic Survey.

MAGNETIC APPARATUS.

- 1 Complete Magnetometer—Fauth & Co.—unifilar declinometer—catalogue No. 70, price \$400, extra light needles and mirror for auroral disturbances.
- 1 Kew Dip Circle, larger size.
- 1 Bifilar Magnetometer.
- 1 Magnetic Observatory Building (see plan).

TIDAL APPARATUS.

- 1 Level and Staff.
- 2 Pulleys and Weight and Float.
- 50 Glass Stoppered Bottles for specimens of sea-water.

PENDULUM APPARATUS.

Pendulum apparatus will be carried and used by a special temporary party from the United States Coast and Geodetic Survey.

DEEP SEA SOUNDING.

(Will be left to the United States Coast Survey.)

METEOROLOGICAL APPARATUS.

- 1 Instrument Shelter of open wooden louvre work, made in sections (see plan).
 - 1 Inner Thermometer Shelter of open galvanized iron louvre work, made in sections (see plan).
 - 12 Mercurial Thermometers, ordinary stem divided.
 - 2 Metallic Thermometers.
 - 12 Spirit Thermometers, ordinary stem divided.
 - 6 Mercurial Thermometers, maximum stem divided.
 - 6 Spirit Thermometers, minimum stem divided.
 - 6 Special Minimum Thermometers, from Yale College.
 - 4 Psychrometers, mercurial wet bulb.
 - 1 Dew point Apparatus; Regnault's as modified by Alluard, with extra thermometers for low and high temperature.
 - 6 Water Thermometers and 3 cases, Signal Service pattern, for surface temperatures.
 - 2 pairs Marie-Davy's Conjugate Thermometers for solar radiation.
 - 2 pairs Violle's Conjugate Bulbs for solar radiation.
 - 2 Hicks' Thermometers for terrestrial radiation.
 - 2 Mercurial Marine Barometers.
 - 4 Mercurial Cistern Barometers, (Green, Signal Service pattern) large bore, reading to thousandths.
- } Will be
} sent next
} year.

- 3 Aneroid Barometers, (Casella's make).
- 2 Hair Hygrometers.
- 2 Self-registers, 1 double and 1 single, for Anemometers and Anemoscopes (Signal Service pattern—Gibbon or Eccard).
- 6 extra attached Thermometers for Barometers.
- 6 extra Barometer Tubes for Barometers.
- 4 Rain-gauges, 2 copper and 2 galvanized iron.
- 6 Divided Sticks for measuring rain and snow.
- 10 lbs. pure Mercury.
- 4 Anemometers (Robinson's).
- 4 Arms and cups and 4 spindles, for Robinson's Anemometer, for repairs.
- 2 Vanes, small.
- 1 Large Vane, complete.
- 1 Eccard Contact (interior).
- 10 Battery cells (Eagle) and supplies for same for three years.
- 2,000 yards Insulated Wire.
- 4 Telephones and 2 call bells.
- 1 Galvanometer for observations of ground currents.
- 100 feet cable for the double self-register.
- 4 Box Sounders.
- 1 Delicate Scale and one Medicine Chest (from Medical Department).
- Apparatus for collecting air and atmospheric dust.
- 6 Dark Lanterns for observers' use (brass or copper).

SIGNAL APPARATUS.

- 2 Grugan's Heliographs.
- 4 Sets Signal Kits complete.
- 6 Signal Code Cards.

BLANK BOOKS AND FORMS.

- 12 Diaries for 1881, 1882, and 1883 respectively, one to be kept by each man.
- 250 Books for original record of meteorological observations.
- 50 blank books for magnetic observations, allowing 2 pages daily and extra pages on special days.
- 50 blank books for daily journal, for miscellaneous observations.
- 25 blank books for tidal observations, allowing 1 page daily.
- 25 blank books for astronomical observations.
- 50 volumes Form 4, for copy of original record.
- 300 Star charts, for auroras, &c.
- 100 forms for comparison of Barometers.
- 800 forms of Anemometer Register.

BOOKS.

- Instructions to Observers, Signal Service, U. S. A.
- Annual Reports of the Chief Signal Officer from 1873 to 1880 inclusive.
- Loomis Treatise on Meteorology.
- Buchan's Handy Book of Meteorology.
- Kaemtz's Meteorology (Walker's translation).
- Mohn's Meteorology (original German).
- Schmid's Meteorology (original German).
- Smithsonian Instructions for register of periodical phenomena.
- Smithsonian Miscellaneous Collections, Vol. I.
- Guyot's Meteorological and Physical Tables.
- Crelle's Multiplication Tables.
- Blanford's Indian Meteorologist's Vade Mecum, parts I, II, III.
- Loomis' Practical Astronomy.
- Church's Trigonometry.
- Chauvenet's Practical Astronomy.
- Bowditch's Navigator.
- Bowditch's Useful Tables.
- Lee's Collection of Tables and Formula.
- American Nautical Almanac for 1881, 1882, and 1883.
- Admiralty Manual of Scientific Inquiry, 4th ed.
- Admiralty Manual and Instructions for Arctic Expedition, 1875.
- Nares', etc., Reports of English Arctic Expedition.

- Nares' Narrative of Voyage to Polar Sea, London, 1878.
 Dall's Meteorology of Alaska from Pacific Coast Pilot, United States Coast Survey.
 Dall's Resources of Alaska.
 Harkness on Sextants, United States Naval Observatory, observations for 1869, Appendix 1, pages 51 to 57.
 Charts, United States Hydrographic Office, No. 68, and British Admiralty, Nos. 593, 2164, 2435.
 Chambers' Descriptive Astronomy.
 Bremiker's edition of Vega's Logarithmic Tables.
 Barlow's Tables.
 W. S. Harris' Rudimentary Magnetism.
 Coast Survey Papers on Time, Latitude, Longitude, Magnetism, and Tidal Observations.
 Everett's Translation of Deschanel.
 Jenkin. Electricity and Magnetism, 4th ed., N. Y., 1879.
 Reports of United States Fish Commission on Dredging.
 Sigsbee on Deep Sea Sounding, etc. (United States Coast Survey Report.)
 Markham's Collection of Papers Relating to Arctic Geography, London, 1877.
 Schott's Reduction of Observations, of Hayes and Sonntag.
 " Dr. Kane.
 " McClintock.
- Manual of Military Telegraphy.
 Myer's Manual of Signals.
 J. R. Capron, Auroræ: their Characters and Spectra.
 E. Walker, Terrestrial and Cosmical Magnetism.
 Pope's Modern Practice of the Electric Telegraph.
 Instructions for the Expedition toward the North Pole, from Hon. George M. Robeson, Secretary of the Navy.
 Suggestions Relative to Objects of Scientific Investigation in Russian America.
 Stationary as ordinarily supplied.
 Drawing paper and instruments.

All officers and observers of the expedition are charged to at once familiarize themselves in detail with these instructions, and in the practice of the duties they prescribe, together with a thorough knowledge of the instruments and their use; and commanding officers are specially charged to see that these requirements are observed.

OFFICIAL MEMORANDUM TO ACCOMPANY INSTRUCTIONS NO. 72.

W. B. HAZEN.

Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(11.)

[Vol. 7, C. S. O., p. 253. 2110 Mis., 1881.]

WAR DEPARTMENT,
 OFFICE CHIEF SIGNAL OFFICER,
 Washington, D. C., June 20, 1881.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to request that the honorable the Secretary of the Navy be asked to direct the naval vessel stationed 'at St. John's, Newfoundland, to transfer to 1st Lieutenant A. W. Greely, 5th Cavalry, acting signal officer and assistant, commanding expeditionary force to Polar Seas, five hundred (500) lbs. mortar powder, 0.06 inch, and five hundred lbs. cannon powder, 0.25 inch, in exchange for the same quantity stored at Fort McHenry, Maryland, and which it is impossible to ship in time.

If favorable consideration is given this request I would ask that I be so informed at the earliest date practicable, so that Lieutenant Greely may be telegraphed on or before the 28th inst.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. General, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(12.)

[Vol. 7, C. S. O., p. 341.]

[Telegram.]

WASHINGTON, D. C., *June 25, 1881.*

To Lieut. GREELY,
(Care U. S. Consul, St. John's, Newfoundland.)

Navy Department says Alliance has only small quantity of powder for signal purposes and no guns. You will have to purchase.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(13.)

[Vol. 15, Mis., p. 446.]

[Telegram.]

WASHINGTON, *June 28, 1881—11.25 a. m.*

To Lieut. GREELY,
Saint John's, Newfoundland :

Alliance has only two thousand rounds. Cannot spare a round. Have you got rifle, revolver, or shot-gun ammunition, ordered June 3, or is it at McHenry? Can you wait for express shipment? Schneider's vouchers received minus pay.

Reply.

CAZIARC.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(14.)

[3479 Mis., '81.]

ABSTRACT OF DAILY JOURNAL LADY FRANKLIN BAY EXPEDITION.

July 1st, 1881.—St. John's, Newf'dl.

(Instrument exposure—Observation commenced.)

First observation taken at 6.30 a. m. (Wash. mean time) from marine barometer No. 2418, suspended in cabin of *S. S. Proteus* at an elevation of six feet eight inches. Correction for elevation, as given by Lieut. Greely, $+ .007$ (constant). Temperature of air taken by suspending min. thermo., No. 583, from stern of vessel in the shade. But one observation a day taken, consisting of barometer, exposed thermo., direction and force of wind, clouds and state of weather.

July 2d.—S. S. Proteus, St. John's, N'f'd.

Weather fair.

July 3d.—St. John's, N'f'd.

Fair weather.

July 4th.—St. John's, N'f'd

Cloudy.

S. Ex. 100—AP—2

July 5th.—St. John's, N'f'd.

(Elevation of barometer changed—Instrument shelter.)

Foggy. Barometer moved to captain's room 11 a. m. Elevation, 2 feet 8 inches. Exposed thermo., No. 1031 (hygrometer pattern), and wet bulb, No. 152, placed in position, inclosed in shelter from abaft the forecandle, three feet eleven inches above deck. Raining during afternoon. Bar. reading at 11 p. m. not taken. Room containing bar. locked.

July 6th.—St. John's, N'f'd.

(Four hourly observations commenced.)

Began taking observation every four hours. Weather fair.

July 7th.—St. John's, N'f'd.

(Left St. John's.)

Sailed from St. John's at 11 a. m. Observations of temp. of sea-water began at 11 a. m. No. of thermo. used 327. Weather fair. No aurora.

July 6th.—Lat. 50° 32' north, Long. 53° 5' W., d. r.

(Rainbow—Auroral arch.)

Light rain during afternoon. Rainbow observed at sunset. A very bright auroral arch was observed at 11.15 p. m., extending from NE. to NW., the center being about 15° above the horizon. At 11.45 p. m. the eastern end of the arch faded and the western assumed the curtain formation. It shot up a few streamers. Aurora.

July 9th.—Lat. 52° 37' N., Long. 53° 15' W, dead reckoning.

(Auroral arch—Gale.)

At 12.10 a. m. the aurora had entirely disappeared. Its color was pale yellow, and the outlines of the arch were very distinct. Moon was shining very bright during the entire display. The wind increased in velocity after midnight from NW., and between 2 and 3 a. m. was blowing a gale, reaching its max. at 4 a. m.; after which time it fell slightly, and then remained steady until 3 p. m., when it began to fall rapidly. The sea during the storm was very rough. The sky during the day was covered by strata of clouds, followed by dense fog at 11 p. m. Aurora.

July 10th.—Lat. at noon 55° 0', Long. 52° 53', dead reckoning.

(Falling barometer.)

No wind at 3 a. m. Increased to fresh at 7 a. m., and remained steady during the day. Direction variable. Fog remained until early a. m., when it was superseded by stratus clouds, which remained. Bar. fell quite rapidly, amounting to .571 of an inch between 3 a. m. and 11 p. m. Temp. steady. Obscured.

July 11.—Lat. at noon 58° 8' N., Long. 53° 52' W., dead reckoning.

(Brisk wind.)

Bar. continued falling until 11 a. m., when it attained its min. at 29.285; after which it rose steadily. Temp. rose to 48° 8' at 7 a. m., falling to 42° 9' at night. Wind variable between NE. and NW., during the day, blowing fresh in the a. m. and increasing to brisk at 7 p. m., causing a heavy head sea. Sky in the morning partly covered by cirrus and cumstratus clouds, the latter increasing to 10 at 11 a. m., but changed to stratus, and from that to nimbus at 4 p. m., at which time rain began, which continued until 10.15 p. m. Obscured.

July 12th.—Lat. at noon 60° 48' N., Long. 53° 46' W., dead reckoning.

(Ice pack—Rain.)

Steady bar and falling temp. Min. for the day 35°; at 11 p. m. wind brisk from NW., with heavy sea at 7.30 p. m., when we sighted an ice pack, which caused the sea to become smooth. The pack extended from east to west as far as could be seen. It was not compact enough to interfere materially with our running, as we made our way through it at half speed.

The sea temp. at surface fell from 39° 7' at 7 p. m. to 34° 7' at 11 p. m., at which time an observation was taken at a depth of 30 feet; result, 33° 7'. Rain began to fall at 10 p. m. Obscured.

July 13th.—Lat. at noon 62° 22' N. Long., 53° 6' W., dead reckoning.

(Rain—Snow—Ice packs—Seals.)

Rain ended, and snow began at 2 a. m., the latter ending at 4.30 a. m.; amount light; sky remained cloudy during the day; cleared the ice pack at 3 a. m.; temp. of water rising; at 7 a. m. 3°; at 1 p. m. we encountered another ice pack of about the same compactness as the first, clearing it at 2 p. m.

Numerous seals were observed on the ice. Temp. of surface water fell 4° at 3 p. m., rising to 38°—a rise of 4°—at 7 p. m. Min. temp. 35° at 3 a. m.; wind fresh and steady from NW. all day. Obscured.

July 14th.—Lat. at noon 64° 14' N. Long., 53° 37' W., dead reckoning.

Low but steady barometer; min. thermo. 36° at 3 a. m. Dense fog until late in the afternoon, when it cleared away; raining; perfectly clear the balance of the day. Wind NW. and light until 11 p. m., when it increased to fresh. No aurora.

July 15th.—Lat. at noon 66° 41' N. Long., 55° 16' W., observation.

(Brisk wind.)

Steady baro. and thermo. prevailing; wind N.; force brisk, with heavy swells; at 4.30 a. m. dense fog formed, which was superseded by stratus clouds during the morning, the latter remaining during the balance of the day. Obscured.

July 16th.—Godhavn, Greenland.

(Arrived at Godhavn.)

Slight falling baro. and rising temperature. Prevailing wind NW.; force light. Foggy nearly all day; clearing at 7 p. m. Arrived at Disco at 8 p. m.; there was a rise about 8° in the temperature of the sea water at surface after entering Disco Harbor. Obscured.

July 17th.—Godhavn, Disco Isl., Greenland.

Wind changed to southerly after 3 a. m.; baro. rising slowly; temperature even weather cloudy; clouds alternating between fog and stratus. Obscured.

July 18th.—Godhavn, Disco Isl., Greenland.

(Rain.)

Steady baro.; even temperature; wind fresh from SW. all day; weather cloudy until 9.20 p. m., when light rain began falling, ending at 9.25 p. m. Obscured.

July 19th.—Godhavn, Disco Isl., Greenland.

Falling baro. and rising temperature, attaining its max. at 3 p. m., at 49° 8'. Wind light and varying between SW. and SE.; weather cloudy; sky covered with stratus clouds until 7 p. m., when they were superseded by cirrus, which covered three-tenths of the sky. No aurora.

July 20th.—Godhavn, Disco Isl., Greenland.

(High temperature—Rain—Left Godhavn—Dr. Pavy.)

Wind fresh, with variable directions; slightly falling baro. and high-temperature. Max. at 11 a. m. $56^{\circ} 1'$. Weather cloudy at 3 a. m., and fair until 3 p. m., when stratus clouds formed again and remained until 6.45 p. m., when rain began falling, ending at 10.30 p. m. Left Godhavn at 11.50 p. m. Dr. Pavy joined expedition. Obscured.

July 21st.—Ritenbenk, Greenland.

Weather cloudy; baro. steady; temperature even; wind light and calm. Arrived at Ritenbenk at 9.15 a. m. Obscured.

July 22d.—Ritenbenk, Greenland.

(Left Rittenbenk—Henry Clay.)

Steady barometer; even temperature; wind S. E., and light in the morning, increased to fresh at 11 p. m. Sky covered with stratus clouds until 4 p. m., when rain began falling, continuing until 11.25 p. m. Left Rittenbenk at 1 p. m. via Waigat Strait, entering Baffin's Bay at 7 a. m. Henry Clay joined expedition. Obscured.

July 23.—Lat. $71^{\circ} 54' N.$, Lon. off Coast Greenland, D. R.

(Rain.)

Day remained cloudy until about noon, when fog formed and continued until nearly night. It then broke away for a short time, and just as we arrived off Upernavik it again settled, so that we could not make the harbor. At 9.15 p. m. it began to rain and continued the balance of the day. Wind variable, fresh at night; baro. steady; temp. even. Obscured.

July 24th.—Upernavik, Greenland.

(Rain.)

Arrived at Upernavik 6.30 a. m. Falling followed by rising barometer in the afternoon, with increased temperature. Rain ended 10.15 a. m.; recommenced 3.45 p. m. and ended at 6 p. m. Weather quite warm; thermometer at noon registering $54^{\circ} 6'$. Obscured.

July 25th.—Upernavik, Greenland.

(Gale—Rain.)

Wind rose very rapidly during night, culminating in a gale at 4 a. m.; after which time it decreased slightly, but continued high until after 3 p. m., when it died away. Extra moorings had to be used on the steamer to prevent her drifting. Barometer falling slowly. Rain began at 2.30 a. m. and continued until 10.30 a. m.; recommenced at 5.45 p. m. and continued the balance of the day. From 29 comparative readings of Marine barometer No. 2418 with ship's barometer (Aneroid) the latter is found to read (36) thirty-six hundredths too high. Obscured.

July 26th.—Upernavik, Greenland.

(Rain.)

Steady falling barometer; stationary temperature; rain ended at 7.30 a. m.; light southerly winds gentle to calm. Obscured.

July 27th.—Upernavik, Greenland.

(Rain.)

Light southerly winds and rising barometer; temperature steady; light rain began falling at 5 a. m. and ended at 9 a. m. During the afternoon the sun made its appearance for about 2 hours, which is the first time for several days. Obscured.

July 28th.—Upernavik, Greenland.

(High temperature.)

Rising followed by slowly falling barometer during the afternoon, with high temperature, which at 3 p. m. attained 60° 2'. Weather very pleasant, the sky being partly covered with cirrus clouds during the afternoon. Wind variable in direction, but light in force.

D. C. RALSTON,
W. S. JEWELL,
Sergeants Signal Corps, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov 9, 1883.

(16.)

[2269 Mis., 1881.]

(Telegram 6 W. Received at —, July 1, 1881, 10.45 a. m., from St. John's, July 1.)

To SIGNALS, *Wash'n*:

Letters mailed noon to-day reach us; shall make formal start July fourth, dropping down to anchorage in bay, awaiting one hundred packages freight due on Hibernian Wednesday.

GREELY, *Lieut.*

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(17.)

[Vol. 7, C. S. O., p. 441.]

(Telegram.)

WASHINGTON, *July 3d, 1881.*

To Lieut. GREELY,
St. John's, Newfoundland:

I wish you and your party all success. The President is improving, and hopes for his recovery grow stronger.

W. B. HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(18.)

[3629 Mis., 1881.]

ST. JOHN'S, N^FD, *July 5, 1881.*

MY DEAR GENERAL: We leave St. John's to-morrow, and I am glad to be on my way. We have had much to contend with here in a people with whom it is hardly possible to deal except by written contract. I get away, however, leaving little, if any, more money than I expected. I have had to duplicate some things here, fearing that the Allen steamer will not bring them. I have tried to be as economical as I possibly could be, and hardly think that much can be charged to extravagant purchases. I would advise you by all means to seek proposals for next year's vessel immediately on the return of the Proteus. I am quite certain they will attempt to run up the price on us next year to \$25,000 or perhaps more, but by good management a vessel should not cost to exceed, say, \$20,000 as a limit, and possibly down to \$15,000. I will write fully as to the Proteus on her return. I hope to have papers in shape to send estimates in some detail from Disco. The men are all behaving well, but the naval engineer man keeps very full of beer. We sail to-morrow, if the Hibernian gets in. I do not

understand how such delays occurred in the forwarding of ammunition, photographic material, &c., all of which should have been here ten days since.

A gloom has been cast over us by the terrible attempt on the President's life, but I am somewhat encouraged by your welcome telegram. Give my kindest compliments to Mrs. Hazen.

Faithfully & sincerely yours,

A. W. GREELY,
U. S. Army.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(19.)

[3659 Mis., 1881.]

ST. JOHN'S, N^FD, July 6th, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: Referring to the items for repairs of steam-launch Lady Greely, No. 66, in the bills of Mr. Gemmel and J. & W. Stewart, who paid the last bill to save extra sets of vouchers; I have to say that the machinery has proved thus far too slight and has broken three times without any extraordinary cause. She works very finely now, is an excellent sea-boat, and if the engine holds together will do well hereafter.

I am, resp'y, y^{rs},

A. W. GREELY,
1st Lt. 5 Cav., A. S. O. and Ass't, Com'd'g L. F. B. Expedition.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(20.)

[3653 Mis., 81.]

ST. JOHN'S, N^FD, July 7, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: I enclose herewith description of the Proteus. She has broken her way through *new ice* over two feet thick the whole length of the harbor. She has been pronounced by the officers of the U. S. S. Alliance as the best ship for ice work they have ever seen. Every shipmaster and every man with whom I have conversed agree that there is no better vessel on this coast for such work; one or two others are of the same build and probably as good. The captain is mentioned in the description. The mate, engineers, and crew are selected from the entire sealing crew of the firm. I might add that the firm has not been able to effect any insurance, and are certain in no event to cover more than the hull. This may complicate the hiring of a vessel at this price next year.

I am, resp'y, y^{rs},

A. W. GREELY,
1st Lt. 5 C., Ass't, Com'd'g.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9. 1883.

[Inclosure 1.]

The Proteus was built at Dundee, Scotland, in 1874; Alexander Stevens & Co. She is barkentine rigged, and has a gross tonnage of 619 tons and a registered tonnage of 467 tons. Her register is British; dimensions as follows:

	Feet.
Length over all.....	190
Breadth of beam.....	29
Depth of hold.....	18

One pair compound engines, 25 and 50 in. cylinders, with 30-in. stroke; one cylin-

drical boiler, 13 ft. diameter and 10 ft. long; three furnaces; horse-power, 110. The ship is built of oak, with a sheathing of "iron-wood" from above the water-line to below the turn of the bilge; the prow armed with iron; capacity, $8\frac{1}{2}$ knots an hour. Capt. Pike has made six sealing and whaling trips *in this vessel on the Labrador and Newfoundland* coasts, encountering and breaking through ice each trip. He says the vessel is capable of breaking her way, with occasional backing to free herself, through new ice to the thickness of eighteen inches. The vessel was built expressly for this kind of work, as she is provided with a spare rudder and two spare screws and shafts.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(21.)

[3241 Mis., 1881.]

(Telegram received at 9.26, 1881, 9.54 a. m., from Disco, Greenland, July 18th, '81.)

To Gen. HAZEN, *Wash'n, D. C. :*

Arrived Disco July sixteenth, nine p. m. Continuous northerly winds, with thick weather, lengthened passage, which was entirely unobstructed by ice. Inspector Smith reports mild winter, with advances from Upernavik favorable to easy navigation in Melville by Doctor Pavy and Henry Clay at Ritterbank. Well; party all well. Advise all concerned.

Leave Monday for Upernavik via Ritterbank.

GREELY,
Commanding.

To COPENHAGEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(22.)

[3764 Mis., 1881.]

Abstract of letters of minor importance which have been forwarded by mail from Godhavn, Ritterbank, and Upernavik.

Disco, July 17, 1881.—C. S. O. transmits a more complete and satisfactory description of S. S. Proteus.

Godhavn, July 20.—Surgeon-General U. S. A., through C. S. O., reports contract made with Dr. O. Pavy to serve as A. A. surgeon, U. S. A.

Upernavik, July 24.—Adj. Gen. U. S. A., through C. S. O., advises of Pvt. Connell's discharge, expiration term of service.

Upernavik, July 25.—Adj. Gen. U. S. A., through C. S. O., informs Adj. Gen. of re-enlistment of Pvt. Connell for Co. B, 3rd Cav.

Upernavik, July 25.—C. S. O. reports discharge and re-enlistment of Pvt. M. Connell, Co. B, 3rd Cav.

Upernavik, July 25.—Com'd'g off. Co. B, 3rd Cav., through C. S. O., advises of Pvt. M. Connell's discharge and re-enlistment.

Upernavik, July 25.—C. S. O. transmits copies of meteorological records for past winter made by observers at Upernavik and Jacobshavn.

Upernavik, July 26.—Chief of Engineers U. S. A. transmits return of engineer property for the 2nd quarter, 1881.

Upernavik, July 26.—Quartermaster-General U. S. A. transmits return of Q. M. stores for the 2nd quarter, 1881.

Upernavik, July 26.—Q. M. Gen. U. S. A. transmits return of C. C. and G. E. for the 2nd quarter, 1881.

Upernavik, July 26.—C. S. O. transmits return of signal property for the 2nd quarter, 1881.

Upernavik, July 26.—Adj. Gen'l U. S. A., through C. S. O., transmits oath of office administered Dr. O. Pavy.

Upernivik, July 26.—C. S. O. forwards duplicate contract made with Dr. O. Pavy for reference to the Surgeon-General, and to Adj. Gen. oath of office.

Upernivik, July 26.—Surgeon-Gen. U. S. A., through C. S. O., transmits contract (in duplicate) made with Dr. Pavy.

Upernivik, July 26.—C. S. O. requests that certain changes should be made in Pvt. Connell's descriptive list.

Upernivik, July 27.—Chief of Ordnance U. S. A. states that ord. stores invoiced by Capt. McKee have not arrived, and that receipts for same will be forwarded if received in 1882.

Upernivik, July 27.—Chief of Ordnance U. S. A. transmits return of O. and O. stores for 2nd quarter, 1881.

Upernivik, July 28.—C. S. O. requests that 49½ cts. for tobacco be charged against all the enlisted men, excepting Serg't Israel 44½ cts., Serg'ts Rice and Gardener nothing. In the case of Pvt. Connell tobacco to the value of 49½ cts. issued, but included in the charges requested in a previous letter.

Upernivik, July 26.—Surgeon-Gen. U. S. A. transmits return of hospital stores for 2nd quarter, 1881.

Upernivik, July 28.—Chief Com's'y of Subsistence transmits return of subs. stores and com's'y prop. 2 quarter, 1881.

Upernivik, July 29.—C. S. O. recommends that notice be given extensively through the press one month before departure of relief steamer in 1882.

Upernivik, July 29.—C. S. O. transmits original records of observation to date.

Upernivik, July 29.—C. S. O. reports that temp. of air in the reports pertaining to Upernivik are in degrees Centigrade instead of Reaumur.

A. W. GREELY,

1 Lt. 5 Cav., A. S. O., and Ass't Com'd'g L. F. B. Exp'd'n.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(23.)

[3523 Mis., 1881.]

RITTENBANK, GREENLAND, July 21st, 1881.

To the CHIEF SIGNAL OFFICER, U. S. A.,
Washington, D. C.:

SIR: I have the honor to report that the Lady Franklin Bay expedition reached Rittenbank at 9.30 a. m. to-day. A Danish brig ready for sea permits this further report. At Godhaven Herr Krarup Smith, chief inspector of Northern Greenland, received me most kindly and promised all possible assistance. Unfortunately he was obliged to leave on a tour of inspection 12 hours after our arrival, having delayed his departure thus long on our account.

Through the kindness of his excellent wife I was, however, enabled to obtain a fair supply of dogs, dog-meat, dried fish, and sealskins, which had been negotiated for through the energy of Dr. O. Pavy. Dr. Pavy was at Rittenbank on our arrival, but reached Godhaven the morning of July 20th. A contract at once was made with him to serve as act'g ass't surgeon of the expedition. We were prevented by fog from leaving Godhaven until 12.30 a. m., July 21st, and arrived here, 60 miles distant, as stated above, having been delayed a short time by thick weather. A good set of observations for time were obtained at Godhaven, p. m. of July 19th, a. m. of 20th, the only times on which the sun was to be seen during our stay.

Dr. Pavy has nine dogs, which makes, with the 12 bought, 21, and has also three sledges and certain other trappings. He has also accumulated 3,500 lbs. of dried fish at this place. The arrangements made by Dr. Pavy at his own risk have been of marked benefit to the service, as a supply of dogs and food can rarely be obtained save by ordering in advance.

Mr. Henry Clay has been hired to accompany the expedition to L. F. B., at a nominal salary of \$15.00 dollars per month and a ration, as a signal service assistant. Acting on the advice of Herr Inspector Smith, arrangements for certain clothing, the two Esquimau hunters, and the balance of dogs have been deferred until we reach Upernivik, where I expect to find the inspector.

I hope to leave here to-morrow morning, and, proceeding through the Waigat Strait, reach Upernivik by July 23d. In addition to the mildness of the winter, I have to

report that the spring has been unusually early. Everything now seems to favor a fortunate journey northward. Lieut. Lockwood has been sent with four men to-day to obtain some birds from a "loomery" several miles distant from here. All officers and men are in the best of health.

I am, very respectfully, your obedient servant,

A. W. GREELY,
1st Lieut. 5th Cavalry, Act. Signal Officer and
Assistant Com'd'g L. F. B. Expedition.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(24.)

[3456 Mis., 1881.]

UPERNIVIK, GREENLAND, July 26, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: I have to report that I have this day forwarded to your office duplicate contracts made with Octave Pavy, M. D., July 20, 1881, at Godhavn, Gd., to serve as Actg. Asst. Surg. of this expedition, for reference to the Surgeon-General; also to the Adjutant-General, through you, a copy of oath administered to Dr. Pavy, on his entering on his duties.

I am, resp'y, yours,

A. W. GREELY,
1st Lt. 5 Cav. A. S. O. & Asst. Com'd'g L. F. B. Expedition.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(25.)

[3402 Mis., 1881.]

UPERNIVIK, GD., July 29, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: I have the honor to recommend that arrangements be made at St. John's, Nfld., this year for the following stores, to be ready and to be paid for next summer, when the relief steamer leaves:

Six tons dried seal meat (should be pressed in bales and kept *dry*; cost should be trifling, as it is used considerably for manure; has been sold fresh for 40c. a barrel): very necessary for dogs, and if not sent will cause much greater expenditure—probably ten times over; should be baled, covered with water-proof material. (75) seventy-five pairs seal-skin boots (with hair off, shaved or tanned), of *three largest sizes*; 50 prs. to be *unsoled with leather*, and 25 prs. to have *leather soles attached*, as is done for sealing use (should cost about \$2.50 for plain boots and \$5.00 for the soled boots); these boots should be best quality, and guaranteed to be water-tight. 150 pairs "Iceland stockings;" should cost about 40 to 50c. per pair; should be good quality to wear (but not the best); same as generally used among sealers. 5 "square flipper" seal-skins, *shaved*; or, if not to be had, 10 "old-dog-harp" seal-skins (the *whole lot, either kind*, should cost about \$30 to \$35); needed for repair of boots, &c.; very important.

Proposals should be asked for the furnishing of these supplies of J. & W. Stewart, C. F. Bennett, Walter Grieve & Co., Browning Bros., St. John's, and Munn & Co., Harbor Grace. All things being equal, I would recommend J. & W. Stewart as very reliable. Care should be taken to insist on *good* articles.

Mr. Molloy, U. S. consul, would undoubtedly attend to the inspection and proposal. It is most important that these articles should be obtained at St. John's.

The clothing now had is barely sufficient for use during the coming twelvemonth, and a supply cannot be had in Greenland under less than a year, ordered in advance, and even then is uncertain. It is more than probable, too, that the cost would be really less in St. John's than here.

Action is necessary this autumn, as some of the articles are obtained in Labrador, and the seal meat must be caught in March.

I am, respectfully, y'rs,

A. W. GREELY,
1 Lt 5 Cav., A. S. O., & Ass't Com'd'y L. F. B. Exp'd.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(26.)

[3579 Mis., 1883.]

FORT CONGER (LADY FRANKLIN BAY),
Grinnell Land, August 15th, 1881.

To the CHIEF SIGNAL OFFICER OF THE ARMY :

SIR: I have the honor to make the following report regarding the progress of the International Polar Expedition, which I have the honor to command:

Leaving St. John's, N. F., at noon, July 7th, the harbor of Godhavn, Greenland, was reached 9 p. m. July 16th. The voyage was made in the face of continuously adverse winds, experiencing two strong northerly gales and constant cloudy and foggy weather. The ship behaved admirably. The only ice seen south of Cape Farewell were a few icebergs off Funk Island, and about forty in 52° N. 53° 15' W. Pack ice was fallen in with at 10.30 p. m. July 12th, in 61° 30' N. 53° 30' W., and was left behind at 3 a. m. July 13th. A second pack was encountered the same day at 2.30 p. m., in 62° 30' N. 53° 15' W., and passed through in an hour. Neither pack offered any obstructions to free passage, or caused the slightest delay. They both consisted of ice floes (varying from one to eight feet above the water), which, coming from the east coast of Greenland, had drifted with the southerly current from Cape Farewell into Davis Strait. Not a dozen icebergs were seen in Greenland waters until Disco Bay was reached, when over a hundred were counted at one time. From Herr Krarup Smith, inspector of North Greenland, I learned that the past winter in Greenland (except a brief period of cold in March) had been one of marked and unusual mildness, and that the ice north of Upernavik had broken up very early. Delaying his vessel 15 hours on the expedition's account, he left the next day for an official inspection of Proven and Upernavik, assuring me of all possible aid and assistance from himself and all other officials. On July 20th Dr. Octave Pavy joined the expedition as acting assistant surgeon.

At Godhavn twelve dogs, a large quantity of dog food, and some sealskins were procured. A considerable quantity of "mattak" (skin of the white whale, a very valuable antiscorbutic) and a few articles of fur clothing were obtained by barter, as they could not be bought for money. Hardbread and tobacco were principally given in exchange. Valuable assistance was given in this matter by the wife of Inspector Smith, and by Mr. Fleischer, chief trader and governor of Godhavn. The remains of the house purchased in 1880 was taken on board, as well as 3,000 pounds of buffalo pemmican, placed at my disposal by H. W. Howgate, of Washington. Nine dogs, which were at Rittenbenk, were also bought of O. Pavy. A good set of observations for time was made July 19-20, at the only hours the sun shone during our stay at Godhavn. Leaving Godhavn the morning of the 21st, the vessel reached Rittenbenk the same forenoon. At that point were purchased a number of sealskins, a large quantity of dog food, and other minor articles, which had been accumulated for the expedition through the energy of Dr. Pavy. The nine dogs before mentioned were taken on board. Mr. Henry Clay there joined the expedition, under the status of a signal service employé. Being delayed by the fog, Lt. Lockwood was sent with a party to obtain birds from Ave Prins Island. He returned that evening with sixty-five guillemots (Alca Ama or Alca Bruennichi). It was said at Rittenbenk that the spring had been the most forward one for years. Leaving Rittenbenk 2.15 p. m. July 22d, and running through the Waigat, the steamer was off Upernavik 9 p. m. July 23d, but owing to fog could not enter the harbor until the next morning. Two Esquimaux, whom I had understood would accompany the expedition, were not available, and in consequence a trip to Proven, about 50 miles distant, was necessary to obtain others. Skin clothing could not be obtained, except ten suits, which had been made by order of the Danish Government for the use of the international polar station at Upernavik, of 1882-'83, and were sold, through the kindness of Inspector Smith, to the expedition. A severe storm setting in prevented Lt. Lockwood (whom Mr. Elberg, chief trader at Upernavik, had offered to accompany to Proven) from start-

ing on the 24th. On the morning of July 25th Lt. Lockwood left in the steam launch "Lady Greely" (which had been put into the water for the trip), taking a circuitous route inside the islands, rendered necessary by bad weather. Lt. Lockwood returned early on the 28th, bringing for service with the expedition a native, Jans Edward, and a half-breed, Frederick Thorly Christiansen, who were contracted with that day. Lt. Lockwood also procured about a dozen suits of skin clothing, which, though second-hand, are very serviceable. He had killed 120 guillemots during his voyage. The launch behaved admirably, both as a sea boat and under steam. Lt. Kislisbury, by my orders, made two visits, July 24th and 25th, to the "loomery," near Sanderson's Hope, bringing back the first day three hundred and five birds, and on the latter one hundred fifteen, all guillemots (*Alca Aca*). Ten dogs (five of whom have since died of dog disease—must have been sick when sold to me) were procured from Mr. Elberg. Additional dog food, sledge fittings, dog-harness, and sealskins were also bought. It was through the marked interest and kindly influence of Inspector Smith (whom I found at Upernavik) that the expedition secured the services of the natives and obtained so fair a stock of needed articles. The meteorological records of the past winter show it to have been very mild and the spring very early. Inspector Smith told me that in fourteen years Upernavik has never been so green.

Reports from Tessi-ussak were to the effect that the ice, breaking up very early was all gone. On the afternoon of July 29th the anchorage of Upernavik was left, and at 7 p. m., having run out the southern way, the vessel was distant three miles from Upernavik, just off the island to the west. Running northward a few hours the Middle Passage was taken, and at 7 a. m. July 31st the engines were stopped, as the dead reckoning placed the vessel only six miles south of Cape York, and dense fog prevented land from being seen. An hour later, the fog lifting a few minutes, showed land about five miles distant. This experience of the "Middle Passage" may be fairly said to have been without parallel or precedent. The run of the English expedition of 1875-76 from Upernavik to 45 miles south of Cape York in seventy hours is said to have been unprecedented. Our passage by the same route, and to within five miles of Cape York, was made in thirty-six hours, half the time taken by the expedition under Sir George Nares to run a less distance. Nothing in the shape of a pack was encountered in Baffin's Bay, but in about $75^{\circ} 08' N. 63^{\circ} 40' W.$ a pack was seen to the westward, whether open or compact was uncertain. A polar bear (*Ursus maritimus*) and a seal (*phoca barbata*) were killed on small detached floes in the "Middle Passage." July 31st, was lost through foggy weather, obliging the vessel to "lay to." At 8.15 a. m. the fog lifting disclosed Petowik glacier near, to the north of which, in small patches of dirty reddish color, was seen the red snow among the "crimson cliffs" of Sir John Ross. Sighting the Carey Islands at 3.10 p. m. that day, two parties were landed on the southeast island at 5.45 p. m. The party under Dr. Pavy obtained from the cairn on the summit the record left by Mr. Allen Young in 1875 and 1876, which forms enclosures "A" and "B;" copies were left in the cairn and an additional record, enclosure "C." With Lt. Lockwood I found and examined the whale-boat and depot of provisions left by Sir George Nares in 1875, which were in good and serviceable condition. A record in the boat was taken away (enclosure "D"), but a copy of it and a new record (enclosure "C") were left in its place. At 12.30 p. m. August 2d Littleton Island was reached. A personal and exhaustive search of seven hours was necessary to find the English mail, which in four boxes and three kegs have been forwarded to you, in order that they may be returned to England. There was a very small cairn near the mail, but with no record. A record enclosure "H" was left by me. Lt. Lockwood with a party landed about $6\frac{1}{2}$ tons of coal, as a depot of fuel for possible future use. It is in and around a large cask, on low ground, on the southwest side of the island facing Cape Alexander. Lt. Kislisbury and Dr. Pavy, by my orders, visited Life Boat Cove to communicate with the Etah Eskimos and see the Polaris' winter quarters. Several photographs of the surroundings were taken by Sergt. Rice and a number of relics brought off, which will be forwarded to you. The transit instrument was found about 20 feet from the cairn. The Etah Eskimos have evidently quitted the place, as all traces were old, a year certainly, and probably two or three years. In searching on Littleton Island for the Nares' cairn about fifty small cairns (many evidently for game) were found, in two of which records from S. S. "Erik," Capt. Walker, June 20, 1876, were found, and form enclosures "E" and "F." A cairn carefully built and with an aperture at the base, probably that of Sir Geo. Nares, was found open and empty. Lt. Lockwood, who later was sent to go over the ground a third time, concluded with me that the open cairn was that of Sir Geo. Nares. A record was made by Lt. Lockwood for deposit, but a message sent him when the English mail was found caused him to withdraw it, or he was erroneously informed that I had found the cairn sought for. It probably has been plundered, as a piece of London newspaper, "The Standard," was found by me in the snow on the west side of the island. It contains a notice of a lecture by Sir Geo. Nares in 1875. It forms enclosure "C." Some repairs to the wheel of the ship caused several hours' delay, but Littleton Island was left at 10.45 p. m. The weather being

very fair and no ice visible, I did not dare to take time to examine the 240 rations at Cape Sabine, but directed the captain to run direct for Cape Hawks.

On August 3d Cape Sabine was passed at 1.50 a. m., and Cape Cauperdown at 4.10 a. m.; at 8.40 a. m. off Cape Hawks, and at 9.10 a. m. lay to about two miles north of it, between the mainland and Washington Irving Island. Sent two parties, under Lt. Lockwood and Dr. Pavy, to examine respectively the south and north end of Washington Irving Island. With Lt. Kislisbury, Mr. Clay, and a number of the men I proceeded to the main shore and examined the English depot of 1875. The jolly-boat was found in good condition, and being short of boats it was taken by me. I have named it the "Valorons," it having belonged to H. M. S. Valorous, connected with the Nares expedition. There was a large quantity of bread (some mouldy), two kegs of pickles, two partly full of rum, two barrels stearine, and a barrel of preserved potatoes. A keg of picalilli (I having none in my stores), one of the kegs of rum, were taken, and three cans potatoes, to test them and the method of cooking them. The remaining stores were placed by my party in a better condition to resist the weather. Several photographs of the surroundings were made by Sergt. Rice. Starting again at 11.10 a. m., and running out to the southward, Lt. Lockwood's and Dr. Pavy's parties were picked up at 11.40 a. m. Lient. Lockwood found in a cairn on the summit a record of Capt. Nares' deposited in 1875, and counter-signed by him in 1876, which forms enclosure "T." A copy was left, together with a new record (encl. "K.") Passed Cape Louis Napoleon 1.10 p. m., and Cape Frazer at 3 p. m. Washington Land was first sighted at 3.55 p. m. through openings in the fog which commenced setting in. About 5 p. m. the 80 parallel was crossed. At 5.30 p. m. abreast of Cape Collinson, where 240 rations are cached, but which I dared not visit, fearing denser fog would set in and delay seriously our northward passage. At 10 p. m., after running slow through a dense fog, it was necessary to stop until the next day (Aug. 4th), when the fog clearing at 11.15 a. m. Franklin Sound was sighted about eight miles N. E. (true). It was passed at 11.45 a. m. At two p. m. the ship stopped in the N. E. end of Carl Ritter Bay, where I had decided to place a small depot of provisions in case of a retreat southward in 1883. About two hundred and twenty-five bread and meat rations were landed by a party under myself, which Lt. Kislisbury and Dr. Pavy accompanied. The depot was made on the first bench from the sea, just north of a little creek in the extreme N. E. part of the bay. About 7.45 p. m., off Cape Lieber, a heavy pack against the land was passed by a detour to the eastward, and at 9 p. m., August 4th, the vessel was stopped for the *first time by ice* in the extreme S. E. part of Lady Franklin Bay, only eight miles from destination. The pack was a very heavy one, and, running from Bape Caird northeastward in a semicircle, reached the Greenland coast (where it touched the land) just south of Offley Island, near the mouth of Peterman's Fjord. The pack consisted of thick polar ice, ranging from 20 to 50 feet in thickness, cemented together by harbor ice from two to five feet thick. It was impossible to do aught but wait. The vessel was tied to the pack off Cape Baird and awaited a gale. On August 5th I went ashore at Cape Lieber, with Lt. Lockwood, Dr. Pavy, and party, to examine the ice from the cliffs. Lt. Lockwood erected a cairn on the highest peak. No other cairn could be seen on it or from it, nor on other peaks visited by Dr. Pavy and myself. Occasional lanes of water could be seen through the sifts of the fog-cloud which covered Hall Basin, but the main pack was firm and unchanged.

On August 6th the pack moving slightly obliged the vessel to change its mooring place from time to time. August 7th the pack drove us out of Lady Franklin Bay, and during that day and the 8th we were gradually driven south. Probably twenty-five miles of ice in huge fields passed southward of us during those two days. Every opportunity was improved to steam around such fields to keep head against the southerly current. On the evening of Aug. 8 the steady north wind had forced the whole pack down towards us, while the fields previously driven southward, packed fast together, formed a huge compact barrier stretching from Carl Ritter Bay across to Hans Island. But a mile or so of open water remained. A *nip* appeared most probable, and preparations were hastily made to unship screw and rudder. During the night matters improved somewhat, but during the 9th and 10th we were forced slowly southward to within about five miles of Hans Island, having lost about 45 miles of latitude. About noon of the 10th the long-desired southwest gale set in, accompanied by snow, starting the pack northward. The snow cleared the next morning, but the gale fortunately continued. Open water was visible on the west coast as far northward as could be seen. At 7.30 a. m. we ran rapidly northward, and about 1 p. m. again passed Cape Lieber, and at 2.40 p. m. had crossed Lady Franklin Bay. Either ice foot or pack ice jammed against the shore covered Watercourse Bay, but a narrow lane permitted the vessel to enter Discovery Harbor just inside Dutch Island, where harbor ice about 18 inches thick was found, covering the whole harbor as well as the western half of Lady Franklin Bay. The vessel forced her way about $\frac{1}{2}$ mile through ice of the character above named, and then stopped pending my decision as to the locality of the station. While Lient. Lockwood was sent

to examine Watercourse Bay and the coal seam, I visited alone the Discovery winter quarters, and found in a cairn two tin cases one labelled "records" and the other "general information." They form enclosure "L," "M," "N," "O," "P" to this report. Lieut. Lockwood returning early morning August 13th, reported the place an excellent one for camp, the bay partly clear, but shallow. He thought it probable the vessel could come within about 200 yards of the shore. The bay, however, was of such shape that, while discharging, the vessel would be unprotected against ice, as it is exposed to all winds from N. E. to S. S. W. The coal was so located that it could be readily mined after ice forms, and could, if required, be hauled without difficulty to Watercourse Bay or to Discovery Harbor. I reluctantly decided to settle at Discovery winter quarters, owing to the uncertainty that would attend unloading at such a place. It was fortunate that I so decided, for sending Dr. Pavy to ground overlooking Watercourse Bay on August 13th, he reported it full of pack ice. On the 12th, the vessel broke her way through two miles of heavy ice and anchored off the cairn, about 100 yards from shore, at about 3 p. m. At 3.30 p. m. the men were divided into two gangs, to work day and night by four reliefs until the cargo was discharged. The general cargo was discharged in 60 hours—by 3.30 a. m. (to-day) August 14th. At this time coal is being landed, of which I have about 140 tons, enough to last two winters without mining any. Work on the house is progressing rapidly, though but three or four men can be spared at present for that work. The foundation had been finished, floor stringers laid, and about one-eighth of the frame is now up. Fourteen musk oxen have been killed and enough meat is on hand for issue three times a week for the coming seven months, besides ten days' rations of dried birds. The post has been named Fort Conger, in honor of Senator Conger, of Michigan. Anything of importance will be added as an appendix. Photographic views have been and will be taken once each day, from which you can best judge of the progress and condition of affairs. I feel it proper to here state that in my opinion a retreat from here southward to Cape Sabine, in case no vessel reaches us in 1882 or 1883 will be safe and practicable, although all but the most important records will necessarily have to be abandoned. Abstracts could and would be made of those left.

I am, respectfully, y^rs,

A. W. GREELY,
1 Lt. 5 Cav., A. S. O. and Ass't, Com'd'g L. F. B. Exp'd'n.

NOTE—The enclosures to the above communication were principally copies of the records left at the cairns by Sir George Nares' expedition.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(27.)

[3571 Miss., 1881.]

[Circular letter.]

FT. CONGER, L. F. B., GRINNELL LAND,
August 16th, 1881.

2d Lt. F. F. KISLINGBURY, A. S. O.,
2d Lt. J. B. LOCKWOOD, A. S. O.,
A. A. Surg. O. PAVY, U. S. A. :

It is my intention in 1883 to return with this expeditionary force to the United States. In case any officer wishes to apply for the command of the expedition in subsequent years, retaining command of such men as are willing to remain and such recruits as may join the coming year, he is requested to so state in writing, in order that such arrangements and requisitions may be made as to provide for the continuance of the station.

While such action could possibly be delayed until the coming year, it would be wiser that the proposal for the continuance of the work should be submitted to and passed on by the War Department.

A. W. GREELY,
1 Lt. 5 Cav., A. S. O. and Ass't.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer

[1st endorsement.]

FT. CONGER, L. F. B., GRINNELL LAND,
Aug. 16, 1881.

I find myself detailed as a member of and serving with this expedition; am devoted to the duties, and greatly interested in this part of the world, and eager to learn and discover everything pertaining hereabouts and as far north as possible. As regards remaining beyond 1883, I feel myself capable of being physically able to do so, and can only say that I hold myself ready to remain here so long as my Government desires me to do so.

Respectfully,

FRED. F. KISLINGBURY,
2d Lt. 11 Inf. and A. S. O.

[2d endorsement.]

LADY FRANKLIN BAY, GRINNELL LAND,
Aug. 17th, 1881.

Respectfully returned to Lieut. Greely, U. S. Army, commanding.

I find myself unable to give a decided answer to this communication, tho' flattered by its receipt.

The year '83 is too far in the future and there are too many contingencies to be considered to make it advisable to be committed at this time in such a matter.

J. B. LOCKWOOD,
2d Lieut. 23d Inf., A. S. O.

[3d endorsement.]

LADY FRANKLIN BAY,
Aug. 17th, 1881.

Respectfully returned to Lieut. Greely, U. S. Army, commanding.

I entirely concur in the ideas expressed in the second endorsement.

OCTAVE PAVY,
A. A. S., U. S. A.

[4th endorsement.]

FT. CONGER, L. F. BAY,
Aug. 17, 1881.

Respectfully forwarded to the Chief Signal Officer, that he may express his wishes and intentions regarding this station's continuance beyond 1883.

In case it is continued it would be but common justice that the officer immediately my junior, *i. e.*, either Lt. Kislingbury or Lt. Lockwood, one of whom will then be a 1st Lt., should be assigned to the command. Such a course I should strongly recommend.

A. W. GREELY,
1 Lt. 5 Cav., A. S. O. and Ass't, Com'd'g.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(28.)

[3533 Mis., '81.]

FT. CONGER, GRINNELL LAND,
Aug. 17, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: The captain of the vessel coming to this station in 1882 should be provided with the following charts, which can be obtained from the Navy Department: Nos. 235, 274, 276, 555, 787, 807, 2117, 2118, 2282, and 2382.

The following should be purchased: From 75° N. to 84° N., admiralty chart, Apr. 20, 1875, corrected to July, '78 (later if can be had), sold by J. D. Potter, 31 Poultry and 11 King st., Iowa Hill, London.

I am, resp'y, y'rs,

A. W. GREELY,
1 Lt. 5 Cav., A. S. O. and Ass't, Com'd'g Exp'd'n.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(29.)

[3580 Mis., 1881.]

FT. CONGER, L. F. BAY, GRINNELL LAND,
Aug. 17th, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY :

SIR: I have the honor to request that the Danish Government may be moved to direct that the following-named articles be prepared and ready, if practicable, at Godhaven, for the use of this expedition in 1882, to be called for by the relief vessel of 1882:

Twenty-six (26) temiaks, large sizes.

Forty-six (46) seal-skin pants, large sizes.

Ten (10) sleeping bags, lined with dog skin, large enough for two men of large stature.

Five hundred pounds "matak"—skin of white whale.

One hundred fifty (150) coils of thongs for traces and lines.

Ten (10) dogs (with 2 mo's' dog food, to last *en route*).

Suitable seal skins for twenty dog harnesses.

The order for these should be made from Copenhagen by the first vessel, and no time should be lost in arranging therefor. The first Danish ship leaving in March—early—reaches Godhaven about the first of May. If all cannot be obtained, as much as practicable should be made ready.

I am, respectfully, yours,

A. W. GREELY,
1st Lt. 5 Cav., A. S. O. and Ass't, Com'd'g Expedition.

Official copy from the records of the Signal Office.

Chief Signal Officer.

Nov. 9, 1883.

[989 Mis., 1882.]

ROYAL DANISH LEGATION,
Washington, D. C., February 18th, 1882.

General W. B. HAZEN,
Chief Signal Office, U. S. A.:

SIR: I am informed by the foreign office in Copenhagen that proper orders have been given by the Royal Directorate of the Greenland trade to have ready for the Lady Franklin Bay expedition the articles enumerated in your letter of December 5th, 1881, and to deliver them to the relief or supply vessel expected to reach Godhaven during July this year. I am, however, instructed to state that the directorate entertains considerable doubts as to how far all the requested articles can be provided in the desired quantities. This is particularly the case as to matak (skin of white whale), which is only to be had at certain seasons of the year, is speedily consumed by the Greenlanders themselves, and is not very fit for being kept. The directorate has understood the 26 "temiaks" required to be identical with "timials," *i. e.*, fur-coats of birds' skins.

Very respectfully, your obedient servant,

BILLE.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(30.)

[3577 Mis., '81.]

FT. CONGER, L. F. BAY, GRINNELL LAND,
Aug. 17, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY :

SIR: I have the honor to herewith transmit copy map of Robeson's Channel and approaches, whereon is marked the course followed by the Proteus northward of

the entrance to Smith's Sound; also map of Discovery winter quarters. The house is located within fifty yards or so of the cairn, and runs N. and S. One hundred copies (lithographed) of these charts would be very useful, and I request they be furnished.

I am, resp'y, y'r,

A. W. GREELY,
1 Lt. 5 Cav., A. S. O. and Ass't.

(Five inclosures.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(31.)

[3573 Mis., 1881.]

FT. CONGER, L. F. BAY,
Aug. 18, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: I have the honor to report that the party remaining as the enlisted force at this place are all men well fitted for the, work and their relief, except on grounds of ill health or at personal request, is not recommended. Sgt. Gardiner is not always accurate, but is willing, and time with supervision will correct that fault. Private Ryan indulged too freely in drink at St. John's, but on the trip and here proves a most excellent, reliable, and hard-working man.

I am, resp'y, y'rs,

A. W. GREELY,
1 Lt. 5 Cav., A. S. O. and Ass't Com'd'g Exp'd'n.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(32.)

[3572 Mis., 1881.]

FORT CONGER, GRINNELL LAND, LADY FRANKLIN BAY,
August 18th, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: I have the honor to report that the weather continues fine and the health of the men good. I have ordered Corporal Starr to return to Washington, as he has developed a tendency to asthma, which unfits him in the opinion of the doctor for hard work in the field, because possibly he might be attacked. The house is entirely framed and partly boarded.

Everything perishable has been got under canvas.

I hope to send the party northward to Cape Henry in a week or so. In view of Corporal Starr's relief it would be well to send six men instead of five men.

The captain hopes to sail to-night, I having promised to stop coaling at 6 p. m., when I shall have about 140 long coal, enough with proper margin for two years and more.

I am, respectfully, yours,

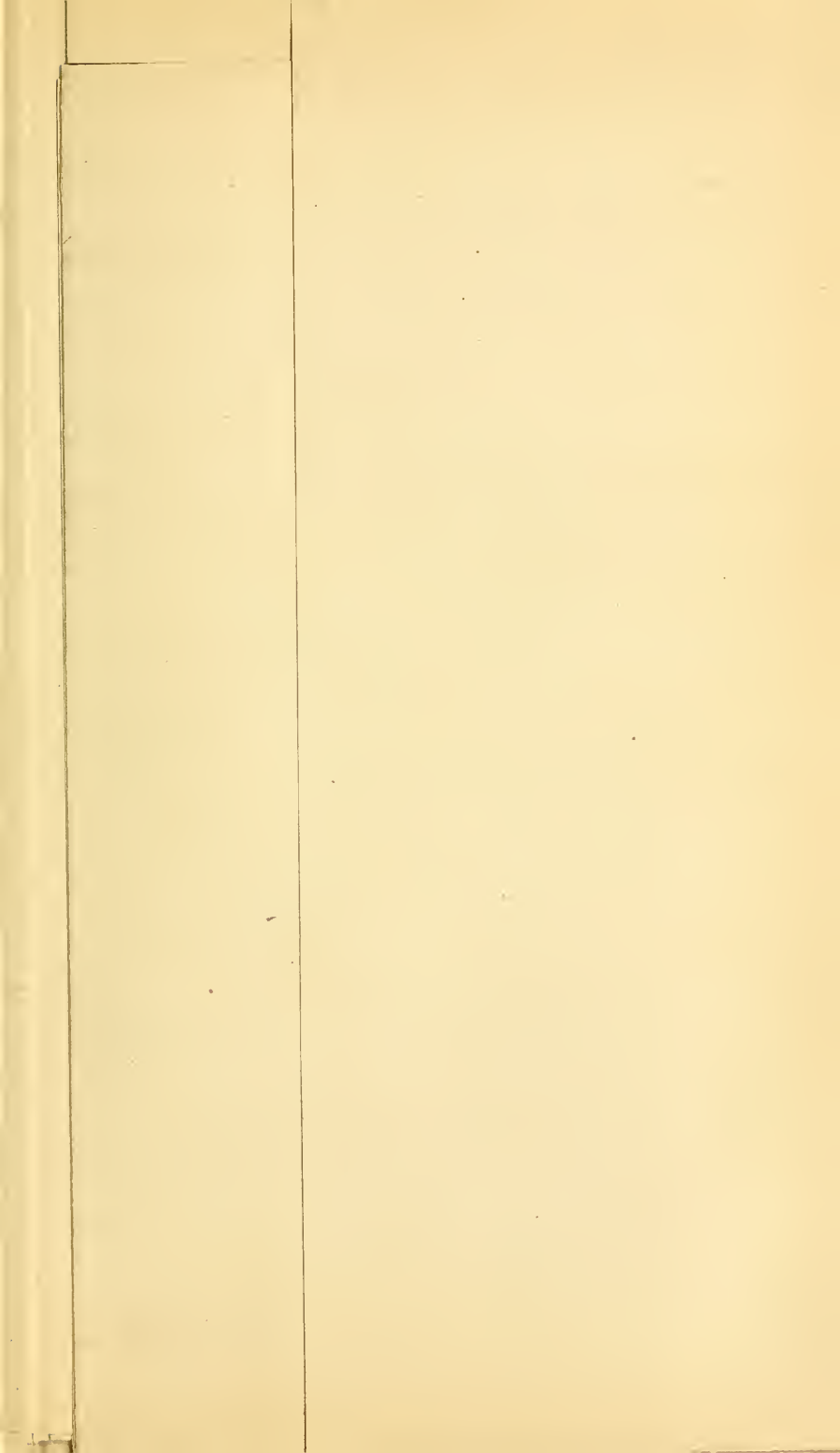
A. W. GREELY,
1st Lieut. 5th Cav., A. S. O. and Ass't, Com'd'g L. F. B. Expedition.

P. S.—24 additional musk oxen have been seen.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.





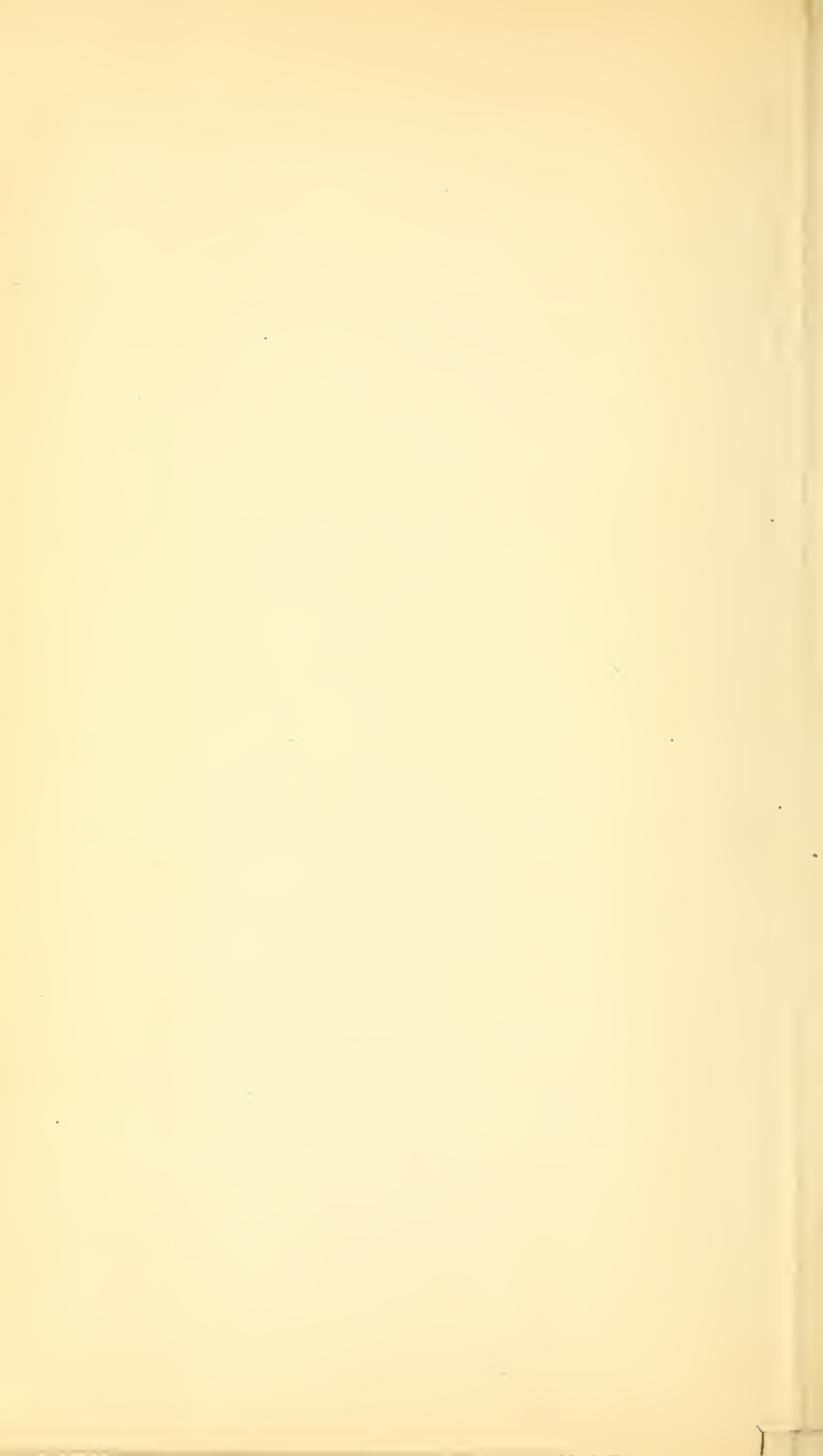
SMITH SOUND
KENNEDY, & ROBESON CHANNELS.

*Official copy from the
records of the Signal
Office*

*Chief Signal Officer
Nov 9, 1853*

*Chart of track of Neptune
encompassing expedition of 1882 and
change of Mr. Beebe, in evidence.*

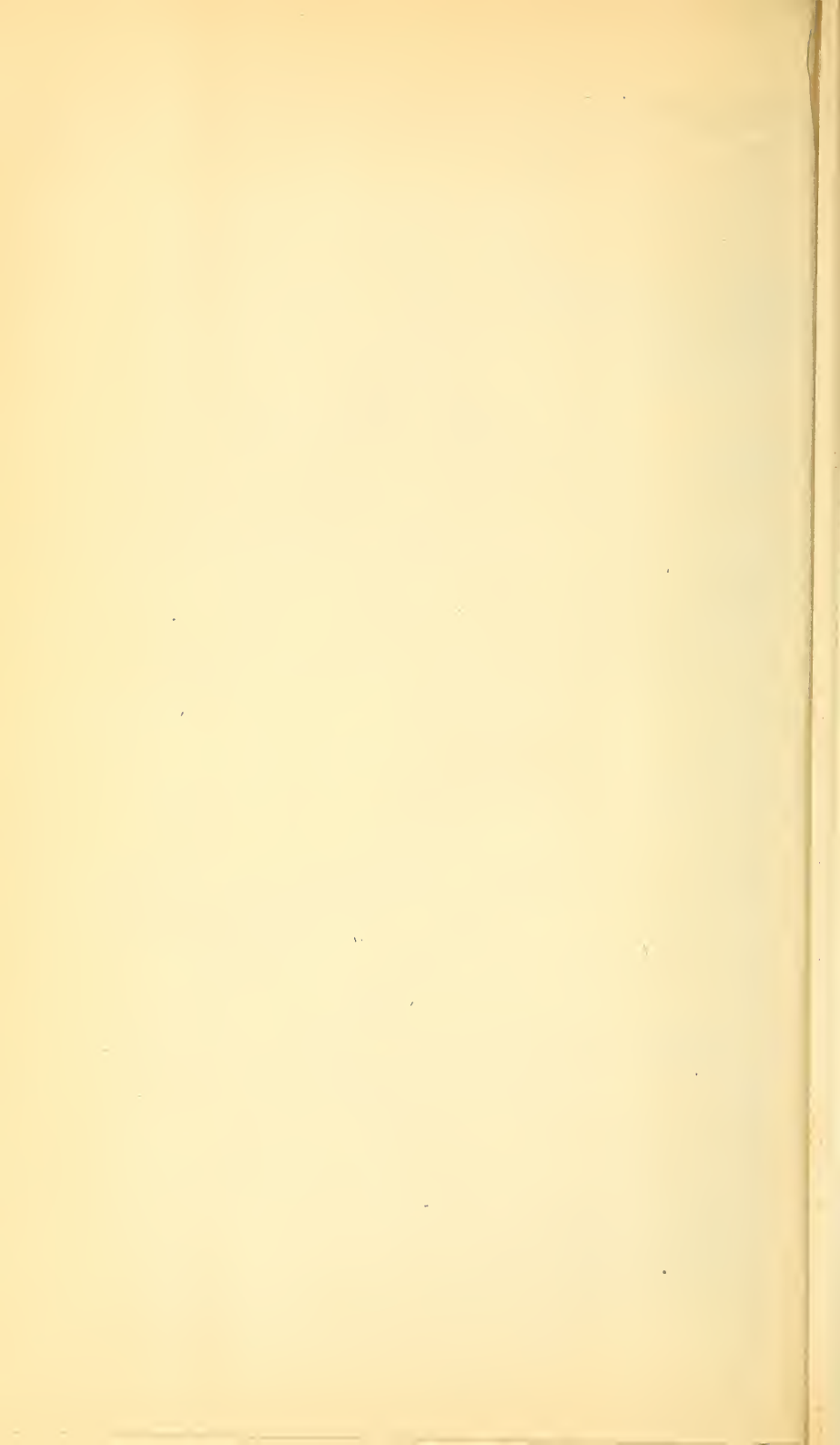
*Henry G. Fellows,
Jr.,
Recorder of the Court*



2400.



Quinn



(33.)

[3012 Mis. '81.]

[Telegram received, at 9, 12, 1881, 9.43 a. m., 8 N. Y., from St. John's, N. F., 12th.]

To CHIEF SIGNAL OFFICER,
Wash'n, D. C.:

Entered Lady Franklin Bay one month from leaving St. John's. Obtained natives, skin clothing, and dogs at Godhaven, Ritenbenk, Upernivik, and Proven.

Made most remarkable trip recorded from Upernivik, through middle passage to Cape York, in thirty-six hours. In six days and two hours from Upernivik, though delayed thirty-two hours by fog, entered Lady Franklin Bay, having meanwhile examined English depot, Carey Island; recovered entire English Arctic mail at Littleton Island; discovered transit instrument Polaris quarters Life Boat Cove; obtained record Washington Irving Island; overhauled English depot Cape Hawks; and landed depot at Carl Ritter Bay. Vessel never met pack worthy of name nor stopped by ice until inside Cape Lieber, Lady Franklin Bay, eight miles from destination, where delayed one week, being forced back south of eightieth parallel. Entered Discovery Harbor August eleventh, where station is located, Watercourse Bay being impracticable for landing. About hundred forty tons coal landed. Have killed here three full months, rations musk cattle. Weather fine, Building framed and being covered. Party all well.

GREELY,
Lt., Commanding.

LADY FRANKLIN BAY, *Aug. 18th, 1881.*

1.83 collect.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer,

Nov. 9, 1883,

(34.)

[3217 Mis., 1881.]

The Proteus delayed by ice a few miles S. E. permits me to-day to report that one house is now covered, and it will be partly occupied to-morrow, Sunday. All well.

A. W. GREELY, *Lt., &c.*

L. F. B., *Aug. 20.*

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(35.)

[3220 Mis., 1881.]

(Copy.)

L. F. BAY, *Aug. 25th, 1881.*

All stores under cover. Freezing weather commenced. Observatory under way. House entirely done except inside work, which can be done at leisure. Start a small party north and one into interior in few days. Ice in L. F. Bay has unfortunately not gone out at all this year, & so steam-launch is kept here. No snow on ground. Party all well. Proteus delayed by ice at entrance to harbor for days, although channel open outside. Since Starr and Ryan are gone, seven men should come next year. Lowest temp., 22° 0 on 20th.

A. W. GREELY.

Gen. W. B. HAZEN,
Chief Signal Officer, Washington, D. C., United States.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

S. EX. 100—AP—3

(36.)

[Vol. 10, C. S. O., page 437.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., November 25, 1881.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to enclose herewith copies of communications from 1st Lieutenant A. W. Greely, 5th Cavalry, acting signal officer and assistant, commanding the Lady Franklin Bay expedition, which I respectfully request may be transmitted to the honorable Secretary of the Navy for his information.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

{2 enclosures.)

NOTE.—Enclosures were copies of 3657 and 3659 Mis., 1881.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(37.)

[Vol. 11, O. C. S. O., pp. 26-27.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Nov. 30, 1881.

To the ADJUTANT-GENERAL,
War Department.

SIR: I have the honor to enclose letter of Augt. 17th, 1881, from 1st Lieutenant A. W. Greely, 5th Cavalry, acting signal officer and assistant O. C. S. O., commanding expedition to Lady Franklin Bay, in the course of which letter he suggests the detail of five enlisted men, one of whom should be a Signal-Service sergeant, to be sent up with the expedition in the summer of 1882.

Subsequent to the date of this letter (enclosure 1) Lieut. Greely was compelled to relieve two men, and he therefore will require seven, one of whom should be a Signal-Service sergeant. The remaining six he asks may be detailed from the Army, from volunteers. Of the six he named Sergeant Braiul, 2d Cavalry, Sergeant Hamburg, Company E, 10th Infantry, as proper men, if they continue physically and morally fit for the detail.

I have the honor to ask that the General of the Army call for such reports or volunteer offers as shall enable these places to be supplied by well instructed and hardy men, who have had some sea experience, possessed of some degree of mechanical skill, and accustomed from the nature of their service to severe winters of the northwest.

They will be required for three years' Arctic service. These men will not be needed until early in June, 1882, by which time they should reach this city.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. General, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(38.)

[Vol. 11, O. C. S. O., pp. 68-69.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Dec. 2, 1881.

The honorable the SECRETARY OF WAR:

SIR: I have the honor to enclose herewith a copy of a letter received from Lieut. A. W. Greely, acting signal officer and assistant O. C. S. O., commanding expedition to Lady Franklin Bay, under an act of Congress approved May 1st, 1880, and assigned by General Orders No. 35, Adjutant General's Office, 1881, in which he estimates that

the sum of \$33,000—\$13,000 of which should be immediately available—will be needed for the support of his expedition for the next fiscal year.

As I entirely approve of the sum named, and believe it to be essential to the support of the expedition in those distant regions, and regard it as incumbent upon the Government to make proper provision for the safety, support, and relief of that party by sending a vessel to them about the 1st of July next. I earnestly recommend that this paper be referred through the proper channels, recommended to the favorable action of Congress, and that the amount, \$25,000, estimated for in my annual estimates, be replaced by the amount named herein. As the expedition should sail not later than the 1st of July next, the importance of appropriating the \$13,000 of the sum required to be available immediately upon the passage of the act will, in view of the fact that the amount appropriated for the current fiscal year has been entirely expended, be too apparently necessary to require any extended recommendation. It will be observed that at the date of my former estimate, the enclosed letter from Lieut. Greely had not been received.

I am, very respectfully, your obedient servant,

W. B. HAZEN,

Brig. and Bvt. Maj. General, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,

Chief Signal Officer.

Nov. 9, 1883.

(39.)

[Vol. 11, O. C. S. O., p. 95.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Dec. 3d, 1881.

To the SURGEON-GENERAL, *U. S. Army*:

SIR: Referring to your endorsement of the 30th ult. on Lieut. A. W. Greely's request to be furnished with certain publications of your Department, forwarded by this office, asking to be informed at what time it is proposed to send supplies to Lady Franklin Bay, and stating that a package of the publications requested will be prepared for transmission to that point, I have the honor to inform you that the next party for Lady Franklin Bay will go up about the 1st of July next.

The vessel is not yet chartered for the purpose, and it is proposed to give due notice, before she is ready, of the date of sailing.

I am, very respectfully, your obedient servant,

W. B. HAZEN,

Brig. and Bvt. Maj. General, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,

Chief Signal Officer.

Nov. 9, 1883.

(40.)

[Vol. 11, O. C. S. O., p. 103 and 104.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Dec. 5th, 1881.

Mr. JAMES BEETLE,
New Bedford, Mass.:

SIR: Please build for this office, for use of the expedition of explorations and observations in the Arctic seas, 2 whale-boats, with sail, to have 12 spare 14-ft. oars, made especially light and strong.

You will please notify office when done, which must be before next June.

I am, very respectfully, your obedient servant,

W. B. HAZEN,

Brig. & Bvt. Maj. General, Chief Signal Officer, U. S. A.

Lady Franklin Bay.

Official copy from the records of the Signal Office.

W. B. HAZEN,

Chief Signal Officer.

Nov. 9, 1883.

(41.)

[Vol. 11, O. C. S. O., pp. 101, 102, and 103.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Dec. 5, 1881.

Messrs. BROWNING BROS.,
St. John's, Newfoundland:

GENTLEMEN: You are invited to make proposals to furnish this office, for the use of the expedition of exploration and observation in the Arctic seas, the following described supplies:

- 5 doz. cloth gloves, well made, good material, Nos. 9, 10, and 11.
- 50 yards heavy red flannel.
- 40 pairs drawers (made up), to be made of blanketing costing about forty (40) or fifty (50) cents per yard, and to be two largest sizes.
- 6 doz. towels, good strong material and fair size.
- 300 cans lobster.
- 10 lbs. resin.
- 144 cans salmon, 2-lb. cans.
- $\frac{1}{2}$ cord birch fire-wood (split, but not sawed).
- 3 M feet boards, 1" kiln-dried, well dressed, 14 ft.
- $1\frac{1}{2}$ M " " flooring, 14 feet.
- $1\frac{1}{2}$ M " " best pine, for repairing boats.
- $2\frac{1}{2}$ M " " scantling (1 M "2x4," 1 M "2x6," and $\frac{1}{2}$ M "2x8") kiln-dried, well dressed.
- 200 yards canvas, suitable for light sails.
- 5 packages copper nails (1 1", 2 $1\frac{1}{2}$ ", and 2 2").
- 432 boxes matches, wax, in tin boxes.
- 1,000 bricks.
- 6 pails, galvanized iron.
- 2 bbls. cement.
- 240 fathoms rope, 1.5 (120 f.) and 2.5 (120 f.) inches.
- 100 lbs. tow, pitched.
- 2 gross screws, assorted.
- 3 balls sailmaker's twine.

All to be ready and to be paid for next summer, after appropriations shall have been made for same, when the relief steamer may leave for Lady Franklin Bay.

None but good articles will be considered, and payment not made for same until they have been inspected and accepted by some one designated by this office.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. General, Chief Signal Officer, U. S. A.

NOTE.—Above letter also sent to Messrs. J. & W. Stewart, St. John's, Newfoundland; Mr. C. F. Bennett, St. John's, Newfoundland; Messrs. Munn & Co., Harbor Grace, Newfoundland; Messrs. Grieve & Co., St. John's, Newfoundland.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(42.)

[Vol. 11, O. C. S. O., pp. 100, 101.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, D. C., Dec. 5th, 1881.

MR. J. DE HEGERMANN LINDENCRONE,
Danish Minister, Washington, D. C.:

SIR: I have the honor to request that your Government may kindly direct that the following named articles be prepared and ready, if practicable, at Godhaven, Greenland, for the use of the Lady Franklin Bay expedition, commanded by Lieut. A. W. Greely, 5th Cavalry, and acting signal officer, U. S. Army, to be called for by the relief or supply vessel, which will probably reach Godhaven during July, 1882:

- 26 Temiaks, largest sizes.

46 sealskin pants, largest sizes.
 10 sleeping bags, lined with dog-skin, large enough for two men of large stature.
 500 pounds "matak" skin of white whale.
 150 coils of thongs, for traces and lines.
 10 dogs, with two (2) months' dog food to last en route.
 Suitable sealskin for 20 dog harness.

The order for these should be made from Copenhagen by the first vessel.

It is important that no time should be lost in arranging therefor, as it is understood the first Danish ship leaves early in March, reaching Godhaven about the first of May.

If all of the above-mentioned articles cannot be obtained, as much as may be practicable should be made ready.

Payment to be made at this office by prompt remittances on presentation of bill with evidence certified thereon that the supplies have been delivered as requested.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. General, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(43.)

[Vol. 11, O. C. S. O., pp. 98, 99, 100.]

WAR DEPARTMENT,
 OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Dec. 5th, 1881.

Mr. F. N. MOLLOY,
United States Consul, St. John's, N. F. :

SIR: This office is about to invite proposals for certain supplies to go by the relief boat next summer to Lady Franklin Bay, for the continuance of the explorations in the Arctic seas, and desires to obtain your aid in securing good quality.

The proposals will come from parties at St. John's, and probably one from Harbor Grace. It is proposed to have the stores delivered at St. John's.

It will be necessary for some one to inspect and pass upon them before the office makes payment, and it is requested if you will kindly look after the matter, that you will please signify your willingness to do so, that the office may feel at liberty to communicate you proper information at the necessary time.

Please find enclosed for your information letter to United States consul, Stockholm, Sweden.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. General, Chief Signal Officer, U. S. A.

Encl. was a copy of the following letter :

WAR DEPARTMENT,
 OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Dec. 5th, 1881.

UNITED STATES CONSUL,
Stockholm, Sweden :

SIR: I have the honor to request that you please order for this office to send to Lady Franklin Bay for expedition of exploration and making observations in the Arctic seas, 300 2-lb. cans preserved mulberries, causing them to be addressed to the Chief Signal Officer, U. S. Army, and contents marked on outside of packages and the words for "Lady Franklin Bay," care of the U. S. consul at St. John's, Newfoundland, which point they must reach early in June next.

The office is informed that they can be had only in Sweden, hence the necessity for the request, with which please give compliance and greatly oblige.

The bill for same should be forwarded to the U. S. consul, St. John's, Newfoundland, for certificate of receipt of goods there by him, and transmitted to the office for settlement.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. General, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

CORRESPONDENCE RELATING TO LADY FRANKLIN BAY RELIEF EXPEDITION OF 1882.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, November 9, 1883.

Maj. HENRY GOODFELLOW,
Judge Advocate, Washington, D. C.:

SIR: I have the honor to send herewith, with the list of inclosures attached, the principal correspondence relating to the Lady Franklin Bay relief expedition of 1882.
Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen., Chief Signal Officer, U. S. A.

(44.)

Letters sent.				Letters received.			
Book.	Vol.	Page.	Address.	No.	Book.	Year.	Who from.
C. S. O	16	249, 250	Secretary of War.	2423	Mis	1882	Secretary of War.
C. S. O	16	169, 170	Wm. M. Beebe.	2658	Mis	1882	T. N. Molloy.
C. S. O	16	264	Chief Signal Office.	2653	Mis	1882	Wm. M. Beebe.
C. S. O	16	268	Wm. M. Beebe.	2900	Mis	1882	S. Dana Greene.
Mis	16	320	Do.	2914	Mis	1882	Thos. N. Molloy.
C. S. O	16	267	Com'd'r S. D. Greene.	2853	Mis	1882	Wm. M. Beebe.
C. S. O	16	453, 454	Secretary of War.	2848	Mis	1882	W. B. Hazen.
C. S. O	17	139	Do.	3268	Mis	1882	Wm. M. Beebe.
C. S. O	17	170	Do.	3361	Mis	1882	Do.
C. S. O	16	436-439	Do.	3464	Mis	1882	Do.
C. S. O	17	530	Adjutant-General.	3848	Mis	1882	Do.
Mis	16	368	Capt. Wm. H. Clapp.	3248	Mis	1882	Do.
C. S. O	17	310	Wm. M. Beebe.	3285	Mis	1882	Do.
Mis	16	371	Lieut. A. W. Greely.	5035	Mis	1882	Do.
Mis	16	368	Do.	5416	Mis	1882	Do.
C. S. O	17	305	Adjutant-General.	5177	Mis	1882	Do.
C. S. O	17	357	General Terry.	2901	Mis	1882	Do.
C. S. O	17	357	Wm. M. Beebe.	3786	Mis	1882	Do.
C. S. O	17	413	Quartermaster-General.	5296	Mis	1882	Do.
C. S. O	17	432	Wm. M. Beebe.	5667	Mis	1882	Do.
C. S. O	16	171, 172	Secretary of War.	5379	Mis	1882	Do.
C. S. O	17	120	Colonel H. C. Hodges.				
C. S. O	17	121	Wm. M. Beebe.				
C. S. O	17	243	Do.				
C. S. O	17	326	Capt. W. H. Clapp.				
C. S. O	17	333	Wm. M. Beebe.				
C. S. O	17	356	Capt. Wm. H. Clapp.				
Mis	16	373	Do.				
C. S. O	17	377	Wm. M. Beebe.				
Mis	16	378	Capt. Wm. H. Clapp.				
C. S. O	20	109	Com. John T. Walker.				
C. S. O	20	109	Wm. M. Beebe.				
C. S. O	20	114	Do.				
C. S. O	20	327	Thos. M. Molloy.				
C. S. O	21	411	Secretary of War.				
C. S. O	17	137	Wm. M. Beebe.				
Mis	16	301	Do.				
C. S. O	17	281	Dr. F. H. Hoardley.				
Mis	16	372	Do.				
C. S. O	20	371-374	Secretary of War.				
C. S. O	20	317	Do.				
C. S. O	17	431	Wm. M. Beebe.				
C. S. O	17	436	Lieut. A. W. Greely.				
Mis	16	330	Do.				
Mis	16	359	Do.				

ORDERS

No.	Par.	Date.	
S. O. 53	1	May 6	O. C. S. O.
S. O. 139	1	June 16	A. G. O.
S. O. 140	1	June 17	A. G. O.

(45.)

[Special Orders No. 53.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, May 6, 1882.

1. A Board of officers to consist of—

Captain William H. Clapp, 16th Infantry, Acting Signal Officer,
1st Lieutenant William E. Birkheimer, 3d Artillery, Acting Signal Officer,
2d Lieutenant Joseph S. Powell, Signal Corps, U. S. A., Assistant,

is appointed to meet at this office to-day to consider the whole subject of the supply expeditions for Point Barrow, Alaska, and Lady Franklin Bay.

The Board will carefully study all the papers bearing upon the subject, learn the time the different stores must be shipped from places of purchase to arrive at places of shipment, with ample margin of time, the time and frequency of transit to St. John's, New Foundland, and in fact the entire problem of these expeditions, in order that they may be timely and certain.

The need of sending and when to send, to engage boats, and whatever else requiring timely action will be at once considered and reported.

The Board will meet daily until they have completed the work relating to the relief expeditions.

The junior member will act as recorder.

2. 1st Class Private John A. Guzman, Signal Corps, U. S. Army, will, on receipt of this order, be relieved from duty at Atlantic City, New Jersey, and proceed without delay to Delaware Breakwater, Delaware, and report for duty to 1st Class Private August Schneider, Signal Corps, U. S. Army (in charge of station), reporting immediately upon his arrival by mail to the Chief Signal Officer.

This change of station will be made without expense to the United States for transportation.

It is impracticable for this soldier to carry cooked rations.

3. 1st Class Private George W. Koonce, Signal Corps, U. S. Army, will, on receipt of this order, be relieved from duty at Delaware Breakwater, Delaware, and proceed without delay to Atlantic City, New Jersey, and report for duty to Sergeant James M. Watson, Signal Corps, U. S. Army (in charge of station), reporting immediately upon his arrival by mail to the Chief Signal Officer.

This change of station will be made without expense to the United States for transportation.

It is impracticable for this soldier to carry cooked rations.

4. 2d Class Private Joseph Pahnarts, Signal Corps, U. S. Army, will report in person, without delay, to the Chief Signal Officer for duty in this office.

JAMES W. POWELL, JR.,
Captain 6th Infantry, Acting Chief Signal Officer.

Official:

LOUIS V. CAZIARC,
1st Lieutenant, 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer, U. S. A.

(46.)

[Vol. 16, L. S., pp. 171 and 172.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 8, 1882.

To the Honorable the SECRETARY OF WAR:

SIR: I have the honor to enclose herewith requisition in duplicate for quartermaster, subsistence, and medical stores for the use of the officers and enlisted men stationed at Lady Franklin Bay and at Point Barrow, Alaska.

These requisitions comprise only such stores as are usually issued to troops, and are based upon the actual needs of the expeditions, having in view the uncertainty of being able to reach these stations each year, and also the greater needs of men in that climate. They have been requested by the commanding officers of these expeditions since their arrival at stations. The subsistence stores will be accounted for as sold to

officers and enlisted men, and the clothing as usual in cases of issue. I respectfully request that these requisitions may receive immediate approval, and that orders may issue to the proper officers to have the stores, those for Point Barrow, Alaska, at San Francisco, Cal., and those for Lady Franklin Bay at New York City, in readiness for shipment not later than June 15, 1882.

The supplies for Point Barrow should be invoiced to 1st Lieut. P. H. Ray, 8th Infantry, and those for Lady Franklin Bay to 1st Lieut. A. W. Greely, 5th Cavalry.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

NOTE.—The necessary data to have duplicates made of the enclosures are on file in Capt. Clapp's office.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(47.)

[2423 Mis., 1882.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, May 8, 1882.

To the Honorable the SECRETARY OF WAR:

SIR: It is imperative that an agent be sent at once to St. John's, Newfoundland, to charter a steamer of proper character, and employ an ice-master, to be ready July 1st, to proceed to Lady Franklin Bay, with the outfit for Lieut. Greely's Expedition. He must then proceed to Greenland to secure the supplies called for by Lieut. Greely, that can be had nowhere else. Having secured these stores, and seen their deposition upon the steamer on her arrival, he should return to this city. There ought to be no delay, on account of shortness of time there is left for preparation.

I desire to send Mr. Wm. M. Beebe, now a private in general service—my private secretary. He was an officer of merit on my staff in the war.

The Secretary of the Navy kindly sent an officer—Lieut. Merry—last year to inspect the steamer at St. John's. If he would also cause this service to be performed this year, it would be highly appreciated.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Major Gen'l, Chief Signal Officer, U. S. A.

[1st indorsement.]

WAR DEPARTMENT, *May 10, 1882.*

Approved, but no contracts can be entered into until Congress shall have given an appropriation for the purpose.

ROBERT T. LINCOLN,
Sec'y of War.

[Inclosure.]

MAY 10, 1882.

SIR: Having to-day approved a request of the Chief Signal Officer that an agent be sent at once to St. John's, Newfoundland, whose duty it will be, whenever appropriation shall be made, to charter a steamer of proper character to be ready July 1st, to proceed to Lady Franklin Bay with the fresh supplies for Lieut. Greely's expedition, I have the honor to request that an officer of the Navy be ordered to St. John's to assist in selecting a suitable vessel at as early a date as convenient.

A similar order was issued by the Navy Department last year.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

The Honorable the SECRETARY OF THE NAVY.

[2453—Mis—1882.]

NAVY DEPARTMENT,
BUREAU OF NAVIGATION AND OFFICE OF DETAIL,
Washington, May 13, 1882.

SIR: Proceed to St. John's, Newfoundland, and also to Havre de Grace, Newfoundland, if you should find it necessary, for special duty, in selecting a steam sealer, under the instructions which will be issued to you by the Chief Signal Officer of the Army, and when completed, return to Washington and resume your present duties.

By direction of the Secretary.

Respectfully,

J. G. WALKER,
Chief of Bureau.

Commander S. DANA GREENE,
U. S. Navy, Washington, D. C.

Delivered May 13, 1882.

THOS. SCOTT FILLEBROWN, *Capt.*

Official copy from the records of the Signal Office.

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

(Nov. 9, 1883.)

(48.)

[Vol. 16, L. S., pp. 159 and 170.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May, 8, 1882.

To WM. M. BEEBE :

SIR: You will proceed to St. John's, Newfoundland, and charter a vessel for the relief expedition to Lady Franklin Bay. The vessel must be a staunch steam whaler, well fitted for service in Arctic seas, thoroughly bound in all respects, and ready to depart upon the voyage from St. John's, Newfoundland, not later than July 1st, prox., at which date her pay will commence.

The vessel chartered last year was the steam whaler Proteus, owned by Messrs. J. & W. Stewart, of St. John's. Memoranda regarding her charter, &c., will accompany this letter. You will make the best terms possible, having in view the character of the service to be performed, and the necessity of reaching Lady Franklin Bay. The ship should be equal in character and strength to the Proteus. In drawing the contract you will see that its terms are explicit, and that it is in legal form. You will endeavor to employ a thoroughly competent ice-master to accompany the relief ship, and it is imperative that he be a man of character and experience. He can be contracted with at such rates as you may find necessary—probably about \$75 per month. His services will commence when the vessel is ready to leave St. John's. Having attended to this, you will proceed as speedily as possible to the Greenland settlements, or such of them as you find necessary, for the purpose of procuring certain articles of Arctic clothing, and also dogs and dog food. It is presumed that you can obtain information at St. John's as to where it is most probable these stores can be had, with other information regarding the best course to be pursued. You will endeavor to have the dogs and stores collected at Godhaven or Upernavik in readiness for shipment on the steamer by the time of her arrival, early in July, and especial diligence must be exercised to prevent failure.

Having seen these stores shipped, you will return to your station.

I am, very respectfully,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

NOTE.—A copy of this was sent by mail to Mr. Molloy, U. S. Consul, St. John's, and a copy also by hand of letter to Mr. Molloy, and encl. of Mr. W. M. Beebe.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer, U. S. A.

Nov. 9, '83.

(49.)

[Vol. 16, L. S., pp. 249 and 250.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 12, 1882.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to invite attention to the fact that under the law of March 3, 1881, an expedition was last year sent to Lady Franklin Bay, Grinnell Land, for "observation and exploration in the Arctic seas; for continuing the work of scientific observation and exploration on or near the shores of Lady Franklin Bay," &c., and with the understanding that the party would be left at that isolated station, to be visited year by year, whenever the state of navigation rendered it possible, until finally recalled.

In fulfillment of this understanding, it is necessary that a vessel should be dispatched with men and supplies not later than July 1 next.

I have the honor to ask that, to enable me to carry on this understanding, the President be asked, if in his judgment the circumstances demand it, to call the special attention of Congress to the fact that unless an appropriation is speedily made for this purpose not later than June 1, it will be impossible either to purchase the necessary supplies or to engage a suitable vessel to transport them.

Sections 3679 and 3732 Revised Statutes forbid the execution of any contracts in advance of specific appropriation acts.

The safety of the officers and men who have voluntarily gone to these inhospitable and inaccessible regions may be jeopardized by delay to grant the necessary funds.

I am, very respectfully, your obedient servant,

JAS. W. POWELL,
Captain 6th Infantry, Acting Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

(Nov. 9, 1883.)

(50.)

[Vol. 16, L. S., p. 264.]

(Telegram.)

WASHINGTON, May 12, 1882.

To General HAZEN, *Chief Signal Officer, Saint Louis.*

(If not there forward him.)

Secretary of War is emphatic that no contracts be made for relief expedition until appropriation bill has passed. Beebe leaves next Tuesday on first steamer.

POWELL,

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer, U. S. A.

Nov. 9, '83.

(51.)

[2436—Mis.—1882—Vol. 16, L. S., p. 268.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 13, 1882.

WILLIAM M. BEEBE, *General Service, U. S. A., Washington, D. C.,*

SIR: In making contracts for the hire of a vessel at St John's, Newfoundland, to take men and stores to Lieut. Greely's expedition at Lady Franklin Bay, they are to be binding only in case Congress makes the appropriation, which is certain.

Arrangements must go on, however, the need to aid Greely being above all technicalities.

Report by telegraph the terms and name of vessel, and do not actually sign the

contracts until you receive reply to your telegram, unless they are provisional, that is, dependent upon appropriations by Congress, if you can do so without delaying your departure for Greenland; otherwise sign the provisional contracts as above.

I am, very respectfully, your obedient servant,

JAMES W. POWELL,
Captain 6th Infantry, Acting Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer, U. S. A.

Nov. 9, '83.

(52.)

[Vol. 16, Mis., p. 320.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, May 13, 1882.

Mr. WM. M. BEEBE, *General Service, U. S. A., Washington, D. C.:*

SIR: I am instructed by the Chief Signal Officer to direct that you will make no provisional or other contract for the charter of any vessel, etc., which is not named to you by Commander S. D. Green, U. S. Navy, as suitable for the purpose, and you will please confer with him, and be governed by his judgment in everything affecting the suitability of the vessel for the work.

Very respectfully, yours,

LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

NOTE.—Press copy of above sent to Com'd'r S. D. Green, 1800 "F" street N. W., Washington, D. C., same date.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer, U. S. A.

Nov. 9, '83.

(53.)

[Vol. 16, L. S., p. 267.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 13, 1882.

Commander S. D. GREENE, *U. S. Navy, 1800 H Street N. W., Washington, D. C.:*

SIR: The following instructions are hereby furnished for your guidance in the performance of the duties to which you have been ordered by the Secretary of the Navy:

On arriving at St. John's, N. F., please examine the steam sealers or whalers in that port, with reference to selecting a suitable vessel for carrying supplies through Baffin's Bay to the party under Lieutenant *Greely*, now stationed at Lady Franklin Bay. Upon you will devolve the responsibility of selecting a steamer that will be suited in every way for the duty designed for her by the War Department.

Your duty in St. Johns will cease when you have selected a proper vessel.

In the event that Congress shall not have passed an appropriation for the charter, it will be necessary that you should name several suitable vessels, if possible, in the relative order of merit, to prevent sending another officer, if the signing of the contract should be delayed.

I am, very respectfully, your obedient servant,

JAS. W. POWELL,
Captain 6th Infantry, Acting Chief Signal Officer.

NOTE.—Press copy of letter to Maj. Beebe, signed by Lieut. Caziarc on the 13th May, sent to Comd'r Greene with this letter.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(54.)

[2658—O. C. S. O., Mis.—1882.]

UNITED STATES CONSULATE,
St. John's, N. F., May 19, '82.

Gen'l W. B. HAZEN, *Chief Signal Officer, Washington, D. C.:*

SIR: I beg to own receipt of yours May 8th, introducing W. M. Beebee, in connection with the Lady Franklin Bay expedition, who has not yet put in an appearance. Two of the whaling fleet have left for the west coast of Greenland, others following Monday and Tuesday next. Fear Mr. Beebee, if going by either of those vessels, will be late, as the S. S. "Artic" is so damaged must proceed to Dundee to dock for repairs; no dock available here. By this mail from England have received advices from the U. S. C. of Stockholm of having shipped 139 packages of mullberries for the Lady Franklin Bay expedition.

Several sealing steamers have returned disabled; weather extremely boisterous, and the coast having been so completely blockaded were not able to penetrate to the usual proper sealing ground. The result is now pretty well known, which will about yield $\frac{1}{3}$ of the sealing voyage for past years.

All the fleet will have to go under repairs. I think there will be some difficulty in chartering this season, as only two are fit or available at present, and these would have to proceed to Cape Breton and be docked before going on any voyage. The time is getting short; as there is always some detention at Sydney, it may take 2 or 3 weeks to wait for their turn of docking there.

I am, d'r sir, yours, &c.

T. N. MILLOY, *U. S. C.*

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(55.)

[Vol. 16, Mis., page 330.]

WAR DEPARTMENT, O. C. S. O.,
Washington, May 19, 1882.

1st Lieut. A. W. GREELY,

Acting Signal Officer, and Assist., Commanding expedition to L. F. Bay:

SIR: I am instructed by the Chief Signal Officer to inclose herewith Part II of the Bulletin of the International Polar Com'n. and to inform you that you will find therein, on pp. 47-54, the most recent instructions that have been prepared for the use of the international Polar stations. It is believed that the instructions already given you in G. O. 72 of 1881, cover everything herein provided for, but you will carefully examine these new instructions to assure yourself that your work is conducted in conformity therewith.

I am, very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

I inclosure.

NOTE.—A similar communication to the above was sent this day to Lieut. P. H. Ray, 8th Infantry, commanding expedition to Point Barrow, Alaska.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

No. 20.

PROGRAMME FOR THE INTERNATIONAL POLAR EXPEDITIONS.

The object of Weyprecht's scheme of simultaneous international Polar expeditions is the investigation of the general physical conditions, but especially of the meteorological and magnetical phenomena of the Polar area, and of the regions in its immedi-

ate vicinity, on a common plan which shall have been adopted by international agreement.

The observations are to be made at fixed observatories, in order to increase their certainty; they are to be at least hourly and to cover an entire year, so as to exhibit the diurnal and annual periods of the phenomena; they are to be conducted on a uniform plan, to insure comparability; they are also to be simultaneous, *i. e.*, made in the same year and partly at the same absolute moments of time, so as to furnish materials for tracing the motion of disturbances.

They are finally to be carried out at as many and as uniformly distributed points as is possible, in order to throw light on the distribution of disturbances and to eliminate their influence on the mean results.

The observation of phenomena relating to meteorology and terrestrial magnetism must be placed in the first line, because it is in these departments that the key of the solution of many problems must be sought in the Polar regions. The Conference has divided the observations into "necessary" and "optional," in order to avoid the danger of probable division of powers which might injure the object of the whole of the operations in the case of expeditions only scantily supplied with instruments and observers. Under the class "necessary observations" only those are included which are to be considered as the minimum to be required from all expeditions, because if any of these were omitted serious lacuna would appear in the entire system of observations, and would endanger the deduction of general results.

* The following is the programme which has been adopted at the Conference at St. Petersburg for the observations to be made at the international Polar stations and for their first preliminary discussion:

I.—NECESSARY OBSERVATIONS.

a.—Beginning and ending of the observations.

§ 1. The international Polar stations are to begin their observations as soon as possible after the 1st August, 1882, and end them as late as possible before 1st September, 1883.

b.—Times of observation.

§ 2. The hourly magnetical and meteorological observations may be made according to any time, only the magnetical observations on the term days must always be made according to Göttingen time (mean civil time). The term days are always the 1st and the 15th of every month, except January, where the 2nd is to be taken as the term day instead of the 1st.

c.—Order of the observations.

§ 3. The expeditions are free to choose the order of their observations as they think fit.

d.—Meteorological observations.

§ 4. Air. Temperature. The mercurial thermometers should be read to 0.1° C., the spirit thermometers to at least 0.5° C.

§ 5. The thermometers should be verified at the central meteorological offices, and the spirit thermometers, besides, are to be compared with a mercurial thermometer at the place of observation at as low temperature as possible. The zero point of all thermometers used in the observations is to be determined afresh from time to time.

§ 6. The thermometers are to be placed at a height of at least $1\frac{1}{2}$ to 2 metres above the ground, in a screen like that given by Wild, and which will secure that without excessive interference with the free circulation of the air about them they will be sheltered from all disturbing influences of radiation.

§ 7. The minimum thermometer for the determination of air temperature must be placed under the same conditions as the other thermometers.

§ 8. The temperature of the sea on the surface, and at the depth of every 10 metres, is to be observed wherever possible. The following are suggested as useful instruments for this purpose: Sluggish thermometers by Eckman, Negretti & Zambra, Miller-Casella, &c.

§ 9. Pressure. Every station must at least have a standard mercurial barometer and a good observing mercurial-barometer, besides reserve barometers and aneroids.

§ 10. The barometers must be verified by a Central Meteorological Office, and the observing barometer must be compared at least every week once with the standard barometer.

§ 11. Humidity. The psychrometer and the hair hygrometer are to be used, but at low temperatures they must be compared as often as possible with instruments for direct observation.

§ 12. Wind. The vane and Robinson's anemometer should be arranged to be read off inside the observatory (vide the arrangement of the Swedish instruments at Spitzbergen). The direction of the wind is to be given for every 16 points and according to true bearings. Its velocity should always be given according to Robinson's anemometer, and also estimated Beaufort's scale. As a reserve instrument for measuring the wind-force, in case of injury to Robinson's anemometer, Hagemann's anemometer recommends itself as being simple in management and very strong.

§ 13. Clouds. Form, amount, and direction of motion at various heights are to be observed to 16 points.

§ 14. Rainfall, etc. Occurrence and duration of rain, snow, Graupel (soft hail) are to be noted, and, when possible, the amount.

§ 15. Weather. Thunder-storms, hail, fog, hoarfrost, and optical phenomena are also to be noted.

e.—Observations of terrestrial magnetism.

ABSOLUTE MEASUREMENTS.

§ 16. In determination of absolute declination and inclination the accuracy of one minute is to be aimed at, and in those of the absolute horizontal intensity accuracy of 0.001 of its value.

§ 17. It is decidedly necessary, besides the absolute observations in the observatory itself, to make a series of measurements in its neighborhood, in order to prove the existence of possible local influences.

§ 18. The absolute observations must be conducted in the closest connection and synchronously with the readings of the variation instruments, so as to render it possible to reduce the indications of the latter to absolute value of determination, *c. g.*, the absolute zero points of the different scales. The determinations must be made so frequently that any changes which may occur in the absolute value of the zero point of the scale of the variation apparatus may be detected with the requisite accuracy.

OBSERVATIONS OF VARIATION.

§ 19. The observations of the variations should be extended to all three elements of terrestrial magnetism, and it is desirable that every station should have a complete duplicate system of variation instruments so as to make comparative observations from time to time, and to avoid the risk of the interruption of the observations by any accident.

§ 20. The variation instruments should have small needles and the variation of horizontal intensity should be observed at least on one system with the unifilar apparatus with reflectors. Owing to the serious disturbances which may be expected, the scales of the variation instruments should be extended to at least 5° on each side, and as in certain cases deviations may even exceed these limits, the observers must be prepared to be able to measure even such greater excursions. The apparatus should be erected so as to facilitate, as far as possible, simultaneity of the observations.

§ 21. During the whole time the variations should be read hourly. It is desirable that two readings should be made with an interval of a few minutes; for instance, before and after the exact hour.*

§ 22. As term days the first and 15th day of each month are fixed (only in January the 2nd instead of the 1st is taken); the days are from midnight to midnight Göttingen time (mean civil time). The readings are to be made every 5 minutes, and always at the exact minute, and the three elements should be read as quickly as possible one after the other in the following order:

Horizontal intensity; Declination; Vertical intensity.

§ 23. On such term-days during a whole hour observations every 20 seconds are to be made, but only of the declination. These increased observations for one hour for the different term days are given in the following table:

* In the report of the Hamburg Conference the following separate memorandum of Weyprecht will be found:

In consideration of the fact that I am of opinion that simple hourly readings at epochs which are not precisely defined are insufficient in order to determine for regions of almost uninterrupted disturbance the periods and mean values which would express with sufficient accuracy for the purpose of comparison of the character of the disturbance for the place and epoch; in consideration, also, of the slight increase of labor which is caused by repeating observations at precise moments of time, I decline to be bound by the opinion of the majority of the conference.

I declare that, under any circumstances, in the expedition which will be under my superintendence all three variation instruments will be observed hourly at 53^m, 59^m, 60^m, 61^m, 62^m Göttingen time.

		Göttingen civil time.
1882.	August 1	12— 1 p. m.
	15	1— 2 “ “
	September 1	2— 3 “ “
	15	3— 4 “ “
October	1	4— 5 “ “
	15	5— 6 “ “
November	1	6— 7 “ “
	15	7— 8 “ “
December	1	8— 9 “ “
	15	9—10 “ “
1883.	January 1	10—11 “ “
	15	11—Midn.
February	2	12— 1 a. m.
	15	1— 2 “ “
March	1	2— 3 “ “
	15	3— 4 “ “
April	1	4— 5 “ “
	15	5— 6 “ “
May	1	6— 7 “ “
	15	7— 8 “ “
June	1	8— 9 “ “
	15	9—10 “ “
July	1	10—11 “ “
	15	11—Noon.
August	1	12— 1 p. m.
	15	1— 2 “ “

f.—Auroral observations.

§ 24. The auroras to be observed hourly with regard to shape, color, and motion; the position to be given according to true bearings. The brilliancy of the different parts is to be estimated according to the scale 0—4 (vide Weyprecht: Instructions for the Observation of Aurora, 1881). If general illumination of the aurora is sufficient to read printed matter, its brilliancy is to be estimated in this way and by the method employed in testing eyesight (as for instance according to the scale of Jaeger in Vienna).

§ 25. On the term-days, continuous auroral observations will be carried out.

§ 26. Especially remarkable instances of auroras and magnetic disturbances must be made the subject of special investigations, in order to render it possible to determine the connection of the variations of the phases of these two phenomena.

g.—Astronomical observations.

§ 27. At as much simultaneity as possible is a main object of the observations, determinations of position and time are to be carried out by instruments erected solidly (Universal Instrument, Transit Instrument, etc.), but these are not to exclude the use of good reflecting instruments. Every effort should be made as quickly as possible to determine the longitude of the place with sufficient accuracy for the objects of expedition.

II.—THE OPTIONAL OBSERVATIONS.

§ 28. The Conference recommends the following observations and enquiries to the notice of all gentlemen who have either to draw up instructions for an expedition, or themselves to take part in one.

§ 29. Meteorology. The variation of temperature with height; the temperature of the soil, the snow, and the ice on the surface and at various depths; solar radiation; evaporation at all seasons; the melting of ice in the summer.

§ 30. Terrestrial Magnetism. Occasional absolutely simultaneous readings of all three magnetical instruments, so as to determine accurately the relations between the simultaneous variations of horizontal and vertical intensity.

§ 31. Galvanic earth currents. Observations of earth currents in close connection with magnetic observations and those of auroral phenomena.

§ 32. Hydrographical observations. Observations on currents, on the thickness, structure, and motion of ice, soundings and observations on the physical properties of sea water, e. g., determinations of its temperature and specific gravity: Tidal observations, if possible, by means of automatic apparatus.

§ 33. Aurora. Measurements of the height of the aurora by two observers stationed

about 5 kilometres (3 miles) apart in the line of the magnetic meridian—Spectroscopical observations.*

§ 34. Observations on atmospheric electricity; on astronomical and terrestrial refraction; on twilight †; on the length of the seconds pendulum; on the growth and structure of floating ice and glaciers. The collections of samples of air for Analysis.—Observations and collections in the departments of Zoology, Botany, Geology, etc., etc.

III.—THE REDUCTIONS AND CALCULATIONS AT THE PLACE OF OBSERVATION.

§ 35. The rules adopted by the Congresses of Vienna and Rome are to be followed in all calculations and reductions of meteorological observations.

§ 36. As regards the discussions of magnetic observations the adoption of the metrical units of Gauss is recommended. From the variation observations the declination and the horizontal and vertical components of the intensity are to be deduced.

IV.—PUBLICATION OF THE OBSERVATIONS.

§ 37. Summaries of the observations are to be sent to the International Polar Commission as soon as possible after the return of the expedition, so as to be published speedily and in a uniform manner. It is desirable, if possible, to send even earlier notices of the fate and general progress of the expedition.

§ 38. All observations are to be published in extenso when their discussion is complete. The International Polar Commission will, therefore, be reassembled for a fresh Conference, to learn the amount of information which has been obtained, and to come to an agreement as to the best mode of its publication.

§ 39. In this publication the metric scale will be used, and all temperatures expressed on the centigrade scale.

(56.)

[2653 Mis., 1882.]

(Telegram received May 25, 1882, from St. John's, N. F. 25.)

To HAZEN,

Chief Signal Officer, U. S. A., Wash'n, D. C. :

Just arrived well. Last whaler leaves to-day, and will not go direct to Greenland. What orders. Com'd'r Greene sails per Phoenician June first.

W. M. BEEBEE, JR.

24 collect.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(57.)

[Vol. 16 L. S., pp. 436 to 439, incl.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 25, 1882.

To the honorable the SECRETARY OF WAR:

SIR: In the letter from your office of the 18th inst., representing to the President the necessity of speedy action in appropriating money for the supply expedition to Lady Franklin Bay, a copy of which was furnished this Bureau, there appears the following in reference to the understanding of the "necessity of a special appropriation:—"

* In connection with this paragraph Prof. Lemström handed to the Conference in St. Petersburg a proposal for observations which he considers suitable to prove that the aurora is produced by an electric current passing upwards in the atmosphere. This proposal is printed among the protocols of that conference.

† Prof. von Bezold has drawn attention to the importance of observations of twilight, in a letter addressed to the commission. (Vide Appendices to the Protocols of the Conference at St. Petersburg and Pogg. Ann. Vol. CXXIII, 1874.)

"Observing that mention is made by the Acting Chief Signal Officer of an understanding had, that the party composing the expedition of last year would remain at the point of their destination, to be visited year by year whenever the state of navigation rendered it possible, until finally recalled, I have to remark that I know of no such understanding.

"The original act of 1880 authorized the establishment a 'temporary station,' and the act of March 3d, 1881, made an appropriation for the transportation of men and supplies to said location and return. I enclose statement showing the general character of the distribution made by the Chief Signal Officer of the appropriation of last year, from which it will be seen that the appropriation was exhausted in the purchase of such supplies as are not included in regular army supplies, and in the transportation of the expedition to its station, leaving no provision for its return."

In my opinion this tends to misapprehension regarding the original character, scope, and purpose of this Arctic work, is likely to lead the President and Congress to infer that the Chief Signal Officer had improperly distributed the appropriation of last year, and it may be so misleading as to defeat its further prosecution.

The stations at Lady Franklin Bay and Point Barrow were established as a part of a system of international work that had been for years under consideration, in extending stations quite around the pole, under the auspices and co-operation of eight of the great powers of the Northern hemisphere for the determination of certain scientific questions, requiring a series of simultaneous observations extending through two, three, or more years. This was thoroughly understood by the President and by Congress, as I was told by such Senators and Representatives as were most interested in the work and who seemed to have the bill authorizing it in charge, before the work commenced, and without that understanding the work never could have been commenced. The enclosed report of the Hon. W. C. Whitthorne, of the House Committee of the 46th Congress, upon the bill authorizing the station at Lady Franklin Bay, speaks for that body, especially on pages 1, 5, and 7, which is the foundation and text upon which these expeditions were formed, established, and conducted. As it may be objected that this report relates only to the act of Congress approved May 1st, 1880, it should be observed in this connection that the act approved March 3d, 1881, in the use of the language, "For continuing the work," &c., plainly means for continuing the work referred to in Mr. Whitthorne's report and on the plan therein fully set forth.

I, as the member of the International Polar Commission under whose immediate charge the part of the work undertaken by the United States was placed, supposed the Secretary of War fully understood this, and did what I could to lay this portion of the work fully before him. The plan so clearly set forth in the Committee's report, page 7, that of yearly visiting, is the only one ever thought of by those having the work in charge, that Congress seemed to require or that could promise any useful results.

The appropriation was distributed in the only way possible for any useful purpose, since it took twenty of the twenty-five thousand dollars for the charter of a safe and proper ship, leaving only five thousand for the purchase of such supplies as the Government does not furnish to troops, and which were indispensable to life in the Arctic regions. Upon careful inquiry of members of the committees in Congress before the Lady Franklin Bay expedition left last year, as to the meaning of the words in the appropriation bill "and return," it appeared that it only referred to the return of the ship and such parts of the expedition as it might be necessary to send back, since no other construction was admissible in connection with the whole scheme of the work. I therefore respectfully ask that this information be forwarded to the President and there filed with the letter to which this one refers.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

1 enc.

NOTE.—Enc. was report No. 453 H. R., 2d session, 46th Congress.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

S. Ex. 100—AP—4

(58.)

[Vol. 16 S. S., pp. 453 & 454.]

WAR DEPARTMENT.
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 26, 1882.

To the honorable the SECRETARY OF WAR,
(Thro' the Adjutant-General, War Dep't):

SIR: I have the honor to forward a copy of the plan of the Lady Franklin Bay expedition, a copy of which was furnished this office last year by the Adjutant-General. It will be seen that the plan was substantially the same as agreed upon by the President and Secretary of War the previous year.

In connection with my letter of yesterday, touching the organization and purposes of the expedition to Lady Franklin Bay, and in support of the views which I have set forth, that there existed "an understanding both with Congress and the Department which has in no respect been violated," and that the obligation rests upon the Government to send a supply expedition each year to that station until its work is completed, I have the honor to ask that this letter be forwarded with that of yesterday to his Excellency the President.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

1 enc. (copy of enc. to 831 ms., '81).

Official copy from the records of the Signal Office.

Nov. 9, '83.

W. B. HAZEN,
Chief Signal Officer.

(59.)

[2900 Mis., 1882.]

ST. JOHN'S, NEWFOUNDLAND,
May 27, 1882.

Major-General W. B. HAZEN.

Chief Signal Officer, U. S. Army, Washington, D. C.:

SIR: I have the honor to inform you that I arrived at this place late in the evening of the 24th inst., with Mr. Wm. M. Beebe, general service U. S. Army.

We immediately called upon Mr. Molloy, the U. S. consul, but found him absent from his residence. We were not able to communicate with him until about 10 o'clock on the morning of the 25th inst.

I have inspected the steam sealers that are in this harbor and find the following vessels suitable to carry supplies to the party under the command of Lieutenant Greely, stationed at Lady Franklin Bay.

The Proteus, Neptune, Bear, Ranger, and Hector. They are all propellers, with lifting screws, bark or barkentine rigged, strongly built, and well found and equipped for the service required of them.

The first three are about 680 gross tonnage, with an average speed of eight (8) knots per hour, and they are similar in every respect, almost sister ships. The last two mentioned are about 430 gross tonnage, with an average speed of seven (7) knots per hour.

I have recommended to Mr. Beebe that either the Proteus, Neptune, or Bear be selected, on account of their superior steam-power, enabling them to push through the ice.

The Proteus made a successful voyage last year, carrying Lient. Greely and his party to Lady Franklin Bay.

A vessel named the Vanguard, of Harbor Grace, is well recommended, but as she is absent on a voyage, I have not been able to inspect her.

Very respectfully, your obt servant,

S. D. GREENE,
Com'd U. S. N.

Official copy from the records of the Signal Office.

Nov. 9, '83.

W. B. HAZEN,
Chief Signal Officer.

(60.)

[2914 Mis., 1882.]

UNITED STATES CONSULATE,
St. John's, N. F., May 30, 1882.

Gen'l W. B. HAZEN,

Chief Signal Officer, Washington, D. C.:

SIR: By this mail you will receive copy of tenders from Major Beebe (who has telegraphed this day), from owners of S. S. Neptune & Proteus, and would strongly recommend the Proteus, with Pike master, than any other steamer that may tender, as he is well acquainted with all points that are required for making the necessary deposits of supplies for the successful carrying out of the expedition. No insurance can be effected by owners on these steamers.

Yours, most respectfully,

THOS. N. MOLLOY,
U. S. Consul.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

NOV. 9, '83.

(61.)

[2853 Mis., 1882.]

[Telegram, 202 coll., n. p. Received at, May 31st, 1882, 9.20 a. m., from St. John's, N. F., 31.]

To HAZEN,

Chief Signal Officer, Wash'n, D. C.:

Job Brothers tender Neptune, six thousand dollars month, payable montly, draft on Treasury, the hire to be paid for three and one-half months certain, from July first; if detained, to be at same rate per month until return; event of loss, or abandonment, to be paid to date of casualty. Subsist men, four dollars week; if coal needed, five dollars ton. Hector, smaller ship, same conditions, four thousand five hundred per month.

Stewart tender Proteus; hire until her arrival here, or until Oct. first, twenty-six thousand four hundred dollars, payable by two drafts before sailing, first at sight, second at three months demurrage; from first Oct., four thousand four hundred dollars month, in advance, by sight draft endorsed by consul; vessel lost or non-arrival at St. John's by first January, eighty-three, Government to pay value of vessel, eighty thousand dollars, by sight draft, all Newfoundland currency, free of expense or deduction of any kind: if vessel reverts to us wages and victualing of crew, ship expenses generally, to be paid by us from date specified; subsist men, five dollars per week; coal needed, three dollars ton. Telegraph definite instructions regard to making final contract; earnestly request to accompany expedition.

BEEBE.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

NOV. 9, '83.

(62.)

[2901 Mis., 1882.]

ST. JOHN'S, NEWFOUNDLAND, May 31st, 1882.

Gen'l W. B. HAZEN,

Chief Signal Officer, U. S. Army:

GENERAL: I have the honor to report that in compliance with your letter of instruction dated "Washington, D. C., May 8th, 1882," I sailed by the first steamer available, the Hibernia, from Baltimore, on the morning of the 17th instant, and reached St. John's, Newfoundland, on the evening of the 24th.

In company with Commander Greene I at once called at the residence of the U. S. consul, but was unable to see him until about 10 o'clock on the morning of the 25th,

when he informed me that the last vessel for the Greenland coast would sail that day. Of this I immediately informed you by telegraph, but the vessel had sailed before your reply, directing me to turn over to Commander Greene the Newfoundland business and proceed to Greenland, was received.

I accompanied Comdr Greene in his inspection of the vessels named in his report and telegraphed Munn & Co., of Harbor Grace, in reference to the Vanguard, which was recommended as a suitable ship for the expedition, but was informed in reply that she was absent on a voyage to Montreal and would have to be docked before being fit for an Arctic voyage.

The choice of vessels as recommended by Commander Greene being reduced to three, viz, the Proteus, owned by J. W. Stewart; the Neptune, Job Brothers; and the Bear, W. Grieve & Co. owners. I invited proposals from these firms with the result telegraphed you to-day, W. Grieve & Co.'s representative and manager informing me that the Bear was ordered home for repairs and would not be available for the duty required.

Mr. Syme, the representative of J. W. Stewart, anticipating that they would be called upon for proposals, telegraphed the head of the house in England, asking instructions before our arrival, but did not receive a reply until yesterday, the 30th, and sent me their bid late at night. Their proposal and that of Job Bros. was this day telegraphed you.

With reference to the stores ordered to be purchased here, I have respectfully to report that I visited the firms recommended by Lieut. Greely in his letter of Oct. 29th, 1881, in which he made requisition for supplies, and found that they could be furnished only by Job Brothers and J. W. Stewart.

Altho' the prices offered by the former were somewhat less, the articles offered by Stewart were so far superior in quality, especially the boots, that I regarded it as economical and prudent to accept their proposal.

With reference to the ice master I have thus far done nothing. The Captain Buckingham named by Lieut. Greely does not reside here, but at New Bedford.

Should the Proteus be selected, her Captain, Pike, would need no ice master, as he is pronounced universally to be the best in the country.

As an extra inducement for vigilance I would suggest that Capt. Pike be paid two hundred dollars extra if his voyage proves successful.

I am, very respectfully, your obt' servant,

W. M. BEEBE, JR.,
Pirate, General Service U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(63.)

[2848 Mis., 1882.]

[Telegram received at June 1st, 1882, 1.02 p. m., from New York. 1.]

To CAZIARC,
Signal Of's, Wash'n., D. C.

Make proposition for Proteus same as last year; if declined close for Neptune on best possible terms; same captain as last year preferred; ambulance at B. and O. at ten p. m.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(64.)

[3177 Mis., 1882.]

Personal.]

ST. JOHN'S, NEWFOUNDLAND,
June 4th, 1882.

MY DEAR GENERAL: I need scarcely assure you that your telegram of to-day, assuring me that all was satisfactory regarding charter of steamer, and that I might go to

Grimell Land, was most gratifying. Am having cheap outfit made. After I parted with you on your departure for St. Louis, and I began to comprehend fully the difficulties I might expect to encounter, on account of the lateness of the season, contradictory reports concerning probable departure of whales for Greenland, etc., and with my full appreciation of the great importance not only to Greely's party, but to *your reputation*, of a successful voyage, I regretted that some one else more competent and experienced had not been assigned to the duty, and when finally I arrived here too late to get passage to Greenland and found that you were in the power of these people for a vessel upon their own terms, I felt that I should return in disgrace. I knew full well, of course, that I had neglected nothing that was within my power to insure success, but I feared that you might not, at that distance, appreciate the difficulties.

I was delayed in arriving at any decision, waiting for Stewart to reply from England to his agent's cablegrams, and finally when his proposal came my heart sank within me. Job Brothers' tender was far more exorbitant than I had anticipated, and Stewart's *crushed* me.

I am very glad that I am to go, *that is, if I am to go as your immediate representative*. I am daily and hourly obtaining information that will be of use, but unless I have some especial assignment, my position as a *private*, general service—with a sergeant on board—will be embarrassing and anomalous.

I should either be made a sergeant dating back to rank whoever may come, or better still (and the President upon your request would, under the circumstances, do it) be made a lieutenant. Otherwise difficulties present themselves to me. Naturally jealousies would occur amongst the men, and to give dignity to my position and authority (which on such duty is of prime importance) I must have rank or its equivalent, in the form of orders which cannot be disputed.

Norman—last year, first mate of the Proteus—is to go as first mate. He is an excellent man, of much experience on the Greenland coast. He has been with me several hours to-day and I am convinced that he is more thoroughly familiar with the headlands and islands of Smith's Sound and Kennedy Channel than Captain Pike of the Proteus. It was Norman who went ashore with Greely at all points where he made landings to examine caches, etc., and he points out and describes them, with no hesitation.

Commencing at the first point south of Conger, on Greely's proposed line of retreat (should retreat become necessary), there is a cache with records, established by himself (Greely) at Carl Ritter Bay, coming south; and at a point nearly midway between Richardson Bay and C.; Collinson is a depot of supplies left by Capt. Nares; thence south, just above Dobbin Bay, another Nares cache; at Cape Hawkes still another, from which Greely took a whale-boat. Cape Prescott is not down on my chart, but Norman knows its exact locality. It is at the northern entrance to Franklin Pierce Bay. At that point Greely wishes a whale-boat left to enable him to cross F. P. Bay to Bache Island. Thence they would cross the channel (about 25 miles) to Littleton Island, where depot B would be established. Their line of retreat would be thence down Capt. Nares' route to Carey Is., where there is a good boat and a *large* depot of supplies, safe from the depredations of natives, and open sailing southward.

Capt. Nares' chart is on a larger scale and in all respects the best for our guidance. At least two copies should be sent me, and I would like a third for Mr. Molloy, concerning whom I cannot speak too highly.

Norman is sanguine that we will make as good a trip as did the Proteus. He pronounces the Neptune as faster under steam, and as a more powerful ice boat. He has sailed in both and says that while the Proteus—whose boilers are as old as herself—never carries more than seventy pounds steam, the Neptune at high-speed or in butting heavy ice, carries 100 lbs. Her boiler is only three years old. Altogether I am quite satisfied with the Neptune, and think we will surely get up if we cannot get back.

The Neptune will go on Wednesday or Thursday to Sidney for dockage and examination, and be back ready to receive stores by Monday, 25th. I would suggest that stores enumerated for caches (Depots "A" and "B"), as specified in Lieut. Greely's letter of August 17th, '81, from Fort Conger, should be packed together as compactly as possible where they are purchased (leaving room only for the mulberry preserves, which will be here by next steamer), and the contents distinctly painted on packages. Such work can be done more expeditiously and cheaper there than here.

For my own use I would like to have sent a Winchester rifle and ammunition, a good field-glass, and a modern Colt's revolver, with ammunition, together with such other articles as may be deemed useful and which can be issued to me. I will send to Lieut. Craig power of attorney to draw my August pay, and to Weimer a list of articles which I would be glad to have him purchase and send forward to me by the S. S. sergeant who will accompany the expedition.

JUNE 7TH—Evening.

The steamer Prussian from Ba'to, just in, but as the mail will not be distributed until 9 o'clock and the Neptune has "cleared," and will sail early in the morning for Sidney, where this will be mailed, I cannot delay, but will write again by next steamer, which will leave on Monday or Tuesday. I send by this the rough copy of contract; will forward your copy by regular mail.

Mr. Molloy, whose interest and activity deserves and should receive official recognition, will send to Greely's party a sow (with young), and suggests that two more should be purchased and sent; will cost about ten dollars each. He also suggests sending two fat cows or steers for fresh beef, cost about 30 each, and half dozen sheep, also some poultry. He has ordered from Sidney two tons baled hay for cattle and sheep, which he will keep himself if you do not approve live-stock purchase. I have bought for them, at three cents each, two doz. fresh coconuts from a ship just in from the tropics.

Capt. Sopp arrived last night. Tell Com'd'r Greene that I like Sopp's appearance better than Pike's. He is a much more intelligent man and will have good discipline. Every one speaks in the highest terms of him as a navigator, and an old captain of the Vanguard told me this evening that Norman had sailed with him two years and was the best pilot for northern waters in this port.

With Norman I have already made friends. He has a master's certificate and is ambitious to go to Ba'to, or N. Y. and get command of a vessel next season. I told him that should he succeed in piloting us safely and successfully to Conger and back within the three and a half months I would promise him the aid of your influence and that of such boards of trade as you could command in securing a ship. Please send me some such assurance for him over your signature. Amongst Norman's other acquirements or accomplishments he speaks the native languages.

Please present my respectful regards to Mrs. Hazen, whose kind words of encouragement I shall never forget. I hope to bring you—to present to her—some eider duck skins, which I am told the natives prepare and sew together so deftly that you cannot see where they are joined—beautiful cloak lining. My love to little John and kind regards to every one at the office, including "Jess," John, and George. My especial regards to Lieuts. Caziare, Duuwoody, Craig, and Storey, Capt. Powell and Mr. Nelson, and Capt. Clapp.

Now, General, I have done my utmost thus far to meet with your unqualified approval, and shall continue so to do. If zeal and unflinching effort on my part can make the trip a success a success it will be.

Please write me fully. Please drop a line to my father at Hudson telling him of your approval of me, and believe me ever,

Faithfully yours,

BEEBE.

P. S.—Norman was in to see me and says that with the exception of the pigs, which can be penned in the hold or lower deck, live stock is impracticable on account of the dogs. He thinks Greely's dogs are all dead of disease which made its appearance last year. Had I not better buy twenty instead of ten, the number asked for?

General, the stores should all be here and in readiness to load by the 25th instant. There were annoying delays last year. There is nothing here now excepting the few articles purchased by me. The mulberries are on their way.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(65.)

[Vol. 17, pg. 120.]

(Copy.)

WAR DEPARTMENT, OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 6, 1882.

Colonel H. C. HODGES,

In charge Quartermaster's Dep't, New York City:

SIR: I have the honor to forward herewith list exhibiting purchases made in New York, on the 1st, 2d, and 3d inst., by agent of this office, which purchases were ordered delivered to the Quartermaster's Dep't, addressed to "Lt. A. W. Greely, Fort

Conger, Grinnell Land, for Lady Franklin Bay Expedition." Bills for the above were to be sent to this office, accompanied by receipt from Quartermaster's Dept. for articles invoiced.

It is requested that this office be notified if the supplies are not received *this week* that prompt measures may be taken to secure their delivery without further delay.

I am, very respectfully, your obed. servant.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

No. of pkg.	Articles.	Pack'ges.	Ordered of—
192	Cans blueberries.....	2 lbs.....	Kemp, Day & Co., 100 Murray str.
50	Buckets peach butter.....	5 ".....	Thurber & Co. } W. Broadway,
50	" " pear ".....	5 ".....	" " } Reade & Hudson st.
50	" " plum ".....	5 ".....	" " }
50	Lbs. dried cherries.....	.....	E. C. Hazard & Co., 196 Chambers st.
4	$\frac{1}{2}$ bbls. cider.....	.....	Thurber & Co.
100	Cans chicken.....	.....	" "
300	" " carrots.....	.....	Kemp, Day & Co.
200	" " choc. mlhe.....	.....	Powell & Coleman, 152 Chambers str.
306	" " coffee.....	1 ".....	Cond. Milk Co., 79 Murray str.
24	Bottles horse-radish flour.....	.....	E. C. Hazard & Co.
60	Galls. lime juice.....	3 20-gall. kegs.	Holway, Wright & Miner, 167 Chambers str.
144	Cans okra.....	2 lbs.....	Kemp, Day & Co.
244	" " roast mutton.....	2 ".....	Thurber & Co.
50	" " turkey.....	2 ".....	" "
300	" " turnips.....	12 ".....	Kemp, Day & Co.
408	" " squash.....	3 ".....	Thurber & Co.
120	" " whortleberries.....	2 ".....	Kemp, Day & Co.
60	Galls. N. E. rum.....	3 20-gall. kegs	E. C. Hazard & Co.
96	Cans sausage.....	2 bs.....	Kemp, Day & Co.
5	Doz. cloth gloves.....	Size 9 & 10.....	W. B. Claffin & Co.
50	Yards red flannel, h'vy.....	.....	" "
50	Pairs boots, button or laced, 10 each size, 7, 8, 9, 10 & 11.	.....	Jas. Chambers, 37 Warren str.
10	Lbs. resin.....	.....	Pleasants.
1	" amonia.....	.....	" "
160	Galls. alcohol.....	.....	W. H. Schiefflin & Co., 170 Ana str.
5	Pack'ges cop. nails, 1 1-in., 2 $\frac{1}{2}$ -in., 2 2-in.	$\frac{1}{2}$ bbls..... Packages.....	J. F. Farrington, 32 Howard.
15	Large diaries.....	400 pages.....	F. Appleby, 31 Union sq.
25	Small ".....	300.....	" "
25	Papers tacks, carpet.....	Assorted.....	Farrington, J. F.
5	Lbs. soda ly. sulph.....	.....	Pleasants.
432	Tin boxes matches, wax.....	.....	Farrington, J. F.
5	Ounces pyrogallic acid.....	.....	Pleasants.
1	Nail puller.....	.....	Farrington, J. F.
2	Copper lamps without mag. attachment.....	.....	J. J. Walton, 20 Dey str.
2	Copper lanterns, small bull- eye attachment.....	.....	" "
2	Gross screws.....	Assort. sizes.....	J. F. Farrington.
3	Balls twine, sail-makers.....	.....	" "

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(66.)

[Vol. 17, pg. 121.]

(Copy.)

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 6, 1882.

Mr. W. M. BEEBE:

SIR: Enclosed herewith you will find a list of stores for the Lady Franklin Bay expedition, which must be bought in St. John's. Certain of them, as the fresh vegetables,

you will arrange to have delivered only in time for shipment on the steamer. Most of the stores on the list are of such a character that you can buy them at once, or at least in time to insure their delivery.

It is probable that you will need to have the 40 p'rs of drawers required to be specially made.

Attend to this in time, and see that both material and making are of good quality.

The boards needed should be $\frac{3}{4}$ in. thick, and those for repairing boats of the best quality.

You will purchase the articles on the list, to which the instructions already given you will also apply.

Instructions will be sent you by the next mail regarding the supplies to be prepared for deposit in depots in case the relief-ship shall fail to reach Lieut. Greely.

Respectfully, yours,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Acknowledge receipt of this by telegram.

NOTE.—Above addressed to St. John's, N. F.

Articles to be bought at St. John's for Lady Franklin Bay, and for which no provision has yet been made:

- 40 p'rs drawers, two largest sizes to be made of blanketing.
- 4 bbls. fresh potatoes.
- 1 " " turnips.
- 2 " " parsnips.
- $\frac{1}{2}$ cord (split, but not sawed) birch fire-wood.
- 3,000 ft. kiln-dried boards, 14 feet, mill-dressed.
- 1,500 ft. flooring, 14 feet.
- 1,500 ft. best pine boards for repairing boats.
- 1,000 ft. 2 x 4 scantling, kiln-dried and mill-dressed.
- 1,000 " 2 x 6 " " " " " "
- 500 " 2 x 8 " " " " " "
- 200 yards light canvas for boat sails.
- 1,000 brick.
- 2 b'ls cement.
- 240 fathoms rope, $1\frac{1}{2}$ x $2\frac{1}{2}$ in.
- 100 lbs. tow, picked.

Articles Beebe was to buy at St. John's.

- 6 tons dried seal meat.
- 75 p'rs seal-skin boots (50 unsoled, 25 p'rs soled.)
- 150 " Iceland stockings.
- 5 square flipper seal skins, or if not to be had, ten old dog harp seal skins.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(67.)

[Vol. 17, C. S. O., page 137.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 7, 1882.

Mr. W. M. BEEBE,
St. John's, N. F.:

SIR: Enclosed herewith you will receive an additional copy of Lieut. Greely's letter of August 17, '81, containing suggestions regarding the establishment of supply depots in the event of the relief vessel (being sent this year) failing to reach Lady Franklin Bay. While it is confidently hoped that the vessel may get through, and to this end no effort must be spared, it may occur that the passage cannot be made. In that

event the depots indicated in Lieut. Greely's letter must be established with the stores named at the places he has chosen. That this may be done, should it become necessary, you will cause supplies for depots "A" & "B" to be prepared at St. John's, and to be so loaded as to be readily accessible. As any supplies so left will be liable to exposure for an indefinite period, they must be carefully put up and secured, and, when cached, be protected from the weather and from animals as securely as possible. Great care must be exercised to carry out instructions of Lieut. Greely regarding the location of depots "A" & "B," and also regarding the notices which he wishes deposited.

Should a whale-boat be left as suggested, it should be so secured and protected from weather as to receive the least possible damage.

A complement of oars, &c., will of course be left with each boat, as well as a statement, corked and sealed in a suitable bottle, of the circumstances and purpose of its being left.

I am, very respectfully, yours,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

1 Enc. (copy 3566 Mis. 1881).

Acknowledge by telegraph.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

[3566 Mis., 1881.]

FORT CONGER, GRINNELL LAND,
August 17th, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: I have the honor to recommend that in connection with the vessel to visit this station in 1882 there be sent some captain of the merchant service who has had experience as a whaler and ice-master. Five enlisted men of the Army are requested to replace men invalidated or who are found to be unfit otherwise for the work. One of the number should be a Signal Service sergeant. Sergeant Emory Braine, 2d Cavalry, and Sergeant Martin Hamburg, Company E, 10th Infantry, are recommended most highly, and without they are physically or morally unfitted within the year their detail is requested. The two remaining men should be such as have had some sea experience. All the men should be rigidly examined as to their physical condition. The ice-master should be expected to see that every effort is made to reach this point by the vessel sent. In case the vessel cannot reach this point, a very possible contingency, a depot (No. A) should be made at a permanent point on the east coast of Grinnell Land (west side of Smith Sound or Kennedy Channel), consisting of ninety-six cans chocolate and milk, ninety-six cans coffee and milk, one-half barrel of alcohol, forty-eight mutton, forty-eight beef, one keg rum, forty-eight cans sausage, forty-eight cans mulberry preserves, two barrels bread, one box butter, forty-eight cans condensed milk, one-half barrel onion pickles, forty-eight cans cranberry sauce, forty-eight cans soup, twenty-four cans tomatoes, one gross wax matches (to be in water-tight case), one-eighth cord of wood, one wall-tent (complete), one axe and helve, one whale-boat. At Littleton Island, carefully cached on the western point, out of ordinary sight, with no cairn, should be placed an equal amount (depot B), but no boat. A notice as to the exact locality should be left in the top of the coal (preferably in a corked and sealed bottle), buried a foot deep, which was left on that island. A second notice should be in the edge of the coal furthest inland, and a third in the Nares cairn, now open, which is on summit southwest part of island.

The second boat should be left at Cape Prescott, or very near, in order that if boats are necessarily abandoned above that point one will be available to cross to Bache Island and go to the southward. These boats should be not exceeding forty feet and not less than twenty above high-water mark, and their positions should be marked by substantial scantling, well secured and braced, to the top of which a number of pieces of canvas should be well nailed, so that it may be plainly and easily seen. A second staff, with pieces of canvas, should be raised on a point which shows prominently to the northward, so a party can see it a long distance. Depots A and B should be made ready in Saint John's, and be plainly marked and carefully secured.

The packages during the voyage should be easily accessible. Depot A should be landed at the farthest possible northern point. A few miles is important, and no southing should be permitted to obtain a prominent location. The letters and dis-

patches should all be carefully soldered up in a tin case, and then boxed (at Saint John's) and marked, or put in a well-strapped, water-tight keg, and should be left with depot A if such depot shall be at or north or in plain sight of Cape Hawks, and the newspapers and periodicals left at Littleton Island. If depot A is not so far north, the letters and all mail should be returned to the United States. After making depot B, at Littleton Island, the vessel should, if possible, leave a record of its proceedings at Cape Sabine. If the party does not reach here in 1882, there should be sent in 1883 a capable, energetic officer, with ten (10) men, eight of whom should have had practical sea experience, provided with three whale-boats and ample provisions for forty (40) persons for fifteen months. The list of all provisions taken by me this year would answer exceedingly well. In case the vessel was obliged to turn southward (she should not leave Smith Sound near Cape Sabine before September 15th) it should leave duplicates of depots A and B of 1882 at two different points, one of which should be between Cape Sabine and Bache Island, the other to be an intermediate depot between two depots already established. Similar rules as to indicating locality should be insisted on. Thus the Grinnell Land coast would be covered with seven depots of ten days' provisions in less than three hundred miles, not including the two months' supplies at Cape Hawks.

The party should then proceed to establish a winter station at Polaris winter quarters, Life Boat Cove, where their main duty would be to keep their telescopes on Cape Sabine and the land to the northward. They should have lumber enough for house and observatory, fifty tons of coal, and complete meteorological and magnetic outfit. Being furnished with dogs, sledges, and a native driver, a party of at least six (6) men should proceed, when practicable, to Cape Sabine, whence a sledge party northward of two best fitted men should reach Cape Hawks, if not Cape Collinson. Such action, from advice, experience, and observation, seems to me all that can be done to insure our safety. No deviation from these instructions should be permitted. Latitude of action should not be given to a relief party who on a known coast are searching for men who know their plans and orders.

I am, respectfully, yours,

A. W. GREELY,

1st Lieut. 5th Cavalry, A. S. O. and Ass't, Commanding Expedition.

A true copy.

LOUIS V. CAZIARC,

1st Lieut 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEM,

Chief Signal Officer.

NOV. 9, '83.

MEMORANDA OF DEPOTS CONTAINING SUPPLIES LOCATED IN SMITH SOUND AND KENNEDY CHANNEL.

Southeast Carey Island.

One whale-boat and depot of provisions. (Expedition Sir George Nares, 1875.)
Visited in 1881 by Lieutenant Greely, and supplies reported in good condition.

Littleton Island.

Six and one-half tons of coal on low ground, southwest side of island, facing Cape Alexander. (Greely's expedition, 1881.)
Two hundred and fifty rations left in cache, well secured. (Expedition 1882.)

Cape Sabine.

Small depot of two hundred and forty rations (Nares' expedition, 1875) reported by Lieutenant Greely, but not visited by him.
Visited by expedition 1882, and reported in good condition.

One whale-boat, one-eighth cord of birch-wood, and two hundred and fifty rations left in cache, well secured and covered. (Expedition 1882.) August 31.

Cape Hawks.

Small depot, consisting of bread, two kegs pickles, two kegs rum, two barrels stearine, one barrel preserved potatoes. (Nares' expedition, 1875.)
Reported serviceable by Lieutenant Greely. (Expedition 1881.)

Cape Collinson.

Small depot of two hundred and forty rations (Nares' expedition, 1875) reported by Lieutenant Greely 1881, but each not visited.

Carl Ritter Bay.

Small depot of two hundred and twenty-five bread and meat rations on first bench from the sea, northeast part of the bay. (Lieutenant Greely's expedition, 1881.)

Thank God Harbor.

Depot containing supplies, amount and condition unknown. (Hall's expedition, 1874.)

Cape Isabella.

One whale-boat. (Expedition 1882.)

Highest latitude reached by expedition of 1882, 79° 20' north, August 10.

Highest point at which landing was possible, Cape Sabine, August 31, 1882.

(68.)

[Vol. 17, pg. 139, C. S. O.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 7, 1882.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to acknowledge the receipt of the action of the Secretary of War on my letters of May 25 and 26, declining to forward the same for the information of Congress. This leads me to believe that the purpose of those letters was not understood.

The lives of the party at Lady Franklin Bay depend solely upon timely action here and in the matter in question, and the purpose of those letters was to lay before Congress what appears to me a very important fact. The ship must sail from St. John's, Newfoundland, by July 1st in order to insure the fullest chances of reaching the party, and my letter of May 12th, 1882, was written to impress this fact strongly upon Congress. But the statement of the Secretary of War through the President to Congress, in his letter of May 18, 1882, that he did not know that there was an understanding to keep up these Arctic stations, leaves the inference that there was no such understanding, which cannot fail to weaken the object of my letter, since it takes away a part of the moral obligation to give the party timely support.

It was to lay before Congress in its own published reports the fact that the expedition was one for continuous work, requiring continuous support, in place of one such as it was fair to infer from the letter of the Secretary of War, that the expedition had been authorized for a season, but that the Chief Signal Officer, at his own instance, had seen fit to perpetuate it, but had reserved no part of the original fund intended to bring the party back for that purpose.

It was to correct this with the President as well as with such members of Congress as should be impressed with the Secretary's letter that these letters were sent.

It was to lay before Congress this obligation, as shown in the enclosures with those letters, to send this aid speedily.

As the head of the Bureau immediately responsible for the fitting out of this expedition, and who will now be held to a strict account for the timely success of the party, I forwarded these facts, which it was imperative for Congress to know for its intelligent action.

In forwarding those papers it would seem to the Chief Signal Officer, whose duties constitute him the custodian of the detailed information now required in this case, that he is forbidden to give to Congress all the information needed for its full understanding of the case, or to show to them the absolute obligation and necessity of speedy action, for every day after July 1st the relief vessel is delayed in sailing lessens the chances of reaching these men at all.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(69.)

[Vol. 17, pg. 170, C. S. O. book.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 10, 1882.

The honorable the SECRETARY OF WAR:

SIR: I have the honor to request that Dr. W. A. Applegate, of Springfield, Ohio, may be contracted with as acting assistant surgeon U. S. Army, for duty with the expedition now at Lady Franklin Bay, to relieve Dr. Octave Pavy, who is now at that station and who desires to return.

The last available steamer for St. John's, N. F., leaves New York on the 22d inst., and as Dr. Applegate is still in Ohio, it is suggested that his contract go into effect on the 20th of June, at this city, after he has reported.

Very respectfully, sir, your obedient servant.

JAS. W. POWELL,
Captain 6th Inf'y. Acting Chief Signal Officer, U. S. A.

Official copy of the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(70.)

[3268 Mis., '82.]

ST. JOHN'S, NEWFOUNDLAND,
June 13th, 1882.

Gen'l W. B. HAZEN,
Chief Signal Officer, U. S. Army:

GENERAL: I have the honor to transmit herewith the provisional charter for the steamship Neptune, the original copy of which was forwarded via Sidney, Cape Breton, last week.

I am, very respectfully, your ob't servant,

W. M. BEEBE, JR.,
Private, Gen'l Service, U. S. A.

ST. JOHN'S, NEWFOUNDLAND,
June 3d, 1882.

This agreement, made by Job Brothers & Co., owners of the good steamship Neptune, burthen per register 465 tons net or thereabouts, Wm. Sopp, master, parties of the first part, and William M. Beebe, jr., general service U. S. Army, now in St. John's aforesaid, the agent of the Chief Signal Officer of the Army of the United States of America, and acting on behalf of the Government of the United States, party of the second part, witnesseth: That the parties of the first part agree that in consideration of the terms hereinafter set forth, the said steamship or vessel, being tight, staunch, and strong, and in every way fitted for the voyage hereinafter described, shall be ready for the said voyage and shall be at the disposal of the Chief Signal Officer of the Army of the United States from the first day of July, 1882, when the voyage shall be construed to have begun. And the said party of the second part hereby, in consideration of the aforesaid, contracts to pay for the use of said vessel, for at least three and a half months, at the rate of six thousand dollars (\$6,000) per month of thirty days, in United States currency. The party of the second part further agrees that the said compensation shall be paid at the end of each month, by draft on the office of the Chief Signal Officer, Army of the United States; the first draft, however, not to be made payable earlier than the 25th of July, 1882.

It is also mutually agreed by the parties hereto that should the said vessel be detained on the said voyage beyond the time stipulated above, then the same rate of six thousand dollars per month shall be paid for her until her return to St. John's, Newfoundland, the said expenses to be paid at the end of each month, as is herein provided for the payment of the compensation; provided that in the event of the loss or abandonment of said vessel the party of the second part shall be responsible for the hire aforesaid only to the date upon which such loss or abandonment shall occur.

It is further agreed by the parties of the first part to provide all necessary food and provisions for the force accompanying the relief expedition or returning from Lady Franklin Bay, said food to be equal to the usual ship's fare, and to be furnished at the rate of four dollars (\$4.00) per week of seven (7) days each, in United States currency, for each individual comprising said force; and the party of the second part agrees to pay for the food thus furnished at the same time and in the same draft that final payment is made for the use of said vessel.

It is hereby further mutually agreed that in the event of the force at Lady Franklin Bay (Fort Conger, Discovery Harbor) being in need of coal, the said parties of the first part will deliver to said force, or at points designated by the agent of the Chief Signal Office, such quantity as may be needed to the amount of seventy (70) tons, at the rate of four dollars (\$4.00) per ton, in United States currency, to be drawn for upon the return of the vessel to St. John's.

It is agreed by the party of the second part that persons constituting the relief force shall render the captain and crew of the said vessel all the assistance in their power to expedite the landing of supplies at all points where landings shall be made.

It is further agreed that Lady Franklin Bay (Fort Conger, Discovery Harbor) is the extreme northern point which it is desired that the vessel aforesaid shall reach; but if the master of the vessel and the officer or agent representing the Chief Signal Officer aforesaid, after consultation, shall not agree that it is impracticable to reach said bay by reason of ice barriers, lateness of season, or any other insurmountable obstacle, then the said Wm. Sopp, master aforesaid, may leave Smith Sound (or the northernmost point attainable) to return to St. John's aforesaid not earlier than September first, 1882; and he shall discharge and cache stores as per schedule marked "A," and annexed hereto, in the quantities and at the points named therein, and protected and marked by signals as therein specified.

The parties of the first part hereby agree that this contract shall be performed by them, the act of God, the Queen's enemies, fire, and all and every other danger and accident of the seas, rivers, and navigation of whatsoever kind and nature always excepted.

The party of the first part further agree that they will pay to the agent of the Chief Signal Officer, Army of the United States, as a penalty for non-performance of this contract, the sum herein agreed to be paid by the officer of the Chief Signal Officer aforesaid for the use of said vessel for the period of three and a half months. This contract provisional upon the appropriation by the Congress of the United States.

Signed, executed, and delivered at St. John's, Newfoundland, this third day of June, in the year of our Lord one thousand eight hundred and eighty-two.

JOB BROTHERS & CO.

W. M. BEEBE, JR.,

General Service U. S. Army.

Witnesses:

JOHN JEANS.

THOS. N. MOLLOY,

U. S. Consul.

SCHEDULE "A."

In case the vessel cannot reach Lady Franklin Bay, a depot, No. "A," shall be made at a prominent point on the east coast of Grinnell Land (west side of Smith Sound or Kennedy Channel), consisting of certain stores which will be packed at St. John's, contents plainly marked upon packages, and carefully secured. The articles for this depot will include one whale-boat.

At Littleton Island, carefully cached on western point, out of ordinary sight, with no cairn, shall be placed an equal amount (depot "B"), but no boat. A notice as to the exact locality should be left in the top of the coal (in a corked and sealed bottle), buried a foot deep, which was left on that island. A second notice must be left in the edge of the coal furthest inland, and a third in the Nares cairn, now open, which is on summit S. W. part of island.

The second boat will be left at Cape Prescott, or very near, in order that if boats are necessarily abandoned above that point one will be available to cross to Bache Island and go to the southward. These boats should be left not exceeding forty feet and not less than twenty above high-water mark, and their positions should be marked by substantial scantling, well secured and braided, to the top of which a number of pieces of canvas must be well nailed so that it may be plainly and easily seen. A second staff with pieces of canvas to be raised on a point which shows prominently to the northward, so a party can see it a long distance.

The packages for these depots must be placed where they will be easily accessible during the voyage.

The articles for depot "A" should be landed at the farthest possible northern point. A few miles is important, and no southing should be permitted to obtain a prominent location. The letters and dispatches will be all carefully secured at St. John's, and will be left with depot "A," if such depot shall be at or north or in plain sight of Cape Hawks, and the newspapers and periodicals at Littleton Island. If depot "A" is not so far north, the letters and all mail to be returned to the United States.

After marking depot "B" at Littleton Island the vessel must, if possible, leave a record of her proceedings at Cape Sabine.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(71.)

[Vol. 17, pg. 230, C. S. O.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 15, 1882.

To the ADJUTANT-GENERAL, *War Department:*

SIR: I have the honor to recommend that Acting Assistant Surgeon Frederick H. Hoadley, having contracted with the War Department under authority of the Secretary of War of June 13, 1882, may be assigned by orders to the expeditionary force at Lady Franklin Bay, and directed to proceed from this city, by the way of New York and the Cromwell line of steamers, to St. John's, N. F., thence by public transportation to Lady Franklin Bay, and that transportation in kind be furnished by the route named to St. John's, N. F.

Dr. Hoadley should be instructed to perform the duties of medical officer to the expeditionary force while *en route* to the point of destination.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(72.)

[Vol. 17, pg. 233, C. S. O.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 15, 1882.

Mr. W. M. BEEBE, *St. John's, N. F.:*

SIR: It being impracticable to ship powder by the Cromwell steamers from New York, you will purchase in St. John's twenty-five (25) pounds Dupont's sporting powder and ship same with other supplies for Lieut. Greely.

Respectfully,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(73.)

[Special Orders No. 139.]

HEADQUARTERS OF THE ARMY,
 ADJUTANT-GENERAL'S OFFICE,
 Washington, June 16, 1882.

Extract.

1. By direction of the Secretary of War Acting Assistant Surgeon *Frederick H. Hoadley*, U. S. Army, is assigned to duty with the expeditionary force at Lady Franklin Bay, and will proceed from this city, *via* New York and the Cromwell steamers, to St. John's, Newfoundland, thence by public transportation to Lady Franklin Bay.

The Quartermaster's Department will furnish transportation in kind by the route named to St. John's.

Dr. *Hoadley* will perform the duties of medical officer to the expeditionary force while *en route* to the point of destination.

By command of General Sherman :

R. C. DRUM,
Adjutant-General.

Official :

C. McKEEVER,
Assistant Adjutant-General.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer, U. S. A.

Received O. C. S. O. Jun. 16, 1882.

(74.)

[Special Orders No. 140.]

HEADQUARTERS OF THE ARMY,
 ADJUTANT-GENERAL'S OFFICE,
 Washington, June 17, 1882.

Extract.

1. By the direction of the Secretary of War the following-named enlisted men are assigned to duty with the Lady Franklin Bay expedition, and will proceed without delay from this city to St. John's, Newfoundland, *via* New York City, on the Cromwell line of steamers.

2d Class Private *Joseph Palmarts*, Signal Corps, U. S. Army; Sergeant *George W. Wall*, Company K, 3d Infantry; and Privates *Richard Rogge*, Company H, 3d Infantry; *Henry Brinicombe*, Company C, 3d Infantry; *Joseph Dimson*, Company K, 18th Infantry; *Francis Thoma*, Company F, 5th Infantry; *May Burnell*, Troop M, 2d Cavalry; and *James M. Bean*, Company K, 11th Infantry.

BY COMMAND OF GENERAL SHERMAN :

R. C. DRUM,
Adjutant-General.

OFFICIAL :

H. C. CORBIN,
Assistant Adjutant-General.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Received, O. C. S. O., Jun. 17, 1882.

Chief Signal Officer.

(75.)

[Vol. 16, Mis. p. 361; 3.177 Mis. 1882.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, June 18, 1882.

Mr. WM. M. BEEBE,
Saint John's, Newfoundland :

SIR: In reply to your letter of June 4th, the Chief Signal Officer instructs me to say the men named, enclosure "A," or such of them as have reported, will be directed to report to you to be guided by the following instructions, wherein, though you cannot lawfully be vested with powers of command, it is hoped you will have no difficulty of securing compliance by the use of your personal influence, supported by your official connection as disclosed by this letter.

Dr. Hoadley will go up as medical officer, and you will find his association agreeable.

You will not delay sailing beyond the time necessary to take in the stores and that required to put the ship in serviceable condition.

Your point of destination will be Lady Franklin Bay, Grinnell Land, where you will report to Lieut. Greely for his orders, and when the ship is ready to return you will bring back such dispatches, &c., as Lieut. Greely may entrust to you.

If unable to reach Lady Franklin Bay you will establish the depots "A" & "B," as requested by Lieut. Greely in the memorandum which you have already been furnished.

You will observe that these depots are to be established only in the event that it is impossible to reach Lieut. Greely. The supplies, therefore, under favorable circumstances, all go to Lady Franklin Bay, and those stores which are needed to establish depots "A" & "B" are included.

Capt. Clapp, who goes to New York with the stores, will arrange, as far as possible, for marking the packages so that they may be separated and stowed at Saint John's, convenient for the depots, if it should become necessary to establish them. If he should be unable to complete this it should be done by your men at Saint John's.

If you should be unable to reach Lady Franklin Bay, after establishing the depots you will return with the vessel and the remainder of her stores to Saint John's and report your arrival by telegraph.

Three Nares' charts are sent you by Capt. Clapp, who will put them, with this letter, in the way of reaching you per Cromwell steamer. The mail for Lady Franklin Bay has been packed in a box and distinctly marked "mail," and will be found among the packages sent from New York. It should be specially cared for. Some additional packages will be sent to the latest hour, care of U. S. consul at Saint John's.

Exercise your discretion about the live stock; take what you can. There is no danger of an excess of dogs; twenty-five or thirty would not be too many, provided you secure sufficient dog-food. With regard to arms, the Chief Signal Officer thinks that you can probably get what you need in the ordinary equipment of the ship, but if this fails you are authorized to purchase what may be necessary. I am specially instructed to convey to you in Gen'l Hazen's name his high appreciation of the intelligent service you have rendered in securing those things which were needful at Saint John's, the vessel, her captain, ice-master, and crew, and the supplies necessary to complete Lieut. Greely's outfit.

Please convey to the U. S. consul in advance of the Gen'l's personal assurance his thanks for the the kind services rendered in this and former years.

Yours, very respectfully,

LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

Inclosed with above communication was copy of Par. 1, G. O. No. 14, O. A. G. O. June 17, 1882.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(76.)

[Vol. 16, Mis p. 359.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, June 18, 1882.

1st Lieut. A. W. GREELY,

5th Cavalry, A. S. O. & Asst, Station Conger, Grinnell Land:

SIR: The Chief Signal Officer instructs me to advise you that at this date all needful preparations have been made for your supply for another year, and that the men and stores will leave New York by the Cromwell steamer of the 22d inst., and will be transferred on their arrival at St. John's, Newfoundland, to the steamer "Neptune."

It was intended to send you seven men besides Palmarts, of this service, but only four have so far reported, and the sailing of the ship will not be delayed if the others fail to report. These men are sent only to replace those who have become unfit for further service, and are not to be used to increase the original strength of your party numerically.

The supplies have been furnished in full of your requisitions, and your instructions as to the establishment of depots if the ship is unable to reach your station will be fully complied with. It will be important to know, after your experience of a year, exactly what stores will be required for next year's supply and whether any stores have been supplied in excess of your wants or have fallen short, and what, if any, changes are desired in their preparation or packing. Everything will be done to make your outfit such as shall most perfectly meet your needs, and furnish everything essential to the highest sanitary condition of your command.

An appropriation for thirty-three thousand dollars, covering in terms the supply of your party and that at Point Barrow, for the fiscal year ending June 30, 1883, has already passed the House and will doubtless go through the Senate. Next year estimates will be made on the same basis, but will be subject to correction and explanation when we shall have received your letters.

The Chief Signal Officer desires me to assure you of his continued full confidence, and he feels the greatest interest in your personal welfare, in the welfare of all the members of your party, and in the success of your expedition. He desires that the work undertaken shall conform to the plans originally communicated to you, and at the same time you should have all possible discretion in the manner of its execution. Mr. Beebe will conduct the party and supplies from St. John's, and will return with the vessel. He will explain to you in detail some few additions which have been made to increase your comfort.

Conscious of your strong desire to afford succor to the crew of the Jeannette, if she should have pursued a course to the eastward, the certainty of her fate, now well known, as you will learn through the public prints, will relieve the Chief Signal Officer the anxiety which he has felt lest, with a view to affording them relief, you should unhappily have encountered any misfortune yourself.

Very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(77.)

[Vol. 17, p. 281, C. S. O., 3130 Mis. 82.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 19, 1882.

Dr. F. H. HOADLEY,

Surgeon to the Lady Franklin Bay Expedition:

SIR: I have the honor to inform you that in addition to your medical duties with the Lady Franklin Bay expedition you will be expected to make such observations on the geology and ethnology of the country as your opportunities may permit, making as full collections as possible, which should be forwarded to this office by every possible chance or medium of communication.

S. Ex. 100—AP—5

Upon your return you will be expected to prepare a full report of your natural history work for publication by this office, and you will receive from the National Museum a series of the specimens collected and forwarded here by you.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Copy furnished Prof. S. F. Baird, Sec'y Smithsonian Institution, 6-19, '82.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(78)

[Telegram—Vol. 17, pg. 326, C. S. O., Camp. T. & B. L., 3212 Mis. 82.]

WASHINGTON, June 21, 1882.

To Captain CLAPP,
Sturtevant House, New York City:

Buy six oars. Stores left yesterday to arrive Thursday morning. Look out for freight-handlers' strike that it does not delay delivery.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(79.)

[Vol. 16, Mis., p. 368.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, June 21, 1882.

Capt. W. H. CLAPP,
16th Infantry, A. S. O., New York:

SIR: The Chief Signal Officer instructs me to say, in answer to yours of the 19th inst., that he is gratified that you find everything in New York concerning the supply expedition to Lady Franklin Bay in a forward state of preparation. He desires you to remain until the shipment of the stores is completed and the sailing of the steamer, and to advise him at once if any of the men fail to report at time of sailing.

Telegraphic correspondence with Gen'l Terry has just developed the fact that two of the men are not ordered to report by the Adjutant-General of the Army; apparently by clerical mistake, and by oversight in the case of the man ordered to replace the deserter. It would now occasion serious embarrassment should any of the party abandon the expedition.

Very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(80.)

[Telegram—vol. 17, p. 310, C. S. O.]

WASHINGTON, D. C., June 21, 1882.

BEEBE,
U. S. Consulate, St. John's, N. F.:

Alhambra sailing delayed till twenty-six; everything by her.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(81.)

[Vol. 16, Mis., p. 371.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, June 21, 1882.

Lieut. A. W. GREELY,
5th Cavalry, Acting Signal Officer,
Com'd'g Expedition to Lady Franklin Bay:

SIR: I am directed by the Chief Signal Officer to inform you that in addition to the five enlisted men who have left this city to join the expedition under your command three others have volunteered, and their detail has been requested, but up to this hour they have failed to report.

Should they yet do so in time to reach St. John's before the vessel leaves they will be sent forward.

They are Private Henry Brinicombe, Co. C, 3d Infantry, Private Joseph Dimson, Co. K, 18th Infantry, and Private James N. Bean (or Bane), Co. K, 11th Infantry, as will be seen from the enclosed order.

I am, very respectfully, your obedient servant,
LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

NOTE.—The inclosed order was a copy of S. O. No. 140, par. 1, War Dept., A. G. O., dated June 7, 1882.

Official copy respectfully furnished for the information of Mr. Wm. M. Beebe, St. John's, Newfoundland.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(82.)

[Vol. 16, Mis., p. 368.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, June 21, 1882.

Lieut. A. W. GREELY,
5th Cavalry, Acting Signal Officer, Com'd'g Expedition to Lady Franklin Bay:

SIR: By direction of the Chief Signal Officer I enclose herewith copies of the descriptive lists of the enlisted men named below, who have been ordered to join the expedition under your command:

Sergeant Geo. W. Wall, Co. K, 3d Infantry.

Private Rich'd Rogge, Co. H, 3d Infantry.

Private Francis Thoma, Co. F, 5th Infantry.

Private Joseph Palmarts, Signal Corps.

The descriptive list of Private May Burnell, Troop M, 2d Cavalry, who has also reported and has been ordered to report to you, has not been received. He has been paid, however, four months in advance, and a copy of his descriptive list will be sent you at the earliest opportunity.

I am, very respectfully, your obedient servant,
LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(83.)

[Vol. 17, p. 305, C. S. O.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 21, 1882.

To the ADJUTANT-GENERAL OF THE ARMY:

SIR: Referring to your telegram of May 25th to the Commanding General, Department of Dakota, directing certain enlisted men, who are named, to report to the Chief Signal Officer, not later than June 15th to proceed to Lady Franklin Bay with the relief expedition which is about to start for that point. I have the honor to report that up to this date but four of these men have reported, viz, Srgt. Geo. W. Wall, Co. K, 3d Infty, Pvt. Richard Rogge, Co. I, 3d Infty, Pvt. Francis Thoma, Co. F, 5th Infty, Pvt. May Burnell, Troop M, 2d Cav'y. Private Daniel Mueller, Co. D, 11th Infty, having deserted, Pvt. Jas. N. Bane, or Bean, was recommended in his place by General Terry, in his telegram to the Adjutant-General, dated May 29th.

On the 19th inst. a telegram was sent from this office to Gen'l Terry (copy enclosed herewith), informing him of the failure of the three remaining men to report, and asking their whereabouts.

A copy of his telegram in reply is herewith enclosed.

The men who have not reported are Private Henry Brinicombe, Co. K, or Co. C, 3d Infty, Private Joseph Dimson, Co. K, 18 Infty, and Private James N. Bane, or Bean, Co. K, 11th Inft. Private Dimson is reported by General Terry as having left Assiniboine May 30th for Washington, but not having reported, he has possibly deserted.

I am, very respectfully, your obedient servant.

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

[Telegram.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 19, 1882.

Brig. Gen. A. H. TERRY,
Hdqrs. Dept. Dakota, Fort Snelling, Minn.:

Privates Brinicombe, Dimson, and Bean, detailed for Lady Franklin Bay expedition, have not reported. Should be here to-day. Can you give me their whereabouts.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(84.)

[Telegram—Vol. 17, p. 333, C. S. O. 3248 Mis., 82.]

WASHINGTON, June 22, 1882.

To BEEBE,
St. John's, Newfoundland:

Whale-boats go from New York. Vessel delayed sailing till twenty-sixth.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(85.)

[Telegram, received at June 22, 1882, from St. John's, N. F., 22—3248 Mis., 82.]

To HAZEN,
Chief Signal Officer, Washin., D. C.:

Instructions regarding depots and purchase additional stores received. How about whale-boats.

BEEBE.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(86.)

[Vol. 16, Mis., p. 373. 3212 Mis., 1882.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, June 22, 1882.

Capt. W. H. CLAPP,
16th Infantry, A. S. O., Sturtevant House, New York City :

SIR: I am instructed by the Chief Signal Officer to acknowledge the receipt of your letter of the 20th inst., and in reply to say that he approves the precautions taken, especially with the casks, and has directed by telegraph the purchase of six pairs of oars.

It appears now, through telegraphic correspondence with Gen'l Terry, that Brinicombe and Bean were not properly ordered by telegraph from the Adjutant-General's Office.

The third man missing has probably deserted, as the time elapsed since he left his station has been sufficient for him to have reached here, allowing time for considerable delay en route. It is now too late, in the opinion of the Chief Signal Officer, to get either Brinicombe or Bean, and the men who have now reported to you, viz :

Sergeant Geo. W. Wall, Co. K, 3d Infantry.
Private Rich'd Rogge, Co. H, 3d Infantry.
Private May Burnell, Troop M, 2d Cavalry.
Private Francis Thoma, Co. F, 5th Infantry.
Private Joseph Palmarts, Signal Corps, U. S. A.,
are all who will join the expedition. Mr. Beebe has been informed, and also Lieut. Greely.

I am, very respectfu , your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(87.)

[3244 Mis. 1882, Vol. 16 Mis., p. 372.]

WAR DEPARTMENT.
OFFICE CHIEF SIGNAL OFFICER,
Washington, June 22, 1882.

Dr. F. H. HOADLEY,
Surgeon to the Lady Franklin Bay Expedition, New York City :

SIR: In addition to the instructions contained in letter of 19th inst., from this office, directing you to make a report upon and a full collection of the geology and ethnology of the country, the Chief Signal Officer directs that you shall make similar observations and collections relative to the zoölogy and botany of the region.

I am, very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut 2d Artillery, Acting Signal Officer.

NOTE.—Copy furnished Professor Baird, Smithsonian Institution, this day.
Official copy from the records of the Signal Officer.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(88.)

[Telegram. Vol. 17, p. 357, C. S. O., 3267 Mis., 82.]

WASHINGTON, June 23, 1882.

To Gen'l TERRY,
Fort Snelling :

Bean and Brinicombe will be too late unless they reach here by afternoon twenty-sixth inst. If this is impossible they should not start.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83

(89.)

[Telegram. Vol. 17, p. 357, C. S. O.]

WASHINGTON, June 23, 1882

To BEEBE,
St. John's, Newfoundland :

Money has been appropriated, serve notice on owners of the "Neptune."

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(90.)

[Telegram. Vol. 17, pg. 356, C. S. O., 3285 Miss., '82.]

WASHINGTON, June 23, 1882.

To Capt. CLAPP, *Sturtevant House, New York :*

Beebe reported neither bricks nor suitable lumber at St. John's. He was to purchase three thousand boards, fourteen-foot lengths; fifteen hundred feet flooring, in fourteen-foot lengths; fifteen hundred best pine boards for repairing boats; thousand two-by-four scantling; one thousand two-by-six scantling; five hundred two-by-eight scantling—all kiln-dried and mill-dressed—and one thousand bricks.

Purchase and ship. Acknowledge.

HAZEN.

NOTE.—Copy of above sent examiner and P. and D. officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(91.)

[Telegram. Received at — June 23d, 1882, 1.20 p. m., from St. John, N. F., 23—3285 Miss., 1882.]

To HAZEN, *Chief Signal Officer, Wash'n :*

Neither bricks nor suitable lumber here; better purchase New York; everything else here.

BEEBE.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(92.)

[Telegram. Vol. 17, p. 377, C. S. O.]

WASHINGTON CITY, June 24, 1882.

To W. BEEBE, (*Care U. S. Consul, St Johns, N. F.*):

Purchase twenty-five pounds powder, if you have not already.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(93.)

[3251 Mis., 1882; Vol. 16; Mis., p. 378.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, June 24, 1882.

Captain W. H. CLAPP,
16th Infantry, A. S. O., Sturtevant House, New York City:

SIR: The Chief Signal Officer desires you to report the marks on the package of powder which it will be impracticable to ship to St. John, by the Cromwell line of steamers, together with information of what depot it was sent from, in order that application may be made to the Chief of Ordnance for its return to the depot.

If you find that the ordnance officer at New York can give the requisite orders, please apply for them. Beebe has been instructed to purchase powder at St. John's, by telegraph of this date.

I am, very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(94.)

[Vol. 17, pg. 413, C. S. O.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 27, 1882.

To the QUARTERMASTER-GENERAL, U. S. Army:

SIR: I have the honor to return herewith orders and transportation from this city to St. John's, Newfoundland, via New York City, in the cases of Privates Bean, Dimson, and Brinicombe.

Owing to an oversight on the part of the Adjutant-General's Office, Privates Bean and Brinicombe were not detailed until too late to go with the Lady Franklin Bay Supply Expedition, and private Dimson has failed to report at this office.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

(3 encl.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(95.)

[Telegram. Received at Wash'n June 27th, 1882, 6.55 p. m., from St. John's, N. F., 27-3361 Mis., 1882.]

To HAZEN, C. S. O., Wash'n:

How many men coming—how many tons space for supplies—shall we take extra coal?

BEEBE.

Official copy from the records at the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(96.)

[3,464 Mis., 82.]

ST. JOHN'S, NEWFOUNDLAND, *June 27, 1882.*The CHIEF SIGNAL OFFICER, U. S. Army, *Washington, D. C. :*

SIR: I have the honor to acknowledge the receipt, on the 23d instant, of your communications, as follows:

One dated June 6th, directing the purchase in St. John's of certain articles of supplies; one of June 7th, enclosing a copy of Lieut. Greeley's letter of August 17th, '81, containing suggestions regarding the establishment of supply depots in the event of the supply-ship this year failing to reach Lady Franklin Bay.

In compliance with your instructions therein contained, the receipt of both these communications was at once acknowledged by telegraph. You were also informed by the same means of my inability to secure suitable lumber or brick at this point, your reply to which, informing me that the deficiency would be supplied in New York, I have also to acknowledge. All the remaining articles enumerated in your letter of the 6th have been purchased or ordered, and will be in readiness before the arrival of the "Alhambra."

Yours dated June 9th, enclosing a copy of the letter of June 7th, relative to the observations to be taken on the voyage, and directing me to turn over to the same to the captain of the vessel, with the request that they be carried out as far as may be practicable, is received. Also one of June 15th, relative to the purchase of 25 lbs. sporting powder, which has been complied with; and one dated "June 9th," signed by the Acting Chief Signal Officer, directing that all communications addressed to the Chief Signal Officer should be sent by mail.

All the articles purchased here, including those contained in the first list furnished me, have been carefully selected, and the workmanship of such as have been manufactured has been zealously watched, and will be first-class.

The "Neptune," which return on the 25th from the dock, has been thoroughly examined and overhauled, and is pronounced in excellent shape for the voyage. No time will be lost, after the arrival of the stores from New York, in getting away.

I am, very respectfully, your obedient servant,

W. M. BEEBE, JR.,
Private General Service, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(97.)

[Telegram. Vol. 17, Pg. 432, C. S. O.]

WASHINGTON, *June 28, 1882.*To BEEBE, *St. John's, N. F. :*

Doctor and (5) five men—one hundred tons. No extra coal.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(98.)

[Telegram.—Vol. 17, Pg. 431, C. S. O.]

WASHINGTON, *June 28, 1882.*To BEEBE, *St. John's Newfoundland :*

Notify Greeley that fifteen hundred dollars will be to his credit with assistant treasure, New York.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(99.)

[Vol. 17, Pg. 430, C. S. O.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 28, 1882.

Lieut. A. W. GREELY, 5th U. S. Cavalry,
Com'd'g Lady Franklin Bay Expedition, Fort Conger, Grinnell Land, c. o. W. M
Beebe, jr., General Service, U. S. Army, St. John's, Newfoundland, via Halifax
and Nova Scotia, per steamer "Alhambra."

SIR: Enclosed herewith please find invoices and receipts in duplicate for \$1,575,
transferred to your credit with the assistant treasurer U. S. at New York, the latter
of which you are requested to sign and return to this office by returning steamer.
Transfer to be made immediately appropriation available.

Very respectfully,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(100.)

[3780, O. C. S. O., Mis., 1882.]

ST. JOHN'S, NEWFOUNDLAND,
July 6th, 1882.

The CHIEF SIGNAL OFFICER, U. S. Army, *Washington, D. C. :*

SIR: I have respectfully to report the safe arrival of the men and supplies per
steamer "Alhambra."

My letters and later orders came by the "Allan Line" steamer, and I am unable
in the haste of preparations for departure to acknowledge in detail. Everything,
however, seems complete.

The supplies for Depots "A" & "B" have been selected from the stores and stowed
where they will be accessible.

I deem it desirable to protect them by thoroughly impervious tarpaulins, which I
must purchase here.

Your orders have been observed as closely as circumstances would admit.

Owing to the uncertainty of the cost of articles to be purchased in Greenland, I have
accepted the kind offer of the U. S. consul to advance money for such additional
expenditure as has been found necessary here. I trust that every effort will be made
to expedite the payment of all these claims, as the success of the next year's supply
expedition may largely depend upon this. The stores purchased from J. & W.
Stewart are first class in quality and manufacture. Their receipted bills with
vouchers are forwarded by this mail.

The fresh vegetables were ordered and promised. Nothing but the potatoes are in
good condition. I have therefore taken the liberty of increasing the amount of pota-
toes in lieu of parsnips and turnips. It is regarded not expedient to take live-stock,
as proper stowage and protection cannot be supplied, and dogs taken on board at
Greenland would cause trouble.

Any failure to report details at this time is owing to earnest desire to get away as
soon as possible. Discrepancies will be supplied in final report.

Should we be successful—as everything seems to indicate—I will call at the north-
most telegraph station upon our return and apprise you, provided, of course, that
such delay will not entail extra expenses upon the Government.

Very respectfully, your obed't servant,

W. M. BEEBE, JR.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(101.)

[Telegram. Received at July 7, 1882, from Saint Johns, N. F., 7.—3548 Mis., 82.]

To HAZEN, *Wash'u* :

Everything aboard—all well—sail Saturday morning eight o'clock.

BEEBE.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(102.)

[5296 Mis. 82.]

S. S. "NEPTUNE," OFF GREENLAND COAST,
75 MILES SOUTH FROM DISCO,
July 17th, 1882.

My DEAR GENERAL: First permit me to make my excuses for failing to write you personally after the arrival of the men and supplies at St. John's, unless the letter that was partly finished was sent in the hurry and confusion of my departure. We all felt that we were already late, and I was anxious to get away and did not take time to write a social letter even to my friends at home.

Finding the discomforts of the fore-castle so great, and that the men could all be made comfortable in the cabin staterooms, I assigned them berths there—with Dr. Hoadley's consent—easily prevailed upon the owners to provide mattresses and blankets; and they have in fact all the privileges of first-class passengers, excepting that they have a second table. The fare, however, is nearly the same, in the provision of which the Job Brothers were exceedingly liberal, furnishing us up to this date fresh beef, hams of good quality, good bread, pickles, canned fruits, vegetables, preserves, etc., etc.

We left St. John's, as you already know, on Saturday, 8th inst., just as a shower set in, which soon turned into a blinding rain. For the first four days I was *very* seasick, and although the ship rolled heavily and shipped so much water that it was found necessary to lash the deck load, lumber, etc., I was in that enviable frame of mind that I did not care whether we floated or sank, rather preferring the latter. At 2 a. m., July 13th, we encountered extensive ice-fields directly in our course, extending to the eastward and westward as far as the eye could reach. A dense fog came down upon us at the same time, and we picked our way wearily through it, keeping our true course as nearly as possible until noon, when we found open water to the westward. Distance during past twenty-four hours only 65 (nautical) miles; lat. $61^{\circ} 3' N.$; long. $54^{\circ} 9' W.$; true course $N. 40^{\circ} W.$

About noon we again entered heavy floe-ice, and worked our way northward painfully, the good, strong ship receiving many a shock that made her tremble and recoil, and which would have gone through a trans-Atlantic steamer from stem to stern. Here Norman's work began to tell, and from his lofty perch in the "cro' nest" he picked out the most practicable route, getting us forward as rapidly as possible. Finally, however, it became so foggy, and the ice appeared so formidable (thicker and heavier and more compact), that it was deemed unsafe to proceed; so we tied up to a large field, and several of us went *ashore* (?) and had a good run on the ice. At 3 a. m. (the 15th), the fog having lifted a little, we unmoored and again began our struggle, working slowly to the northward through thick fog and rain. Towards noon it began to clear, and at noon we cleared the ice—once more steamed ahead at full speed for the first time in seventy hours. Nothing eventful, or to interfere with our progress. We have encountered but very few icebergs since leaving the floe which extends north to the turn in the current which I will explain later on. Lat. $62^{\circ} 56' N.$, long. $55^{\circ} 15' W.$

There is a strong S. westerly current setting down between Iceland and Greenland, curving around Cape Farewell in a N. w'ly directing, until reaching lat. 65° , or thereabouts, it trends more to the westward until it meets and enters the strong current setting southward along the east coast of Labrador, curving around the east coast of Newfoundland, and mingles with the Gulf Stream. Last year Davis' Straits was perilously filled with icebergs; this year there but few. My theory, and all the officers of the ship agree with me, is, that the unusual number of icebergs which have been passing Newfoundland since the middle of December are the same which were formed from the glaciers on the west coast of Greenland, and floating south and westward, under the easterly winds which have prevailed in this region since last year, until they entered the Gulf Stream by the course before described. The field-ice which we

encountered was doubtless formed last winter on the Iceland coast—has been borne by this same current to its present location, and now extends from a point about 270 miles due west from Cape Farewell, lat. $60^{\circ} 10'$ north, long. $52^{\circ} 40'$ west, as far to the northward as lat. 65° degrees, where it will follow the N. w'y current before described, and follow the route of the icebergs before described, until it finally disappears in the Gulf Stream, should it last so long. Many of the fields or "pans" are already grown thin, and but few of the more solid and larger pieces will last so long.

This is, of course, crude and hastily written. I have studied and thought much on the subject even before your letter, but it is only since I have discovered the course of these currents that I feel secure in this theory. Of course the formation of the icebergs is familiar to all who have taken even small pains to inquire into the subject. These huge glaciers by some force of nature far inland, probably by their own weight are constantly pressing them forward and downward to the sea, where, by their own gravitation probably, huge masses, varying in size and form are broken off and launched as icebergs. Of course you understand this formation subject. You can form and launch them yourself, but, so far as the presence of the "bergs" in the Atlantic this season is conformed, I am well satisfied of the correctness of my theory regarding their place of origin and the route they followed in their journey to the Atlantic.

I shall continue to study the subject, and will embody all in my official report. In the mean time, thinking that probably no one who has been over this ground has published any theory on the subject, and that either you or Mr. Nelson could mould this meagre material into an acceptable article for the "New York Herald", it may be of use to you and a little pecuniary aid to me, as Mr. Bennett wrote me an autograph letter requesting me to send anything of interest to the "Herald". Of course I replied that I must send all to you, etc. If Mr. Nelson can work this up into presentable shape I will bring him home a nice skin of some kind (as I intend to do at all events). I shall need more money than will be due me when I return, for a new suit of clothes, for I was compelled to wear my best suit nearly out at St. John's.

We are in sight of Disco Harbor—3.30 p. m., St. John's time, and are about to fire one gun. I must there prepare to receive the governor. We anchored at 5.30 and shortly after I went ashore with Dr. Hoadley and the captain to pay our respects. Inspector Smith died about the first of May, and an act'g inspector is here from another settlement until Mr. Smith's successor shall have arrived. I found the temiaks, part of the pants (the remainder are expected to-morrow), a small quantity of matak; all the thongs needed—(the quantity ordered would last ten years the inspector says). Seal-skin for dog-harness and dog-food all ready. No more matak can be procured at any price, and the inspector says it is of little or no account so long as the party has canned vegetables, preserves, or mulberries on hand—he could not tell me just the quantity on hand. The dogs can all be procured here, and as Norman says that the diseased dogs of last year all came from Upernavik, I am especially glad to get the number here. The cost will probably be somewhat greater than was anticipated, but the temiaks will cost \$6.00 each instead of \$10.00, as was estimated. He says he cannot take pay for the articles here, but is ordered to take my receipt and have the settlement made through the home Gov't. I shall so arrange as to make the settlement as simple as possible if I can arrange with him to receipt vouchers. I am extremely sorry, but he is firm and we must have the stores. The first time in my life I ever saw a man or Gov't refuse money. I will at all events transmit officially a list of the stores purchased. The sleeping bags, I am sorry to say, cannot be obtained here, and he says cannot be obtained at all, as the skins suitable for their manufacture were all picked up and shipped previous to the reception of the order for their preparation. I will, however, report upon all this matter officially in a letter which I shall prepare to-morrow.

I am much disappointed by the inspector's statement that we can hardly hope to reach our destination. He says that the last was an unusually severe winter here, the temperature falling to -36° Centigrade = -32 Far. We shall, however, do all that any one could do to reach them, and I am hopeful that we shall succeed. I can write more intelligently upon the subject after a talk with the inspector to-morrow, and will write fully. I can hardly realize that I am writing beneath a small skylight at 11.30 p. m. without an artificial light, and as easily as at noonday at home.

July 19th.—We have entertained the governor and inspector on board, and I now close this unsatisfactory letter hastily. Have picked up some curiosities for you here, which it will delight me to present on my return. With respectful regards to Mrs. Hazen, I remain yours, staunchly,

BEEBE.

P. S.—Have no time to write home; the anchor is "apeak"; will you therefore kindly mail this to my father: W. M. Beebe, Hudson, Ohio, Summit County.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(103.)

[5416 Mis., 82.]

GODHAVN, NORTH GREENLAND,
September 11th, 1882.

Mr. H. KNUHTSEN, *Acting Inspector, North Greenland*, (through the governor of Disco):

SIR: In order that supplies, necessary for the expedition which will be sent next year by the United States Gov't to Lieut. Greely's party (now at Lady Franklin Bay), may be in readiness upon the arrival of the ship at this port early in July, I have respectfully to request that the following articles may be provided for, in anticipation of the official request which will be made to the Danish Government by the Chief Signal Officer, U. S. Army:

Twenty-six (26) temiaks, largest size.

Forty-six (46) seal-skin pants, " "

Twelve (12) sleeping bags, lined with dogskin and large enough for two (2) men of large stature.

Five hundred (500) lbs. matak.

Fifty (50) large-coil thongs, for traces and lines.

Two (2) sledges, to be made strong and suitable for a severe journey.

Two (2) reliable and skillful native drivers will be wanted.

I make this request without official authority, but with the knowledge that the supplies above enumerated will be required and probably in larger quantities than I have specified.

Permit me to thank you and the governor of Disco, personally, for your past kindness, and to assure you that your interest and kind aid will be highly appreciated by my Government.

Very respectfully, your ob't servant,

W. M. BEEBE, JR.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(104.)

[5007 Mis., 1882.]

(Telegram. Received at S. O., Washn., Sept. 23d, 1882, 4.21 p. m., dated Tilts Cove, N. F., 23.)

To Gen. W. B. HAZEN, *Wash'n*:

No channel through Smith Sound. July 29th encountered solid barrier extending from Cape Ingfield to Ross Bay. Highest latitude reached, seventy-nine twenty, Augst 10th; northmost depot, Cape Sabine. Left Smith Sound Sept. 5th. New ice, four inches. Left dogs, lumber, dog-food Godhaven. Would like to keep them at St. John's until supplies are stored there to-morrow. All well.

BEEBE.

Tilt's Cove, N. F.

64. Collect.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(105.)

[Telegram. Vol. 20, S. C. S., page 109; 5007 Mis., 1882.]

WASHINGTON, Sept. 24, 1882.

To BEEBE, *St. John's, N. F.*:

Do whatever you think necessary to store the supplies and promptly discharge the vessel.

Arrangements being made for your return transportation.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(106.)

[5035 Mis., 1882.]

(Telegram. Received at S. O. Sept. 25, 1882, dated St. John's, N. F., 25.)

To HAZEN, *Wash'n* :

Do not understand. Shall I store goods here? Shall men sail by Alhambra Thursday?

BEEBE.

15. Collect.

Official copy from the records of the Signal Office.

B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(107.)

[Vol. 20, C. S. O., page 109.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Sept. 25th, 1882.

Commodore JOHN G. WALKER,

Chief of Bureau of Navigation, U. S. Navy, Washington, D. C. :

SIR: I have the honor to request that this office be furnished, if practicable, with the following charts, published by the United States Hydrographic Office:

Series "A," Track Chart, North Atlantic.

Sheets 1, 2, 3, 4, 5, 6, 7, and 8.

Series "B," Trade-wind chart, Atlantic Ocean.

I am, very respectfully, your obedient servant,

W. H. CLAPP,
Captain 6th U. S. Infantry, Acting Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(108.)

[Telegram, Vol. 20, C. S. O., page 114-5035, Mis., 1882.]

WASHINGTON, *Sept. 25, 1882.*To BEEBE, *St. Johns, N. F. :*

Understood you left dogs, dog feed, and lumber at Godhaven, would store supplies St. Johns, wanted men till stored. This all approved. Keep men till thoroughly ready to return.

Carefully inventory supplies stored. If misapprehended, explain.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(109.)

[5329, Mis., '82.]

ST. JOHNS, N. F., *September 28th, 1882.*To the CHIEF SIGNAL OFFICER, U. S. ARMY,
Washington, D. C. :

GENERAL: I have the honor to report that in obedience to orders contained in your letter of instructions, dated office of Chief Signal Officer, Washington, D. C., June

18, 1882, I assumed charge of the men and supplies for Lieut. Greely's party, Discovery Harbor, Lady Franklin Bay, Grinnell Land, upon their arrival on the "Alhambra," from New York, on the morning of July 4th.

These supplies and those ordered to be purchased at St. Johns were loaded on the "Neptune" with as little delay as possible, and the party sailed at 1.30 p. m. on the 8th.

Your instructions regarding observations to be taken on the voyage were duly turned over to Captain Sopp of the "Neptune," but as the instruments intended for this purpose could not be found, and as Captain Sopp evidently did not understand the nature of the observations ordered, I transferred the duty to Private Joseph Palmarts, Signal Corps. The results of his work with such instruments as the ship afforded from the 13th of July until our return to St. Johns are herewith submitted, marked "A." They are the means of eight observations taken each day.

During the first few days of the voyage heavy winds and a rough sea were experienced, and our party were confined to their berths by seasickness. On the morning of the 12th the weather moderated and the sea went down rapidly; since that time the health of all on board has been good. At 6.30 p. m. of the 12th, in lat. $55^{\circ} 3' N.$, long. $51^{\circ} 25' 45'' W.$ we spoke the Hadson Bay Co. Steam Yacht "Diana," from London, England, to Ungava Bay, Labrador, requesting to be reported by the first return vessel. On the morning of the 13th July the first field ice was encountered 135 miles due west from Cape Farewell, lat. $60^{\circ} N.$, long. $54^{\circ} 50' W.$ The fields, though not large, were very heavy and solid. Undoubtedly this was the heavy winter ice, borne from the eastern coast of Greenland by the strong current which sets southward from about Iceland, turns to the westward and northward around Cape Farewell, and flows up the western coast of Greenland until in lat. (about) $67^{\circ} N.$ it meets and mingles with the current from Baffin's Bay. These united currents set southward with great strength down the coast of Labrador, and trending eastward, pass around and down the eastern coast of Newfoundland and into the Gulf stream, carrying with them the immense icebergs launched from the numerous glaciers of West Greenland, and so much of the field ice as has survived the passage from Davis Strait. Our progress during the 13th did not exceed three miles an hour, but the ship gave evidence of her great strength, and her fitness for the work before her, breaking with ease and pushing aside the fragments of solid ice-pans. At 7.30 p. m., a dense fog having settled upon us, the ship was moved to a convenient ice-pan to await clearer weather.

At 3 o'clock on the morning of the 14th the lines were cast off, but it was evening of the 15th before the pack was finally cleared. During the day an American three-masted schooner was sighted standing in toward Holsteinburg, and at 9 o'clock in the evening we came up with the American schooner "Concord," of Gloucester, Mass., at anchor, fishing for halibut, which are been taken in great numbers, and are of superior quality.

We reached Godhaven at 5.30 on the evening of the 17th, and I went immediately on shore, accompanied by Dr. Hoadley and Captain Sopp, to pay our respects to the inspector. I report with regret the death on the 28th of May of Inspector Smith, whose interest in all American expeditions to the arctic regions is well known to you. Mr. Kunthsen, the acting inspector, and the governor of Disco, Mr. Djurlhuis, received us with great kindness, and during our stay did all in their power to aid in securing such articles required by Lieut. Greely as had not already been prepared in compliance with your request. The order for sleeping-bags had been received so late that material suitable for their manufacture could not be obtained, but through courtesy of the officials four (their individual property) were secured. All other articles ordered through the Danish Government had been collected in the quantities desired with the exception of matok, of which but sixty-four pounds could be obtained, and this, as it afterwards proved, had not been thoroughly cured, so that notwithstanding the care given it, it soon became worthless.

I was unable to comply fully with your orders to pay for all stores purchased in Greenland, as I have explained in a former brief report.

We left Godhaven on the evening of July 20th, and on the morning of the 22d again meet field-ice, neither so heavy nor so firm as that previously encountered. The ship worked her way through it readily at half-speed. The weather was disagreeable with rain and sleet, but it cleared sufficiently at noon to enable the captain to ascertain our position, lat. $73^{\circ} 4' N.$, long. $58^{\circ} 39' W.$ During the afternoon the ice became firmer and more closely packed, and at 8 o'clock in the evening a blinding snow-storm came on. This rendered it impossible to pick our way through the channels, and it was found necessary to again tie up to an ice-field, where we remained during most of the night.

Fair progress was made during the morning of the 23d, but at 1 o'clock p. m. we were again stopped by ice, through which the ship could not be forced. It extended in our front to the horizon. During the afternoon a slight opening occurred through which the ship worked with difficulty, but at 8 o'clock in the evening we were again stopped and fairly "be set," being unable to move in any direction until midnight,

when the strong north wind again freed us and slow progress was made until 2.30 on the afternoon of the 24th, when in lat. 75° N., long. 60° W. we were again stopped. On the 25th, and until 7 o'clock a. m. the 26th, we remained helplessly drifting with the tides, within plain view of Cape York, with its numerous glaciers and the Crimson Cliffs of Beverly.

The weather had continued foggy, giving us only occasional glimpses of the sun, but on the 28th it became clearer, and for the first time the sun was seen shining brightly at midnight.

Followed all day by half a gale of wind on the 28th, the ship made fair progress, passing Wostenholm Island at 8 o'clock in the morning and Cary Islands about 7 in the evening. At 3.30 on the morning of the 29th Lyttleton Island was passed, but half an hour later I was called by Captain Sopp and informed that we could go no further. Going at once upon deck, I found an unbroken ice barrier from 12 to 20 feet thick, extending from Cape Inglefield on the west across the sound to Rosse Bay and to the northern horizon, effectually checking our further progress. The ship was therefore turned southward, and looking in at Life Boat Cove and Port Foulke a comfortable anchorage was at length found in Pandora Harbor. This harbor, named by Sir Allen Young, is a beautiful bay shut in by the Crystal Palace Cliffs upon the south, Cape Kenrick on the north, and lower, less abrupt hills upon the eastward. During most weathers the anchorage would be a safe one, but during our stay there of a week, riding out of succession of S. westerly gales, much trouble was experienced, one anchor being lost and two heavy hawsers, warping the stern of the ship to the rocks, were parted. While here Sir Allen Young's record of the "Pandora" was found near the water's edge, where it had been washed down from the cairn upon the summit of a low point of rocks. This record, together with a copy of my own, which was left in the cairn, is attached, marked "B." Game was found in abundance; Arctic hares, the eider duck, auks, and several varieties of gulls, of which a two weeks' supply for all hands was brought in by the hunting parties and proved a most acceptable change from the ordinary ship's fare. Several reindeer were seen, but none were taken.

On Monday morning, August 7th, the water casks were filled, and at 10.45 we resumed our way northward. Heavy ice was soon encountered, but the fields, which had been quite thoroughly broken by the southwesterly gales, were small and easily avoided, becoming larger and more compact, however, as we advanced, until at 9.45 p. m. we were compelled to stop and tie up to a large floe of the northern point of Bache Island. The ice continued to close in upon us, rendering movement in any direction impossible, and on the morning of the 9th we found the ship fairly "beset" and helpless, twelve miles from Victoria Head, the nearest point of land. Toward evening the larger fields closed in more rapidly, rendering our position extremely perilous; the ship was raised bodily three feet, and the creaking of timbers and grinding of the ice as it pressed upon the sides were ominous sounds. Had it not been for the smaller and softer ice immediately about us, and which, crushed by the solid fields as they closed us in, formed a cushion underneath the hull, the strong ship must inevitably have been crushed.

On Thursday, the 10th, we drifted a short distance northward, and reached the highest point attained, lat. $70^{\circ} 20'$. We were twelve miles from Cape Hawkes and 17 from Cape Prescott, the intervening ice being impassable for even an unincumbered man. The season was still young, and all on board were sanguine that a northerly wind would soon start the ice, and that Discovery Harbor might yet be reached.

On the 11th the ice closed in more firmly, piling the broken fragments as high as the bulwarks. On the 12th the wind subsided somewhat, and the ship once more rode upon an even keel, but still 3 feet above her proper level. At midnight I was on deck with the first mate, when a gentle crackling of the young ice attracted our attention, and by the bright sunlight we could see the water slowly trickling through. At 7 o'clock a slight opening was observed between the large fields which had held us fast, and with great difficulty the ship was forced into open water to the southward. So great a power was found necessary to force our way that the boiler was overstrained and sprang a leak. This added greatly to our anxiety.

Your attention is respectfully invited to the accompanying chart (marked "C"), made by Private Francis Thoma, 5th Infantry. It illustrates the movement of the ship in our search for a practicable route.

Upon reaching open water on the 15th of August, we stood across the sound to the eastern shore, but found no opening, and concluded to endeavor to secure an anchorage, from which to watch the movements of the ice, so that we might be prepared to take advantage of the first opportunity to reach Cape Hawkes at least, where I had determined to establish at once the depot "A," and leave the whaleboat specified by Lieut. Greeley, which could be removed and taken further north, should opportunity occur.

At one o'clock on the morning of the 18th a comfortable anchorage was found in Payer Harbor, lat. $75^{\circ} 42'$ N., long. $74^{\circ} 21'$ W., between Cape Sabine and Brevoort Island, where the "Alert" and "Discovery" remained for a few days in 1875.

In a cairn on the summit of Brevoort Island Capt. Nares' record was found. It accompanies this paper (marked "D"). On a long, low island, near to and due west (true) from Brevoort Island, was found a small depot of provisions left by the "Discovery," and the accompanying statement of Captain Stephenson:

The depot consisted of:

- 1 bbl. canned beef in good condition.
- 2 tins, 40 lbs. each, bacon in good condition.
- 1 bbl, 110 lbs., dog-biscuit in good condition.
- 2 bbls., 120 rations each, biscuit in good condition.
- 240 rations, consisting of chocolate and sugar, tea and sugar, potatoes, wicks, tobacco, salt, stearine, onion powder, and matches.

All in fairly good condition.

Three (3) small casks that had contained rum and high wines were separated from the other packages, broken, and their contents evaporated or leaked out. There was also found the remains of an Esquimaux skin boat, or oomiak, utterly destroyed, the frame broken, and bearing marks of the teeth of some large animal, while the remnants of skin remaining fastened to the keel bore similar evidences of having been destroyed by bears.

The cache was rebuilt and made as secure as possible, marked by two oars found with the depot, placed upright in the rocks, and a record of the Neptune was placed in the cairn. A description of this depot and its position was afterwards left with the depot established on Cape Sabine.

During the 21st and 22d ice was observed in small quantities passing down the strait, but a visit to the summit of Cape Sabine, which was accomplished after severe climbing, did not afford much encouragement.

However, as the ice, broken by the S. W. winds which had blown with considerable force for two days, seemed passing steadily down, I urged the captain to move on to the morning of the 23d. We started at 1.30 p. m., and found the western shore effectually blockaded above Cape Sabine, but standing to the eastward again found comparatively open water in mid-channel, through which we worked our way to a point nearly due east from Cape Prescott, where heavy, unbroken ice, extending as far as the eye could reach to the northward, and from shore to shore, was encountered.

I now determined to turn all my attention to efforts to land supplies and whale-boats as far north as possible. Lest, if it should be found impossible to reach land with the boats, I caused a large sledge to be made, which, loaded with the boats and stores, might be hauled by my party and volunteers from the ship's crew over the ice, if that should be practicable.

Turning again to the westward when our progress to the northward had been checked, we stood along the unbroken edge of the solid ice, and at 10 o'clock p. m. were again nearing Cape Sabine, without having found a crack in the solid pack, while the entrance to Payer Harbor was blockaded. It was now necessary to find an anchorage as the S. W. wind, which had held in that quarter almost without interruption since our arrival in Smith Sound, was increasing in force and the ship was headed for Lyttleton Island. The captain was, however, not satisfied of the safety of the small harbor there, and declining to take soundings and seek an anchorage in Foulke Fiord (which Capt. Nares recommends as a winter harbor), continued down to Pandora Harbor. There were already many evidences of approaching winter. The vegetation, bright and green on our departure on the 7th, was faded and brown; the flowers had disappeared; the ducks had taken their departure southward, and the summits of Cape Kendrick and Crystall Palace Cliffs were covered with snow.

Fully impressed with the great importance of establishing a depot as far north as Cape Hawkes, and fully satisfied that whatever was to be done must be accomplished quickly, we left Pandora Harbor at 3 o'clock on the afternoon of the 25th, but at half-past nine were again brought to a check in the pack and compelled to tie up to an ice floe. During the 26th a little gain to the northward was made, but we were again checked by an impenetrable pack, forty miles from Cape Hawkes.

The edge of the heavy fields of intervening ice crushing together with every change of wind and tide were thrown up in huge irregular rifts, impassable, had they been stationary, even by the trained seal-hunters, who composed our crew. The idea of landing the stores by means of a sledge and boats was therefore abandoned.

On the 27th we were able to move some distance to the northward, again reaching a position off Bache Island, but no nearer land than we had been before. The wind freshening from the N. W. the ship was made fast to the floe to await the opening which was confidently expected. Notwithstanding the direction of the wind, the larger fields, many miles in extent, moved westward against it, until coming in contact with the land, their course was changed to the westward until checked again by Cape Sabine and Brevoort Island. All the ice in Smith Sound seemed drifting bodily southward, and it was determined to stand across once more to the eastern side with the faint hope that a channel might be found where the fields had broken from the solid ice above and by which the western shore might be reached.

The ice was close in shore, and our course was again changed to the westward skirting the solid pack, the captain pushing the ship into every channel leading, toward Cape Hawkes with all the energy that could be desired.

The western shore above Cape Sabine was unattainable, and fearing that Lyttleton Island would soon be closed to us, I determined to establish the cache directed to be made there, while awaiting an opportunity to reach some point on the otherside. New ice was forming every night, and the captain became anxious for the safety of the ship; therefore, although determined to remain as long as there was the slightest hope of carrying out the letter of my instructions, and on retreating only when compelled by lateness of season, I was fully satisfied that we could remain but a few days longer in these waters.

On the 28th there was a heavy S. W. wind and snow. At 7.45 p. m. we anchored off Lyttleton Island, and early on the morning of the 29th, the wind having subsided sufficiently to admit the landing of a small boat, I went on shore to select a place for the cache, when our presence was discovered by a party of Etah Esquimaux upon Cape Ohlsen. Crossing over, I found it to be a hunting party of six men and three women, who desired to accompany us on board the ship.

Regarding it unwise, if not useless, to land stores upon Lyttleton Island while the natives remained in the vicinity, and thinking that a landing might be effected on the opposite or northern end of the island at night without their knowledge, we again stood across the channel, and at 1 o'clock on the morning of the 31st succeeded in effecting a landing and establishing a cache upon Cape Sabine, the northernmost land that had been attainable by us. The stores and whale-boat were placed in a sheltered spot, well secured and covered by a tarpaulin, a tripod made of scantling, with an oar attached, to which pieces of canvas were well nailed, was placed upon a prominent point, showing well from the northward, and securely anchored with rocks, and in a cairn beneath was placed a record giving the bearing of the cache. A copy of this record is attached, marked "E." A heavy N. E. gale coming on, we took temporary refuge under the lea of Cape Ohlsen, a comfortable and safe anchorage in a N. or N. E. wind.

The Etahs paid us another visit and I determined, should it be necessary, and as a last resort, to take them to Pandora Harbor and leave them there.

The gale continued unabated during the 1st, and until noon of the 2d of September, when we left our anchorage for a final effort to get further north. Heavy field-ice was met off Cape Sabine, increasing in size and thickness as we proceeded, until the captain positively refused to penetrate further, and 8 o'clock in the evening made the ship fast to an ice-field. At 9 o'clock, new ice, cementing the broken floes, had formed to the thickness of three inches.

On Sunday, the 3d, we remained all day tied to the ice, shifting our position as safety from floating masses demanded, and on Monday, the 4th, finding it impossible to advance, the new ice having increased to four inches in thickness, and the engineers having reported a leak in the boiler, which up to that time had been kept from my knowledge, I determined to establish the cache on Lyttleton Island without further delay. The natives still remaining on Cape Ohlsen, the stores were landed in a cove in the north end of the island so well concealed as to be invisible from any point a few yards distant and covered with a paulin, securely anchored down with rocks, and copies of a record with minute directions for finding the stores, placed as directed in Lieut. Greely's letter of last year, two in the coal at the southern end of the island and one in Nares' cairn on the summit of the S. W. part of the island. A copy of this record is attached, marked "F." As a last resort the remaining whaleboat was placed on Cape Isabella, and its location marked by a tripod showing well to the northward.

Should Lieut. Greely's party reach Cape Sabine next year, before the arrival of the relief ship, they will scarcely fail to find this boat.

I then called a consultation, requesting an expression from Dr. Hoadley, Mr. Norman, and Captain Sopp, who were unanimous in the opinion that further delay was useless and extremely hazardous; that everything had been done that could be done to carry out your orders, and that the safety of the ship and the lives of all on board demanded an immediate departure. At 11.40 on Tuesday night I gave a reluctant assent, and the voyage homeward began.

No field-ice was seen after leaving Smith Sound, but icebergs in great number and of unusual size were encountered in the vicinity of Cary Islands, and for two days after passing that point. We reached Godhaven on the evening of Sept. 8th, and satisfactory arrangements were made for leaving the dogs, dog food, and lumber. I made an unofficial request upon the acting inspector to have in readiness for next year's expedition such additional dogs as may be needed; also skin-clothing, two or more dog-sledges, and two native drivers, stating that an official request would be made through the Danish Government by the Chief Signal Officer of the Army.

A week's delay was found necessary by the captain for making repairs to the boiler, taking on of ballast, and such refitting as was needed for the homeward voyage.

Tiltcove, N. F., was reached on the 23d, where I telegraphed you of our safe arrival and the failure of the expedition, and on Sunday, the 24th, at 10.30 p. m., St. Johns was reached.

Some delay was experienced in securing a storehouse, where the supplies would be safe from frost and vermin; this was, however, finally secured and the stores landed, but transportation for all my party (including myself) having been ordered by the "Alhambra," I was compelled to leave St. Johns without receipts; these will, however, reach Washington by next mail.

I take great pleasure in earnestly recommending that the services of Dr. Hoadley should, if possible, be secured for the expedition to be sent next year. In addition to his professional fitness he possesses physical strength and experience in travel which eminently qualify him for the duty.

I also take pleasure in testifying to the good conduct and cheerful performance of duty by the enlisted men of the party, and recommend that they all be allowed to accompany the next expedition.

I am, general, very respectfully, your obedient servant,

W. M. BEEBE, JR.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

NOV. 9, '83.

(110.)

[Vol. 20, C. S. O., page 371-374.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, October 10th, 1882.

The honorable the SECRETARY OF WAR:

SIR: I have the honor to enclose herewith for your information a copy of the report of Mr. W. M. Beebe, to whose charge was entrusted the conduct of the supply expedition sent this year for Lieut. Greely's party at Lady Franklin Bay.

The report is accompanied by a chart of that portion of Smith Sound and Kennedy Channel in which the vessel encountered ice which terminated her endeavors to penetrate further north. While the full object of the expedition was not obtained, a depot of supplies (with which was left one of the two whale-boats carried) was made at Cape Sabine, the most northern point on the west shore of Smith Sound at which it was found practicable to land. A second depot was made at Littleton Island at a point selected by Lieut. Greely last year in the event of a failure to reach him.

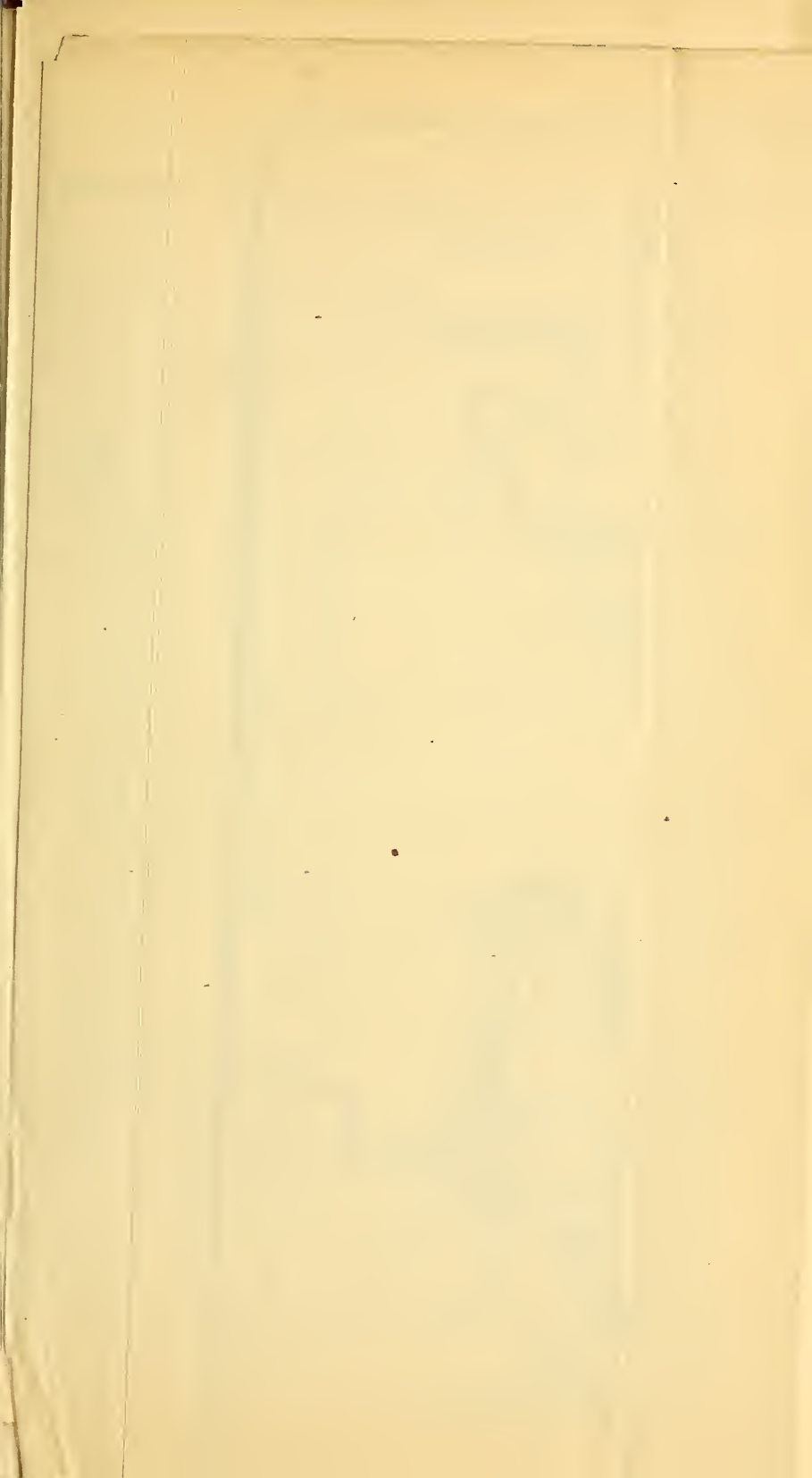
The remaining whale-boat was placed at Cape Isabella, directly opposite Littleton Island, and the expedition then returned. I am satisfied that all possible efforts were made to reach Lieut. Greely, which were defeated only by the unusual ice of last year's formation in Smith Sound and Kennedy Channel, and which formed an impenetrable barrier to further progress. This was a contingency not unforeseen when the original expedition started, and was provided against by a plan of action (copy herewith) which, as will be seen from the report, has been followed as closely as the condition of the ice would permit. This condition of the ice was found probable when the expedition had reached no farther north than Godhavn.

There is not the slightest reason to suppose that Lieut. Greely's party is suffering, and no apprehension for its safety need be entertained.

Attention is invited to the inclosed memorandum of subsistence stores taken by Lieut. Greely last year.

In addition to these he is known to have secured a large supply of fresh meat from a herd of musk oxen, and at certain seasons arctic hares, ptarmigan, seal, and perhaps fish, are obtainable. He has abundance of oil for lighting, alcohol for use as fuel in sledging expeditions, and there are coal beds in his immediate vicinity. He also has his party comfortably and warmly housed and is well supplied with articles of arctic clothing; from which it will be seen that he had on his arrival at Lady Franklin Bay more than a year ago over three years' supply of the best and most approved kind of arctic use. Due allowance must be made for climate in calculating the time they will last.

It will be observed from the report that while the depot "A" at Cape Sabine was not located as far north as was proposed or expected by Lt. Greely, in the letter herewith, its location is a prominent one, and it is so placed that it cannot fail to be found in case



TRACK CHART OF STEAMER NEPTUNE,

JULY 28 TO SEPTEMBER 5 1862,

IN ATTEMPTING TO REACH

LADY FRANKLIN BAY, GRINNELL LAND.

PREPARED UNDER THE DIRECTION OF THE CHIEF SIGNAL OFFICER OF THE ARMY.

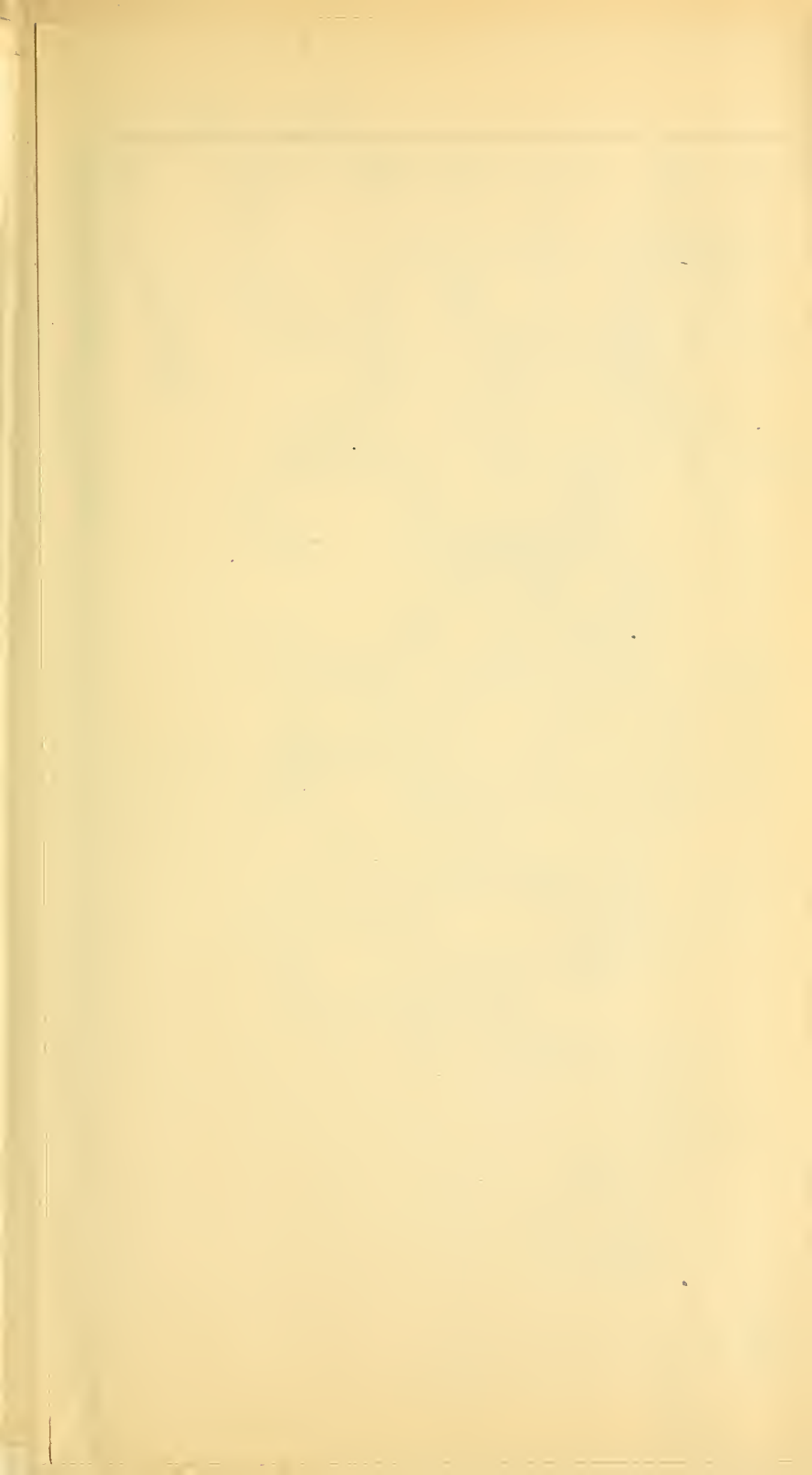
OCTOBER, 1862.

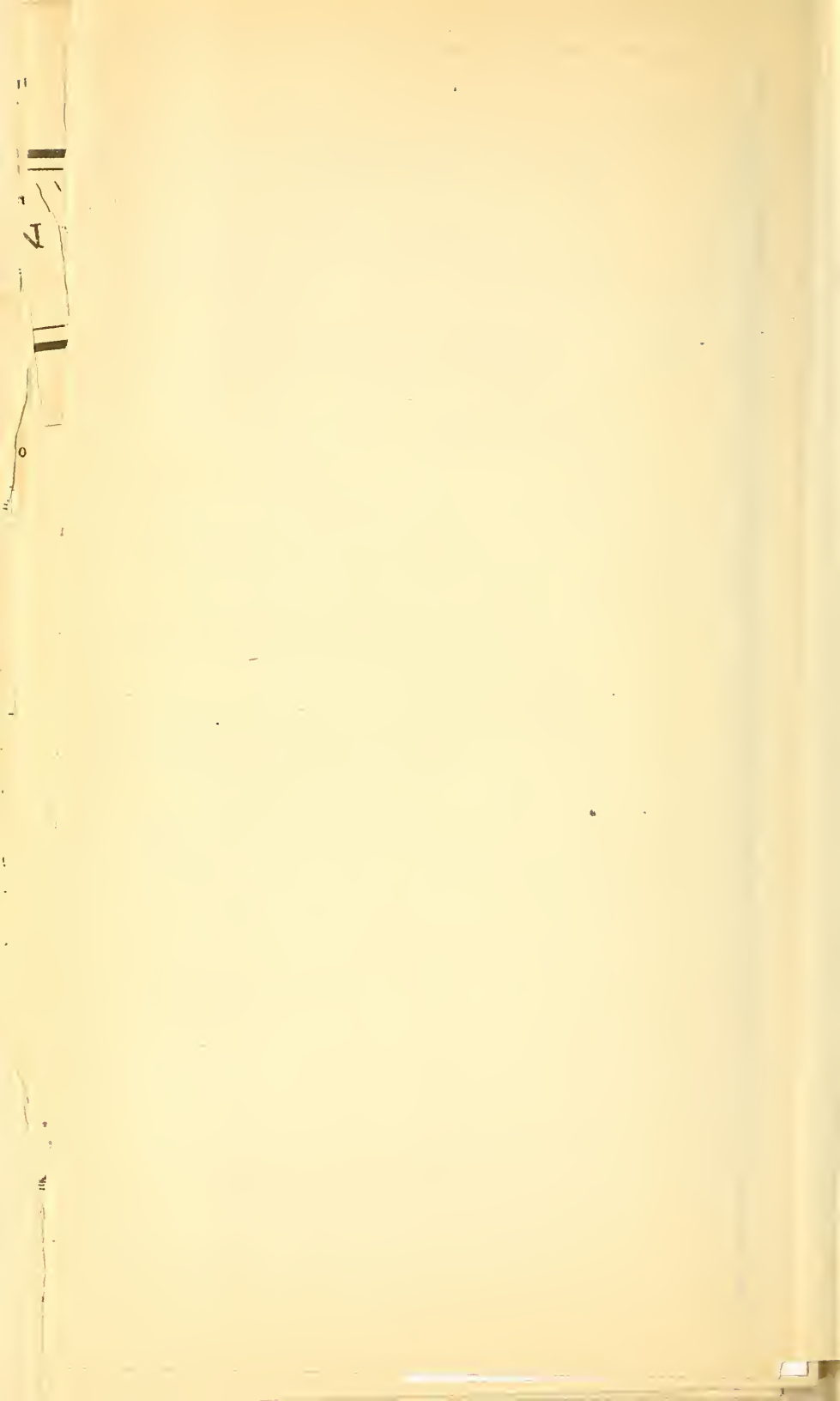
Drawn by Private F. THOMAS, 6th INFANTRY.

Excerpt from signal service notes No. 5, in aidance Henry Goodfellow J. A. Dr. Recorder of Board



8
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100





a retreat south by the party becomes necessary. By further reference to Lieut. Greely's letter it will be seen that should the results next year be same as this, and the vessel sent be unable to get through the ice, it will be necessary for Lt. Greely to retreat by the ice to the vicinity of Life Boat Cove, near Littleton Island.

At all events there must be no delay next year in sending an officer of character with a small party with dogs and every preparation to push on to Greely's Colony with sledges in case the channel is closed.

A plan for this expedition of next year, with details as to men and supplies, will at an early day be submitted to you.

The expedition of this year suffered no inconvenience from cold, the temperature at no time falling to zero Fahrenheit.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

(5 enclosures.)

NOTE.—Enc's were copies 5329 mis., 1882, and 3566 mis., 1881, mem. of subs. stores taken by Lt. Greely, chart of Smith's Sound, and papers found by party rel. to Alert & Discovery, H. B. M. S. S.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(111.)

[Vol. 20, C. S. O., page 317.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, October 10th, 1882.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to report that the party sent with supplies for Lady Franklin Bay, returned here yesterday morning, having been unable to proceed beyond 79°, 20' north latitude on account of firm ice which has not broken up this year.

The party, however, although not fully accomplishing what was hoped they would, has successfully and fully executed its purpose in accordance with the written directions of Lieut. Greely in case of this contingency of solid ice, which was fully considered and provided for.

A more detailed report, with copies of maps of the ship's course, and the report of Mr. Wm. M. Beebe, who accompanied the expedition, will be sent as soon as they can be properly copied.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer, U. S. A.

Nov. 9, 1883.

(112.)

[Vol. 20, C. S. O., page 327.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, October 11th, 1882.

MR. THOMAS M. MOLLOY,
U. S. Consul, St. John's, N. E.:

MY DEAR SIR: I am informed that certain of the stores intended for Lady Franklin Bay, and which were warehoused in St. Johns on the return of the expedition, are liable to be damaged unless given special attention. Among these are:

One box containing sealskin clothing and two sleeping bags.

One box containin g two sleeping bags.

One bundle of dog harness.

Several cases of raisins.

I will be under great obligation if you will cause these stores to be examined, aired, and otherwise cared for while they remain stored as at present, and will send bill covering charges therefor to this office, where it will be promptly paid.

I take this occasion to express my thanks for your assistance, rendered to the expedition of this year as well as to that sailing in 1881.

I am, sir, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(113.)

[Vol. 21, C. S. O., pages 53, 54, and 55.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, October 26th 1882.

Honorable CARL STEEN ANDERSEN DE BILLE, *Minister Resident and Consul General for Denmark, 2109 Pa. Avenue, Washington, D. C. :*

SIR: On December 5th, 1881, I had the honor to request that you would obtain, through your Government, an order upon the proper officials in Greenland for the preparation of certain stores required for the relief expedition of 1882 to Lady Franklin Bay.

The stores so requested were made ready and delivered when the relief ship touched at Godhaven in July last, and I desire to express my thanks for the prompt attention given to my request by you, and to the officials resident in Greenland.

It is expected that a similar relief expedition will be sent in 1883, and I respectfully request that the following named articles may be ready for delivery at Godhaven on board the relief steamer, not later than July 10th, 1883:

40 pairs seal-skin pants, large size, and to be made of the skin of the pup seal.

14 temiaks, large size, to be made of best seal skin.

40 temiaks, large size, to be made of deer skin.

Also two native dog drivers, skillful and reliable men, who can accompany expedition and be prepared to remain until the fall of 1884.

Certain of these articles were informally requested of Mr. Knuhtsen, inspector at Godhaven, in a letter of Sept. 11th, 1882, written by Mr. W. M. Beebe, who commanded the expedition of this year, which request included other articles than those herein named, but which will not be required for the purposes of the expedition next year. The articles named in this letter are all that need be supplied.

I remain, sir, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

One enclosure.

NOTE.—The following is a copy of enclosure to above letter:

GODHAVEN, NORTH GREENLAND, *September 11th, 1882.*

Mr. H. KNUHTSEN,
Acting Inspector North Greenland:
(Through the Governor of Disco.)

SIR: In order that supplies necessary for the expedition which will be sent next year by the United States Government to Lieut. Greely's party (now at Lady Franklin Bay) may be in readiness upon the arrival of the ship at this port early in July, I have respectfully to request that the following articles may be provided for in anticipation of the official request which will be made to the Danish Government by the Chief Signal Officer U. S. Army:

26 temiaks, largest size.

46 seal-skin pants, largest size.
 12 sleeping bags (line dwith dog skin and large enough for 2 men of large stature).
 500 lbs of matak.
 50 large coils thongs for traces and lines.
 2 sledges, to be made strong and suitable for a severe journey.
 2 reliable and skillful native drivers will be wanted.

I make this request without official authority, but with the knowledge that the supplies above enumerated will be required, and probably in larger quantities than I have specified.

Permit me to thank you and the governor of Disco personally for your past kindness, and to assure you that your interest and kind aid will be highly appreciated by my Government.

Very respectfully, your obedient servant,

W. M. BEEBE, JR.

A true copy.

LOUIS V. CAZIARC,

1st Lieutenant 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(114.)

[Vol. 21, C. S. O., p. 411.]

WAR DEPARTMENT, OFFICE CHIEF SIGNAL OFFICER,
Washington City, November 15, 1882.

To the honorable the SECRETARY OF WAR:

SIR: In June of this year certain supplies designed for the use of the Lady Franklin Bay party were transferred by Major Hawkins, C. S., to the depot quartermaster at New York City, for transportation to St. John's, N. F., and thence by the relief steamer to Lieut. A. W. Greely.

As the expedition failed to get through, the stores pertaining to it were stored at St. John's for next year. Among these stores are 1,512 lbs. of butter, 1,020 lbs. of lard, 20 ($\frac{1}{2}$) boxes raisins, and 400 lbs. pickled fish, all of which are liable to become injured if kept a year. The fish and raisins will no doubt become worthless. With a view to preventing loss, I respectfully request authority to select one of my own officers to take up these stores and then sell them at St. John's, turning the money into the Treasury. The remaining stores will keep perfectly good where they are, thus saving the great and unnecessary expense of transporting a duplicate supply next spring.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

CORRESPONDENCE RELATING TO LADY FRANKLIN BAY RELIEF EXPEDITION OF 1883.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Nov. 9, 1883.

Maj. HENRY GOODFELLOW,
Judge-Advocate, Washington, D. C. :

SIR: I have the honor to send herewith, with list of enclosures attached, the principal correspondence relating to the Lady Franklin Bay relief expedition of 1883.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Major-General, Chief Signal Officer, U. S. A.

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Nov. 9, 1883.

Major HENRY GOODFELLOW,
Recorder Court of Inquiry, Washington, D. C. :

SIR: I have the honor to transmit herewith four (4) copies of letters from the files of this office, supplementary to those already sent. (Exp'd'n 1883.)

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

(Vol. 21, C. S. O., pp. 53-55, 1092 Mis., 1883; vol. 28, C. S. O., p. 79; vol. 28, C. S. O., p. 97.)

(115.)

EXPEDITION OF 1883.

Vol. 21, C. S. O., page 86, letters sent.
" 24, " " 169, transcript from L. R. book, 6151 Mis., Nov. 8, '82, and end't.
" 21, C. S. O., page 301, letters sent.
" 21, " " 412, "
" 22, " " 344, "
" 23, " " 191, "
" 23, " " 344, "
" 25, " " 172, "
" 25, " " 273, "
" 26, " " 105, "
" 26, " " 107, "
" 25, " " 464, "
" 26, " " 75, "
" 26, " " 226, and indorsement of Sec. of War (2460 Mis., 1883)
" 26, " " 274, letters sent.
" 26, " " 341, "
" 26, " " 413, "
" 26, " " 413, "
3197 Mis., 1883, letters received.
3168 " 1883, "

- Vol. 17, Mis., page 35, letters sent.
 " 17, " " 355, "
 3166 Mis., 1883, letters received.
 Vol. 17, Mis., page 355, letters sent.
 " 17, " " 356, "
 " 27, C. S. O., " 229, "
 " 27, " " 257, "
 " 18, Mis., " 179, "
 6689 Mis., '83, letters received.
 Vol. 23, C. S. O., page 254, letters sent.
 " 23, " " 255, "
 S. O. 31, A. G. O.
 Memo. 4, O. C. S. O.
 1417 Mis., 1883.
 G. O. 17, A. G. O.
 S. O. 67, "
 S. O. 113, "
 S. O. 117, "
 L't Garlington's instructions, dated June 4, '83, & enclosures.
 S. O. 128, A. G. O.
 S. O. 129, "
 Vol. 17, Mis., page 369, letters sent.
 Vol. 23, C. S. O., page 311, letters sent.
 " 23, " " 310 "
 " 23, " " 312 "
 " 24, " " 441 "
 " 25, " " 171 "
 " 25, " " 347 "
 " 25, " " 367 "
 " 25, " " 392 "
 " 25, " " 414 "
 " 17, Mis. " 354 "
 " 17, " " 362 "
 " 27, C. S. O. " 298 "
 Vol. 23, C. S. O., page 139, letters sent.
 " 24, " " 36, "
 " 24, " " 294, "
 " 25, " " 2, "
 " 25, " " 173, "
 " 25, " " 226, "
 " 25, " " 400, "
 " 17, Mis., " 277, "
 Vol. 17, Mis., page 367, letters sent.
 " 27, C. S. O., " 298, "
 " 28, " " 66, "
 " 30, " " 15, "
 Vol. 25, C. S. O., page 174, letters sent.
 3126 Mis., 1883, letter received.
 Vol. 17, Mis., page 352, letters sent.
 3363 Mis., 1883, letters received.
 3362 " 1883, "
 Vol. 27, C. S. O., 298, letters sent.
 3742 Mis., 1883, letters received.
 5997 " 1883, "
 Vol. 29, C. S. O., page 467, letters sent.
 5996 Mis., 1883, letters received.
 Vol. 18, Mis., page 116, letters sent.
 Vol. 29, C. S. O., page 473, letters sent.
 " 30, " " 15, "
 6059 Mis., 1883, letters received.
 Vol. 30, C. S. O., page 38, letters sent.
 " 18, Mis., " 133, "
 " 30, C. S. O., " 314, "
 " 30, " " 409, "
 Signal service notes No. 10.

(116.)

[Vol. 21, C. S. O., page 86.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, October 27, 1882.

To the COMMANDING GENERAL DEPARTMENT OF DAKOTA,
Fort Snelling, Minn.

(Through the Adjutant-General, War Department):

SIR: It will be necessary for this bureau to select without delay an officer to take charge of and a half a dozen men to compose an expedition to proceed next spring to Lady Franklin Bay, as relief to the Greely Arctic party, and I desire your special aid in selecting a suitable officer and men for this duty, to enable me to request the Secretary of War to authorize their detail.

This will be an expedition requiring the very best manly character on the part of persons composing it, and it is for that reason I now ask your aid in fixing upon such persons.

There should be no possible doubt of the character of the officer, who should possess manly qualities of the first order. Sobriety, high intelligence, unflagging energy and zeal, and with faculty to command, are but a part of these indispensable qualities.

The men should be well known to possess high qualities, and in fact be selected by the officer. Sledging may be necessary. It has occurred to me that Major Hughes, from his personal knowledge, might name an officer who would most fully possess these requisites.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

NOVEMBER 9, 1883.

(117.)

[Vol. 24, C. S. O., page 169.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, November 1, 1882.

The honorable the SECRETARY OF WAR:

SIR: I have the honor to enclose herewith copy of plan for relief expedition of next year for the Arctic party at Lady Franklin Bay, which plan Lieut. Greely wished followed in the event of a failure to reach him this year. This seems to leave us only to follow his plans.

Lieut. Greely must be supplied next year or must retreat southward with his party during the fall, but even in this event the relief party will still be indispensable.

In sending the expedition next year every possible contingency must be provided for, and I request therefore your approval of this (Greely's) enclosed plan, which involves sending an officer and ten (10) men, with supplies for forty persons for fifteen months. It will also be necessary to send a medical officer, and Acting Assistant Surgeon Hoadley, who accompanied the expedition of this year, has shown himself a most competent officer and is willing to serve next year. The expedition should leave St. John's, N. F., something earlier than this year, probably by June 15th, so as to take advantage of all favorable conditions of the ice, and if possible reach Discovery Harbor. Should this not be possible, the vessels would land the party and stores at Life Boat Cove and return southward. The party would then establish itself for the winter and endeavor to open communication with Lieut. Greely by sledges and assist him in his retreat from Lady Franklin Bay. It would not be expected that the station at Life Boat Cove would be kept up longer than August, 1884, when a vessel would bring the entire party away. Should the vessel sent in 1883 reach Lieut. Greely, and his party be furnished with the necessary supplies, it will be desirable that the station at Lady Franklin Bay be maintained at least one year longer, in order to realize the full

purposes for which it was originally established, and which are of the highest importance. It is most desirable that the officer and the enlisted men who are to go next year be detailed as early as practicable, in order that they may be trained and have experience in rowing and managing boats, and in the use of boat compasses, and also that their personal outfit may be secured in time. In addition to the men of the line of the Army who are now under detail for this duty (four in number) four others and one commissioned officer will be required from volunteers, and brought here for duty not later than February 1st, 1883, that they may be instructed and made ready for the expedition to sail in June. The remaining two men should be of this service and their names will be submitted in due time. It is desirable that men be selected whose service has been in the Northwest, and it is also important that the entire party, before going, should be familiar with boats and their management under all conditions. I respectfully request your early and favorable consideration of these questions, and remain

Your obedient servant,

W. B. HAZEN.

Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Two enclosures.

NOTE.—Enclosures were copies of Pvt. Thoma's chart of Beebe's voyage, and extract of 3566 Mis., 1881. (The chart referred to is a reproduction of that published in Signal Service notes No. 5.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

NOVEMBER 9, 1883.

(118.)

[Nov. 8, 1882. 6151. War Dep't. 2 enclos. Transcript from letters received book.]

WASHINGTON, Nov. 1, 1882.

Returns copy of plan for relief expedition of next year for the Arctic party at Lady Franklin Bay. It seems that it would be much more desirable to endeavor to procure from the Navy the persons who are needed for this relief party. Requests views of the C. S. O. on the subject.

[2d endorsement.]

OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., Nov. 8, 1882.

Respectfully returned to the honorable the Secretary of War, the matter referred to having been very carefully considered. To change the full control of this duty now would be swapping horses while crossing the stream, and when in the middle of the stream. To manage it with a mixed control, or even with mixed arms of the service under a single control, would be hazardous, and such action is strongly advised against by the many persons of both Army and Navy I have discussed the subject with. The ready knowledge of boats and instruments is but a very small part of the indispensable requisites in this case. This whole work has required a great deal of attention and study from the first, and I have not a doubt but any transfer of control now would result in failure to convey all the threads of this half finished work, and that it would work disastrously in many ways.

In view of these facts, I would consider the transfer now of any part of this work to any other control as very hazardous and without any apparent promise of advantage.

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

If it is proposed to assign 6 privates of the Marine Corps, and they can be selected with a certainty of getting the proper men, it would be satisfactory. But the officer to go with them should, without fail, be selected in a way that would leave no possible doubt in my mind of his efficiency, which I can but have only by such means of selection as in the Terry letter.

W. B. H.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(119.)

[Vol. 21, C. S. O., page 301.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, November 10, 1882.

To the ADJUTANT-GENERAL,
War Department:

SIR: I have the honor to acknowledge the receipt of your letter of the 7th instant, returning communication from this office of October 27 ult'o, addressed to the commanding-general Department of Dakota.

The enclosed letter is substituted for that which is considered objectionable, but requires the following explanation: The letter previously sent was intended rather as a suggestion than as an attempt to use the Adjutant-General merely as a channel of communication. It was forwarded through the Adjutant-General for the information and action of the Secretary of War and of the General of the Army, to be suppressed, or amended, or changed in form, as they might deem proper. The present form of letter therefore accomplishes, by other means, what was fully intended in the first letter.

I am, very respectfully, y'r ob'd't serv't,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

1 enclosure.

NOTE.—Following letter is a copy of enclosure to above:

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, November 10, 1882.

The ADJUTANT-GENERAL,
War Department:

SIR: I have the honor to make the following statement to the Department, for the information of the Secretary of War and the General of the Army, and for such action as they may deem advisable and proper:

It will be necessary for this bureau to select without delay an officer to take charge of and half a dozen men to compose, the expedition to proceed next spring to Lady Franklin Bay as relief to the Greely Arctic party, and to suggest the selection of a suitable officer and men for this duty, to enable me to request the Secretary of War to authorize their detail.

This will be an expedition requiring the very best manly character on the part of persons composing it, and it is for that reason I now ask aid in fixing upon the proper persons. There should be no possible doubt of the character of the officer, who should possess manly qualities of the first order. Sobriety, high intelligence, unflagging energy and zeal, and faculty to command are but a small part of these indispensable qualities. The men should be known to possess high qualities, and in fact be selected by the officer. Sledging may be necessary.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

NOTE.—Above letter was sent as encl. to preceding letter to A. G. O.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

NOVEMBER 9, 1883.

(120.)

[Vol. 21, C. S. O., page 412.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, November 15, 1882.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to report that Acting Assistant Surgeon Hoadley, who entered into a contract with the Surgeon-General of the Army for service with the Lady

Franklin Bay expedition, was, by the failure of the supply party to reach that station, obliged to return to the city of Washington, where he has been since October 9th, 1882.

I have the honor to request that his station be fixed at Washington, with a view of granting his allowances for commutation of quarters at this station from October 9th until November 30th.

I have arranged, through the kindness of Prof. Baird, for the employment of Dr. Hoadley after Nov. 30th at the Smithsonian Institution, where Dr. Hoadley will remain until the supply expedition of 1883 is ready.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

NOVEMBER 9, 1883.

(121.)

[6854 Mis., 1882. L. S., vol. 22, C. S. O., 1882, page 344.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Dec. 16, 1882.

Mr. T. N. MOLLOY,
U. S. Consul, St. John's, N. F. :

DEAR SIR: It having been represented to me that Mr. J. W. Norman, who was first officer of the Neptune in the expedition this year, and who served in the same capacity on the Proteus the previous year, has large experience in the Arctic seas, and is in all respects a desirable man to secure for the relief expedition next year, I write to request that you will endeavor to engage his services, to commence when the expedition next year shall be ready to sail. I request also that you secure the services of three other men for the same expedition, the selection to be such as yourself and Mr. Norman can approve. These persons must be men of character and experience; of good habits, and inured to the climate. Regarding compensation to be paid them, you will please use your own judgment as to the amount they should receive and any further conditions of their employment. It is thought that experienced sealers, accustomed to the ice, will be of valuable assistance to the expedition.

I have the honor to be, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(122.)

[Vol. 23, C. S. O., page 139.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Jan'y 6, 1883.

Mr. T. N. MOLLOY,
U. S. Counsl, St. John's, Newfoundland :

DEAR SIR: It having been directed by the honorable the Secretary of War that all stores furnished by the Subsistence Department of the Army for the relief expedition to Lady Franklin Bay, now stored at St. John's, be returned to the depot commissary at New York City, I have the honor to inclose herewith a copy of the invoice of these stores of June 13th, 1882, the original receipt of Messrs. Harvey & Co., made Sept. 28th, 1882, at the time the stores from the Neptune were warehoused, and a memorandum of the packages received from the Neptune by Messrs. Harvey & Co., and to request that you will cause the stores named in the invoice of Major Hawkins, U. S. A. depot commissary, New York City, N. Y., in care depot quartermaster.

Charges for doing this will be paid at this office upon notification from you of the

amount. I trust that you will be able to employ for the transfer of these stores some person who is entirely reliable, and if possible one who had knowledge of the packages when received, and who will therefore be less liable to make mistakes.

With renewed thanks for your many kind offices on past occasions, I remain with great respect,

Your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

(3 enc., (2, 6, and 7), 5387, Mis. 82, copy filed.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(123.)

[Vol. 23, C. S. O., page 191.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Jan. 10, 1883.

Mr. THOS. N. MOLLOY,
U. S. Consul, St. John's, N. F.:

DEAR SIR: I find myself again obliged to request your kind assistance in preparing for the relief expedition of this year to Lady Franklin Bay. It is not improbable that the party sent will be stopped by the ice, as was the case last year, and in that event it will take station at Life-Boat Cove and await the arrival of Lt. Greeley, who must retreat southward this fall if supplies do not reach him. It will, therefore, be necessary to provide quarters sufficient to house the stores and the combined parties.

It is thought that the buildings required can be provided better and at less expense if made ready at St. John's than if sent from New York or elsewhere.

I have the honor to enclose a description of the buildings required, and to request that you will contract with some reliable builder or dealer in lumber to have the material made ready and prepared for shipment on the relief vessel. Care should be taken to have the lumber for frame cut to the exact lengths required, the rafters framed ready to go together, the boards for roof and walls cut to proper lengths, and, in short, everything done to facilitate the work of putting up the buildings when the station is reached.

All this should be complete not later than June 1st, 1883, that there may be no delay.

Trusting that you will give this matter your kind attention,
I remain, very respectfully, yours,

W. B. HAZEN,
Brig. & Bvt. Maj Gen'l, Chief Signal Officer.

1 enc.

NOTE.—Following is copy of enc.

Plan of house and store-room for winter quarters at Polaris winter quarters, Life-Boat Cove.

HOUSE.

Building to be 25 ft. wide and seventy-five feet long, outside measurement. Posts to be 10 ft. long. Roof to be the usual form, with ordinary pitch, to be made of tongued and grooved stuff, which as put in place will have the edges painted with coal-tar or other material. The walls of the building will be similarly made, the boards running perpendicularly, and will be sheathed with similar material. The interior will be ceiled with matched stuff nailed to ceiling, joist resting on plates. On one side of main building there will be a shed extension 10 ft. wide and twenty-five ft. long. The walls and roof to be as in main building, the roof being an extension of the roof of main building. This addition will not be ceiled overhead.

The floors throughout will be of ordinary stuff, and the flooring joist must be stiff enough to prevent undue springing.

There will be in main building three windows, for which frames must be made to take a double sash. This is of the size of a single sash, but provided to take two, in order to resist cold.

The sash should be stationary. A similar sash will be required for the extension. The main building will have no exterior door, but there will be required one frame and door between rooms and one from main building to the extension. These doors and frames, with two others required, can be of uniform size, made very plain, and the doors made of matched stuff battened, all to be 2 ft. 6 in. x 6 ft.

The lumber should be clear white pine $\frac{3}{4}$ in. thick, and cut to right lengths. The frame should be of two-by-four stuff above the sills.

The object is to get at the lightest expense a building which will accommodate the party for one year. The partitions, bunks, &c., need not be provided for.

No hardware except the glass need be made ready.

STORE-HOUSE.

A building 20 x 30 ft., without floor, sheathing, or ceiling, with no windows, and with one door, the whole to be very plain, and as cheaply constructed as possible.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(124.)

[Vol. 23, C. S. O., page 254.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Jan. 13, 1883.

The ADJUTANT-GENERAL,
War Department :

SIR: I have the honor to request that orders issue in usual form for the (detail?) of the following-named enlisted men of the Army, now on duty in the department of Dakota:

Sergeant John Kenny, Troop I, 7th Cavalry, Fort Totten, Dakota; Corporal Frank Elwell, Company E, 3rd Infantry, Fort Ellis, Montana; Artificer E. T. Montz, Company A, 17th Infantry, Fort A. Lincoln, Dakota; Private John J. Murphy, Company F, 11th Infantry, Poplar Creek Agency, Montana.

These men have volunteered, and have been selected by the department commander for duty with the proposed relief expedition to Lady Franklin Bay, Grinnell Land, and it is requested they report here in person at the earliest date practicable with the interruptions in travel at this season of the year.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(125.)

[Vol. 23, C. S. O., page 255.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Jan. 13, 1883.

The ADJUTANT-GENERAL,
War Department :

SIR: I have the honor to request that telegraphic instructions issue directing 1st Lieutenant Ernest A. Garlington, 7th Cavalry, Fort Buford, Dakota (now at Fort

Snelling), to report in person to the Chief Signal Officer, in this city, for duty in connection with the proposed relief expedition to Lady Franklin Bay, Grinnell Land, his presence here being necessary at the earliest practicable date.

I am, very respectfully, your obedient servant.

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(126.)

[Vol. 23, C. S. O., page 312.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Jan. 17th, 1883.

Commodore JOHN WALKER,
Chief of Bureau of Navigation, U. S. A.:

SIR: Not long since I had the honor to request of the Hon. Secretary of the Navy certain articles needed for the relief expedition of this year to Lady Franklin Bay. This request was approved and referred to Chief Constructor T. D. Wilson, from whom I now learn that two (2) small boat compasses and one hundred (100) fathoms of lead-line stuff, being among the articles required, pertain to the Bureau of Navigation, under your charge. I therefore respectfully request that you will cause them to be supplied, and that you will inform me when and where to send for them.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(127.)

[Vol. 23, C. S. O., page 210.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Jan. 17th, 1883.

Commander EARL ENGLISH, U. S. N.,
Chief of Bureau of Equipment and Recruiting:

SIR: Not long since I had the honor to request of the Hon. Secretary of the Navy such assistance in the way of material and certain supplies required for the relief expedition to Lady Franklin Bay, expected to be sent out in June of this year, as could with propriety be furnished by the Navy Department. This request was referred to Chief Constructor, T. D. Wilson, approved. It is now learned that certain of the articles requested pertain to the Bureau of Equipment and Recruiting, under your charge.

I enclose herewith a list of such articles, and respectfully request that may be supplied for the use of the expedition. If informed when and where they can be obtained I will send for them.

I have the honor to be your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

NOTE.—The following is a copy of enc. ;

Memoranda of articles required for relief expedition to Lady Franklin Bay, pertaining to Bureau of Equipment and Recruiting, U. S. Navy.

ARTICLES.

55 sail-needles, assorted sizes.
 5 sewing-palms.
 10 balls sail-twine, assorted numbers.
 1 marlin spike, small.
 1 ball spun yarn.
 1 ball marlin stuff.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(128.)

[Vol. 23, C. S. O., p. 311.]

WAR DEPARTMENT,
 OFFICE CHIEF SIGNAL OFFICER,
Washington City, Jan. 17, 1883.

Chief Constructor T. D. WILSON,
Navy Department :

DEAR SIR: Referring to your favor of November 1st, 1882, in which you indicate that certain articles required for the relief expedition to Lady Franklin Bay can be furnished from the Washington Navy-Yard, I have the honor to enclose a list of these articles as pertain to the Bureau of Construction and Repair, and to request that you will cause them to be repaired. This should be done not later than the 31st of May next, as the expedition must sail early in June.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

1 enc.

Following is copy of encl. :

Memorandum of articles required for relief expedition to Lady Franklin Bay, June, 1883, and which pertain to the Bureau Construction and Repair, U. S. Navy.

ARTICLES.

Two whale-boats of good quality (to be painted black), with masts, sprits, and sails, rudders, and full complement of oars.

One light clinker-built cedar dingy, 12 ft. long, 5 ft. beam (painted black), with masts, sprit, and sail, rudder, and eight sculls, 8 ft. long. Boat to be fitted with brass row-locks.

Ten ice-chisels, with handles. The entire instrument to be 9 ft. long. Handles of best ash, $1\frac{1}{2}$ in. in diameter, to be fitted and securely fastened into the sockets of two-inch framing-chisels, which have been temper-drawn and are beveled equally on both sides.

Six ice-paddles, 8 ft. long, with similar chisel at one end and a small paddle tipped with thin metal at the other end.

Six square ft. of light sheet-lead.

Five pounds of copper nails, assorted sizes, for repairing boats.

Six papers copper tacks, assorted.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(129.)

[Vol. 23, C. S. O., page 344.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Jan. 18, 1883.

The ADJUTANT-GENERAL,
War Department :

SIR: In continuation of the subject of my letters of the 13th and 15th of January, and in answer to yours of the 17th, I have the honor to ask that the following facts be laid before the Secretary of War :

Lieut. Garlington is now absent from his station at Fort Snelling, Dakota, to which place I believe he has been ordered by General Terry to await the further orders of the Secretary of War in this case ; he is naturally anxious to know the decision. The preparations for next year's expedition should be left very largely to his judgment. The plan of the voyage contemplates reaching Lieut. Greely, if possible, at Lady Franklin Bay. If the ice should prevent this, then the whole party is to be left at Littleton Island, where a depot is to be established and the necessary shelters erected. The vessel is to return to this country, leaving the party at Littleton Island, where they will await Lieut. Greely, who in September of this year will march to the south, expecting to find the party there. It will, of course, be necessary to send sledge parties from their depot to the north to communicate with Lieut. Greely and to offer him any succor he may need. Lieut. Garlington should have all the time between this date and the time of his sailing to properly equip and superintend the instruction of his men. I therefore ask that the Secretary of War reconsider the decision to delay sending him here before that date. I am confident that it is not too early to commence the needful preparation and study of the work in hand, the manufacture of the outfit, and many other details. With regard to the enlisted men asked for by my second letter, the above reasons apply with less force, but lead me to think that the party should be brought here with as little delay as possible.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(130.)

[Vol. 24, C. S. O., page 36.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, January 29th, 1883.

COMMISSARY-GENERAL, U. S. ARMY :

SIR: In accordance with your request, I have the honor to inform you that the subsistence stores furnished by your department for the Lady Franklin Bay relief expedition of last year have been shipped to Major Hawkins, depot commissary at New York, having left St. John's on the steamship Alhambra January 18th. These being the stores invoiced by Major Hawkins to Lieut. A. W. Greely in June, 1882, and which are charged to that officer, I request that you will give such orders as will prevent complication of Lieut. Greely's accounts.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

The original bill of lading, received this day, is herewith enclosed.

Official copy of the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(131.)

Memorandum left for verification to A. G. O.

[Special Orders No. 31.]

HEADQUARTERS OF THE ARMY,
 ADJUTANT-GENERAL'S OFFICE,
 Washington, February 6, 1883.

[Extract.]

1. By direction of the Secretary of War, 1st Lieutenant Ernest A. Garlington, 7th Cavalry, having volunteered for the service, will be relieved from duty in the Department of Dakota by the commanding general of that department, and will then report in person to the Chief Signal Officer, in this city, for duty in connection with the proposed relief expedition to Lady Franklin Bay, Grinnell Land. The journey, as directed, is necessary for the public service.

2. By direction of the Secretary of War, the commanding general Department of Dakota will order the following-named enlisted men, who have volunteered for service with the proposed relief expedition to Lady Franklin Bay, Grinnell Land, to report in person to the Chief Signal Officer, in this city:

Sergeant John Kenney, Troop I, 7th Cavalry; Corporal Frank Elwell, Company E, 3d Infantry; Artificer Orville F. Moritz, Company A, 17th Infantry; and Private John J. Murphy, Company F, 11th Infantry.

By command of General Sherman:

R. C. DRUM,
Adjutant-General.

(132.)

[1092 Mis., 1883.]

ROYAL DANISH LEGATION,
 Washington, D. C., February 11th, 1883.

General W. B. HAZEN,
Chief Signal Officer, Washington, D. C.:

SIR: Referring to your letter of October 26th, 1882, and my note answering the same, of December 1st, I now have the honor to inform you that according to a letter to this legation from the foreign office in Copenhagen, dated Jan'y 26th, orders have been sent to the colonial inspector at Godhavn, Greenland, to have ready not later than July 10th, 1883, the objects mentioned in your said letter as required for the Lady Franklin Bay expedition. I am, however, instructed to point out to you that it may prove impossible to get for you the "40 temiaks, large size, to be made of deer skin;" these deer skins are scarce and usually not to be had beyond what the Greenlanders want for their own use. As to your request to obtain two native dog-drivers for accompanying the expedition and remaining with the same until the fall of 1884, I am instructed to inform you that the authorities in Copenhagen feel some hesitation in ordering the Greenland officials to assist in any such engagement.

Skillful and reliable dog-drivers would have to be selected amongst the best hunters and fishers, but the absence of two such men for a whole year would in several respects be acutely felt at their home. Experience has also shown that native Greenlanders return from engagements like the intended with habits and inclinations unfitting them for their former life and pursuits.

I remain, sir, your very obedient servant,

BILLE.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

S. Ex. 100—AP—7

(133.)

[Vol. 24, C. S. O., page 294.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, February 12, 1883.

The COMMISSARY-GENERAL, U. S. ARMY:

SIR: Referring to letter from your office dated the 7th instant, in which you state that certain stores not furnished by the Subs. Dep't have been received by Major Hawkins from St. John's, N. F., I have the honor to request that the seven cases mentioned may be retained in the depot at New York until the expedition of this year shall be fitted out. All of the stores for Lady Franklin Bay were on the return of the expedition warehoused at St. John's, and when those furnished by the Subsistence Department were ordered to N. Y. it was necessary to separate them from the others. In the absence of any officer or other person having knowledge of the stores it is not strange that the error in shipment should have been made.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer.

Official copy of the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(134.)

[Vol. 24, C. S. O., page 441; 1245 Mis., 1883.]

WASHINGTON CITY, Feb. 23, 1883.

Lieut. Col. HENRY HODGES,
Deputy Q. M. General, U. S. A., New York City:

SIR: Referring to your letter of the 19th inst., relative to certain Q. M. stores invoiced to Lieut. A. W. Greely, commanding expedition to Lady Franklin Bay, on June 23rd, 1882, I have the honor to inform you that the condition of the ice in Smith's Sound having prevented the vessel from reaching Lieut. Greely's party, the stores referred to, with others belonging to the relief expedition, were returned to St. John's, N. F., and stored in anticipation of the expedition of this year, which, if successful, will enable Lieut. Greely to receipt for these stores. Should the vessel sent this year be unable to get through the ice, the stores will be landed at Life-Boat Cove, on the west coast of Greenland, where a station will be established, to which Lieut. Greely's party can retreat.

Very respectfully,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(135.)

[Vol. 25, O. C. S. O., page 2.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Feb'y 26th, 1883.

The honorable CARL STEEN ANDERSON DE BILLE,
Consul-General, Danish Legation, Washington, D. C.:

MY DEAR SIR: I have the honor to acknowledge the receipt of your letter of the 11th instant, giving information relative to the supplies for the Lady Franklin Bay expedition, and in reply to say the arrangements are now completed for procuring

these supplies, and I take this opportunity to assure you of my appreciation of the kind assistance you have rendered this office.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. General, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(136.)

[Memorandum No. 4.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, February 28, 1883.

Captain William H. Clapp, 16th Infantry, acting signal officer, will give 1st Lieutenant Ernest A. Garlington, 7th Cavalry, acting signal officer, all information regarding the Lady Franklin Bay party, its personnel, stores, depots, and the outfit of the supply party now organizing, and will transfer the supervision of that work to Lieutenant Garlington, making a report when the transfer is completed.

By order of the Chief Signal Officer:

LOUIS V. CAZIARC,
1st Lieutenant 2d Artillery, Acting Signal Officer.

Official:

LOUIS V. CAZIARC,
1st Lieutenant, 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(137.)

[1417 Mis., 1883.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Feb'y 28th, 1883.

The CHIEF SIGNAL OFFICER:

SIR: As required in memorandum of this date I have the honor to report that I have referred to to Lieut. Garlington, A. S. O., all papers and memoranda relating to the expedition now fitting out, and have relinquished to him the supervision of that work. I shall at all times be ready to give him all the information and assistance in my power.

Very respectfully, your ob't servant,

W. H. CLAPP,
Capt. 16th Inf't'y, A. S. O.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(133.)

[Vol. 25, O. C. S. O., page 173.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, M'ch 10, 1883.

To the honorable SECRETARY OF WAR:

SIR: I have the honor to submit the enclosed requisition for subsistence stores for sale to the officers and enlisted men composing the Lady Franklin Bay relief expedition.

In the sundry civil bill, which passed at the recent Congress, the sum of five thousand dollars was appropriated for the purchase of these stores, but owing to some oversight this money was not made immediately available, as was the money for the expenses of the expedition. I therefore suggest that the Subsistence Department be directed to purchase these stores as asked for in the enclosed requisition out of the money appropriated for that department for the current fiscal year, the same to be reimbursed to that department as soon as the appropriation made in the sundry civil bill becomes available.

These stores should be securely packed in hooped boxes of convenient sizes for handling, contents marked on end, and in New York not later than 1st June, 1883.

I am, sir, very respectfully, your obedient servant.

W. H. CLAPP,
Capt. 16th Infantry, Acting Chief Signal Officer, U. S. A.

Encl. pinned to rough, marked B.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(139.)

[Vol. 25, O. C. S. O., page 172.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, 10 March, 1883.

To the honorable SECRETARY OF WAR:

SIR: I have the honor to submit the enclosed requisition for medical supplies for the Lady Franklin Bay expedition, and request that they be purchased by the medical department from the unexpended portion of the allotment to the Signal Corps for the payment of medicines, &c., for the current fiscal year.

These stores should be securely packed and ready for shipment in New York not later than 1st June, 1883.

Very respectfully, your obedient servant,

W. H. CLAPP,
Capt. 16th Infantry, Acting Chief Signal Officer, U. S. A.

Encl. pinned to rough marked A. 1, 1541. Mis. '83.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(140.)

[Vol. 25, O. C. S. O., pg. 171.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, M'ch 10, 1883.

The honorable SECRETARY OF WAR:

SIR: I have the honor to request that the necessary authority be given to the Quartermaster-General to issue the camp and garrison equipage called for in the enclosed requisition.

The articles asked for should be in New York by 1st June, 1883.

Very respectfully, your obedient servant,

W. H. CLAPP,
Capt. 16th Infantry, Acting Chief Signal Officer, U. S. A.

NOTE.—Following is copy of enclosure :
(Form No. 44. Voucher to abst. K. Special requisition for C. C. & G. E. Lady Franklin Bay.)

38 buffalo overcoats.
24 fur caps (large size).
24 fur gauntlets.
40 pairs Arctic overshoes.

E. A. GARLINGTON,
1st Lieut. 7th Cavalry, A. S. O., Com'd'g Det.

WASHINGTON, D. C.,
March 10, 1883.

(In duplicate.)

Approved.

W. H. CLAPP,
Capt. 16th Infantry, A. C. S. O.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(141.)

[Vol. 25., O. C. S. O., pg. 174. 1540 Mis. '83.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, M'ch 12, 1883.

The CHIEF OF ORDNANCE,
War Department :

SIR: I have the honor to forward herewith requisition for ordnance and ordnance stores by 1st Lieut. E. A. Garlington, 7th Cavalry, commanding the detachment for the relief of the Lady Franklin Bay expedition.

I am, very respectfully, your obedient servant,

W. H. CLAPP,
Capt. 16th Infantry, Act'g Chief Signal Officer.

1-1540. Miss., 1883.

1 Enclosure.

NOTE.—Following is copy of enclosure :

Requisition for ordnance and ordnance stores for use of detachment commanded by 1st Lieut. E. A. Garlington, 7th Cav'y :

6 rifles, Springfield, .45.
10,000 cartridges, .45 (1,000 reloading).
8 partridge belts (Mills').
15 clothing bags.
1 reloading tools, complete.
24 extra ejector pins
10,000 wads.
10,000 primers.
25 powder.
2 shot-guns.
200 brass shells for shot-guns.
10,000 wads.
50 shot, 3, 8, 5, & 1 of each.
10,000 primers, shot-gun.
2 000 bullets, elongated.
(Sig'd)

E. A. GARLINGTON,
1st Lieut. 7th Cav'y.

Examined & approved.
(Sig'd)

W. H. CLAPP,
Capt. 16th Inf'y, A. C. S. O.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(142.)

[Vol. 25, O. C. S. O., pg. 226. 2076. P. D., 83. 1374 P. D., 83. 1333 Miss. '83.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Ma'ch. 13th, 1883.

Mr. T. N. MOLLOY,
U. S. Consul, St. John's, N. F. :

SIR: I have the honor to acknowledge the receipt of your communication of the 17th ult., and in reply thereto to request that you please purchase for the Lady Franklin Bay expedition the following, viz:

Seventy-five (75) tons anthracite coal to be put up in strong two (2) bushel sacks, so as to be readily handled; 1,000 pounds dried fish; subsistence to be ordered at once; and five (5) tons dog food to be ordered at once.

The foregoing supplies to be ready for shipment not later than June 10, 1883.

You will be advised at an early date as to the wages that will be paid the men to be hired at St. John's, N. F., for the expedition.

I am, very respectfully, your obedient servant,

W. H. CLAPP,
Capt. 16th U. S. Infantry, Acting Chief Signal Officer, U. S. Army.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(143.)

[Vol. 25, O. C. S. O., pg. 273.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Mar. 16th, 1883.

To the honorable the SECRETARY OF WAR:

SIR: Referring to the clause in public act No. 82, making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1884, and for other purposes, approved March 3, 1883, page 15, printed bill, Observations and Explorations in the Arctic Seas, it is proposed:

1st. That the work shall be completed at Lady Franklin Bay and Point Barrow during the fiscal year ending June 30, 1884, if possible.

2d. If it should be impossible to reach Lady Franklin Bay this year, the relief party will winter at Littleton Island, as originally agreed upon with Lieut. Greely. (See enclosure.)

Lieut. Greely marching southward in September, will winter at Littleton Island, which is all that can be done the next fiscal year, and the whole party will then be brought back the next year after, or in 1884, as the law provides.

The appropriations herein made can only cover the expenses for the next fiscal year, and should it be impossible to reach Lady Franklin Bay, a new appropriation will be necessary at the coming session of Congress to relieve the whole party which will have assembled at Littleton Island and then bring it back to this country.

The Point Barrow expedition having returned this year, the appropriation then necessary in this contingency will not exceed \$25,000.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

1 encl. : Copy of printed letters of Lt. Greely to C. S. O., dated Aug. 17, '81, 3566, Mis. 81.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(144.)

[Vol. 25, C. S. O., p. 347.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, 21st March, 1883.

QUARTERMASTER-GENERAL, *U. S. Army.*

GENERAL: I have the honor to request that you will direct the issue of the clothing called for in the enclosed requisition.

This clothing should be invoiced to 1st Lieut. E. A. Garlington, 7th Cavalry, and sent to him securely packed, care of depot quartermaster, New York City, not later than 1st of June, 1883.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Major Gen'l, Chief Signal Officer, U. S. A.

NOTE.—Following is copy of enclosure (in duplicate):
(Form 44. Vouchers to Abstract K. Special requisition for clothing, Lady Franklin Bay.)

150 woolen blankets.
28 ruber blankets.
175 blue shirts (Signal Service).
100 blouses " " $\frac{20}{2}, \frac{70}{3}, \frac{10}{4}$.
100 pairs woolen mits.
100 knit undershirts $\frac{10}{2}, \frac{10}{3}, \frac{30}{6}, \frac{30}{3}, \frac{20}{4}$.
50 pair trousers, mt'd made.

(S'g'd)

(S'g'd)

E. A. GARLINGTON,
1st Lieut. 7th Cav'y.
W. H. CLAPP,
Capt. 16th Inf'y. A. C. S. O.

WASHINGTON, D. C., *March 10, 1883.*

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(145.)

(Memorandum left for verification to A. G. O.)

[General Orders, No. 17.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, March 20, 1883.

The following extracts of an act of Congress are published for the information and government of all concerned:

AN ACT making appropriations for sundry civil expenses of the Government for the fiscal year ending June thirtieth, eighteen hundred and eighty-four, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and the same are hereby, appropriated for the objects hereinafter expressed for the fiscal year ending June thirtieth, eighteen hundred and eighty-four, namely:

* * * * *

SIGNAL SERVICE.

To be expended by the Secretary of War:

For the observation and report of storms: For expenses of the observation and report of storms by telegraph and signal for the benefit of commerce and agriculture throughout the United States; for manufacture, purchase, and repair of meteorological and other necessary instruments, five thousand five hundred dollars; for telegraphing reports, one hundred and thirty-six thousand dollars; for expenses of

storm signals announcing the probable approach and force of storms, ten thousand dollars; for cotton-belt reports, seven thousand dollars; for continuing the establishment and connections of stations at life-saving stations and light-houses, including operators, repair-men, materials, and general service, five thousand five hundred dollars; and a portion of said sum shall be expended in establishing telegraphic connection between the life-saving station at Brigantine Beach, New Jersey, and the main land and the stations above and below said Brigantine Beach Station: *Provided*, That such connection, in the opinion of the Superintendent of the Life-Saving Service, shall be deemed necessary; for instrument-shelters, five hundred dollars; for rent, hire of civilian employees, furniture, and expenses of offices maintained for public use in cities and ports receiving reports outside of Washington, District of Columbia, forty thousand dollars; office furniture, in Washington, District of Columbia, one thousand dollars; for river and flood reports, five thousand dollars; maps and bulletins to be displayed in chambers of commerce and boards of trade rooms, and for distribution, twenty-five thousand dollars; for books, periodicals, newspapers, and stationery, six thousand dollars; and for incidental expenses not otherwise provided for, one thousand dollars; in all, two hundred and forty-two thousand five hundred dollars: *Provided*, That the work of no other Department, Bureau, or commission authorized by law shall be duplicated by this Bureau.

For maintenance and repair of military-telegraph lines, thirty-five thousand dollars: *Provided*, That on and after the first day of July, eighteen hundred and eighty-three, all moneys received for the transmission of private dispatches over any and all telegraph lines owned or operated by the United States, shall be paid into the Treasury of the United States, as required by section thirty-six hundred and seventeen of the Revised Statutes: and all acts or parts of acts inconsistent herewith are hereby repealed.

Observation and exploration in the Arctic Seas: For completing the work of scientific observation and exploration on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location and return, and for completing the work of scientific exploration at Point Barrow, thirty-three thousand dollars; the same to be immediately available. And it is provided that the above work near Lady Franklin Bay and Point Barrow shall be closed, and the force there employed shall be returned to the United States within the year, eighteen hundred and eighty-four.

Pay: For pay of one brigadier-general and ten second lieutenants, nineteen thousand five hundred dollars; for pay of one hundred and fifty sergeants, thirty corporals, and three hundred and twenty privates, including payments due on discharge, two hundred thousand dollars; for mileage to officers when traveling on duty under orders, five thousand dollars; for pay of contract surgeons, three thousand six hundred dollars; for commutation of quarters to commissioned officers at places where there are no public quarters, seven thousand dollars; in all, two hundred and thirty-five thousand one hundred dollars. And the Secretary of War is authorized, in his discretion, to detail for the service in the Signal Corps, not to exceed ten commissioned officers, exclusive of the second lieutenants of the Signal Corps authorized by law and exclusive of officers detailed for Arctic sea service.

Subsistence: For the subsistence of signal service enlisted men, and for commutation of rations of signal service enlisted men, one hundred and forty-eight thousand seven hundred and twenty-seven dollars and seventy-two cents; for commutation of rations to enlisted men detailed from regiments for duty at signal stations at Lady Franklin Bay and Point Barrow, eight thousand and fifty-two dollars; in all, one hundred and fifty-six thousand seven hundred and seventy-nine dollars and seventy-two cents.

For subsistence stores for Lady Franklin Bay, for sale to the officers and men of the expedition, five thousand dollars.

For subsistence stores for Point Barrow, for sale to the officers and men and civil employees of the expedition, three thousand dollars.

Regular supplies: Fuel, authorized allowance for officers and enlisted men at Fort Meyer, Virginia, and for various offices at Fort Meyer, Virginia, and on the United States military-telegraph lines, six thousand two hundred and ninety-five dollars; commutation of fuel for two hundred and twenty enlisted men of the Signal Corps, at nine dollars each per month, twenty three thousand seven hundred and sixty dollars; commutation of fuel for two hundred and forty-three enlisted men of the Signal Corps, at eight dollars each per month, twenty-three thousand three hundred and twenty-eight dollars; forage for twenty-five mules and six horses, three thousand one hundred dollars; stationery, one hundred dollars; stoves, seven hundred and six dollars and twenty-five cents; lights, three hundred and sixty-two dollars and fifty cents; in all, fifty-seven thousand six hundred and fifty-one dollars and seventy-five cents[.]

Incidental expenses: For horse and mule shoes, five hundred dollars; blacksmiths' tools, five hundred and fifty dollars; veterinary supplies, three hundred dollars; fire

apparatus, disinfectants, and so forth, one hundred and twenty-five dollars; in all, one thousand four hundred and seventy-five dollars.

Transportation: For transportation and distribution of supplies, instruments, and material, twenty-five thousand dollars; for transportation of officers and men, eight thousand eight hundred and seventy-five dollars; means of transportation, namely: five mules, at one hundred and forty dollars each, seven hundred dollars; one spring-wagon, two hundred dollars; for repairs to means of transportation, five hundred dollars; in all, thirty-five thousand two hundred and seventy-five dollars.

Barracks and quarters: For commutation of quarters to enlisted men of the Signal Corps, eighty-four thousand one hundred and eight dollars; work and supplies at Fort Meyer, Virginia, one thousand eight hundred dollars; in all, eighty-five thousand nine hundred and eight dollars.

Clothing, camp and garrison equipage: For clothing for one hundred and fifty sergeants, at forty-six dollars and twenty-five cents each, six thousand nine hundred and thirty-seven dollars and fifty cents; clothing for thirty corporals, at forty-five dollars and eighty-four cents each, one thousand three hundred and seventy-five dollars and twenty cents; clothing for three hundred and twenty privates, at forty-four dollars and thirty-two cents each, fourteen thousand one hundred and eighty-two dollars and forty cents; clothing for twenty-two detailed men with the Arctic expedition, at forty-five dollars each, nine hundred and ninety dollars; in all, twenty-three thousand four hundred and eighty-five dollars and ten cents.

Medical department: For medical attendance and medicines for officers and enlisted men of the Signal Corps, three thousand five hundred dollars; medical attendance and medicines for officers doing duty in connection with the Signal Service, one hundred dollars; medical and hospital supplies at Fort Meyer, Virginia, nine hundred dollars; medicines furnished to officers and enlisted men from purveying depots and Army dispensaries, one thousand dollars; materials for repairs of hospitals at Fort Meyer, Virginia, two hundred dollars; in all, five thousand seven hundred dollars.

And there shall not be expended from any moneys appropriated by the act entitled "An act making appropriations for the support of the Army for the fiscal year ending June thirtieth, eighteen hundred and eighty-four, and for other purposes," approved March third, eighteen hundred and eighty-three, any money for the support of the Signal Service or Corps, except the pay of such commissioned officers as the Secretary of War may detail for service in that corps.

(146.)

(Memorandum left for verification to A. G. O.)

[Special Orders, No. 67.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, March 22, 1883.

[Extract.]

* * * * *

8. By direction of the Secretary of War the commanding general Department of Dakota will order the following-named enlisted men of Troop L, 7th Cavalry, to report in person to the Chief Signal Officer in this city for duty with the relief expedition to Lady Franklin Bay, Grinnell Land:

Sergeant *Charles Bolton* and Private *Robert J. Cook*.

* * * * *

By command of General Sherman :

R. C. DRUM,
Adjutant-General.

(147.)

[Vol. 25, p'g. 367, C. S. O.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, March 23, 1883.

QUARTERMASTER-GENERAL, *U. S. Army*:

GENERAL: I have the honor to request that you will approve and direct the issue of the quartermaster's stores on the enclosed requisition for the use of the Lady Franklin Bay party.

The stores should be sent to New York, care of depot quartermaster, not later than 1st June, '83.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

1 encl.

NOTE.—Following is copy of enclosure :

(Form #44. Voucher to abstract K. Special requisition for quartermaster's stores.)

1 grindstone (small).
1 nail puller.
4 hatchets and handles.
2 jack planes.
2 smooth planes.
1 fore plane.
2 steel squares.
1 spirit-level.
4 brad awls.
2 try squares.
1 spoke shave.
1 drawing knife.
1 pair shears (tinner).
1 brick trowel.
1 oil stone.
2 rub stones (small).
1 nail punch.
6 saw files.
25 sheets sand paper.
1 wood rasp.
6 hand-saws (assorted).
4 claw-hammers.
1 brace.
12 bits (assorted).
1 soldering iron.
2 lbs. solder.
2 screw-drivers.
1 small vise.
6 chisels (assorted).
1 tool chest.

For use of Lady Franklin Bay expedition.

E. A. GARLINGTON,
1st Lieut. 7th Cavalry.

Approved:

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer.

(In duplicate.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(148.)

[Vol. 25, pg. 400, C. S. O. 1896 Mis., 1883.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Mar. 26, 1883.

To the honorable the SECRETARY OF WAR :

SIR: The enclosed requisitions have been somewhat amended after conference with the Commissary-General. The stores are absolutely necessary. It is necessary to

replace the stores sent back from St. John's, N. F., to New York, and to provide in addition a supply for Lieut. Greely's party for the time which will probably be spent at Littleton Island before the ship can get up in 1884. It is the withdrawal of these stores from St. John's, which makes the five thousand dollars appropriated for sales of subsistence stores to officers and men by the act approved March 3d, 1883, insufficient for the fiscal year ending June 30, 1884.

It is requested that the Secretary of War authorize the purchase of these stores, reimbursing the Subsistence Department in the sum of the five thousand dollars appropriated by the act of March 3, 1883, the balance to be supplied by the Subsistence Department from the current year's appropriations in such manner as the Commissary-General may suggest.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

One enclosure. 1896. Mis., 1883.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

—
(149.)

[Vol. 25, pg. 392, C. S. O.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, 26 Mar., 1883.

QUARTERMASTER-GENERAL, *U. S. Army:*

GENERAL: I have the honor to request that you will furnish for the use of the Lady Franklin Bay expedition three (3) doz. woven felt boots, three (3) doz. woven felt mitts (1 finger). These should be of assorted sizes, principally large. The articles should be sent to Lt. E. A. Garlington, 7th Cav., care of depot quartermaster, New York, not later than 1st June, 1883.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

—
(150.)

[Telegram. 1672 Mis. '83. Vol. 25, pg. 414, C. S. O.]

WASHINGTON, *March 29, 1883.*

To T. N. MOLLOY, *U. S. Consul,*
St. John's, Newfoundland:

The offer of William Campbell to construct building for Lady Franklin Bay at twelve hundred dollars is accepted.

HAZEN,
Chief Signal Officer.

Official copy furnished Capt. Clapp same date.
Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(151.)

[C. S. O., vol. 26. p. 105, K.]

(This memorandum was taken in person to Sec'y of War without letter of transmittal, about the first of Apr., '83.)

MEMORANDUM.

The Lady Franklin Bay expedition was authorized by the act approved May 1st, 1880. It has been continued annually by the sundry civil bill, approved March 3rd, 1881; by joint resolution (No. 36), approved June 27th, 1882, and by the sundry civil bill approved March 3rd, 1883: which last provides for its completion. This last act also provides: 1st, the necessary moneys for the hire of a vessel, and for the purchase of material not usually supplied to the Army: and, 2nd, by a special clause for the purchase of subsistence stores for sale to the officers and men of the expedition. A special clause of this last act, in limiting the number of commissioned officers of signal duty, excepts from the limitation those detailed for Arctic sea service.

The continuation and conclusion of the work at Lady Franklin Bay calls for a further detail of "officers or other persons of the public service," which the President is authorized to make by the act approved May 1st, 1880. "Officers or other persons of the public service" so detailed, have been given the compensation to which they were lawfully entitled at the time of such detail through the three last years. But the act approved March 3rd, 1883, declares that "there shall not be expended from any moneys appropriated by the act entitled 'An act making appropriations for the support of the army for the fiscal year ending June 30th, 1884, and for other purposes,' approved March 3rd, any money for the support of the Signal Service or Corps, except the pay of such commissioned officers as the Secretary of War may detail for service in that corps," and the question arises whether the men detailed from the line of the Army can, under this clause, be paid from army appropriations, as heretofore, and whether material ordinarily issued to the Army can be furnished for the completion of this expedition from the same appropriations. The question then arises, is the Lady Franklin Bay expedition a part of the Signal Service or Corps?

If so, all the expenses of the expedition for the next fiscal year must be charged to the Signal Service, and this must include for that period the pay of the enlisted men now at Lady Franklin Bay detailed from the Army and their allowances, and of those who will go up this year. But the pay and allowances for these men are all appropriated for in the Army appropriation bill. Though commonly so regarded, the expedition to Lady Franklin Bay is not a part of the Signal Service or Corps. It is true that the officer in command is an officer of the Signal Service, and that among the persons detailed for that expedition are five (5) men of the Signal Corps; it is true, also, that the station at Lady Franklin Bay, undertakes very important meteorological observations and reports in connection with the international meteorological scheme; but it also has for its purpose, under the original act of May 1st, 1880, scientific observations and explorations which are entirely outside of the purposes of the Signal Service, and are in no way to its benefit, and might have been done by any other branch of "the public service."

The act of May 1st, 1880, recites its purpose "to establish a temporary station at some point north of the eighty-first degree of north latitude, on or near the shore of Lady Franklin Bay, for purposes of scientific observation and exploration, and to develop or discover new whaling grounds."

For these reasons I am of the opinion that this Arctic duty is not, in the restricted sense described by act of March 3rd, signal duty, so far as to prohibit the payment from the Army appropriation of the personnel detailed from the Army under the act of May 1st, 1880, and subsequent acts, to perform that duty, nor of the issue of such Army supplies as are commonly furnished to officers and men of the Army.

If this view, in the opinion of the Secretary, is not correct, all the expenses for the fiscal year ending June 30th, 1884, will have to be charged to the Signal Service, and the money now appropriated for pay and allowances in the Army appropriation bill for the enlisted men of regiments now in the Arctic seas will have to be reappropriated as a deficiency by the next Congress.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(152.)

[Vol. 26, C. S. O., 107.]

(This mem. was taken in person to the Sec'y of War, without letter of transmittal, about the first of Apr., '83.)

ARCTIC EXPEDITION.

The expedition to the Arctic seas, commonly known as the "Lady Franklin Bay expedition," is authorized by the act approved May 1st, 1880, &c., &c. This act empowers the President of the U. S. to establish temporary stations at or near the shore of Lady Franklin Bay, &c., for purposes set forth; "to detail such officers or other persons of the public service to take part in the same as may be necessary, and who are willing to enlist for such purpose, not exceeding fifty in number, and to use any public vessel or vessels that may be suitable for the purpose of transporting the members to said station, and their necessary supplies, and for such other duties in connection with such station as may be required from time to time," with sundry other provisions. It should be noticed that no appropriation whatever was made for carrying this into effect in the year 1880.

The power conferred upon the President to detail officers and other persons, and to use a public vessel or vessels, may be construed to carry with it the power to pay all persons so detailed in the way of salary, pay, and allowances, and the purchase of such supplies, both for the party itself and for the vessel or vessels, as would be necessary to carry this act into execution.

That the President should have detailed officers and men of the Army for this service was not necessary under the provisions of the act itself, for he is empowered by this act to detail from any branch of the public service.

As to subsequent acts, the sundry civil bill approved March 3rd, 1881, appropriated \$25,000.00 for the specific "purpose of continuing the work of scientific exploration and observation on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location and return."

It should be observed that almost the entire amount, \$25,000.00, was necessary to the transportation of these supplies, and that the compensation to be paid to the members of the party and the cost of necessary supplies for the maintenance of this station was left to be provided from the general appropriations for those branches of the public service from which the officers and men of the party were detailed.

The subsequent joint resolution, No. 36, approved June 27th, 1882, continued the annual provision of the sundry civil bill of March 3rd, 1881.

The act approved March 3rd, 1883, provides "for the completion" of this work, and makes a further annual appropriation. Other provisions of this act allow a certain number of commissioned officers to be detailed in the Signal Corps exclusive of the officers detailed for Arctic Sea service; but this does not necessarily connect the Arctic Sea service with the Signal Service further than by the implication that some of its officers are detailed on this service, and are not to be counted as detailed for service in the Signal Corps.

The expedition to Lady Franklin Bay is not in fact a part of the Signal Service. The officer in command was before being detailed for that duty an officer of the Signal Service, and five men of the Signal Corps are of the party. The station makes important meteorological observations in connection with the international meteorological scheme; but it has also for its purpose, under the original act, approved May 1st, 1880, other observations and explorations which are in no way to the benefit of the Signal Service, and might have been done by any other branch of the Army, Navy, or of the public service. I hope these reasons will appear sufficient for the payment of the personnel from the appropriations which provide for their support, and for providing from such branches of the public service as the President has or may designate such supplies as can be furnished and are suitable to the peculiar service required.

The amount appropriated by the act approved March 3rd, 1883, is necessary to the payment of the cost of transportation and other necessary specific expenses not otherwise provided for.

The original of the above was returned with the following endorsed thereon:

Under practical construction for a number of years, the expression "Signal Service" has no restricted or special signification, but means anything done by the Chief Signal Officer through the men and means placed at his disposal by law or by the Secretary of War.

The Arctic expeditions originated in the Signal Office, and no other Bureau seems to have taken the slightest interest in them. It was solely upon the urgency of the Chief Signal Officer that the Secretary of War, not without reluctance, took the steps which

have placed these expeditions on foot. No reason is perceived for excluding them from the description "Signal Service" which would not apply to the Weather Bureau work. Aside from this, they are expressly included in the caption "Signal Service" by the sundry civil act of March 3, 1883.

R. T. L.

AP'L 9, '83.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(153.)

[Telegram—vol. 25, p. 464.]

WASH'N, April 2, 1883.

To Mr. MOLLOY,

U. S. Consul, St. John's, Newfoundland:

It is very necessary to know something definite about the steamer for this season. There must be no mistake about having a good boat. What do you know about the Vanguard, Neptune, and Proteus?

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(154.)

[Telegram—vol. 26, C. S. O., p. 75.]

WASHINGTON, Apr. 9, 1883.

To JOHN LYNN (Stewarts & Co.),

St. John's, Newfoundland:

Please see Consul Molloy. Ask what are the prospects for Proteus, Neptune, or Vanguard this year. Answer immediately.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(155.)

[L. S. vol. 17, Mis., '83, page 277.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., Apr. 13, 1883.

1st Lieut. A. W. GREELY, *5th Cav'y, Acting Sig. Officer,*
Com'd'g Expedition to Lady Frankl. Bay:

(Through 1st Lieut. E. A. Garlington, 7th Cav., A. S. O., com'd'g relief exp. to Lady Franklin Bay.)

SIR: The Chief Signal Officer directs that the authority contained in the enclosed letter be exercised, as far as you find it economical to the public interests, by the con-

demnation and sale of such stores as can be readily disposed of for cash at advantageous prices at any place where you may stop on your way back. In this matter you will please exercise your own judgment, keeping within the authority enclosed.

I am, very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Art'y, Acting Signal Officer.

1 encl. (copy 1911, Mis. 1883).

This letter was sent in triplicate in the usual manner.

The foregoing letter also sent to 1st Lieut. P. H. Ray, 8th Inf't'y, act'g sig. officer, Point Barrow, Alaska.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(156.)

[Vol. 26, C. S. O., page 226; 2460 Mis., '83, L. R.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, 21st April, 1883.

To the honorable SECRETARY OF WAR:

SIR: I have the honor to recommend that a contract be made with Dr. James L. Camp, now at the Standing Rock Indian Agency, Dakota Territory, as an acting assistant surgeon, and that he then be ordered to this city for duty with the proposed relief expedition to Lady Franklin Bay.

Dr. Camp volunteered for the duty, and is very highly recommended.

Very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

[1st indorsement.]

Respectfully returned to the Chief Signal Officer, and attention invited to the amount appropriated in the sundry civil bill, viz, \$3,600. The Secretary of War desires that a project be submitted for the expenditure of that amount.

By order of the Secretary of War:

JOHN TWEEDALE,
Chief Clerk.

WAR DEP'T, Apr. 23, '83.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(157.)

[Vol. 26, C. S. O., page 274.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, April 25, 1883.

To the honorable the SECRETARY OF WAR:

SIR: In reply to your endorsement of the 23d inst., upon the application for the employment of Dr. James L. Camp as surgeon to accompany the proposed relief ex-

pedition to Lady Franklin Bay, I have the honor to submit the following project for the expenditure of the amount (\$3,600.00) appropriated in the sundry civil bill.

For the pay of one acting ass't surgeon at Fort Myer, \$1,200.00.

For the pay of one acting ass't surgeon at Lady Franklin Bay, with Lieut. Greely, \$1,200.00.

For the pay of one acting ass't surgeon at Point Barrow, \$300.

The above-named acting assistant surgeons are now employed. The one at Point Barrow, Alaska, will return to the United States with Lieut. Ray, and his contract annulled. The sum of \$900.00 by the above arrangement remains unexpended, and it is proposed to apply it to the payment of Dr. Camp as far as it will go. If the relief expedition returns this year it will be ample; if not, the next Congress will have to be petitioned to provide the deficiency.

It is suggested that a contract be now made with Dr. Camp, at the Standing Rock Indian Agency, and that from date of contract to July 1st, 1883, he be paid from regular appropriation for current fiscal year; after that date, from the amount appropriated in the sundry civil bill. The Surgeon-General, in a personal interview with Lt. Garlington, offered no objection to such an arrangement.

It is further requested that after the contract is made with Dr. Camp he be ordered to report to the Chief Signal Officer, in this city.

I am, very respectfully, your obedient servant,

JAS. W. POWELL, JR.,
Captain 6th Infantry, Acting Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(158.)

[Vol. 26, C. S. O., page 341.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 1st, 1883.

To the SURGEON-GENERAL OF THE ARMY:

SIR: I have the honor to invite your attention to the enclosed communication, and the endorsement of the Secretary of War thereon, regarding a contract to be made with Dr. James L. Camp, Standing Rock Indian Agency, Dakota, to accompany the relief expedition to Lady Franklin Bay as acting assistant surgeon, and to request that the contract be made and he ordered by telegraph to report to the Chief Signal Office, in this city, without delay.

I am, very respectfully, your obedient servant,

JAS. W. POWELL, JR.,
Captain 6th Infantry, Acting Chief Signal Officer.

2 enclosures.

NOTE.—Enclosures were 2,460 Mis., '83, with endorsements and encl.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(159.)

[Vol. 26, C. S. O., page 413.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 10, 1883.

To the honorable the SECRETARY OF WAR:

SIR: In view of the great importance of the relief expedition of this year to Lady Franklin Bay, and the necessity of securing the best vessel available, and also the serv-

ices of certain experienced persons to accompany the expedition, I have the honor to request authority to proceed to Saint John's, Newfoundland, for this purpose.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(160.)

[Vol. 26, C. S. O., p. 413.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 10, 1883.

The honorable the SECRETARY OF WAR:

SIR: I have the honor to request that application be made to the honorable the Secretary of the Navy for the detail of an officer of that service to inspect the vessel to be selected for the relief expedition of this year to Lady Franklin Bay.

It is very necessary that such inspection be made of the vessel as a whole, and particularly of her engines and their power to contend with ice-fields.

The officer selected should accompany the officer of this service, and be in St. John's with him.

On account of his wide experience and good judgment, I venture to suggest that Chief Engineer Melville would be a most suitable officer for this duty, and should be pleased if his present duties will permit his detail.

I am, very respectfully, your obedient servant.

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Action on above letter: 2429 B, War Dep't. Rec'd May 18, 1883. 3011, O. C. S. O., Mis., 1883.

NAVY DEPARTMENT,
Washington, May 18th, 1883.

SIR: I have the honor to acknowledge the receipt of your letter of the 14th instant, enclosing a letter from the Chief Signal Officer of the Army requesting that an officer of the Navy be detailed to inspect the vessel to be selected for the relief expedition of this year to Lady Franklin Bay, and have to inform you that Lieutenant-Commander McCalla has been selected for that duty, and starts for St. John's, Newfoundland, this day in company with General Hazen.

Very respectfully,

WM. E. CHANDLER,
Secretary of the Navy.

The honorable the SECRETARY OF WAR.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(161.)

(Memorandum left for verification to A. G. O.)

[Special Orders No. 113.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, May 16, 1882.

[Extract.]

* * * * *

17. By direction of the Secretary of War, Brigadier General William B. Hazen, Chief Signal Officer, will proceed to St. John's, Newfoundland, on business connected with

S. Ex. 100—AP—8

the relief expedition to Lady Franklin Bay, and on completion of this duty will return to his station in this city. The travel as directed, is necessary for the public service.

By command of General Sherman:

CHAUNCEY MCKEEVER,
Acting Adjutant-General.

(162.)

[3126 Mis., 1883.]

WASHINGTON, 19 May, 1883.

Capt. S. M. MILLS,
5 *Art'y, P. and D. O., Signal Corps:*

CAPT: I have the honor to request that you will furnish me with four (4) Springfield carbines and three thousand (3,000) rounds of ammunition, and they be sent to New York ac. depot Q. M.

Very resp'y, your ob'd't s'v't,

E. A. GARLINGTON,
1 *Lieut. 7 Cavalry, A. S. O.*

App'd.

JAS. W. POWELL, Jr.,
Capt. 5 Inf., A. C. S. O.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(163.)

(Memorandum left for verification to A. G. O.)

[Special order No. 117.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, May 21, 1883.

[Extract.]

* * * * *

8. By direction of the Secretary of War, 1st Lieutenant Ernest A. Garlington, 7th Cavalry, acting signal officer, will proceed to New York City and carry out the instructions of the Chief Signal Officer in connection with the relief expedition to Lady Franklin Bay, and on completion of this duty will return to his station in this city. The travel as directed is necessary for the public service.

By command of General Sherman:

R. C. DRUM,
Adjutant-General.

Official:

S. N. BENJAMIN,
Assistant Adjutant-General.

(164.)

[Telegram—vol. 17, Mis. 18, '83, page 352.]

WASHINGTON, D. C., May 25, 1883.

To Lieut. E. A. GARLINGTON,
Grand Hotel, New York City:

General telegraphs following: Proteus ready receive freight June fourteenth.

Everything must leave on or before Baltimore boat fourteenth, or New York boat sixth.

CAZIARC.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(165.)

[Telegram—L. S., Vol. 17, Mis., '83, page 354.]

WASHINGTON, *May 28, 1883.*

To Lieut. E. A. GARLINGTON,
Grand Hotel, N. Y. City:

Needles, twine, spun yarn, marline, &c., ready at this yard. Sails for boats ordered Brooklyn telegram to-day. Chisels, paddles, sheet lead, and nails ordered same yard. Orders will be renewed. Compasses and lead-line stuff orders renewed same yard. Telegraph if not O. K. in what particular.

CAZIARC.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(166.)

[Telegram received at 5.35 p. m., dated New York, 28, 3197, Mis., '83.]

MAY 28, 1883.

To Lieut. CAZIARC, *S. O.:*

Believe it impossible to find suitable surgeon here in the time. Gilder recommends Dr. Ross, of Washington. Something must be done at once.

GARLINGTON,
Lt.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(167.)

[Telegram received at 7.40 p. m., dated New York, 29, 3168, Mis., '83.]

MAY 29, 1883.

To C. S. O., *Washn.:*

Don't take final action on surgeon; have had two offers. Will communicate by letter.

GARLINGTON,
Lt.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(168.)

[Telegram—L. S., Vol. 17, Mis., 1883, page 35.]

WASHINGTON, *May 30, 1883.*

Lieut. E. A. GARLINGTON,
Grand Hotel, New York:

Will attend to surgeon and compasses and lead-line stuff to-morrow. Nothing can be done here to-day. Let me know about your surgeon if possible to-morrow morning.
 CAZIARC.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(169.)

[Telegram—L. S., Vol. 17, Mis., 1883, page 355.]

WASHINGTON, *May 30, 1883.*

To Lieut. GARLINGTON,
Grand Hotel, N. Y. City:

Doctor secured here. Surgeon-General will be asked to contract to-morrow.
 CAZIARC.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(170.)

[Telegram Received at 6.46 p. m., dated New York, 30, 3166, Mis., '83.]

MAY 30, 1883.

To Lieut. CAZIARC, *S. O.:*

Secure the surgeon there. Wire return Saturday.

GARLINGTON.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(171.)

[Telegram—L. S., Vol. 17, Mis., 1883, page 355.]

WASHINGTON, *May 31, 1883.*

Lieut. E. A. GARLINGTON,
Grand Hotel, New York:

Doctor probably all right. Letter, January eighteenth, Bureau Navigation, to Commodore Upshur; acknowledged by him twenty-second. Ordered compasses and lead line stuff. Telegraphic order again sent to-day. Please acknowledge this.

CAZIARC.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(172.)

[Telegram—L. S., Vol. 17, Mis., 1883, page 356.]

WASHINGTON, *May 31, 1883.*

To Lieut. E. A. GARLINGTON,
Grand Hotel, New York :

Dr. J. S. Harrison, of this city, contracted. Medical and hospital supplies now ready at depot, one hundred twenty-six Wooster street, New York City. Will you see them turned over?

CAZIARC.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(173.)

[Vol. 27, p. 229.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 2, 1883.

Lieut. E. A. GARLINGTON,
7th Cavalry, A. S. O., Office Chief Signal Officer :

SIR: I desire to impress upon you the fact that upon yourself devolves the responsibility that the supplies required for the relief party to Lady Franklin Bay, as approved by the Chief Signal Officer, have been properly marked and delivered.

It is not sufficient that requisitions have been made for these supplies, but you will personally satisfy yourself that they are delivered as ordered, or in case of failure that the attention of this office be called to a remedy before it is too late.

I am, very respectfully, your obedient servant,

JAS. W. POWELL,
Captain 6th Infantry, Acting Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

(174.)

[Vol. 27, C. S. O., page 257.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 4th, 1883.

Lieut. A. W. GREELY,
Commanding Station Conger, Grinnell Land :

SIR: The attempt of last year to open communication with you is renewed. For this purpose a well equipped party is sent, with ample supplies, under the command of 1st Lieut. E. A. Garlington, of the 7th Cavalry, with directions to report to you for duty. A copy of Lieut. Garlington's instructions is enclosed. (Enclosure 1.)

In providing for contingencies, and for the complete success of the expedition, nothing has been omitted which advice and experience could suggest. Owing to the action of Congress at its last session, probably controlled somewhat by misfortunes to other Arctic expeditions, it is necessary to discontinue the work at Lady Franklin Bay, and to direct the return of your party to the United States by the first opportunity. You will, therefore, embark your party with the instruments and such stores and material as it appears desirable to bring away, and return via St. John's, N. F., to this city.

The details of the work of the abandonment of your station and your return must of necessity be left largely to your judgment. The house or houses should be left for further use, and such depots as you may think best. In the event of your remaining at Life-Boat Cove during the coming winter, your party may expect to be brought away as early next year as the ice will permit; meantime it is desirable that the scien-

tific work of the expedition be continued without unnecessary interruption, and an outline for this has been given to Lieutenant Garlington, and will be turned over to you by him. Since the vessel will start some two weeks earlier this year than heretofore, there may be time after her arrival to finish any work you may specially wish to do before her return, say Sept. 15th.

You are authorized to sell to the best advantage in the manner prescribed or usual in extraordinary cases, at any place before reaching the United States, such public property as in your judgment it would be to the best interest of the United States to dispose of in that manner. (The instructions of the honorable the Secretary of War in this connection are enclosed herewith, Enclosure 2.)

In case they are not abandoned, you will please use every care in packing and safely transporting your instruments, that they may be verified and made ready for further use.

I sincerely hope that Lieutenant Garlington will reach you with the relief vessel, and that your party, with its number unbroken may speedily return again to home and friends.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

NOTE.—Enclosure 1 was following instructions to Lient. Garlington, and enclosure 2 was 1911 Mis., 1883. Copy of this letter and enclosure were given to Secretary of War by Genl. Hazen June 6, 1883.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(175.)

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, June 4, 1883.

Lieut. E. A. GARLINGTON,
Commanding relief vessel to Lady Franklin Bay:

SIR: You are aware of the necessity of reaching Lieutenant A. W. Greely and his party with the expedition of this year. This necessity cannot be overestimated, as Lieut. Greely's supplies will be exhausted during the coming fall, and unless the relief ship can reach him he will be forced, with his party, to retreat southward by land before the winter sets in.

Such a retreat will involve hardship and the probable abandonment of much valuable public property, with possible loss of important records and life.

For these and other reasons which will occur to you no effort must be spared to push the vessel through to Lady Franklin Bay.

In the event of being obstructed by ice in Smith Sound or Kennedy Channel, you are advised to try to find a passage through along the west coast, which, beside being usually the most practicable, will afford better advantages for sighting and communicating with any party sent out by Lieut. Greely. To make communication surer, your party must be able to readily send and receive messages by flag or heliograph, and other means, and the necessary articles should be kept in readiness for instant use when communication is possible.

Should the vessel be unable to get through the ice to Lady Franklin Bay or to reach the west coast at points above Cape Sabine, it will be of great importance that Lieut. Greely should know of the efforts being made to relieve him and of the plans for doing so. You will endeavor, therefore, to convey such intelligence and omit no means of informing him or any of his party of the situation. Should any landings be made at prominent points on either coast during the efforts to get through the ice, you will leave a short record of the facts, with such information as it is desirable to convey, so deposited and marked as to render it discoverable by parties traveling southward. If such landings be made at points where caches of provisions are located, you will, if possible, examine them and replace any damaged articles of food, leaving, of course, a record of your action.

If it should become clearly apparent that the vessel cannot be pushed through, you will retreat from your advanced position and land your party and stores at or near Life-Boat Cove, discharge the relief vessel, with orders to return to St. John's, N. F., and prepare for remaining with your party until relieved next year. As soon as possible after landing, or in case your vessel becomes unavoidably frozen up in the ice-

pack, you will endeavor to communicate with Lieut. Greely by taking personal charge of a party of the most experienced and hardy men, equipped for sledging, carrying such stores as is practicable to Cape Sabine, whence a smaller party, more lightly equipped, still headed by yourself, will push as far north as possible, or until Lieut. Greely's party is met. In this and other matters you will follow closely the instructions of Lieut. Greely, dated August 17, 1881, a printed copy of which is furnished you herewith. (Enclosure "1.")

The men not employed in these expeditions will lose no time in preparing the house for the whole party, and in securing the stores preparatory to the arrival of Lieut. Greely.

You will be furnished two observers and an outfit of scientific apparatus, and will be guided in their use by instructions herewith. The character and amount of the meteorological and other scientific work to be accomplished by your party is enumerated in enclosed memoranda marked B, C, D, E.

In addition to the medical officer, enlisted men taken from this city, you will employ three hardy ice-men at St. John's who have been already selected by the U. S. consul there under my direction, and in Greenland such Esquimaux as you may require.

It is important that a careful and complete record of events should be made, and in case your party does not return this year that a full report be sent by the vessel on her return to St. John's. Each member of your party will be required to keep a private diary, which will be open to the inspection of the Chief Signal Officer only in case it should be necessary. Whenever a junction is effected with Lieut. Greely you will report to him with your party for duty.

Should any important records or instruments have been left behind by Lieut. Greely in his retreat, they may be recovered by the steamer to be sent in 1884.

It is believed that with the stores and supplies sent last year, which are at St. John's, N. F., and at the Greenland ports, a list of which is herewith furnished (enclosure "3"), and which you will gather on your way northward, together with the provisions and articles supplied this year, everything needful will have been furnished for safety and success. I believe and expect that you will zealously endeavor to effect the object of the expedition, which is to succeed in relieving your comrades, since upon your efforts their lives may depend, and you cannot overestimate the gravity of the work entrusted to your charge.

A ship of the United States Navy, the *Yantic*, will accompany you as far as Littleton Island, rendering you such aid as may become necessary and as may be determined by the captain of that ship and yourself, when on the spot.

With my best wishes for your success and the safe return of the united party,

I am, very respectfully, your obedient servant,

W. B. HAZEN,

Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,

Chief Signal Officer.

Nov. 9, 1883.

MEMORANDUM A.

Instructions for closing scientific work at Camp Conger.

1st. Before closing the station have all thermometers and barometers carefully compared.

2nd. Continue all meteorological observations on land to the latest practicable moment.

3rd. Prepare for meteorological observations on the homeward voyage by properly establishing on the vessel a marine and aneroid barometer and some thermometers, and have simultaneous comparative observations made on the vessel and on the land.

4th. Let the astronomical instruments on shore remain in place to the latest practicable moment, and secure numerous comparisons of chronometers and determinations of time and azimuth.

5th. Shortly before sailing carry the chronometers carefully on shipboard, and make full comparisons between them and the ship's chronometers; also, before sailing, obtain as many determinations of time as possible by observations on the vessel. During the voyage maintain daily chronometer comparisons and observations of time, latitude, and longitude by lunar distances. Stop on the Greenland coast and obtain special time observations for chronometric longitude on the meridian of some well-determined station. On arriving at St. John's, Halifax, and New York, make special time observations and comparisons with time-balls while in these harbors.

6th. During the voyage maintain meteorological observations at 3, 7, and 11 a. m., and 3, 7, and 11 p. m., Washington time, and more frequently if possible. On arrival at New York make comparative simultaneous readings on the vessel, then carry all the instruments to the Army Signal Office and compare them with the substandards at that station.

7th. Have the barometers and delicate thermometers brought carefully by hand to this office for further comparisons.

8th. Before leaving Camp Conger all the thermometers used should be compared at the lowest possible temperatures, and in the following manner:

A mercurial thermometer should be selected as a standard of reference for temperatures as low as 30 degrees Fah. For holding the thermometers a tin thermometer tester, with the perforated diaphragm knocked out, will suffice. When readings are being made this should be placed within its contained liquid (brine or spirit) in an ordinary water pail, and the surrounding space filled with a mixture having nearly the same temperature as the liquid contained in the tin. The thermometers should not be allowed to rest with their bulbs on the bottom while being read, but should be held in the hand, 3 or 4 at a time, and readings made after thoroughly stirring the liquid.

The spirit thermometers should be kept at the temperature to be compared for at least twenty minutes. For mercurial thermometers a much shorter exposure suffices—say 5 minutes.

A low artificial temperature can be obtained by mixing ice (or snow) and salt in the proportion of 2 parts, by weight of ice, to one of salt. In making comparisons at low temperatures, this mixture should be put in the tin and around the tin in the pail. The mixture in the tin should be stirred thoroughly.

Comparative readings should be made at -6 deg. F. or lower, and at $+2$ deg., $+12$ deg., $+22$ deg., $+32$ deg., and $+42$ deg. The readings of all the thermometers at freezing point should be noted.

If the external temperature renders it possible to obtain comparisons below -6 deg., the brine should be replaced with alcohol, whisky, or coal oil.

9th. You will provide, if possible, that the magnetic instruments and observers of Lieut. Garlington's party be landed temporarily at Camp Conger, and a complete series of independent astronomical and magnetic observations be made by them, according to their own methods, including a comparison of chronometers, barometers, and thermometers, and determination of the bearing of your azimuth marks.

10th. Verify the dates of your calendars.

11th. Should your combined party be held in the ice at Camp Conger, or remaining during the winter of 1883 and 1884 at Life-Boat Cove, or at any point, you will as far as possible continue the old or make a new and complete series of astronomical, magnetic, and meteorological observations, take the precaution to check your work by independent determinations of important data by each of the methods in which your men have been instructed.

MEMORANDUM B.

Scientific outfit of the Lady Franklin Bay relief expedition of 1883.

1. 75-foot tape line.
2. 2 tin thermometer testers.
3. 2 sextants.
4. 1 mercurial horizon.
5. 1 solid horizon and level.
6. 1 plumb line.
7. 1 pocket chronometer.
8. 2 marine chronometers (mean time).
9. 2 " " (sidereal time).
10. charts of Smith's Sound.
11. 4 thermometer shelters (cotton belt).
12. 12 ordinary stem-divided mercurial thermometers.
13. 6 ordinary stem-divided spirit thermometers.
14. 6 minimum stem-divided spirit thermometers.
15. 6 ordinary stem-divided spirit thermometers with cups and supports (for wet bulb).
16. 6 maximum stem-divided mercurial thermometers.
17. 6 special low minimum stem-divided spirit thermometers.
18. 6 Yale minimum stem-divided thermometers.

19. 1 Allnard dew-point apparatus with bellows and three long-stem low-spirit thermometers.
20. 36 half-pint cans of ether.
21. 6 Signal Service water thermometers and 3 cases.
22. 2 Kappe's hair hygrometers.
23. 2 pair Arago-Davy conjugate thermometers.
24. 2 " Violle conjugate bulbs with supports.
25. 2 mercurial marine barometers.
26. 2 " cistern " and leather cases.
27. 4 extra glass barometer tubes, cisterns, and bags.
28. 4 extra attached thermometers.
29. 40 lbs. pure mercury.
30. 2 aneroid barometers.
31. 2 single self-registers for anemometers (Gibbon).
32. 1 small wind-vane.
33. 4 Robinson's anemometers (heavy pattern).
34. 4 extra anemometer cups.
35. 4 galvanized iron rain-gauges.
36. 10 measuring sticks (6 snow and 4 rain).
37. 10 cells Eagle battery and 347 lbs. copperas.
38. 100 feet cable for self-register.
39. 2,000 yards insulated wire for telephones.
40. 8 telephones, viz, 4 transmitters and 4 receivers.
41. 4 telephone call-boxes.
42. 4 Le Clanche batteries.
43. 4 copper " grounds."
44. 10 dark lanterns (brass).
45. 150 blank books.
46. 12 " daily journals.
47. 280 star charts for auroras.
48. 750 forms, \approx 102, for self-register.
49. 1 tool chest (Signal Service).
50. 1 medicine chest.
51. Supply of wicking for lanterns.
52. 2 chamois skins.
53. 4 boxes pens.
54. 2 reams legal cap.
55. 4 " letter paper.
56. 2 " note paper.
57. 2 " foolscap.
58. 4 qts. Arnold's ink.
59. 1 doz. capstan bars.
60. 1 reading glass.
61. 1 spool double silk fibre.
62. 1 bottle clock oil.
63. 2 universal awls.
64. 1 extra sun-shade.
65. 1 bottle shellac.
66. 2 large brass lanterns.
67. 6 extra level tubes for theodolite.
68. 3 " " " " dip circle.
69. 1 ream computing paper.
70. 120 copies form 101.
71. 750 " " 120.
72. 50 " " 113 a.
73. 200 " " 117.
74. 50 " " 127 b.
75. 50 " " 132 a.
76. 50 " " 132 b.
77. 50 " " 140.
78. 10 " instructions to observers.
79. 2 " " " " with latest corrections.
80. 10 " card table for reduction to freezing.
81. 12 " Signal Service Order 41, 1881 (dew-point tables).
82. 50 " form 124.
83. 4 sets Signal Service property returns.
84. 10 " " " invoices and receipts.
85. 3 boxes paper fasteners.
86. 6 sets quartermaster's returns.
87. 650 " pay-vouchers.

88. 1 ream heavy manilla paper.
89. 2 spools red tape.
90. 1,000 envelopes.
91. 100 envelopes (white).
92. 100 sheets blotting paper.
93. 2 small blotters.
94. 12 gross rubber bands.
95. 12 doz. lead pencils (8 soft, 4 hard).
96. 2 doz. pen-holders.
97. 1 volume "Meteorological record."
98. Material for magnetic observatory, 10 ft. x 10 x 7, all wood, with copper nails and brass hinges.
99. 20 lbs. 8-penny nails.
100. 1 copy Treatise on aneroid barometers.
101. 1 " Admiralty manual of scientific inquiry.
102. 1 copy Arctic manual, 1875.
103. 1 " Véga's logarithms.
104. 2 copies Nautical Almanac, 1883.
105. 2 " " " 1884.
106. 1 copy Chauvenet's Astronomy.
107. 1 " " Trigonometry.
108. 2 copies Loomis' Meteorology.
109. 2 " Guyot's Tables.
110. 1 copy Everett's Deschanel.
111. 1 " Bowditch useful tables.
112. 2 copies Negur on chronometers.
113. 1 magnetometer with tripod.
114. 1 dip circle with tripod.
115. 1 alt. azimuth with tripod.
116. 2 marine glasses.
117. 1 record box, padlock, and key.
118. 2 Grugan heliostats.
119. 2 cans, cases, and straps.
120. 2 canteens and straps.
121. 2 extinguishers, foot.
122. 2 " flying.
123. 2 flags, 4 foot, red.
124. 2 " " " white.
125. 2 funnels.
126. 2 shades, flame, foot.
127. 2 " " flying.
128. 2 pair scissors.
129. 2 jointed staffs, complete.
130. 4 straps, small.
131. 2 torches, foot.
132. 2 " flying.
133. 2 pairs pliers.
134. 2 wormers.
135. 1 Webster's dictionary.
136. 1 tub for exposure of Arago-Davy thermometer.

MEMORANDUM "C."

Instructions as to observations on the voyage.

1. From the time of leaving Washington until your return you will, when at sea, determine your time, latitude and longitude, daily, unless the weather prevents.

2. Wind and compare together all the chronometers daily, and keep them at as nearly uniform temperature as possible. In addition to the regular time observations you will compare the chronometers with the time balls at New York, Halifax, St. John's, &c., and with the chronometers belonging to the vessels; the care of the chronometers will be in accordance with the instructions published by Negur.

3. Regular observations of meteorological instruments and phenomena will be taken at least 6 times daily, namely, at 3, 7, and 11 a. m., and 3, 7, and 11 p. m., Washington time, and oftener if practicable; this record will be maintained from the time of leaving Washington until your return; if for any reason the number of observations must of necessity be diminished, then at least the 7 a. m., 3 and 11 p. m. will be taken. Duplicate copies of all these should be made up daily for transmission to this office

whenever opportunity occurs. Copies of the 7 a. m. observation on Form 124 are particularly desired.

4. In order to execute the observations you will carry by hand and keep with you the necessary sextants, chronometers, barometers, thermometers, &c., and will have them properly established on the vessel that carries you from New York and transferred to the search vessel on your arrival at St. John's. When similar instruments are already in use on board of these various vessels you will have proper comparisons made with these. Without in the least intermitting your own astronomical and meteorological observations you will obtain complete copies of the logs and observations made by the officers of the vessels on which you may be and make such notes as may explain any discrepancies as to dates and styles of records.

5. When at any port, if possible, you will either directly, or by means of an intermediate portable barometer, make comparisons between your own and those used by meteorological observers in other cities.

The following is a list of stations where comparisons are desirable:

New York City Signal Service, substandard.

Halifax, A. Allison.

St. John's, Newfoundland, John Delaney.

Ivigut, Greenland.

Godthaab, Greenland, S. Kleinschmidt.

Jacobshaven, or Disco.

Upernavik, Greenland, Eldberg (the governor of the colony).

Should you by stress of weather be driven to any of the meteorological stations on the coast of Labrador, or to the German station in Cumberland Sound, you will carry out similar comparisons.

6. Should you have occasion to stay for more than 2 or 3 days at any station on the Greenland or other coast you will have the magnetic apparatus carefully landed, and secure one or more determinations of *declination, dip, & intensity*.

MEMORANDUM D.

Instructions for Lieut. Garlington, at Life-Boat Cove.

1. Should you be unable to reach Lieut. Greely and be obliged to return to Life-Boat Cove and stay there during the winter of '83-'84, you will as soon as possible erect the magnetic observatory, establish the instruments in place, and maintain a series of observations in general accordance with the instructions heretofore issued by the International Polar Commission (see Special Orders 87 and 92, 1880) and those verbally given to your own observers.

2. The meteorological observations will be made as before, at least six times a day, and if possible more frequently; the absolute magnetic elements will be determined several times during the day on the 1st and 15th of each month, and by each observer independently. Observations for true latitude and longitude by lunar distances will be made as often as necessary; tidal observations will be made daily through holes cut in the ice; special observations of auroras and other phenomena will be made as occasion requires.

3. Observations on the thickness of the ice, the currents, and temperature of the water, its color and clearness, the nature of any sediment contained within it, as also the minute vegetable and animal matter; in short, whatever bears on the opening and closing of the channel will be carefully recorded. Characteristic specimens of the water should be preserved in glass-stoppered bottles.

4. One pair Violle conjugate bulb on short stands and one pair of Arago-Davy conjugate thermometers (in the center of the black iron tub) will be established side by side about 1 ft. apart, fully exposed to the sunshine and sky, and another pair of each, also side by side, but on long staves about 4 ft. above the ground. All will be made at each regular hour of observation. (The Arago-Davy conjugate thermometers have unfortunately been made as maximum thermometers and must be set after each observation preparatory to the next one. They should be read both before and after setting.) Experimental observations should be made as to the effect of covering the ground for several feet around and beneath these thermometers with sail-cloth, furs, snow, &c.

5. The observations of heights of clouds, auroral arcs, &c., will be facilitated by establishing telephonic connection between two observers furnished with sextants, a short distance, say 1,000 y'ds apart. The distance of any terrestrial object may be similarly determined.

6. The effect of earth currents is to produce peculiar sounds in the telephone; these may be observed by connecting the copper plates (that are to be buried in the ground

or the water) to the ends of a line of about 1,600 y'ds long of insulated wire. Insert the telephones into the circuit and observe the sounds. Record will be made at regular hours of the intensity and character of the noises heard in the telephones connected, respectively, with the north, south, east, and west lines. For further details you are referred to Special Order 97 & 102 of 1881, and Instructions No. 72 and 76, and the appendices to the annual report C. S. O. for 1881, all of which are herewith supplied.

7. Observations with Koppe's hair hygrometer will be made in accordance with the instructions of Goldschmidt, furnished herewith. The dry and wet hygrometer should be ventilated at all observations with a fan or hand-bellows. Observations of the dew point by means of the Allnard dew point apparatus will be made at least once a day.

MEMORANDUM "E."

If frozen in the pack-ice of Smith's Sound before reaching Camp Conger, you will maintain regular meteorological observations on or near the vessel as well as practicable.

2. The astronomical and magnetic instruments will be established on the pack ice, and all special observations kept as far as practicable, the instruments should of course be removed to the vessel on the least evidence of danger. If connection is opened with Lieut. Greely, and his party moves down to your vessel, he will provide that the independent observations by your observers be kept up with as little interruption as possible and that the proper comparisons with his instruments be made.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

[Enclosure 3.]

List of stores at Saint John's or cached, invoiced to Lieut. Garlington by Lieut. Craig, June 17, 19, July 1 and 28.

1,080	lbs. pemmican.
192	" sausage (2 lb. c.).
200	" chicken (2 lb. c.).
488	" mutton, roast (2 lb. c.).
100	" turkey (2 lb. c.).
	Value in Army rations, 2,060.
288	lbs. okra (2 lb.).
240	" whortleberries (2 lb.).
60	galls. lime juice.
50	lbs. dried cherries.
24	bottles horse-radish flour.
60	galls. rum ($\frac{1}{2}$ bbls.).
408	lbs. squash (cans).
384	" blueberries (2 lb.).
600	" carrots (2 lb. cans).
600	" turnips (2 lb. cans).
162	" chocolate.
300	ext. coffee.
60	galls. cider ($\frac{1}{2}$ bbls.).
250	lbs. peach butter.
250	" pear butter.
250	" plum butter.
40	pairs drawers.
150	" Iceland hose.
25	" S. S. boots (soled).
50	pairs S. S. boots (unsoled).
49 $\frac{1}{2}$	yds. red flannel.
60	pairs cloth gloves.
50	" boots (gussett and B.).

10	seal skins.
6	tons dried seal meat.
240	fathoms manilla rope.
100	lbs. oakum.
200	yds. cotton duck.
3	balls twine.
2	tackle and vise.
2	whale boats.
18	boat oars (14 feet).
2	sprits and sails.
2	barrels cement.
3,012	feet dressed boards.
1,494	“ clear boards.
2,517	“ pine “
170	ps. flooring.
1,000	brick.
5	packages copper nails.
25	“ tacks.
2	gross screws.
10	lbs. ass. staples.
$\frac{1}{2}$	cord wood.
160	galls. alcohol.
432	bxs. wax matches.
2	hand lamps.
2	lanterns (B and E).
100	galls. signal oil.
25	lbs. gunpowder.
100	zinc battery.
1	theodolite.
1	sextant (small).
1	hygrometer.
100	lbs. excelsior.
$\frac{1}{8}$	gall. clock oil.
15	large diaries.
25	small “
4	S. S. P. returns (sets).
10	S. S. I. and receipt (sets).
20	S. S. Pur. and Ex.
60	Forms No. 52.
40	inserts.
10	Abs. D.
6	Ins. to O. S.
6	temp. tables.
24	rolls pins.
24	journals.
6	reams cap paper.
3	bxs. paper fasteners.
6	sets Q. M. returns.
3	Army Reg.
650	Nau. Almanac.
40	Forms No. 101.
400	“ “ 102.
50	“ “ 113a.
1	Met. Record.
3	Ins. to Obs. S. S.
12	Forms 127 B.
6	“ 132a.
6	“ 132b.
30	“ 140.
1	Travels in Siberia.
1	Schwatka.
1	Revenue Cutter Corwin.
12	lbs. hektograph material.
120	collodion plates.
5	dry slate boxes.
2	Ger. Arctic Ex.
1	Ger. Star Cab.
14	reams letter paper.
4,000	envelopes.

- 8 gross pens.
- 400 sheets blotting paper.
- 2 small blotters.
- 12 gross rubber bands.
- 3 steel erasers.
- 16 doz. lead pencils.
- 3 " pen holders.
- 2 reams note paper.
- 1 " wrapping paper.
- 3 rulers.
- 12 spools tape.
- 10 balls twine.
- 1,000 C. lined envelopes.
- 1 chart N. P., No. 278.
- 1 " " 2178.
- 1 " " 235.
- 1 " " 2117.
- 1 " " 2282.
- 1 " " 2118.
- 1 " " 2382.
- 1 " " 276.
- 1 " " 274.
- 2 C. Polar charts.
- 1 nail-puller.
- 3 hatchets.
- 2 oz. pyrogallic acid.
- 2½ lbs. sal ammoniac.
- 5 " sal soda.
- 6 " soda hyposulphite.
- ¼ " bro. potassium.
- 400 " sulphate copper.

Returned to N. Y. by error and stored with depot C. S.:
 Blue berries (48 jars).
 Ex. coffee (140 lbs.).
 Peach butter (2 cases, 12 5-pound cans).

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

Enclosure 4.1

The naval tender to join the Proteus at St. John's, N. F., and to proceed with her to the neighborhood of Littleton Island.

The Proteus to land her stores, except supplies for more northerly depots, at Littleton Island, on her way north. If she succeeds in reaching Lady Franklin Bay to pick up the stores, excepting the house and depots, if possible on her return. The naval tender will await the return of the Proteus at the neighborhood of Littleton Island, and on her return steam to the south in her company, until she reaches the southern limits of the ice-pack, when the vessels may separate. Should the Proteus be crushed in the ice, her crew will retire on Littleton Island, and the tender will bring to Saint John's, N. F., the officers and crew of the Proteus. The rest of the party to remain at Littleton Island. But should the ice render it dangerous for the tender to remain in the neighborhood of Littleton Island until the Proteus returns, or her crew and the expeditionary force succeed in reaching there, the tender may go to the south, leaving full particulars at Littleton Island.

Signals by flags, heliograph, and guns should be preconcerted, and communication by this means should be maintained between the two vessels as long as possible after they are separated by the passage north of the Proteus.

Nothing in the northward movement must be allowed to retard the progress of the Proteus. It is of the utmost importance that she take advantage of every lead to get up to Lady Franklin Bay.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(176.)

Memorandum left for verification to A. G. O.

[Special Orders No. 128.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, June 5, 1883.

[Extract.]

1. By direction of the Acting Secretary of War, Sergeant George W. Wall, Company K, 3d Infantry, will proceed from this city to St. John's, Newfoundland, by the steamer leaving New York on the 7th instant, on duty connected with the Lady Franklin Bay expedition. The journey, as directed, is necessary for the public service.

By command of General Sherman:

R. C. DRUM,
Adjutant-General.

Official:

M. BARBER,
Assistant Adjutant-General.

(177.)

[L. S., vol. 17, Mis., 1883, page 362.]

WASHINGTON, D. C., June 5, 1883.

1st Lieut. E. A. GARLINGTON,
Comd'g Relief Exped. to Lady Franklin Bay:

SIR: The Chief Signal Officer instructs me to direct you to purchase in New York City for the use of your expeditionary force a reasonable number of paper balloons and four dozen Coston lights, with the necessary equipments.

I am, very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Art'y, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(178.)

Memorandum left for verification to A. G. O.

[Special Orders No. 129.]

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, June 6, 1883.

[Extract.]

* * * * *
7. By direction of the Secretary of War, in order to carry into execution the act approved May 1, 1880, and so much of the act approved March 3, 1883, entitled "An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1884, and for other purposes," as provides for "Observation and exploration in the Arctic seas: For completing the work of scientific observation and exploration on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location and return"—

It is ordered, that 1st Lieutenant Ernest A. Garlington, 7th Cavalry, acting signal officer, shall take command of the relief expedition now organizing, and proceed from this city by rail to New York City, thence by the United States steamer "Yantic" to St. John's, Newfoundland, and carry out such instructions as he shall receive from the Chief Signal Officer of the Army. Transportation will be furnished by the Quarter-

master's Department from Washington City to New York City for Lieutenant Garlington, one acting assistant surgeon, and ten enlisted men.

By command of General Sherman :

R. C. DRUM,
Adjutant-General.

(179.)

[Vol. 27, p. 298—Telegram.]

WASHINGTON, June 6, 1883.

To Lt. E. A. GARLINGTON,
Grand Hotel, New York :

The Secretary of the Navy will order hammocks, bedding, and subsistence for your party, and the transportation of the small quantity of stores, personal baggage, and mail.

HAZEN.
C.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(180.)

[Vol. 27, p. 298.—Telegram.]

WASHINGTON, June 6, 1883.

To Lieut. E. A. GARLINGTON,
Grand Hotel, New York :

Potatoes have been bought at Saint John's. Buy and ship by Alhambra turnips and carrots, packed in well-ventilated barrels, and direct special care in shipment.

HAZEN.
C.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(181.)

[L. S., Vol. 18, Mis., 1883, p. 367.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., June 6, 1883.

Lieut. E. A. GARLINGTON,
Commanding Relief Vessel to Lady Franklin Bay :

SIR: The Chief Signal Officer directs that you arrange satisfactorily with Captain S. M. Mills, 5th Art'y, P. and D. Officer, Signal Service, U. S. Army, before leaving this city, to enable him, without fail, to meet the draft for subsistence on the voyage of the Proteus, which will be due October 1st from each and every member of your party, at the rate of four dollars (\$4.00) per week of seven days. In case you leave the ship before the first of October, you will please report to the P. and D. Officer, by the returning vessel, the dates between which your men were furnished with subsistence on that vessel, and give a memorandum of the same to the captain of the vessel, that there may be no delay in settlement.

I am, very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Art'y, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(182.)

[Telegram.—Received at 4.25 p. m., June 6, 1883, dated New York 6.—3363 Mis., '83.]

To Gen'l W. B. HAZEN, *C. S. O., Wash'n :*

Yantic will not sail until 11 inst. Capt. Wilde tells me it will take seven days to make the trip under the most favorable circumstances. The Alhambra will reach St. John's 13th inst. If party goes in Yantic there will be no one in St. John's to look after stores, etc., for six or eight days, and no one to complete bill of lading. I most strongly recommend that the entire party be sent on the Alhambra to-morrow. I have asked agents to reserve accommodations until I could hear from you. Personal business requires my return to Wash'n, and I will arrive there at 6 a. m. to-morrow. If you approve, please give orders to have my party leave Washington on the half-past ten o'clock train to-morrow morning, and I will return with them. Answer, care Sam'l Seaman, Pier Nine, N. R.

E. A. GARLINGTON, *Lt.*

NOTE.—This message was sent to Ft. Myer to Gen'l H.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(183.)

[Telegram.—Received at Washington, 7.55 p. m., June 6, 1883, dated New York.—3362, Mis., '83.]

To Gen'l W. B. HAZEN, *Wash'n :*

Receiving no reply to my telegram, and matter admitting of no further delay, have made arrangements according to original instructions—that is, self and party to go on Yantic. Will return to Washington to-morrow night. The party should of course remain there.

E. A. GARLINGTON, *Lt.,*
Metropolitan Hotel.

Official copy, from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(184.)

[Telegram.—Vol. 27, p. 298.]

WASHINGTON, *June 6, 1883.*

To Lt. GARLINGTON,

(Care Sam'l Seaman, Pier Nine N. R. and Grand Hotel, New York) :

Send all stores and Sergeant Wall on Alhambra to discharge at St. John's into Proteus. The rest of party to go on Yantic.

W. B. HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(185.)

[L. S., Vol. 17, Mis., 1883, page 369.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington, D. C., June 7th, 1883.

1st Lieut. E. A. GARLINGTON,

7th Cavalry, A. S. O., Commanding Relief Expedition to Lady Franklin Bay :

SIR: I am instructed by the Chief Signal Officer to direct that you be prepared to

S. EX. 100—AP—9

trace the different courses of the Proteus as accurately as were those of the Neptune last year.

I am, very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieut. 2d Art'y, Acting Signal Officer.

(3 enclosures.—Charts of Neptune's tracks.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(186.)

[Telegram.—Received at 2.25 p. m., June, 21, 1883, dated St. John's, Newfoundland, 21.—3742, Mis., 83.]

To CHIEF SIGNAL OFFICER,
Washington.

Arrived at two (2) p. m.

GARLINGTON.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(187.)

[Vol. 28, C. S. O., page 66.—3636 Mis., '83.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 22, 1883.

Mr. J. W. NORMAN, *Saint John's, Newfoundland* :

SIR: I have the honor to acknowledge the receipt of your communication of the 9th instant, and in reply to say that I explained at length in a letter sent to Consul Thomas N. Molloy, under date of June 9th, why you were employed neither for Lieut. Garlington's party nor for the Yantic, which he is at liberty to show you, if he has not already done so.

I do not know that there is anything to be added to that letter. I consider that by your own acts you forfeited your claim to employment by me.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Genl. Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(188.)

[Vol. 28, C. S. O., p. 79.—3741 Mis., 1883.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, June 23, 1883.

To the honorable the SECRETARY OF WAR :

SIR: When the Artic relief party was organized I asked for only one officer, although two were necessary, because of there being an excellent first sergeant Wall, in the party; he would practically take the place of an officer. Wall was so badly injured by an accident at Halifax, as to have caused his return. I view it as

imperative that another officer accompany the expedition, and the only way it can be done now is for an officer of the Navy, now in St. John's, to be ordered.

This accompanying application of Lieut. Garlington for Lieut. Colwell will be approved by the Honorable Secretary of the Navy, if the Secretary of War will ask for it, which I now earnestly request him to do. This will permit of no delay, as the "Proteus" will sail from St. John's in a day or two.

I am, very respectfully, your obedient servant,

W. B. HAZEN,

Brig. and Bvt. Maj. Gen'l. Chief Signal Officer, U. S. A.

One enclosure, 3741 Miss., 1883.

NOTE.—The above letter was taken in person by Mr. Ashley.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(189.)

[Telegram—Vol. 28, C. S. O., p. 97, 3741, Mis., '83].

WASHINGTON, *June 25, 1883.*

To Lieut. E. A. GARLINGTON,
St. John's, N. F. :

Wall returned here. Request for Colwell approved by Secretary War, and acted on by Secretary Navy by telegraph.

HAZEN.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(190.)

[Telegram received at 3.45 p. m., dated St. John's, N. F., 13, 5997, Mis., '83.]

SEPT. 13, 1883.

To CHIEF SIGNAL OFFICER, U. S. A.,
Wash'n :

It is my painful duty to report total failure of the expedition. The Proteus was crushed in pack in latitude 78.52, long. 74.25, and sunk on the afternoon of the 23d July. My party and crew of ship all saved. Made my way across Smith Sound and along eastern shore to Cape York; thence across Melville Bay to Upernavik, arriving there on 24th Aug. The Yantic reached Upernavik 2d Sept. and left same day, bringing entire party here to-day. All well.

E. A. GARLINGTON.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(191.)

[Telegram—Vol. 29, C. S. O., page 467.]

WASHINGTON, *Sept. 13, 1883.*

To Lt. E. A. GARLINGTON,
(Care Consul Molloy, Saint John's, N. F.):

Received news Yantic's arrival and loss.

Did you place any stores for Greely? How much, and where? Can anything more be done this year?

CAZIARC.
MILLS.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(192.)

[Telegram dated Sept. 13, 1883—Vol. 18, Mis., page 116.]

To Lt. E. A. GARLINGTON,
(Care Consul Molloy, Saint John's, N. F.):

Received your dispatch. Did you place any stores for Greely? How much, and where? Can anything more be done this year?

CAZIARC.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(193.)

[Telegram received September 14, 3.08 p. m., 1883, dated St. John's, N. F., 14. 5996, Mis., '83.]

To CHIEF SIGNAL OFFICER,
Wash'n :

No stores landed before sinking of ship. About five hundred rations from these saved, cached at Cape Sabine; also large cache of clothing. By the time suitable vessels could be procured, filled, provisioned, &c., it would be too late in season to accomplish anything this year.

E. A. GARLINGTON.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(194.)

[Telegram—Vol. 29, C. S. O., page 473.]

WASHINGTON, Sept. 14, 1883.

To Lieut. E. A. GARLINGTON, *St. John's, N. F. :*

Secretaries War and Navy concur in asking full replies from yourself and Commander Wilde separately or jointly. Why were no stores landed Littleton on your way north? Did Yantic leave any stores anywhere after leaving your disaster?

Is the following project feasible: That a steam sealer be chartered to take your party northward provisioned for crew, passengers, and twenty additional men, for one year, to be purchased at St. John's and elsewhere en route. Outfit completed, all dispatch and steam to Upernavik, thence to northernmost attainable harbor west coast Greenland, or to Littleton for winter quarters. To pick up dogs, sleds, and native drivers in Greenland, and lead small party and as much supplies as possible to Littleton Island, or to meet Greely if Littleton Island is attained.

MILLS,
Acting Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(195.)

[Telegram—Vol. 30, C. S. O., L. S., p. 15.]

WASHINGTON, *Sept. 15, 1883.*To Gen'l W. B. HAZEN,
New Tacoma, W. T.:

Only five hundred rations and some clothing near Cape Sabine. Secretary has just decided no further expedition this year.

MILLS.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(196.)

[Telegram—Vol. 30., C. S. O., L. S., p. 15.]

WASHINGTON, *Sept. 15, 1883.*To Lt. E. A. GARLINGTON,
St. John's, N. F.:

Dispatches received. Expedition this year not considered advisable. Will ask for return of your party by naval vessel.

MILLS.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(197.)

[Telegram received at 10.32 a. m., Sept. 15, 1883; dated St. Johns, N. F., 15, 6059 Mis., '83.]

To CHIEF SIGNAL OFFICER, U. S. ARMY,
Washington, D. C.:

Stores were not left at Littleton Island because it was not in my programme to do so. It was my intention to establish depot at or near Cape Prescott and to the northward, as recommended by Lieut. Greely, and to fill gaps caused by Neptune's failure to get above Cape Sabine. See Greely letter, Beebe report, and my instructions. Five hundred and fifty-five rations left at Upernavaki by Yantic for my party; part of these met me at point forty miles north of Tessusak; all since returned to Yantic. The ultimate result of any undertaking to go north at this time extremely problematical; chances against its success, owing to dark nights now begun in those regions making ice navigation extremely critical work. There is no safe winter anchorage on west shore of Greenland between Disco and Pandora harbor, except perhaps North Star Bay winter quarters of Saunders. However, there is a bare chance of success, and if my recommendations are approved I am ready and anxious to make the effort. My plan is to buy a suitable sealer, take the crew from volunteers from crews of Yantic and Powhattan, now in this harbor, paying them extra compensation. Lieut. J. C. Colwell to command the ship; two ensigns and one engineer to be taken from those who may volunteer from same ship; also employ competent ice pilot here. The ship must be under the U. S. laws and subject to military discipline. I believe nothing can be done with foreign civilian officers and crew. In event of not enough seamen volunteering, remainder to be enlisted here. Commander Wilde will communicate with Navy Dept. If anything is to be done it must be done at once.

E. A. GARLINGTON.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(198.)

[Telegram—Vol. 30, C. S. O., L. S., p. 38.]

WASHINGTON, *Sept. 19, 1883.*To Lieut. E. A. GARLINGTON,
St. John's, N. F. :

Secretary declines to change the order.

MILLS.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(199.)

[Vol. 18, '83, Mis., page 133.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
*Washington City, September 22nd, 1883.*Lieut. E. A. GARLINGTON,
7th Cav'y, O. S. O., New York City :

SIR: I am directed by the Acting Chief Signal Officer to transmit enclosed herewith copy of telegraphic instructions from Headquarters of the Army, Adjutant-General's Office, Washington, September 19, 1883, directing that you return to this city with the party under your command by naval vessel from Saint John's, N. F., to New York City, thence by rail.

Transportation requests for yourself, one acting assistant surgeon, and seven (7) enlisted men from Brooklyn, N. Y., to Washington City are also enclosed herein.

I am, very respectfully, your obedient servant,

L. V. CAZIARC,
1st Lieut., 2nd Artillery, Acting Signal Officer.

(4 enclosures.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(200.)

[6689, Mis., '83.]

Memo. L. F. B. Relief Expedition.

Lieut. E. A. Garlington, 7th Cav.
Dr. J. S. Harrison, surgeon.
Sergt. John Kenney, 7th Cav.
Corp. Frank Elwell, Co. "E," 3d Inf.
Artificer Orville F. Moritz, Co. "A," 17th Inf.
Pvt John J. Murphy, Co. "F," 11th Inf.
" Richard Rogge, Co. "H," 3d Inf.
" W. H. Lamar, Sig. Corps.
" F. W. Ellis, " " "

Returned to Washington, D. C., Oct. 1st, 1883, and reported at the O. C. S. O. for duty.

(Sg'd)
10-5, '83.

BE.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(201.)

[Vol. 30, C. S. O., L. S., p. 314.]

WAR DEPARTMENT, O. C. S. O.,
Washington City, Oct. 16th, 1883.Hon. ROBT T. LINCOLN,
Sec'y of War:

SIR: I have the honor to inclose the report of Lieut. E. A. Garlington, 7th Cavalry, upon the expedition sent to the Arctic Seas this summer for the relief of the International Meteorological Expedition, under the command of Lieut. A. W. Greely, U. S. A. The report describes the passage of the ship "Proteus," carrying stores and a rescuing party for Lieut. Greely. The failure to find stores and dogs ready in Greenland, as had been expected, is not understood, since the Danish Government had been communicated with upon that subject at the proper time, which is all that could be done, or had been usual in previous years. The question of supplementary orders that Mr. Garlington refers to as having been raised, and in unfairness to himself, is in substance correctly stated by him.

After Lieut. Greely arrived in Lady Franklin Bay, in 1881, he wrote out and sent to this office full directions for the party that might be sent to relieve him, ending as follows: "No deviation from these instructions should be permitted. Latitude of action should not be given to a relieving party who, on a known coast, are searching for men who know their plans and orders." This made it a matter of delicacy to give any directions that might in any manner change the program there laid out. Congress had, however, added another element to the question, in this, that the party should be brought away this summer. This at first caused the instruction to be determined upon that the stores be landed at Littleton Island before going north of that point.

Afterwards it was arranged to send a ship of the U. S. Navy with the "Proteus" as a convoy and this so far obviated the absolute necessity of first stopping to unload at Littleton Is., the convoy itself being a depot, that it was thought best that Lieut. Greely's should remain as Lieut. Garlington's guide, and that it be suggested only that the landing be first made. Just before starting, Lieut. Garlington brought a copy of a memorandum that had been prepared for the Sec'y of the Navy to aid him in preparing instruction to the convoy, which contained the original condition of first landing at Littleton Island, explaining that it would conflict with the plans of Lieut. Greely so far as it should consume the time of the expedition, and in case he should find clear weather and open water beyond, with a fair prospect of getting straight through, while by stopping he might lose the opportunity, if he should not at once proceed. I replied that the authority and discretion which must always rest with the commander on the spot must in such case be his guide. The great delicacy in imposing positive instructions in cases like this seemed to make the simple suggestion in that paper sufficient. The strictures upon Lieut. Garlington, so far as they refer to disobedience, have been unwarranted. As to the situation of Lieut. Greely and his party, while serious, I do not consider it desperate, and fully look for his rescue next season, preparation for which must be timely and complete.

Lieut. Garlington has been asked to explain more fully, 1st, why he did not endeavor to make a depot at Littleton's Island with what stores he could gather during the remaining time he might have remained in that region; 2d, why a large proportion of Mr. Greely's stores was abandoned upon an ice floe so long as the season still permitted work with boats; 3d, why out of six boats none were left for Mr. Greely and his party; 4th, why he started south with 40 days' supplies in place of leaving a large portion for Lieut. Greely, when the country was full of game, seals, walrus, and fish, and the party well supplied with means for its capture, which was an ample source of food; 5th, why he came south of Cape York at all, it being in the friendly Esquimaux country and fairly supplied with the necessaries of life.

These explanations will be furnished you as soon as received.

I have the honor to be, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

NOTE.—Enc. was 7076, Mis., 1883 (Lieut. Garlington's report, with appendices).

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(202.)

[Vol. 12, '83, page 179-]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, October 17th, 1883.

1st Lieut. E. A. GARLINGTON,
7th Cav., Acting Signal Officer, Washington, D. C.:

SIR: I am directed by the Chief Signal Officer to inform you that he desires you to submit, as soon as possible, a complete project for next year's expedition to the Arctic seas for the relief of Lieut. Greely and party.

Very respectfully, your obedient servant,

LOUIS V. CAZIARC,
1st Lieutenant, 2d Artillery, Acting Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(203.)

[L. S., Vol. 30, C. S. O., page 400, 7244, Mis., '83.]

WAR DEPARTMENT,
OFFICE CHIEF SIGNAL OFFICER,
Washington City, Oct. 23d, 1883.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to forward herewith a communication from 1st Lieutenant E. A. Garlington, 7th Cav., dated October 20, 1883, in answer to one of the 18th inst., calling on him for a report in addition and extension to that heretofore rendered, with letter of same date.

I am, very respectfully, your obedient servant,

H. H. C. DUNWOODY,
1st Lieut., 4th Artillery, Acting Chief Signal Officer.

(One enclosure.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

(204.)

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Nov. 14th, 1883.

Major HENRY GOODFELLOW,
Recorder, Court of Inquiry, Washington, D. C.:

SIR: I have the honor to transmit herewith for the use of the court of inquiry, official copies of papers from the records of this office relative to the original project for the Greely expedition as adopted; the statement of stores taken by Lieut. Greely; the statement of stores cached by him; and the letter requesting the detail of a naval escort for the Proteus.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. & Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

[36 inclosures:] 990 mis., 1881; 30 incl's and mem.; L. S., May 14, 1883; 3312 mis., 1883, and ext. 3579 mis., 1881.

C. H. C.

(205.)

[A. Incl. 1, 890, O. C. S. O., mis., 1881.]

TRIESTE, 20, 5, '79.

DEAR SIR: I had already in Rome the honor to lay under your consideration the project of an international polar expedition, whose realization Count Wilczek and myself have been pursuing during the latter years. Circumstances then did not point to converse more than very superficially on the subject, and I now take the liberty to return more amply to it.

You know already our views on Polar investigation. We are of the opinion that its scientific results, especially the furtherance of our knowledge in the different branches of the physics of the earth, have hitherto, on the whole, not been adequate to the very large means expended on Polar research. One of the reasons of this deplorable fact we believe to be the somewhat too partially topographical perception of its aims; another consists therein that all the expeditions to the Polar regions have been isolated. The observations of the phenomena peculiar to those parts made by the different expeditions cannot be compared with one another in consequence of the want of homogeneity and simultaneity. It is a fact that we are still in utter darkness concerning the laws governing the magnetical perturbations, the northern lights, the meteorological and hydrographical phenomena, etc., for want of serviceable observations notwithstanding the many Polar expeditions and the large amount of work and money spent upon them.

Already for some years Count Wilczek and myself have had the intention to make on our own expense, an expedition to Novjazzambja, whose only aim would be the systematical observations of the above-named phenomena. We took the necessary steps to induce others to the organization of simultaneous expeditions, with the purpose of making congenious and synchronous observations according to mutual agreement on other points of the Polar regions. I hereby inclose a prospectus of our views on the manner in which the observations would best be performed, and on the work which would have to be done. It is only a proposition from our side, and we of course do not expect to see it accepted without previously being thoroughly discussed.

The scientific importance of our propositions has been generally acknowledged, and have had the best hopes to see them realized. Unfortunately the wretched political conditions of Europe during the latter years prevented every definitive arrangement.

You know that our proposals have been warmly recommended by the permanent committee of the international meteorological congress, and that one of the questions which had to be taken into consideration at Rome was, in what manner the congress could best further them.

Most of the representatives of the different states were without instructions and powers, and it was therefore impossible to come to a definitive agreement. With the view to hasten the matter, the congress has charged its permanent committee to prepare a special conference of representatives of those States which in any manner would like to participate in this international enterprise, provided with the necessary instructions and authority. This conference will meet in Hamburg, on the 1st October, 1879.

Of course, we cannot assure positively, which states will take an active part. But if we can rely on the communications of scientific corporations and of eminent private persons, it would appear that probably a number of stations will be established in the Arctic and one or two in the Antarctic regions, so that at least around the North Pole, synchronous observations would be taken nearly on every side.

But this girth would show a large void, if the United States of America excluded themselves.

It is probable that Russia will establish one station in Siberia, near the mouth of the Lena, and Denmark, one on the coast of West Greenland. It is of the utmost importance that the observations of these two places be completed by an intermediate station.

I take now the liberty to remind you of a place which every year can be reached without great difficulties, and which by its position offers the most favorable conditions, *i. e.*, Point Barrow, to the NE. of Bering Strait in $71^{\circ} 21' N.$, and $156^{\circ} 15' E. Gr.$ It was the wintering place of Commander B. Maguire, with the Plover in 1852-'53 and '53-'54. We have therefrom two nine-monthly series of observations on meteorology, magnetism and northern lights. A new wintering would furnish the first existing dates on the secular changes of terrestrial magnetism from the regions of the large perturbations. The position of this point is very favorable also to meteorological observations. It lies on a vast level coast without remarkable risings near an icy sea of unknown extension.

I need not speak to you, the chief of the most complete and extensive meteorological system of the world, and the promoter of synchronous observations, about the scientific value of the proposed undertaking.

I am sure that the United States of America, who always took such an active interest in Polar research, and who offered so many sacrifices to it, will not exclude themselves if a general understanding can be brought about. But to this effect it would be necessary that your Government send an authorized representative to the conference in Hamburg. I take the liberty to ask you to exert yourself in this direction.

Believe me, dear sir, sincerely yours,

WEYPRECHT.

To Gen'l ALBERT MYER,
Chief of the U. S. Signal Office.

Endorsed as follows:

5886 { War }
 { 1 } 1881.
 { Dept. }

1349. O. C. S. O. Mis., 1879.

A I enclosure 1. (990. O. C. S. O. Mis. 1881.)

Official copy from the records of the Signal Office.

Nov. 13, '83.

W. B. HAZEN,
Chief Signal Officer.

(206.)

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, D. C., Sept. 8, 1879.

Lieutenant CHARLES WEYPRECHT, *Imperial Navy, Trieste, Austria:*

SIR: I have had the honor of laying before the Secretary of War your communication of May 5, 1879, and am permitted to say that while it is not wholly within the scope of the Secretary's duty to entertain the subject of the equipment of an expedition to the pole for purposes of geographical discovery, and the subject of such an expedition cannot now be considered by the Department, the establishment of a station of observation at Point Barrow, Alaska, in correspondence with the system of simultaneous observations now and for some years past conducted on this continent under direction of the Secretary of War, is quite within the province of his office.

To effect this correspondence referred to the exchange between the proposed extreme northern stations of meteorological observations, suitable for the preparation of synoptic charts, and had at the hours of 7 a. m., 3 p. m., and 11 p. m., Washington mean time, or the equivalent times rated from any other meridian, is necessary.

The feasibility of maintaining a station of the United States system at the point named, the number of men to be required, their protection, maintenance, and the expense attendant, will also need to be considered in view of all facts. To this end preliminary inquiries will be at once commenced.

If the undertaking is found practicable in the regards mentioned I am quite confident that the Department will be in readiness to co-operate with any State or States or responsible parties in extending in this manner the system of simultaneous observations, and will favorably consider the subject of a station at Point Barrow. The importance of observations to be there made is fully realized.

You may, if you so wish, refer to this letter.

I am, sir, very respectfully, your obedient servant,

ALBERT J. MYER,
Brig. Gen'l, (Bvt. Ass'g'd), Chief Signal Officer of the Army.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., NOVEMBER 12TH, 1883.

(Endorsed as follows:)

5886 { War }
 { 2 } 1881.
 { Dept. }

2 (990, O. C. S. O. Mis., 1881.)

(207.)

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, D. C., May 27, '80.

To the honorable the SECRETARY OF WAR:

SIR: I have the honor to submit the following relating to the proposed expedition

to establish a temporary station at or near Lady Franklin Bay, as authorized by the act approved May 1, 1880:

1st Lieut. H. W. Howgate, 20th Infantry, is an acting signal officer and assistant to the Chief Signal Officer, and property and disbursing officer of the Signal Service. He is the person from whom the use of the ship is to be accepted and to whom it is to be returned.

He has been for several years greatly interested in Arctic explorations, and has urged in and out of Congress the establishment of a colony in the Arctic regions for purposes of scientific exploration and observation, and to discover new whaling grounds. It has been a distinguished feature of this colony that it was to remain for some time permanently established in the Arctic seas, and was to make Arctic explorations, principally overland. The plan has been presented to Congress and failed to pass. Captain Howgate has fitted out and given direction to what has been known as the "Cruise of the Florence," a small vessel purchased by subscription, whose cruise was partly for whaling, to meet expenses, and has written much on Polar colonization.

In the present year, following a meteorological congress held at Rome, there was a conference called the International Polar Conference, held at Hamburg, a principal object of this conference being to determine the character of the meteorological and other observations to be taken, some of them simultaneously, at a series of stations to be located around the northern and southern poles.

The Chief Signal Officer received a letter in reference to this conference and its objects from Mr. Charles Weyprecht, an Austrian explorer, herewith (A), and was permitted by Secretary of War McCrary to send the reply herewith (B). This letter was read at the conference. The conference, very few members of which had any official powers, adjourned after recommending certain stations and reports to be had from them.

The present bill was introduced in Congress shortly after, the report and explanation made concerning it making special reference to this conference. The act has become a law.

These stations were rather for the purpose of meteorological and other scientific observation than for exploration. They were temporary and to be maintained for at least one year.

The power of placing a station or stations on the northern seas is useful to the Signal Service scientific and meteorological work, because it enables to settle perhaps questions not before answerable; to determine, possibly, the courses and force of storms in the far north or at sea, and other points having a direct bearing on agricultural and commercial interests.

It is for the bearing of these observations on such interests that the co-operation of the Signal Office was asked in the plan, and that so extensive an array of stations, many of them stations of observation only, were recommended by the conference.

This act, No. 45, must be construed in view of paragraph 222, Revised Statutes, 1878. The act is one to establish a temporary station, described in the Congressional Report, No. 80, H. R., for scientific discoveries, explorations, and observation, similar in character to the similar stations stated in the report to have been agreed upon to be established either by the governments directly, or by scientific corps under their direction, of Germany, Norway, Holland, Austria, Sweden, Denmark, and Russia, and several other states.—(See Report.)

These stations have not, as yet, be enestablished or officially agreed to. Enough has transpired, however, to show that they were proposed, so far as the conference stated, for stations of scientific observation, and expected to make simultaneous reports and observations largely meteorological, magnetic, and co-operative (see report on the conference), by their being simultaneous, with the international system of simultaneous reports established by the United States.

In the case of this act, authorizing the establishing for the United States a station, there was added the purpose of geographical exploration and discovery or development of new whaling grounds, and an especial location north of the 80° of latitude at or near Lady Franklin Bay. It appears from the copies of the act filed that it was originally drawn to establish a colony. In the bill as passed the word "colony" is everywhere stricken out, and the word "temporary station" or "station" is substituted.

The act is wholly permissory. The President is given free discretion, and can adopt to establish this station any plan he pleases. He takes upon himself the responsibility for whatever plan he formally adopts.

On April 28th the President approved certain papers relating to the act; (1) a plan of operation in some detail; (2) an application for men to be detailed. The act was approved May 1, the papers referred to being signed before the act existed complete; they are not, it would seem, in execution of it, and cannot be considered as construing it. The paper stating a plan is not addressed, and cannot be considered as mandatory or authoritative in reference to any action taken under it. The approval of

the act itself by the President does not coerce him to follow any particular plan of operation other than as to location. The act is indicative of the plan to be pursued, only by permitting the acceptance of the use of a steamship, which use the President terminates at his discretion, and for which he may at any time substitute a naval vessel. If the statute 222 and the act are construed together he establishes in his discretion a temporary station at or near the shores of Lady Franklin Bay for the purpose of scientific observations, explorations, and to develop or discover new whaling grounds. He is bound to see that the lives and health of the men are not risked by any unnecessary exposure, and that they are provided with proper means for communication, their safety and escape in case of disease or accident.

The fact that the men willingly volunteer for any hazardous or desperate duty does not authorize their superior officers to make it so unnecessarily, or at all relieve them from the responsibility every officer has for the life and health of his subordinates.

The act authorizes the President to establish the station, contemplating presumably the necessary expenses of doing so with the best style of equipment and in a manner worthy of the nation; the necessary funds, if not to be had under existing appropriations or an appropriation sought, may, it would seem, be had from the funds for incidental expenses of the War and Navy Departments.

The Chief Signal Officer, after as careful an examination as he has been able to give, and (having no practical knowledge of Arctic service) after conference with such experts as he has been up to this time able to reach, viz, Mr. Chester (who took part in the Polaris Expedition) and Mr. Sherman (who, a man of good education, has served in the northern seas), advises that the enactment, as presumably expressing a public wish, be given its full legal effect; that on this point the President and his Cabinet advisors satisfy themselves, by careful inquiry, that any necessary funds and supplies requisite, and not to be had from the different Departments of the Government, be drawn from the funds for incidental expenses, if not so large in amount as to require additional appropriations; that the President and his advisors be satisfied by the proper examination of experts of the reasonable hope of success of the expedition, of the fitness of the vessel and equipments, of the proper strength and character of the party, and of the means for their proper protection.

The plans of operation suggested by Bvt. Captain Henry W. Howgate, acting signal officer, assistant to the Chief Signal Officer, property and disbursing officer of the Signal Service, are, on account of the great interest he has had in explorations of this nature, his extensive reading on the subject and his knowledge of the Signal Service—which must be interested—entitled to favorable consideration. There is the further fact that he tenders the use of a vessel. He lacks only personal experience in the Arctic regions. He does not propose to accompany the expedition. The views of 1st Lieut. A. W. Greely, acting signal officer, who is an officer of extensive Arctic research, skilled in the duties of the Signal Service, used to command, and who proposes to accompany the expedition, are entitled to the especial consideration this latter fact must assure to them. Lieutenant Greely, acting signal officer, has, by direction of the President, been assigned to the command of the expeditionary force now organizing. All the measures in reference to executing this act have been marked with haste.

It has been urged to be necessary that the steamer should sail on an early day or the benefits of the expedition be lost for a year. The attempt has been made therefore to provisionally execute the act in view of the seeming power of the President to terminate its action on any day, and so to assemble men and supplies in readiness to go if the law is found on yet further examination to be one which can be executed. It affects both Army and Navy. There has been no official communication between the bureau heads of these Departments. There ought to be a wise study of the subject and full co-operation of the land and naval forces before the steamer sails. The lives of men may be risked in the undertaking, and any want of co-operation may, in an emergency, lead to the loss of the whole party.

I am, sir, very respectfully, your obedient servant,

ALBERT J. MYER,

Brig. Gen'l (Bvt. Ass'g'd), Chief Signal Officer of the Army.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., Nov. 13th, 1883.

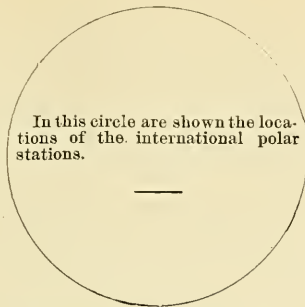
(Endorsed as follows :)

5886 { War }
 { 3 } 1881.
 { Dept. }

C. 3 (990, O. C. S. O. Mis., 1881.)

(208.)

THE ARCTIC REGIONS.



Lady Franklin Bay. Lat., $81^{\circ} 40'$; lon., $64^{\circ} 30'$.

International polar stations positively promised by the following nations:

- Russia*.—New Siberia Island and mouth of the Lena.
Austria.—N. point Nova Zembla.
Holland.—S. point Nova Zembla, or mouth of the Ob.
Norway.—North Cape.
Sweden.—Spitzbergen.
Denmark.—Uppernavik.
 And Point Barrow, regular U. S. signal station.
Probable.—Germany, Jan Mayen; Canada, Melville Island.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

(Endorsed as follows:)

5886 { War }
 { 5 } 1881.
 { Dept. }

5 (990., O. C. S. O. Mis., 1881.)

(209.)

SPECIAL ORDERS, }
 No. 57. }

HEADQUARTERS OF THE ARMY,
 ADJUTANT-GENERAL'S OFFICE,
Washington, March 11, 1881.

[Extract.]

* * * * *

2. By direction of the President, 1st Lieut. A. W. Greely, 5th Cavalry, acting signal officer, is hereby assigned to the command of the expeditionary force now organizing under the provisions of the acts of Congress approved May 1, 1880, and March 3rd, 1881, to establish a station north of the 81st degree of north latitude, at or near Lady Franklin Bay, for the purposes of scientific observation, &c., as set forth in said acts.

During his absence on this duty Lieutenant Greely will retain station at Washington, District of Columbia.

* * * * *

By command of General Sherman:

R. C. DRUM,
Adjutant-General.

Official.

H. C. CORBIN,
Assistant Adjutant-General.

Lieut. GREELY,
thro' Chief Signal Officer.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

(Endorsed as follows :)

5886 { War } 1881.
 { 6 }
 { Dept. }

6 (990, O. C. S. O. Mis., 1881.)

(210.)

[House of Representatives. Report No. 453. 46th Congress, 2d session.]

EXPEDITION TO THE ARCTIC SEAS.

MARCH 9, 1880. — Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

Mr. WHITTHORNE, from the Committee on Naval Affairs, submitted the following report to accompany bill H. R. 3534.

The Committee on Naval Affairs report back to the House the bill (H. R. 3534) "to authorize and equip an expedition to the Arctic Seas," with a recommendation that it do pass.

In submitting this recommendation the committee refer to and accept the reasons set forth in a former report made by them, to wit, Report No. 89, second session, Forty-sixth Congress.

[House Report No. 89, Forty-sixth Congress, second session.]

Mr. WHITTHORNE, from the Committee on Naval Affairs, submitted the following report (to accompany bill H. R. 3534):

The Committee on Naval Affairs, to whom was referred House bill No. 1823, "to authorize and equip an expedition to the Arctic Seas," having had the same under consideration, have directed the same to be reported back to the House with a substitute therefor, and thereupon do recommend the adoption and passage of said substitute herewith submitted.

In making this report the committee respectfully state and report that the object of the bill, as is shown by its terms, is to authorize a temporary station to be selected within the Arctic Circle, for the purpose of making scientific discoveries, explorations, and observations, obtaining all possible facts and knowledge in relation to the magnetic currents of the earth, the influence of ice-flows therefrom upon the winds and seasons and upon the currents of the ocean, as well as other matters incidental thereto, developing and discovering at the same time other and new whale-fisheries, now so material in many respects to this country. *It is, again, the object of this bill that this expedition, having such scientific observations in view, shall be regularly made for a series of years, under such restrictions of military discipline as will insure regularity and accuracy, and give the fullest possible return for the necessary expenditure; and, again, in view of the fact that either the Governments directly, or scientific corps under their authority, of Germany, Holland, Norway, Sweden, Austria, Denmark, and Russia, have concurrently agreed to establish similar stations, with like object, during the year 1880, it is believed that the interests and policy of our people concur in demanding that the United States should co-operate in the grand efforts to be thus made in the solution of the mysteries and secrets of the North Polar Seas, upon which, in the opinion of scientists, depends so much that affects the health and wealth of the human race.*

This subject has for many years, and especially during this century, engrossed a very large share of the attention of the scientific world. The enthusiasm of those who have ventured so much in a region where naught of individual profit could be an inducement, and the sole motive could only be "the good of mankind," is worthy of our highest regard and admiration.

Congress has at different times and in different ways given the sanction and encouragement of the Government of the United States to expeditions and explorations into this region, and always, as your committee believes, with the approbation of the people, and lately, with singular unanimity, to the expedition fitted out by a distinguished, wealthy, and liberal citizen of the United States, Mr. Bennett, whose vessel, the *Jeanette*, now under command of Commander De Long, of the United States Navy, sail-

ing under the national flag, by authority of Congress, is penetrating this ice-bound region by way of Bering's Strait; and no well-informed citizen but hopes with pride that success shall mark the venture, and that in its beneficent results to science and humanity the generous liberality of the owner of the Jeannette shall find his deserved reward.

Your committee, aware of the deep interest felt in these explorations, and particularly that which has been manifested in the plan known to the American public as the "Howgate plan," as is manifest in the petitions and memorials from scientific and commercial bodies of all parts of the country, sent to this and preceding Congresses, and desiring that its friends should briefly explain its history, purposes, and expected results, sought, by addressing them the following queries, to elicit this information and so to present it to the House, and which they here now present.

On behalf of the committee, it was requested that it should be shown--

I. Chronologically a brief of the various expeditions to the Polar Seas and under what auspices made.

II. A brief of the alleged scientific results of these expeditions and references.

III. What are the expected and hoped-for results from the proposed expedition, scientific and economic.

IV. The special reasons, &c., for the plan proposed by the bill H. R. No. 1823.

To which answer was made as follows :

I.—*Chronological.*

RUSSIA.

1820.—Two expeditions were sent out by the Russian Government in 1820, commanded by Admiral Von Wrangell and Lieutenant Anjou, to explore the regions north of Siberia.

ENGLAND.

The following expeditions were sent out by the British Government in the years named :

1818.—Captains Ross and Parry, in 1818, to discover the northwest passage, and Captain Buchan and Lieutenant (afterward Sir John) Franklin, in the same year, with a thoroughly equipped expedition, to reach the Pole.

1819.—Captain Parry, in 1819, was sent to explore the regions north of Hudson's Bay.

1820.—Sir John Franklin sent out on a land expedition in 1820 to explore the north coast of America.

1821.—Captain Parry sent in 1821 to explore the regions north of and around Hudson's Bay.

1824.—Captain Parry was sent again in 1824. Captain Lyon sent out in 1824, via Hudson's Strait. Sir John Franklin made a second land expedition in 1824, via the Mackenzie River.

1825.—Captain Beechey was sent in 1825, via Cape Horn and Bering's Strait.

1827.—Captain Parry was sent in 1827 to reach the Pole, via Spitzbergen.

1833.—Lieutenant Back, in 1833, was sent in command of an overland expedition through the Hudson's Bay territory.

1836.—Captain Back was sent in 1836 to complete the surveys of portions of the coast line north of Hudson's Bay.

1845.—Sir John Franklin was sent out in 1845 to search for the northwest passage.

1847.—In 1847 the British Government sent out three expeditions in search of Sir John Franklin.

1850.—In 1850 three other search expeditions were sent out by the British Government.

1852.—In 1852 Sir Edward Belcher was sent out in command of five vessels to search for Sir John Franklin. In 1852 Captain Inglefield was also sent out to search for Sir John Franklin.

1875.—In 1875 Captains Nares and Stephenson were sent out to reach the Pole, via Smith's Sound. This was one of the best equipped expeditions of modern times.

GERMANY.

1869.—In 1869 the German Government sent out an expedition in command of Captains Koldewey and Hegemann, toward the North Pole.

AUSTRIA.

1872.—Austria sent out an expedition in 1872 in command of Lieutenants Weyprecht and Payer to reach the Pole via Nova Zembla.

UNITED STATES.

1871.—The United States sent out Captain Hall, in the *Polaris*, via Smith's Sound, in 1871.

These comprise the principal governmental Arctic expeditions during the present century.

During the same period a large number of private expeditions have been fitted out in this and most of the northern countries of Europe.

The expeditions of De Haven, Kane, Hayes, and Hall, from the United States, and those of Professor Nordenskjöld, from Sweden, received some slight aid from their Governments, but their cost has been borne principally by private citizens.

For detailed accounts, see the published narratives of the several expeditions. For brief account of work done before 1857, see a small work by Epes Sargent, called "Arctic Adventures."

See, also, for this, the preliminary chapters of the "Narrative of the Second Arctic Expedition made by C. F. Hall, 1864-'69," prepared by Professor Norse, United States Navy, under orders of the Secretary of the Navy.

II.—*Some geographical and scientific results of past Arctic voyages.*

1. The discovery and survey of the vast territory lying north of the American continent between the sixtieth and eighty-third degrees of north latitude, and longitude 50° to 170° west of Greenwich.

2. The discovery of Francis Joseph Land and Wrangell's Land, north of Europe and Asia, and the survey of the northern coast lines of these continents.

3. The discovery of the magnetic pole, which has proved so valuable to commerce and navigation.

4. The discovery of new whaling grounds, notably by Captain Hall, in Cumberland Gulf and adjacent waters, by which millions of dollars were added to the commerce of the United States.

5. New species of birds, of animals, and of fishes have been discovered, some of them of commercial as well as scientific value.

6. New minerals of value have been found, some of which do not exist elsewhere.

7. Interesting studies in ethnography and kindred sciences have been made.

8. Our knowledge of magnetism, electricity, meteorology, and of ocean currents has been greatly increased by observations made within the Arctic regions.

See, also, the narrative of Professor Norse, before referred to.

III.—*The expected and hoped-for results, scientific, philosophic, and economic.*

The following brief quotations from Professor Henry, the late distinguished head of the Smithsonian Institution and president of the National Academy of Sciences; from Professor Loomis, the distinguished meteorologist of Yale College; from the late Professor Manry, formerly at the head of the Naval Observatory of the United States; from Admiral Sherard Osborne, of the British Navy, and from Sir John Barrow, formerly secretary of the British Board of Admiralty, set forth the advantages to be derived from Polar exploration in plain terms:

[Letter of President Joseph Henry, LL. D.]

SMITHSONIAN INSTITUTION,
Washington, January 31, 1871.

SIR: Your letter of the 30th instant, asking my opinion as to the plan of Captain Howgate for explorations in the Arctic regions, and its utility in regard to scientific and commercial results, has been received, and I have the honor to give you the following reply:

From my connection with the Smithsonian Institution and the National Academy of Sciences, I am, of course, interested in every proposition which has for its object the extension of scientific knowledge, and, therefore, I am predisposed to advocate any rational plan for exploration and continued observations within the Arctic Circle.

Much labor has been expended on this subject, especially with a view to reach the Pole; yet many problems connected with physical geography and science in general remain unsolved.

1. With regard to a better determination of the figure of the earth, pendulum experiments are required in the region in question.

2. The magnetism of the earth requires for its better elucidation a larger number and more continued observations than have yet been made.

3. To complete our knowledge of the tides of the ocean a series of observations should be made for at least an entire year.

4. For completing our knowledge of the winds of the globe the results of a larger series of observations than those we now possess are necessary, and also additional observations on temperature.

5. The whole field of natural history could be enriched by collections in the line of botany, mineralogy, geology, &c., and facts of interest obtained with regard to the influence of extreme cold on animal and vegetable life.

All of the above-mentioned branches of science are indirectly connected with the well-being of man, and tend not only to enlarge his sphere of mental pleasures, but to promote the application of science to the arts of life.

As to the special plan of Captain Howgate, that of establishing a colony of explorers and observers, to be continued for several years, I think favorably.

The observations which have previously been made in the Arctic regions have usually been of a fragmentary character, and not sufficient in any one case to establish the changes of the observed phenomena during an entire year, whereas to obtain even an approximation to the general law of changes a number of years are required.

It may be proper to state, in behalf of the National Academy of Sciences, that should Congress make the necessary appropriation for this enterprise, the Academy will cheerfully give a series of directions as to the details of the investigations to be made and the best methods to be employed.

I have the honor to be, very respectfully, your obedient servant,

JOSEPH HENRY,

Secretary Smithsonian Institution, President National Academy of Sciences.

[From Professor Loomis, of Yale College.]

* * * * *

There is scarcely a problem relating to the physics of the globe which can be fully understood without a knowledge of the phenomena within the Polar regions. Whatever phenomena we may wish to investigate, it is of special importance to determine its maximum and minimum values, and in nearly all questions of terrestrial physics one or other of these values is found in the neighborhood of the Pole. If, for example, we wish to determine the distribution of temperature upon the surface of the globe, it is specially important to determine the extremes of temperature, one of which is to be found near the Equator and the other near the Poles. If we wish to investigate the system of circulation of the winds our investigation would be sadly deficient without a knowledge of the phenomena in the Polar regions.

If we wish to study the fluctuations in the pressure of the atmosphere, whether periodical or accidental, we cannot be sure that we understand the phenomena in the middle latitudes unless we know what takes place in the Polar regions. If we wish to investigate the currents of the ocean we find indications of currents coming from the Polar regions, and it is important to be able to trace these currents to their source. If we wish to investigate the laws of the tides we need observations from every ocean; and observations in the Arctic regions have a special value on account of their distance from the place where the daily tidal wave takes its origin. If we wish to study the phenomena of atmospheric electricity and of auroral exhibitions no part of the world is more important than the Polar regions. If we wish to study the phenomena of terrestrial magnetism observations in the Polar regions have a special value, since it is here the dipping needle assumes a vertical position and the intensity of the earth's magnetism is the greatest. If we wish to determine the dimensions and figures of the earth we require to know the length of a degree of latitude where it is greatest and also where it is least. If we wish to determine how the force of gravity varies in different parts of the world we require observations of the second's pendulum both where it is greatest and where it is least. In short, there is no problem connected with the physics of the globe which does not demand observations from the Polar regions, and generally the Poles and the Equator are more important as stations of observation than any other portions of the earth's surface. If the information which has been acquired upon the various subjects in the numerous Polar expeditions of the last half century were annihilated it would leave an immense chasm which would greatly impair the value of the researches which have been made in other parts of the world.

The subjects to which I have here referred are scientific rather than commercial; but many of them have an important bearing upon questions which affect the commerce of the globe. In the attempts which are now being made by the joint efforts of the principal nations of the globe to determine the laws of storms, if we could have daily observations from a group of stations within the Arctic Circle it is believed that they would prove of the highest value in enabling us to explain the phenomena of the middle latitudes. Every winter upon the eastern side of the Rocky Mountains we find an intensely cold wave moving down from the northward and spreading over a large portion of the United States. How can we fully understand the cause of the great changes of temperature which so frequently occur during the winter months unless we know where this cold air comes from? And how can this be determined without fixed stations of observation extending northward over the Polar regions?

The vast extension of the commerce of the world in recent times and its increased security are due in no small degree to more accurate information respecting the physics of the globe, including such subjects as the mean direction and force of the prevailing winds; the laws of storms; the use of the barometer in giving warning of approaching violent winds; the surest mode of escaping the violence of a storm when overtaken by a gale; the most advantageous route from one part to another; the direction and velocity of the current in every ocean; the variation of the magnetic needle in all latitudes, and its changes from year to year; together with many other problems; and most of these investigations have been greatly facilitated by observations which have been made within the Arctic regions. I do not regard it as any exaggeration to claim that the benefits which have resulted both directly and indirectly to the commerce of the world in consequence of Polar expeditions are more than equal to all the money which has been expended on these enterprises.

[From Prof. M. F. Maury.]

Within this Polar area the tides have their cradle and whales their nursery. There the winds complete their circuit and the currents of the sea their round in the wonderful system of oceanic circulation; there the aurora is lighted up and the trembling needle brought to rest; and there, too, in the mazes of that mystic circle terrestrial forces of occult power and of vast influence upon the well-being of man are continually at work. It is a circle of mysteries, and the desire to enter it, to explore the untrodden wastes and secret chambers, and to study its physical aspects has grown to a longing.

[From Admiral Osborne.]

Of the advantages to be derived from an exploration of the Polar area: In the first place there is an unknown area of 1,131,000 square miles of the globe's surface a sheer blank. Within that area we are profoundly ignorant whether there be lands or waters; whether, as some say, it is a silent frozen solitude or an open sea teeming with animal life. So far as it has yet been explored in that direction the land has been found capable of supporting not only animal but human life.

To botanists, therefore, as well as geographers, there is everything to be discovered within the Polar area, and not only the botany of the land but that of the sea and of the fresh water lakes and rivers flowing from the glaciers of that ice-bound region.

[From Sir John Barrow.]

But it may be asked *cui bono* are these northern voyages undertaken? If they were merely to be prosecuted for the sake of making a passage from England to China, and for no other purpose, their utility might fairly be questioned. But when the acquisition of knowledge is the ground-work of all the instruction under which they are sent forth; when the commanding officer is directed to cause constant observations to be made for the advancement of every branch for science—astronomy, navigation, hydrography, meteorology, including electricity and magnetism, and to make collections of subjects of natural history; in short, to lose no opportunity of acquiring new and important information and discovery; and when it is considered that these voyages give employment to officers and men in time of peace and produce officers and men not to be surpassed, perhaps not equaled, in any other branch of the service, the question *cui bono* is readily answered in the words of the minister of Queen Elizabeth, "Knowledge is power."

Professor Newton, of Cambridge, has drawn attention to some interesting questions relating to the migration of birds toward the unknown area. He says, "The shores of the British Islands, and of many other countries in the northern hemisphere, are annually, for a longer or shorter period, frequented by a countless multitude of birds, which there is every reason to believe resort in summer to very high northern latitudes for purposes the most important, and since they continue the practice year after year they must find the migration conducive to their advantage. There must be some water that is not always frozen; secondly, there must be some land on which they may set their feet; and, thirdly, there must be plenty of food, supplied either by the water or by land, or by both, for their nourishment and that of their progeny.

"People who have been in Iceland and Greenland have noted the appearance of

these birds in those countries, but in neither of them do they stay longer than with us; and as we know that it takes no other direction, it must move farther north. We may, therefore, fairly infer that the lands visited by these birds in the middle of summer are less sterile than Iceland and Greenland, or they would hardly pass over those countries. The inference necessarily is that beyond the tracts already explored there is a region which enjoys in summer a climate more genial than they possess."

If the solution of the greatest geographical problem that remains to be solved, and the attainment of numerous important scientific results, are not considered worth the expenditure of the trifling sum required, an expenditure which will be richly and abundantly repaid, the character of the English speaking people must have strangely altered with the present generation.

No such extent of unknown area as that which surrounds the North Pole ever failed to yield results of practical as well as of purely scientific value; and it may be safely urged that, as the area certainly exists, its examination cannot fail to add largely to the sum of human knowledge.

Professor Maury, the distinguished scientist, says, "Within this Polar area the *whales have their nursery.*" Professor Agassiz, another distinguished scientist, of whom New England is justly proud, writing to the president of the American Geographical Society in favor of a Polar expedition then before the public, says, "I consider it as highly important, not only in a scientific point of view, but *particularly so for the interests of the whale fisheries.* The discovery of a passage into the open water around the Pole which would render whale fishing possible would be one of the most important results for the improvement of whale fishing."

"The Navy," said Admiral Sherard Osborne, in 1865, "needs some action to wake it up from the sloth of routine and save it from the canker of prolonged peace. It cries not for mere war to gratify its desire for honorable employment or fame. There are other achievements as glorious as a victorious battle; and a wise ruler and a wise people will be careful to satisfy a craving which is the life-blood of a profession."

The following figures, taken from Mr. Starbuck's exhaustive history of the whale fisheries of the United States, show the startling decadence of this important branch of national industry and the necessity of prompt action to prevent its total extinction:

In 1846 there belonged to the various ports of the United States 678 ships and barks, 35 brigs, and 22 schooners, with an aggregate capacity of 233,189 tons.

On the 1st of January, 1877, the entire fleet was reduced to 112 ships and barks and 51 brigs and schooners, having a total capacity of 37,828 tons.

The value of bone and oil brought into the United States in 1854 amounted to \$10,802,594.20, and in 1876 to only \$2,639,463.31.

IV.

The plan of Arctic explorations and scientific research provided for in the bill H. R. 1823 is one to establish a station of hardy, resolute, and intelligent men at some favorable point on or near the borders of the Polar Sea, and providing it with all modern appliances for overcoming the physical obstacles in the pathway to the Pole, and for resisting the effects of hunger, of cold, and of sickness, to deprive it of the means of retreat, except at stated periods of time. The location selected as the site of the proposed colony is on the shore of Lady Franklin Bay, near the seam of coal found by the Discovery, of the English expedition of 1875.

The results of the last English expedition and modern improvements in means of locomotion and communication render it impossible to locate farther north than in the earlier days of Arctic exploration, when sailing-vessels were used.

The expedition of Captain Hall, in the *Polaris*, in 1871, and of Captain Nares, in the *Alert* and *Discovery*, in 1875, have shown that by the use of steam it is a comparatively easy matter to reach the entrance to Robeson's Channel, in latitude 81° north, and that the serious difficulties to be overcome lie beyond that point. Parties from these two expeditions have made fair surveys 140 miles north of this point, leaving about 400 miles of unexplored regions between it and the goal of modern geographers—the Pole.

When Captain Hall reached the upper extremity of Robeson's Channel the lookout of the *Polaris* reported open water in sight and just beyond the pack which surrounded the vessel and impeded further progress. This open water was afterward seen from the cape at the northern opening of Newman's Bay, and it was the opinion of the crew of that ill-fated vessel that if she had been but the fraction of an hour earlier in reaching the channel, they could have steamed unobstructed to the Pole itself, or to the shores of such lands, if any exist, as may bound the so-called open Polar Sea. We know that they did not succeed but were forced to winter almost within sight of

this sea, and subsequently, disheartened by the loss of their gallant commander, abandoned the enterprise.

Where this open water was found Captain Nares, in 1875 and 1876, found solid, impenetrable ice, through which no vessel could force its way, and over which it was equally impossible for sled parties to work.

These facts appear to show that within the Arctic Circle the seasons vary as markedly as in more temperate southern latitudes, and that the icy barriers to the Pole are sometimes broken up by favoring winds and temperature. To get farther north, or to reach the Pole, prompt advantage must be taken of such favoring circumstances, and to do this with the greatest certainty and with the least expenditure of time, money, and human life, it is essential that the exploring party be on the ground at the very time the ice gives way and opens the gateway to the long-sought prize, fully prepared to improve every opportunity that offers.

The permanent station should be furnished with provisions and other necessary supplies for three years, and should consist of at least fifty selected men, mustered into the service of the United States, three commissioned officers, and two surgeons, all to be selected with a view to their especial fitness for the work—young, able-bodied, resolute men, who can be depended upon to carry out instructions to the extreme limit of human endurance. An astronomer and two or more naturalists, to be selected by the National Academy of Sciences, and to work under instructions from that body, but subject to such general supervision and directions from the head of the expedition, as is customary at all points in charge of an officer of the United States, should accompany the expedition. One or more members of the regular force should be competent to make meteorological observations, and to communicate by telegraph and signals whenever such communications become necessary. An annual visit should be made to the station to carry fresh food and supplies; to keep the members informed of events occurring in the outside world, and bear them news and letters from anxious relatives; to bring back news of progress made and of a private character to friends; also, if necessary, to bring back invalided members of the expedition and carry out fresh observers to take their places. In this way the *morale* of the station would be maintained and the physique of its members kept constantly at the maximum, and the knowledge that this annual visit would be made would do much to alleviate the discomforts of the long Arctic night and the feeling of isolation so graphically described by Arctic explorers.

Captain Hall spent eight years among the Esquimaux, and each year found himself better fitted to withstand the severity of the Arctic Circle, and the station would, it is believed, in like manner become acclimated, and eventually succeed in accomplishing the long-sought end.

With a few strong, substantial buildings, such as can be easily carried on ship-board, the members of the station could be made as comfortable and as safe from atmospheric dangers as are the men of the Signal Service stationed on the summits of Pike's Peak and Mount Washington, or the employes of the Hudson's Bay Company, stationed at Fort York, or elsewhere where a temperature of -60° is not uncommon.

A good supply of medicines, a skillful surgeon, and such fresh provisions as could be found by hunting parties would enable them to keep off scurvy and maintain as good a sanitary condition as the inhabitants of Godhaven, in Greenland. Game was found in fair quantities by the *Polaris* party on the Greenland coast, and by those from the *Alert* and *Discovery* on the mainland to the west, especially in the vicinity of the last-named vessel, where fifty-four musk oxen were killed during the season, with quantities of other and smaller game. The coal found by the *Discovery's* party would render the question of fuel a light one, and thus remove one of the greatest difficulties hitherto encountered by Arctic voyagers.

There seems to be little doubt that *Lady Franklin Bay* can be annually reached by a steam-vessel, as Captain Hall went as high as *Cape Union*, between latitude 82° and 83° , with the *Polaris*, and Captain Nares still higher with the *Alert*. It is possible that the last-named point may be reached with the vessel, in which case coal and provisions could be deposited there to form a secondary base of operations for the exploring party. If this latter can be done the road to the Pole will be shortened by about ninety miles in distance and three weeks or more in time—two very important items. It should be clearly understood that the only use to be made of the vessel which it is hoped to obtain from the Government is in the transportation of the men and supplies to the location of the station. When this is done the vessel will return to the United States and await further instructions. To the expeditionary corps brought from the United States should be added a number of Esquimaux families to serve as hunters, guides, &c., and also an ample number of Esquimaux dogs, so indispensable for sledging, and so useful as food when their capacity for work is gone.

The station should be kept under the strictest discipline, and to this end should be formally enrolled in the military service, save perhaps the strictly scientific members. By discipline only can such control be exercised as will be indispensable to the suc-

cessful prosecution of the work. One cannot read without pain the account of the Polaris expedition, where the bonds of discipline, only too loose before Hall's untimely death, were entirely relaxed after it. The first in command of the new expedition should be a man able not only to gauge men, but to control them, and his second should be like unto him. Enthusiasm and energy are desirable, but coolness of temper, firmness of rule, persistency of purpose, and a well-balanced mind, fertile in resources and expedients, are indispensable to success.

The outfit of the expedition should include, among other things an ample supply of copper telegraph wire to connect the station at Lady Franklin Bay with the subsidiary depot at Cape Union, and thence northward as far as practicable. Copper wire is strong, light, flexible, and a good conductor, and can be worked while lying upon the dry snow or ice without support. The necessary battery material and instruments should be taken to equip the line, and the battery left permanently at the bay station, where, fuel being abundant, it could be kept from freezing. A special form of instrument has been devised for the expedition, by which the use of battery is dispensed with entirely, and it is possible that the recently discovered telephone may be applied to advantage. It should certainly form a part of the outfit. Much attention has been given to the possible use of balloons as a means of observation, and, perhaps, of exploration. Here, as elsewhere, the coal mine plays an important part, as by its aid the necessary supply of gas can be readily and quickly procured.

A few sets of signal equipments, such as are used in the Army Signal Service, would also form an important part of the outfit, and all of the men should be instructed in their use and in the signal code. Thus provided with means of communication, parties could move forward with confidence, as they would be able, when necessary, to call upon their comrades who remained behind for advice or assistance. The existence of coal at the Discovery's winter quarters determines the location of the station as a means of Polar exploration; and the Nares expedition would have been a success if it had done nothing more than this. The failure of his admirably equipped expedition to reach the Pole is, in a great measure, attributable to the abnormally cold season and the exceptional character of the winds, which had resulted in the formation of ice ridges running across the line of march, thus making progress difficult, slow, and dangerous. It is reasonable to suppose, from past meteorological records, that these unusual conditions will not exist during the present season, and, indeed, may not occur again for several years. Instead of discouraging further effort, the result of Nares' expedition, from the causes named, should stimulate fresh endeavors and hold out a fair prospect of success. In any event the little station on Lady Franklin Bay during their three years' residence, besides having the opportunity of selecting an open season and becoming thoroughly hardened and acclimated, would have their work narrowed down to a common focus—the pathway due north.

The plan proposes to take only such persons already in the public service for whose pay and subsistence the Government now provides; the vessel is no charge, and only such small sum as may be necessary to prepare it for this special service is sought from the Government.

While your committee believe that the interests of geographical and scientific discovery as set forth by Professors Henry, Loomis, and others, in connection with the proposed Arctic station, are of themselves of sufficient magnitude to warrant favorable legislation, they do not exclude the additional practical consideration of the political and commercial results that are probable to flow from the discovery of new fields for the whale fisheries. That large section of country from which springs the American sailor, whose education and wealth is largely derived from these fields, is entitled, as a matter of justice, to have their interest cared for in this direction. This home of sailors becomes not only an element of commercial wealth but a resource of national defense, which should not be lost sight of by the American statesmen. It is for these considerations your committee have been induced to report favorably upon the plan proposed in H. R. No. 1823.

[Substitute for H. R. No. 1823.]

A BILL to authorize and equip an expedition to the Arctic Seas.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States be, and he hereby is, authorized to establish a temporary station at some point north of the eighty-first degree of north latitude, on or near the shore of Lady Franklin Bay, for purposes of scientific observation and exploration, and to develop or discover new whaling-grounds; to detail such officers or other persons of the public service to take part in the same as may be necessary, and who are willing to enlist for such purpose, not exceeding fifty

in number, and to use any public vessel or vessels that may be suitable for the purpose of transporting the members of said station and their necessary supplies and for such other duty in connection with said station as may be required from time to time: *Provided*, That the President of the United States is authorized to accept from H. W. Howgates, and fit out for the purposes of this expedition, the steamship Gulnare, which vessel shall be returned to its owner when the objects of the expedition shall have been accomplished, or when, in the opinion of the President, its services are no longer required: *Provided further*, That the United States shall not be liable to any claim for compensation in case of loss, damage, or deterioration of said vessel from any cause, or in any manner whatever, nor be liable to any demand for the use or risk of said vessel.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 13, '83.

(Endorsed as follows:)

5886 } War }
 7 } 1881.
 } Dept. }

7 (990, O. C. S. O. Mis., 1881.)

(212.)

Lieut. Greely, assigned to command of expeditionary force by S. O., No. 113, Par. 1, War Dept., A. G. O., May 21, 1880.

First Lieut. G. C. Doane, 2d Cav., detailed for duty by S. O. 125, Par. 11, War Dept., A. G. O., June 7, 1880.

Second Lieut. W. H. Low, jr., 20th Inf., detailed by S. O. No. 125, Par. 10, War Dept., A. G. O., June 7, 1880.

By S. O. 91, Ex. 3, War Dept., O. C. S. O., the following men were ordered to report to Lt. Greely for duty with the expedition.

Sergt. W. S. Jewell, }
 " G. H. Rohe, } Signal Corps.
 " O. T. Sherman, }
 " O. Aldrich, }

Sergt. F. E. Sewer, Sergt. V. Stewart, }
 D. L. Brainard, Corpl. D. C. Starr, }
Pvt. J. Fredericks, Pvt. G. B. Richardson, } 2d Cavalry.
 " F. Stoezel " N. Salor, }
 " W. H. Johnson, " J. Ryan, }

Pvt. F. Long, Co. "F," 9th Infantry.

(NOTE.—One other private of 2d Cavalry did not report to Lt. Greely, but reported to Chief Signal Officer.)

Three other men, were authorized to be enlisted.

Total commissioned officers.....	3
Contract surgeon.....	1
Signal sergeants.....	4
Enlisted men 2d Cavalry.....	11
Do. do. 9th Infantry.....	1
Three men, special enlistments.....	3

23

The two vacancies were men of 2d Cavalry who at first volunteered but subsequently were discharged.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., November 12, 1883.

(Endorsed as follows:)

5886 } War }
 8 } 1881.
 } Dept. }

8 (990, O. C. S. O. Mis., 1881.)

(212.)

One year's (or more) of medical supplies were furnished the expedition from the Medical Department U. S. Army some time in May, 1880. List and dates can be obtained from the Surgeon-General's Office if needed.

(S'g'd)

A. W. GREELY,
1st Lt. 5 Cav., A. S. O., & Ass't.

O. C. S. O., M'ch 28, '81.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., Nov. 12, 1883.

(Endorsed as follows:)

5886 { War }
 { 9 }
 { Dept. } 1881.

9 (990, O. C. S. O. Mis., 1881.)

(213.)

AN ACT to authorize and equip an expedition to the Arctic Seas.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States be, and he hereby is, authorized to establish a temporary station at some point north of the eighty-first degree of north latitude, on or near the shore of Lady Franklin Bay, for the purposes of scientific observation and exploration, and to develop or discover new whaling-grounds; to detail such officers or other persons of the public service to take part in the same as may be necessary, and who are willing to enlist for such purpose, not exceeding fifty in number, and to use any public vessel or vessels that may be suitable for the purpose of transporting the members of said station and their necessary supplies, and for such other duty in connection with said station as may be required from time to time: *Provided*, That the President of the United States is authorized to accept from H. W. Howgate, and fit out for the purposes of this expedition, the steamship *Gulnare*, which vessel shall be returned to its owner when the objects of the expedition shall have been accomplished, or when, in the opinion of the President its services are no longer required: *Provided further*, That the United States shall not be liable to any claim for compensation in case of loss, damage, or deterioration of said vessel from any cause, or in any manner whatever, nor be liable to any demand for the use or risk of said vessel.

Approved, May 1, 1880.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 13, '83.

(Endorsed as follows:)

5886 { War }
 { 4 }
 { Dept. } 1881.

4 (990, O. C. S. O. Mis., 1881.)

(214.)

OFFICE OF THE CHIEF SIGNAL OFFICER.

Washington, D. C., May 27, 1880.

Proceedings of a board which convened at Washington, D. C., May 27, 1880, by authority of instructions No. 33, current series from this office.

Present: All the members.

The board, in compliance with its instructions, proceeded to the consideration of a "Memorandum of plan of Arctic work," signed H. W. Howgate, &c.

1. With respect to the provisions and fuel for the steamer *Gulnare*, and the advisa-

bility of having a surgeon for its return trip, the board is of the opinion that these matters should be left to the discretion of the Navy Department.

2. Mr. H. C. Chester, a member of the board, who accompanied the *Polaris* Expedition, and who is now superintending the fitting out of the *Gulnare*, states that it is the best adapted for the purposes designed of any vessel that has entered the Arctic Seas.

3. The permanent party to remain at the station near Lady Franklin Bay, to be composed of three commissioned officers and twenty-five men, appears sufficiently large. These will be available for scientific work: Three officers, one surgeon, one astronomer, one photographer, and three sergeants of the Signal Corps. A portion of the scientific work to be performed has already been provided for by a previous board.

4. It is understood by the board that the discovery and development of new whaling grounds will be incidental to the duties of exploration.

5. There is little reason to anticipate any danger to the permanent station. It is to be provisioned for two years or more. The *Polaris* left abundant stores on the opposite side of the channel, distant from Lady Franklin Bay some thirty or thirty-five miles; also the English expedition, under Nares, left at Cape Hawk "a large quantity of biscuit."

6. The providing for the safety of sledge and traveling parties will, of necessity, have to be left to the discretion of the officer commanding the expedition. Tents are the only shelter for such parties that can well be transported, but such parties will build igloos, or snow-houses, when the materials are at hand.

7. The means of transportation proposed—two whale-boats, one steam-yawl, six dog-sledges, and thirty dogs—are considered ample.

8. The detailing of selected enlisted men for the body of the expedition promises many advantages. Of the men already selected two have been seamen, four are accustomed to the use of the oar, one is a fair carpenter, and two are rough carpenters.

9. The members of the board, having had Arctic experience in the latitude of Lady Franklin Bay, consider the quarters provided sufficient in capacity and in comfort for the party proposed.

10. The clothing suggested appears to be sufficient in quantity and adapted to the climate.

11. The arrangements for heating and cooking appear adequate.

An abundant supply of oil for lighting for two years has been provided.

The surgeon of the expedition states that his requisition for medical stores will be sufficient for any anticipated emergency.

For scientific investigation more spare instruments should, if practicable, be provided.

QUARTERS.

A frame house, 21 by 65, inside size, with double walls 18 inches apart, is ready for shipment, and will accommodate the whole party comfortably. This house is built after the model of those used in the Hudson Bay territory by the company, and is, therefore, assumed to be suitable, both as to size, style, and comfort.

For moving parties four wall tents, with flies, and twelve A tents complete, have been provided, and will be sufficient.

CLOTHING.

Boots, stockings, mittens, sheepskins for clothing, and sleeping bags in sufficient quantity for a three years' supply is on hand ready for shipment. There is still needed a supply of overcoats, blankets, and drawers, which can be supplied by the Quartermaster's Department within ten days from date of requisition.

Twenty suits of seal or deer skin will be obtained at Rigolette, on the coast of Labrador, in accordance with previous arrangements. If from any cause the clothing is not ready at that point it can be obtained at Disco, and is not absolutely essential, although it should be procured if practicable.

MEANS OF TRANSPORTATION.

Two (2) whale boats (to be got on the NE. coast).

One (1) steam yawl (now ready).

Four (4) dog sledges (now ready at Rigolette, Labrador).

Thirty (30) dogs (expected to be ready at Rigolette, Labrador; if not ready, can be got on the Greenland coast, at Proven or Upernavik).

FOOD.

Two years' supply, as per list, already in hands of the Secretary of War, and which, having been prepared with the assistance of Captain Wm. Kennedy, Dr. John Rae, and other Arctic explorers, is believed to be complete.

The pemmican, which is the only item not procurable from the Commissary Department, is now in Washington ready for shipment.

Requisitions for all the other provisions have already been submitted to the Secretary of War for approval.

FUEL AND HEATING.

Coal to be used as fuel, and the supply to be obtained on the spot from the vein discovered by the English expedition, necessary tools for getting out the coal have been provided, under the advice of the manager of some Pennsylvania coal mines. The vein of coal must be critically examined before the vessel leaves the party, in order that a proper supply may be left from the ship's stores if that on shore is impracticable.

Four stoves, two cooking and two heating, have been secured, and, with all their necessary furniture, are packed ready for shipment.

LIGHT.

A large supply of lamps and lanterns of various sizes and kinds have been secured, with sufficient carbon oil to serve for one full year.

MEDICINES.

A full list of medicines, with surgical and medical apparatus, has been prepared by the surgeon, and is ready to submit for the approval of the Secretary of War.

READING MATER.

This has been contributed in abundance, and is ready for shipment.

INSTRUMENTS, &c.

Surveying apparatus and marine chronometers on hand. Other apparatus can be ready within ten days.

ORDNANCE STORES.

Six (6) Springfield rifles,

Six (6) shot-guns,

Six (6) revolvers,

With necessary ammunition, and 1,000 pounds blasting powder have been secured and are ready for shipment.

MISCELLANEOUS APPARATUS.

Includes signaling outfit complete for four stations, including candle-bombs, heliographs, &c., &c.

Eight (8) telephones.

Four (4) call-bells.

Ten (10) miles No. 15 wire plain.

Four (4) sets telegraph instruments.

Thirty (30) cells battery, Eagle's.

Five hundred pounds blue-stone and such other small items as are needed to put up two or more telegraph offices.

Vessel to leave Washington not later than June 1st, and to proceed under sail to St. John's, N. F., where she will stop for coal, ice pilot, and any other items of supplies that may be needed.

From St. John's she will go to Rigolette, where the sledges, dogs, and the twenty suits of clothing will be taken on board. It is probable that two half-breed hunters will be ready here to join the party, as partial arrangements for their services were made last year.

From Rigolette the vessel will proceed to Disco, using steam only when necessary.

At Disco the coal bunkers will be refilled, either from the Danish stores or from the supply left by the *Polaris*, if that has not been consumed. The vessel should leave Disco with her coal bunkers filled, and as much more coal stowed on board as can be provided for.

From Disco to Lady Franklin Bay the only stops other than those caused by ice or other causes incident to navigation will be at the several Danish settlements of Proven, Upernavik, and Tessieusak for dogs and dog food, if these have not previously been secured. Arriving at Lady Franklin Bay the permanent party will be landed and the cargo discharged with as little delay as practicable, as near the mouth of Watercourse Creek and the coal vein as it is practicable for the vessel to get.

As before stated, the quality and accessibility of the coal vein will be examined, and, if found satisfactory, it will not be necessary to leave any of the vessel's coal otherwise a year's supply—say 60 tons—will be left.

The *Gulnare* should not leave the station at Lady Franklin Bay until at least one year's supply of fuel has been obtained from the coal mine in that vicinity, or if this cannot be obtained, at least sixty (60) tons should be left from the ship's supply.

In any event the *Gulnare* should not be permitted to proceed on its return trip until the officers of the ship and of the party shall have certified in writing as to the suitability and fitness of the supplies and the apparent safety of the station, a copy of which certificate shall be brought back in the vessel.

It is also thought that some point should be selected during the ship's journey; northward, where supplies should be left in 1882, if a relief ship could not by that year reach Lady Franklin Bay.

The board is of the opinion that there should not be an increase in the arms now provided.

I fall the arrangements of the plan proposed by Lieutenant Howgate be faithfully carried out it would appear that proper precautions and safeguards have been provided to secure the safety of the Arctic expedition, and to promise reasonable success in the attainment of the objects for which the expedition was organized.

Special suggestions in writing by Mr. Bryan, of this board, and by Sergt. O. T. Sherman, of the Signal Corps, marked, respectively, C and D, accompany these proceedings.

J. P. STORY,
A. W. GREELY,
R. W. D. BRYAN,
H. C. CHESTER,
OCTAVE PAVY.

Official copy from the records of the Signal Office.

O. C. S. O., *Nov.* 13, 1883.

(Indorsed as follows:)

5886. { War } 1881.
 { 10 }
 { Dep't. }

10 (990, O. C. S. O. *Mis.*, 1881).

W. B. HAZEN,
Chief Signal Officer.

(215.)

One year's (or more) of medical supplies were furnished the expedition from the Medical Department, U. S. Army, some time in May, 1880. List and date can be obtained from the Surgeon-General's Office if needed.

A. W. GREELY,
1 Lt 5 Cav. A. S. O. *Asst.*

O. C. S. O., *M'ch* 13, 1881.

Official copy from the record of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., *Nov.* 13, 1883.

(Indorsed as follows:)

5886. { War } 1881.
 { 11 }
 { Dep't. }

11 (990, O. C. S. O. *Mis.*, 1881).

(216.)

WASHINGTON, D. C., *March 27th, 1880.*COMMISSARY-GENERAL U. S. ARMY,
Washington, D. C.:

SIR: I have the honor to request to be furnished at the earliest practicable date with the articles named in the following list:

Three hundred and fifty (350) lbs.....	Dried apples.
Ten (10) bushels	Beans.
Two hundred (200) lbs.....	Cheese.
Seventy-five (75) bags.....	Table salt.
Two (2) barrels	Mackerel (No. 1 Bay).
Seventy-five (75) lbs.....	Corn starch.
Seventy-five (75) lbs.....	Farina.
Seven hundred (700) boxes	Sardines.
One thousand (1,000) lbs.....	Sugar (granulated).
Two hundred and fifty (250) lbs.....	Tea (Oolong or Congo).
Forty-five (45) barrels.....	Mess pork.
Ten (10) lbs.....	Black pepper.
Five (5) lbs.....	Allspice.
Three (3) lbs.....	Cloves.
Seven hundred (700) lbs.....	Ham (sugar cured).
Thirty (30) barrels.....	Flour.
Five (5) barrels.....	Corn meal.
One thousand four hundred (1,400) lbs.....	Rice.
Seven hundred (700) lbs.....	Butter.
One thousand four hundred (1,400) lbs.....	Coffee (roasted Maracaibo).
Forty-eight (48) cans, 3 lbs.....	Preserved peaches.
Forty-eight (48) 2-lb. cans.....	“ peas.
Forty-eight (48) “.....	“ quinces.
Forty-eight (48) “.....	“ currants.
Forty-eight (48) “.....	“ pears.
One hundred and sixty (160) 2-lbs cans.....	“ pie fruit.
One hundred and twenty (120) “.....	“ corn.
One hundred and twenty (120) “.....	“ Lima beans.
Eighty (80) 3-lb. cans.....	“ tomatoes.
Eighty (80) 2-lb. cans.....	“ beets.
Eighty (80) “.....	“ carrots.
Eighty (80) 2½-lb. cans.....	“ salmon.
Forty-eight (48) 2-lb. cans.....	“ oysters.
Seventeen (17) barrels.....	Corned beef.
Forty-eight (48) 2-lb. cans.....	Preserved lobsters.
One hundred and twenty (120) cans.....	Condensed eggs.
Four (4) lbs.....	Extract of tea.
One hundred and twenty (120) cans.....	Soups (assorted).

It is requested that I be notified when these articles are ready for delivery.

Very respectfully, your obedient servant,

H. W. HOWGATE,
*1st Lieut. 20th Infantry, Acting Signal Officer.*OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, May 12, 1880.

Respectfully forwarded. It is recommended that these supplies be furnished to enable timely preparation to be made for the expedition to establish a station in the Arctic regions.

ALBERT J. MYERS,
Brig. Gen'l (Bvt. Assg'd), Chief Signal Office of the Army.

Approved:

ALEX. RAMSEY, *Sec. War.*

MAY 12, '80.

Official copy from the records of the Signal Office.

W. B. HAZEN,
*Chief Signal Officer.*O. C. S. O., *November 12, 1883.*

(Indorsed as follows:)

5886. { War }
 { 12 } 1881.
 { Dept. }

12 (990. O. C. S. O. Mis., 1881).

(217.)

[This is not marked as an inclosure.]

WAR DEPARTMENT,
_____, 188-.

LUCIEN YOUNG, master, Navy Dept., Equipment and Recruiting, can be detailed by Navy Dept. What action will be taken? Expect to command the ship.

Official copy from the records of the Signal Office.

Chief Signal Officer.

O. C. S. O., Nov. 13, 1883.

(218.)

WASHINGTON, D. C., May 7th, 1880.

COMMISSARY-GENERAL, U. S. ARMY,
Washington, D. C. :

SIR: I have the honor to request to be furnished with the articles named in the following list:

Oatmeal	4 barrels.
Cocoa	350 pounds.
Potatoes (dissicated)	1,600 pounds.
Peaches (dried)	350 pounds.
Molasses (Porto Rico)	200 gallons.
Vinegar (pure cider)	300 gallons.
Cod-fish (dried)	350 pounds.
Raisins (layer)	150 pounds.
Figs	100 pounds.
Olive oil	10 gallons.
Bologna sausage (Lyons)	200 pounds.
Pickles (cucumbers)	1 300 pounds.
Pickles (assorted)	200 pounds.
Ship biscuit	18,200 pounds.
Sauerkraut	1,400 pounds.
Condensed milk	35 gallons.
Tobacco (smoking)	900 pounds.
Tobacco (plug)	300 pounds.
Pipes (briarwood)	100
Pipes (clay)	3 boxes.
Lime juice	1,500 pounds.
Split peas	3 bushels.
Pearl barley	1 bushel.
Mustard	10 pounds.
Soap (common bar)	300 pounds.
Soap (glycerine and windsor)	100 pounds.
Hogs' lard (best quality)	3 barrels.
Spirits of wine	150 gallons.
Lucifer matches	4 cases.
Apples (green)	3 bushels.
Potatoes (raw)	50 bushels.
Turnips	25 bushels.
Onions	10 bushels.
Pemmican (Hudson Bay)	5,008 pounds.

Now in custom-house, Georgetown, and bill in my hands.

Cranberries	10 bushels.
Cabbages (green)	100 heads.

All articles to be strongly packed, and delivered in Washington on or before the 20th instant, except those marked with a red cross, which will be held for delivery until June 1st, if not previously called for.

Very respectfully, your obedient servant,

H. W. HOWGATE,
1st Lieut. 20th Infantry, Acting Signal Officer U. S. A.

OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, May 12, 1880.

Respectfully forwarded. It is recommended that these supplies be furnished to enable timely preparation to be made for the expedition to establish a station in the Arctic regions.

ALBERT J. MYER,
Brig. Gen'l (Bvt. Ass'g'd) Chief Signal Officer of the Army.

Approved :

ALEX. RAMSEY,
Sec. War.

MAY 12, '80.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., *November 12, 1883.*

(Endorsed as follows :)

5886 { War } 1881.
 { 13 }
 { Dept. }

13 (990. O. C. S. O. Mis. 1881.)

(219.)

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE.
Washington, D. C., May 13, 1880.

To the honorable SECRETARY OF WAR,
Washington, D. C. :

SIR : I have the honor to report that, in compliance with your approval of May 12th, 1880, Captain A. F. Rockwell, depot quartermaster, this city, has this day been directed to purchase the following articles called for by Lient. H. W. Howgate, as being required for his expedition to establish a station in the Arctic regions, viz :

Two (2) M feet inch pine board.

One (1) M feet pine scantling, assorted sizes.

Two thousand (2,000) pounds of roofing felt.

One (1) frame house complete, now ready for delivery by Mr. N. Anderson, carpenter and builder, corner 14th and G streets NW., Washington, D. C.

Very respectfully, your obedient servant,

M. C. MEIGS,
Q'r M'r Gen'l, Bvt. Maj. Gen'l, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., *November 12, 1883.*

(Endorsed as follows :)

5886 { War } 1881.
 { 14 }
 { Dept. }

14 (990. O. C. S. O. Mis. 1881.)

(220.)

WASHINGTON, D. C., *May 7th, 1880.*

QUARTERMASTER-GENERAL, U. S. ARMY,
Washington, D. C. :

SIR : I have the honor to request to be furnished with the articles named in the following list on or before the 20th inst. :

One (1) anvil.

One (1) wrought-iron vise.

- One (1) 4-pound blacksmiths' hammer.
 One (1) 2½ " " "
 Two (2) pairs blacksmiths' tongs.
 One (1) cutting-off tool.
 Twenty-four (24) snow knives, 18-in. blade.
 Twelve (12) cod lines, double, with hooks, assorted sizes.
 Six (6) fishing nets with assorted size meshes from 4 to 6 inches, 50 yards long, and 20 inches deep.
 Two hundred (200) pounds of strap-iron.
 One hundred (100) blankets.
 Thirty (30) cavalry overcoats.
 Thirty (30) haversacks.
 One hundred (100) pairs of drawers.
 One (1) gross of sail needles.
 One (1) gross of darning needles.
 One (1) gross coarse sewing needles.
 Twenty-five (25) papers of pins.
 Three (3) pounds of linen thread, white.
 Fifty (50) tape needles.
 Twenty-four (24) shoe knives.
 Three (3) pounds black linen thread.
 One hundred (100) pairs of goggles.
 Twelve (12) pairs of shears.
 Twelve (12) pairs of scissors.
 One (1) ton of charcoal in barrels.
 Two thousand (2,000) feet inch pine boards.
 One thousand (1,000) feet pine scantling, assorted sizes.
 Two thousand (2,000) pounds wrought-iron in rods and bars, to be selected.
 Two thousand (2,000) pounds of roofing felt.
 One (1) frame horse complete, now ready for delivery by Mr. N. Anderson, carpenter and builder, cor. 14th and G streets NW., Washington, D. C.
 Six (6) small boat stoves, to be selected.

Very respectfully, your obedient servant,

H. W. HOWGATE.

1st. Lieut. 20th Infantry, Acting Signal Officer, U. S. A.

Approved:

ALEXANDER RAMSEY,
 Secretary of War.

Official copy from the records of the Signal Office.

W. B. HAZEN,
 Chief Signal Officer.

O. C. S. O., Nov. 12, 1883.

(Endorsed as follows:)

5886 { War }
 { 15 } 1881.
 { Dept. }

15. (990. O. C. S. O. Mis. 1881.)

(221.)

Dr. Octave Pavy was engaged as an act'g ass't surgeon for the expedition, under contract made by order of the Secretary of War. Date can be obtained from Surgeon General U. S. Army.

(S'g'd)

A. W. GREELY,
 1st Lt 5 Cav., A. S. O. and Ass't.

O. C. S. O., M'ch 28, '81.

Official copy from the records of the Signal Office.

W. B. HAZEN,
 Chief Signal Officer.

O. C. S. O., Nov. 12, 1883.

(Endorsed as follows:)

5886. { War }
 { 16 } 1881.
 { Dep't. }

16. (990, O. C. S. O., Mis. 1881.)

(222.)

OFFICE OF THE CHIEF SIGNAL OFFICER,
April 30, 1880.

GENERAL: The Board called for under your instruction No. 29, of April 29, have met, considered the subjects mentioned in the aforesaid instruction and in the order in which they are therein named, and have the honor to report the following plan for "astronomical, meteorological, and magnetic work in high latitudes."

I.—MAGNETIC WORK AT FIXED STATIONS.

The outfit necessary for this work is considered to be as follows:

1. The unifilar declinometer or the complete magnetometer, as made by Fauth & Co., Washington, D. C., No. 70 of their catalogue, and costs about \$400. This should have a set of very light needles as well as the ordinary heavy ones, and is to be used for absolute and differential observations of declination.

2. A Kew dip circle to be used for dip and total intensity. It should be compared with similar observations made at Washington, at the Coast Survey magnetic observatory, before starting in the expedition and also after the return.

3. A ship's chronometer very accurately rated in mean time. With these instruments the declination, dip, and total intensity should be determined on the 1st and 15th of each month. The differential observations of declination are to be made with the declinometer every day, three times a day, namely, at 7 a. m., 3 p. m., and 11 p. m., Washington time, and are to be made by taking readings at the first second of every minute for fifteen minutes, namely, from 7 a. m. to 7.15 a. m., 3 p. m. to 3.15 p. m., 11 p. m. to 11.15 p. m.

By this means there will be secured observations simultaneously with the Signal Service meteorological observation, and also simultaneous with the magnetic observations made at the observatories that pursue the cottingen plan.

By these means also data will be obtained for showing the rapid fluctuations to which needles are subject when an auroral disturbance is taking place.

The term days will be the 1st and 15th of each month, on which days, besides the fifteen minutes' observation previously provided for, there will be made a special set of readings of the declinometer at the beginning of each five minutes throughout the entire day, or, if this be not possible, then at least in groups of two hours and fifteen minutes, viz, from 6.15 a. m. to 8.15 a. m.; 2 p. m. to 4.15 p. m.; 10 p. m. to 12.15 a. m., Washington time.

II.—THE MAGNETIC OBSERVATIONS AT TEMPORARY STATIONS BY TRAVELING PARTIES.

The outfit for this class of work will be as follows for each party:

1. Casella astronomical theodolite, as made by Fauth & Co., No. 60 of catalogue, which is considered decidedly preferable to the English make, it having 3-inch circles, and costing \$150 with its stand. This instrument can be used for determination of latitude, time, longitude, azimuth, and magnetic declination.

2. Kew dip circle, small size, to be used for determination of magnetic dip and intensity.

3. Two pocket chronometers, kept accurately rated on mean time. With these instruments the absolute dip and intensity should be determined at every convenient stopping place, and if the party stays long at any station, these elements should be determined each day, and especially at 7 a. m., 3 p. m., and 11 p. m., Washington time, as before directed for the permanent station.

The term day observations should be also kept up by the traveling parties if they happen to be at convenient stations on the 1st and 15th of the month.

Observers will have to be especially instructed in the use of the instruments. The best works of reference are:

Riddell's Magnetic Instructions, London, 1844.

Admiralty Manual of Scientific Inquiry, 1871.

Admiralty Arctic Manual, 1875.

Walker's Terrestrial and Cosmical Magnetism, 1866.

Coast Survey Special Instructions.

The form for records may be those given by Riddell, with such modifications as the modern construction of magnetic instruments may demand.

III.—METEOROLOGICAL OBSERVATIONS.

These should be made at least three times daily, at the exact hours of simultaneous

observations, 7 a. m., 3 p. m., and 11 p. m., Washington time; and, unless absolutely impossible, intermediate observations should be made every two or four hours, the complete series being at 1, 3, 5, 7, 9, and 11 a. m., and 1, 3, 5, 7, 9, and 11 p. m. In case that self-registering apparatus is supplied, the personal observations of those items that are so recorded need be made only at 7 a. m., 3 p. m., and 11 p. m.

The thermometers and barometers should be of superior quality, and in general the instruments and methods of instruction embodied in the instructions to observer sergeants of the Signal Corps should be followed. The outfit should be that of a first-class Signal Service station, to which should be added the following supplementary instruments:

1. Self-recording Barometer.
2. Self-recording Thermometers.
3. Regnault's Dew Point Apparatus.
4. Vacuum Solar Radiation Thermometers.
5. Hick's Terrestrial Radiation Thermometers.
6. Heiss' Apparatus for Convergence of Auroral Beams.
7. A number of small india-rubber balloons and apparatus for filling them for ascertaining air currents, height of clouds, &c.

Special instructions for the use of these instruments are scarcely necessary on account of their simplicity; but, in order to call attention to many minor points, the observer should be furnished with extra copies of the following works:

- Signal-Service instructions.
- Admiralty Manual of Scientific Inquiry.
- Admiralty Arctic Manual.
- Instructions to the Florence expedition.
- Pickering's Physical Manipulations.
- Kohlrausch's Physical Measurements.
- Everett's Translation of Deschanel's Natural Philosophy.
- Loomis' Meteorology.
- Buchans' Meteorology.
- Kaemtz' Meteorology.

Special attention is called to the importance of accurate observations at every station of the minute details of auroral phenomena and their changes (see Stoke in the Arctic Manual, page 19), which should be recorded carefully by diagrams and otherwise, together with the hour, minute, and second of the phenomena.

IV.—ASTRONOMICAL OBSERVATIONS.

The only astronomical observations recommended as imperative are those for determining latitude, longitude, and time.

Such observations must be made every day at sea and when traveling. The position of the central station must be determined by observations made at every favorable opportunity until there have been accumulated at least ten independent determinations of latitude and longitude, so that the mean of all may be reasonably accurate. The determination of the errors of the chronometers must be made whenever practicable, and the resulting corrections immediately deduced, so that the meteorological and magnetic observers may be able to maintain strict simultaneity in their observations.

As in all the physical and astronomical observations to be made the same chronometers must be used, and as these latter are most conveniently kept on Greenwich time, it is recommended that all records and daily reckonings should without exception be kept on Greenwich mean time; that is to say, in the corrected chronometer time. It will thus happen that the simultaneous s. a. m. observations will be made as follows:

- 7 h. 0 m. 0 s. a. m., Washington time.
- 12 h. 8 m. 12.09 s. p. m., Greenwich time.
- 12 h. 47 m. 58.33 s. p. m., Gottingen time.

The only apparatus recommended as outfit for parties is as follows:

I.—FOR TRAVELING PARTIES—FOR EACH PARTY.

1. Pistar & Martiu's prismatic circle, which is considered preferable to the sextant as it measures larger angles, which are oftentimes imperatively needed. The instruments should be constructed with special reference to use at very low temperatures.

2. Mercurial or artificial horizon.

3. Two pocket chronometers for central station.

1st. The Casella astronomical theodolite, as made by Fauth, as before enumerated under the head of "Magnetic Work."

If this cannot be furnished, then the astronomical transit, capable of being used in any meridian, should be furnished; but this is more cumbersome to be set up, and is not recommended.

Either instrument should be especially constructed for use at very low temperatures.

2d. Pistar's & Martin's prismatic circle, or if not possible, the sextant constructed by Fauth, No. 73, of this catalogue, price \$110.

3d. The artificial horizons.

4th. Four box chronometers.

With these pieces of apparatus it is believed that a skillful observer can determine his position with all needed accuracy. The instructions to be followed in the use of these instruments are to be found in Chauvenet's Practical Astronomy, Nautical Almanac (U. S.), Bowditch's 5-figure Logarithm Tables.

In the determination of the errors of sextants and circles reference should be made to the Memoir by Harkness, in the U. S. Naval Observation for 1869, Appendix 1, page 51.

On the use of the portable transit, the Zenith Telescope, &c., if provided, see Hilgard and others, in the Coast Survey volumes of observations.

The only purely astronomical work to which it is recommended that special attention be given will consist in observing the phenomena of shooting stars.

In this class of work the principal point is the determination of the radiating point for each group of shooting stars that may be seen, for which purpose the observer needs to be supplied with a number of the blank charts of stars prepared by Prof. H. A. Newton, or with an equivalent planisphere.

EXTRA OBSERVATIONS.

It is considered that the following important subjects should be recommended to the observers' attention, viz:

1. Magnetic earth currents. (See Nipher on Earth Currents, &c.)
2. Tides. (Earthquakes and earth tremors of the feeblest kind.)
3. Pendulum experiments,
4. Atmospheric electricity.
5. Polarization of the light of the atmosphere.
6. Spectroscopical observations of the aurora and shooting stars.
7. Soundings to determine depths of sea and channel.
8. Temperature of the sea water.
9. Density of sea water.
10. Thickness of the sea ice, the ice floes, and the icebergs.
11. The preservation of specimens of air in hermetically sealed flasks for future analysis at home.
12. The melting of large quantities of freshly fallen snow, and preservation of the resulting atmospheric and meteoric dust for future microscopical examination.
13. Triangulation and charting of coast lines in the immediate vicinity of the station, the location of mountains, &c., for which a simple plane table might be provided, and a tape line for measuring base lines.

COMPLEMENT OF MEN.

It is recommended that a chief observer and four assistant observers be detailed to carry out the astronomical and meteorological and magnetic observations herein provided for, and such miscellaneous work as they are able to attend to.

The chief should be especially familiar with the astronomical and magnetic work, and be able to instruct observers in their duties.

J. P. STORY.
H. W. HOWGATE.
CLEVELAND ABBE.

Official copy from the records of the Signal Office.

O. C. S. O., Nov. 13, 1883.

(Endorsed as follows:)

5886 { War }
 { 17 } 1881.
 { Dept. }

17. (990. O. C. S. O. Mis., 1881.)

S. Ex. 100—AP—11

W. B. HAZEN,
Chief Signal Officer.

(323.)

Memorandum.

It is proposed to have the expeditionary vessel ready for sea on or about June 15, provided the necessary men and supplies are promptly furnished.

The crew of the vessel will consist of fifteen officers and men, as follows :

One captain, two mates, two engineers, one steward, two firemen, and seven seamen ; the men being enlisted for this especial service, as provided in the act. The officers will be experienced sailors employed for this purpose. The use of the vessel is to be limited to the transportation to Lady Franklin Bay of the permanent exploring and scientific parties, with their necessary supplies. Having landed these the vessel will return to the United States. It is estimated that the round trip will be made within a period of five months, and an annual visit to the site of the colony or station is contemplated, until it shall be withdrawn or abandoned.

The permanent party will consist of officers and men detailed from the Army, and who will act under the instructions of the Secretary of War.

The supplies for these men, such as food, clothing, shelter, means of transportation, medicines, arms, &c., will be supplied by the several bureaus of the War Department, upon requisition from the officer in immediate charge of the expedition. The detail is desired of certain selected men now in the service, whose places in their present commands may be filled by the enlistment of an equal number of new recruits. It is requested that these selected men, fifteen in number, with an officer, also selected, be ordered by telegraph to report in person to the Secretary of War, in Washington, not later than May 15th.

EXECUTIVE MANSION, *April 28, '80.*

Approved.

R. B. HAYES.

Official copy from the records of the Signal Office ; corrections as in copy on file.

W. B. HAZEN,
*Chief Signal Officer.*O. C. S. O., *November 13, 1883.*

(Endorsed as follows:)

5886	{	War	{	1881.
		18		
		Dept.		

18 (990. O. C. S. O. Mis., 1881.)

(224.)

[Encl. 990, Mis., '81.]

WASHINGTON, D. C., *April 27, 1880.**Memorandum.*

VESSEL.

Steamer : Screw, 209 tons.

Fitted to accommodate forty persons, including the crew.

CREW.

- (1) one commanding officer.
- (2) two mates (one of them an ice-master).
- (2) two engineers.
- (2) two firemen.
- (1) steward.
- (7) seven seamen—15 in all.

Furnished with rations for sixteen (16) months, i. e. from June 1st, 1880, to October 1st, 1881, although it is not probable that more than five months' supply will be used, as the vessel should return to the United States by October 1st, 1880, if the voyage is a favorable one.

As it may happen that the vessel cannot return this fall, suitable provision is made for such contingency.

Officers and men are detailed from those now in service, whose pay, clothing, and subsistence is provided for in existing appropriations.

Such incidentals as can be furnished for outfit of vessel—from supplies now on hand in the Navy. Other to be forwarded, if needed, by the owner of the vessel.

THE PERMANENT PARTY.

To consist of:

- (2) two commissioned officers.
- (1) one surgeon.
- (1) one photographer.
- (1) one astronomer.
- (19) nineteen enlisted men.

One of the commissioned officers to have charge of the scientific work, the other to take charge of the work of exploration. The enlisted men to be detailed from those now in service, in order that the advantages of discipline may be secured. The names of one officer and fifteen men have already been submitted to the Secretary of War, and their detail approved by the President. One man, a carpenter, has been secured for enlistment, and is now at work on the vessel.

The surgeon, who will also serve as naturalist, is selected, and may be employed as a contract surgeon, for \$75 per month.

The astronomer has also been secured, and is in Washington, ready for service.

A photographer can be readily secured in Washington, and will probably be willing to enlist for the expedition.

One commissioned officer and three enlisted men are expected from the Signal Office, to form, with the astronomer, the scientific corps of the expedition and to work under instruction from the chief signal officer of the Army.

Having discharged cargo, and the weather and water proving favorable, the vessel will make her way back to the United States, stopping at Disco and St. Johns for coal, if necessary.

The party at the station will put up their house, and make necessary arrangements for protection of supplies and for the prosecution of the scientific work, and be governed in reference to their geographical work by the weather and conditions of ice and water.

The officers and men of the permanent party, being already in the service, are provided for as to pay, clothing, subsistence, &c., in the regular appropriations.

(S'g'd.)

H. W. HOWGATE.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., Nov. 12, '83.

(Endorsed as follows:)

5886 { War } 1881.
 { 19 }
 { Dept. }

19. (990. O. C. S. O. Mis., 1881.)

(225.)

OFFICE OF THE CHIEF OF ENGINEERS,
UNITED STATES ARMY,
Washington, D. C., March 30, 1880.

Lieut. H. W. HOWGATE,
Acting Signal Officer, U. S. Army, Washington, D. C.:

SIR: I have to acknowledge the receipt of your requisition of March 24th.

The following will be issued to you from the engineers' depot at Willet's Point, N. Y.:

- One surveyor's compass.
- One 100-ft. chain.
- One set pins, (11).

The other articles asked for are not on hand, and there are no funds under the direction of this office available for purchasing them.

Very respectfully, your obedient servant,

H. G. RIGHT,
Chief of Engineers, Brig. and Bvt. Maj. Gen'l.

1045, G. R., '80.

O. C. S. O., *November 13th, 1883.*

Official copy of the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

(Endorsed as follows:)

5886 $\left\{ \begin{array}{l} \text{War} \\ 20 \\ \text{Dept.} \end{array} \right\} 1881.$
20 (990. O. C. S. O. Mis. 1881.)

(226.)

WAR DEPARTMENT,
QUARTERMASTER-GENERAL'S OFFICE,
Washington, D. C., March 27, 1880.

First Lt. H. W. HOWGATE,
20th Infantry, Acting Signal Officer, U. S. A., Washington, D. C. :

SIR: I am directed by the Quartermaster-General to inform you that instructions have this day been given by this office as follows, for the supply to you by not later than May 1st next, the following mentioned Q. M. stores, called for in your letter of the 24th inst, which was referred to this office from the War Department, approved by the honorable the Secretary of War, viz :

From stock on hand for issue:

From Phila. depot, 1 portable forge, complete.

From N. Y. depot, 1 keg cut nails 6d.

From Jeffersonville depot, 6 hand-saws, rip ; 2 grindstones & fixtures, 1 keg cut nails, 30d.

Depot Q. M., this city, to purchase and supply 24 crowbars, 24 glass lanterns, 2 cooking stoves, 2 heating stoves, coal, 24 lamps, 144 lamp wicks, 75 lamp chimneys, 6 kegs cut nails, (28d., 2 10d., 1 20d., and 1 4d.,) and 6 wheelbarrows.

You will be further advised by this office as to the articles called for by you pertaining to C. C. & G. equipage.

Very respectfully, your obedient servant,
(S'g'd)

HENRY C. HODGES,
Dep. Qr. Mr. Gen'l, U. S. A.

1760, Q, M. G. O., 1880.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., *Nov. 12, '83.*

(Endorsed as follows:)

5886 $\left\{ \begin{array}{l} \text{War} \\ 21 \\ \text{Dept.} \end{array} \right\} 1881.$
21 (990. O. C. S. O. Mis. 1881.)

(227.)

WAR DEPARTMENT,
Washington City, M'ch 16, 1881.

SIR: I have the honor to enclose herewith, and to commend to favorable consideration, a copy of a communication of the 12th instant, from 1st Lieutenant A. W. Greely, 5th Cavalry, A. S. O., and assistant, commanding the expedition for the establishing of an international polar station at Lady Franklin Bay, requesting the co-operation

of the Department of State in certain matters which he suggests in connection with said expedition.

Very respectfully, your obedient servant,
(S'g'd)

ROBERT T. LINCOLN,
Secretary of War.

The honorable the SECRETARY OF STATE:

Official copy respectfully furnished for the information of the Chief Signal Officer.
(S'g'd)

C. MCKEEVER,
Acting Adjutant General.

ADJUTANT GENERAL'S OFFICE,
Washington, M'ch 23, 1881.

Official copy respectfully furnished for the information of 1st Lieut. A. W. Greely,
A. S. O., and ass't.

(S'g'd)

A. H. NICKERSON,
Ass't. Adj. Gen'l, Executive Officer.

O. C. S. O., *M'ch 24, '81.*

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., *Nov. 12, '83.*

(Endorsed as follows:)

5886 { War }
 { 22 }
 { Dept. } 1881.

22 (990. O. C. S. O. Mis., 1881.)

(228.)

[Translation. See pages 2 and 3, 4 and 5.]

INTERNATIONAL POLAR COMMISSION,
St. Petersburg, Sept. 17th, 1880.

General ALBERT J. MYER,
Chief Signal Officer, Washington:

SIR: At a meeting of the International Committee of Meteorology, held lately at Bern, under my presidency, Messrs. Maseart, Scott, and myself did, at the request of several meteorologists in Europe, bring to the notice of that committee your suggestion to change the hour of the simultaneous observations, and the committee has thereafter resolved to recommend to all the meteorologists to adopt your suggestion. You can therefore be assured that from January 1, 1881, the simultaneous observations will be made over entire Europe and in the whole of Russia, at 7 h. a. m., Washington mean time. I also foster the hope that I may be able to enlarge at that moment the number of stations in Russia for these observations.

About the same time there was also assembled at Bern, under the presidency of Mr. Neumayer, director of the "Deutsche Suwarte" at Hamburg, the International Polar Commission, enlarged by the election of two new members, viz, Mr. Guido Cora, of Turin, and myself, to speak together on the progress of its labors. It has been formally declared that already 5 points of observation of the number of eight, proposed at the conference at Hamburg as the condition of the execution of the enterprise, are, according to the resolutions of the governments, sure to be occupied, viz, the mouth of the Lena and the Islands of New Liberia, by *Russia*, Nova Zembla, by the Count Wilczek and Weyprecht, Bossekop in Fenmark, by *Norway*, Spitzberg, by *Sweden, Denmark*, Upernivik, in Western Greenland, and it is very probable that *Holland* will occupy a second point in Nova Zembla or at the mouth of the O. C.; that *Germany* will occupy a point on the east coast of Greenland and also the island of "Georgie du Lud," and that *Italy* will establish an observatory at Cape Horn in South America. In order that the enterprise can be executed there only remains the consent of two other nations to occupy Point Barrow and one point in the Archipelago of North America. They have also decided to sustain in the meantime the decisions of the conference at Hamburg, but to delay the execution thereof until the year 1882-'83, so that other nations may be able to participate and occupy the remaining points.

At the last meeting of the commission I have been elected president, Mr. Neumayer having resigned, and as such I address you, general, to obtain through you the powerful co-operation of the United States of America for this enterprise, which I regard after the establishment by you of the simultaneous observations on the Northern Hemisphere as one of the most useful and efficacious means to enlarge our knowledge of the physical condition of the globe. In our discussions together on the simultaneous observations you have repeatedly had the kindness to promise that you could give your aid to like observations I might desire to undertake. Allow me now to implore that support *promised by you* for these *simultaneous observations around the pole*, which have, *as you are already* well aware, a character and purposes different from yours. They will not only be meteorological observations, but also and especially magnetic. We only desire them for the period of *one year*, but by way of compensation *horal* observations on days fixed beforehand and smaller intervals of time. Please examine the report of the Hamburg conference, which I send to you by book-post, so that you can acquaint yourself with all the details of the projected enterprise.

Apart from the direct results which these observations will give for the meteorology of the Arctic regions and for the terrestrial magnetism, *there is yet for Russia, and I believe also for North America, a great indirect interest urging the success of this enterprise.* The hourly observations in these regions will furnish data to better correct the observations made tri-daily at our permanent northerly stations for true means, and the more expeditions are sent to establish these observatories we can in the mean time establish permanent new stations in our northerly territories by carrying tested instruments and instructing directly the observers who reside there. For us at least this will be the only means to secure good meteorological stations in Northeastern Siberia.

As we may reasonably hope to advance through these observations now in contemplation our knowledge of the magnetic perturbations and the terrestrial electric currents, the enterprise has also a special interest for your Signal Service, which will have often to suffer on account of terrestrial currents at the time of aurora borealis.

As you have, besides, already signified by your letter to Mr. Weyprecht dated September 8, 1879, your interest for this enterprise, and your kindness to recommend the same to your Government, I hope that through your care the United States will hasten to participate by appropriating the funds for the establishment of an observatory at Point Barrow, and supporting it during the year 1882 (autumn)—1883 (autumn). We invite you to be present yourself (or some one designated by you) to participate at the International Polar Commission, and to take part in its proceedings, at a meeting of the commission at St. Petersburg next summer, when all the details will finally be arranged in order that the observations now contemplated have the necessary uniformity.

We hope that Canada will also lend its aid to this enterprise by occupying some archipelago of North America. I would be very thankful to you if, through your connections with that country, you could contribute to this.

Please accept, general, the assurance of my highest regards, and my best wishes.
The president of the International Polar Commission:

(Signed)

Dr. H. WILD.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. S. S. O., November 13, 1883.

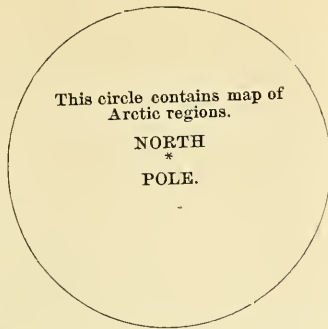
(Endorsed as follows:)

5886 { War }
 { 23 } 1881.
 { Dep't. }

23 (990, O. C. S. O., Mis. 1881.)

(229.)

THE ARCTIC REGIONS.

Lady Franklin Bay. Lat. $81^{\circ} 40'$; lon. $64^{\circ} 30'$.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., Nov. 13, 1883.

(Endorsed as follows:)

5886	}	War	} 1881.
		24	
		Dep't	

54 (960. O. C. S. O., Mis. 1881.)

(230.)

[Encl. 990, Mis. '81.]

AN ACT to authorize and equip an expedition to the Arctic seas.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President of the United States be, and he hereby is, authorized to establish a temporary station at some point north of the eighty-first degree of north latitude, on or near the shore of Lady Franklin Bay, for purposes of scientific observation and exploration, and to develop or discover new whaling grounds; to detail such officers or other persons of the public service to take part in the same as may be necessary, and who are willing to enlist for such purpose, not exceeding fifty in number, and to use any public vessel or vessels that may be suitable for the purpose of transporting the members of said station and their necessary supplies, and for such other duty in connection with said station as may be required from time to time: Provided, That the President of the United States is authorized to accept from H. W. Howgate, and fit out for the purposes of this expedition, the steamship Gulnare, which vessel shall be returned to its owner when the objects of the expedition shall have been accomplished, or when, in the opinion of the President, its services are no longer required: Provided further, That the United States shall not be liable to any claim for compensation in case of loss, damage, or deterioration of said vessel from any cause, or in any manner whatever, nor be liable to any demand for the use or risk of said vessel.

Approved May 1, 1880.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., Nov. 12, '83.

(Endorsed as follows:)

5886	}	War	} 1881.
		25	
		D'p't.	

25 (990, O. C. S. O., Mis. 1881.)

(231.)

MISCELLANEOUS OBJECTS UNDER WAR DEPARTMENT.

SIGNAL SERVICE.

* * * * *

“Observation and exploration in the Arctic seas: For continuing the work of scientific observation and exploration on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location and return, twenty-five thousand dollars.”

* * * * *

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 13, '83.

Endorsed as follows:

5886 { War } 1881.
 { 26 }
 { Dep't. }

26 (990, O. C. S. O. Mis., 1881.)

(232.)

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, D. C., March 8, 1881.

CHIEF SIGNAL OFFICER, *U. S. Army:*

SIR: I have the honor to herewith submit a general outline of the plans for the establishment of the international polar station at Lady Franklin Bay, and to request that the formal approval of the honorable Secretary of War may be obtained thereto.

Except as regards the hiring of a steam “sealer” for the transportation of the party the conditions are the same as were formally approved by His Excellency the President of the United States and by the honorable Secretary of War in 1880, as shown by the inclosures. The changes from last year’s programme are immaterial, and are shown by interlineations in red.

The permanent party shall consist of three (3) commissioned officers, one (1) contract surgeon, and twenty-one (21) men detailed from the Army or specially enlisted. The crew of fifteen men, including officers, shall be picked, hardy men, familiar with sealing and whaling work in high latitudes. The expeditionary force shall be assembled with their supplies, instruments, &c., at Washington not later than May 15th, and at St. John’s, Newfoundland, not later than June 15th.

That the party shall be transported from St. John’s to Lady Franklin Bay on a steam sealer or whaler, which shall be hired by the commander of the expedition for a fixed sum per month, under a formal contract that shall release the U. S. Government from any or all responsibility or claim for damages in case the steamer is lost or destroyed. The steamer is to return to St. John’s this year, being absent probably five months. That the enlisted men detached for such expeditionary work shall have such pay and allowances as accrue to men detached for duty in Washington. That the various Bureaus of the War Department shall furnish such instruments, supplies, and equipments as may be needed for the proper outfit of the expedition. It may be well to state that a proper “sealer” of about five hundred tons can be chartered for about \$1,500 per month, and that the remaining expenses would not exceed \$750 per month.

I am, very respectfully, yours,

A. W. GREELY,
1st Lt. 5th Cav., A. S. O., Ass’t.

Official copy.

C. McKEEVER,
Ass’t Adjutant-General.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., *Nov. 12, 1882.*

Endorsed as follows:

831, O. C. S. O. Mis., 1881.

5886 { War } 1881.
 { 27 }
 { Dep’t. }

27 (990, O. C. S. O. Mis., 1881.)

(233.)

WAR DEPARTMENT, WASHINGTON CITY,
March 29th, 1881.

GENERAL: Will you please return to this Office for examination the letter which was approved by Secretary Ramsey authorizing Lieut. A. W. Greely to take charge of the Lady Franklin Bay expedition? The Secretary desires it for a few moments.

Very truly yours,

H. T. CROSBY,
Chief Clerk.

Gen'l WM. B. HAZEN,
Chief Signal Officer.

OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, D. C. Mar. 29, '81.

Respectfully returned to the honorable the Secretary of War.

The letter referred to is probably in the hands of the Adjutant-General of the Army. Two applications for its return have been made, which resulted in a copy being furnished on the 18th inst. by the Adjutant-General, which was handed the Hon. Secretary of War on the 19th instant. The only information this office has in regard to Secretary Ramsey's approval is that contained in an unofficial note to me from him stating that he had given such approval, and in a statement he made to the same effect to Lieut. Greely.

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., Nov. 12, 1883.

Endorsed as follows:

995, O. C. S. O. Mis., 1881.

5588 } War Department, } 1881.
 } received. }

28 (990, O. C. S. O. Mis., 1881.)

(234.)

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, D. C., March 24, 1881.

MY DEAR Mr. LINCOLN: Mr. Greely, the officer to command the Lady Franklin Bay expedition, informs me that, the requisitions only call for supplies for the fiscal year (from June 1, 1881, to June 30th, 1882).

Also that the men to go were selected by name last year, and were all well hardened and disciplined men, accustomed to service and the cold weather of Dakota.

To take the men of the Signal Corps, as I have heard mentioned might be done, would be impracticable, since they are not hardened soldiers, not sufficiently well disciplined in military habits, and have not had experience in cold climates.

In case there are other matters calling for explanation, I have to request that Mr. Greely be given an opportunity to explain them in person.

I am, very resp'tf'y,

W. B. HAZEN,
Chief Sig. Off'r.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., Nov. 12, 1883.

Endorsed as follows:

5890 } War Department, } 1881.
 } received. }

29 (990, O. C. S. O. Mis., 1881.)

235.)

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, D. C., April 6, 1881.

To the honorable the SECRETARY OF WAR:

SIR: I am unable to take the action at once necessary in the matter of the Lady Franklin Bay expedition until I am furnished with the formal approval of the Secretary of War.

It is now 27 days since this action was asked, and although I have since twice written for it, after it was formally given by Secretary Ramsey, it has not been furnished me, although copies of the papers on which it was given have been furnished.

Authority to use the appropriation of \$25,000, when available, which has also been asked, is imperatively necessary before any steps can be taken in the way of preparation. This is needed at once, since the St. John's steamer, which leaves New York but semi-monthly, sails the 8th inst., and it is necessary to send letters by her, by which we will save two weeks of time.

My great desire to expedite this work, so dependent for success on early action, must be my excuse for what might otherwise appear unnecessary haste.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from records of the Signal Office,

W. B. HAZEN,
Chief Signal Officer.

O. C. S. O., Nov. 12, 1883.

Endorsed as follows:

5892. War Department. Received. 1881.

30. (990, O. C. S. O., Mis. 1881.)

(236.)

List of balances remaining on hand June 30, 1881, as shown by the return of subsistence stores for June 1881, transmitted July 26, 1881, from Upernavik, Greenland, by Lt. A. W. Greely, commanding Lady Franklin Bay expedition.

Allspice.....	5 lbs.
Apples.....	456 3-lb. cans.
“.....	60 gal. cans.
“ evaporated.....	100 lbs.
Ink-black.....	2 bottles.
Asparagus.....	96 cans.
Bacon.....	242 lbs.
Butter.....	3,024 “
Chocolate, McCobbs.....	204 “
“ “.....	200 “
“ “.....	5 “
Cinnamon.....	24 2-lb. cans.
Clams.....	5 lbs.
Cloves.....	196 R. & G.
Coffee.....	144 cans.
Corn, green.....	24 4-oz. bottles.
Extract of lemon.....	24 “ “
“ “ vanilla.....	6,450 lbs.
Flour, family.....	50 pkg.
Gelatine, Swinburn.....	50 “
“ “ Nelson.....	10 lbs.
Ginger.....	729 “
Ham.....	100 lbs.
Hops.....	48 2-lb. cans.
Jam, blackberry.....	144 “ “
Jelly, current.....	780 lbs.
Lard.....	48 2-lb. cans.
Lobster.....	500 lbs.
Maccaroni.....	

Matches, safety	288 boxes.
Milk	1,920 cans.
Mustard	198 lbs.
Nutmegs	5 "
Oat-meal	1,720 lbs.
Oil, olive	12 bottles.
Onions	960 2½-lb. cans.
Oysters	96 2-lb. "
Peaches	144 3-lb. "
Peaches, evaporated	250 lbs.
Pears	48 2-lb. cans.
" green, Am	96 cans.
Pepper	10 lbs.
Pickles, chow-chow	96 qt. bottles.
" onions	100 gal.
" cucumbers	250 "
Pineapples	45 2-lb. cans.
Pipes, briarwood	48 2.
" "	48 3.
Pipe-stems, cherry	120 † 1255.
" " weichsel	120 † 2450.
Potatoes	1,248 2½-lb. cans.
Preserved damsons	144 cans.
Prunes	244 lbs.
Rasins, L. L.	15½ boxes.
" sultana	50½ lbs.
Salmon	96 2-lb. cans.
Salt, table	95 bags.
Sauce, cranberry	1,008 cans.
Sauce, Tobin's Chili	12 bottles.
" Worcester	12 pts.
Soap, toilet	72 cakes.
" glycerine, Low's asst	96 "
" toilet, lettered	24 "
" geranium	48 "
Soup, ox-tail	240 cans.
" mock-turtle	264 "
" vegetable	240 pks.
Starch, corn	40 lbs.
Sugar, granulated	1,063 lbs.
Syrup	96 gall.
" maple	12 "
Tapioca	25 lbs.
Tobacco, plug	1,000 lbs.
" Durham	300 "
" Lone Jack	25 "
Tomatoes	960 3-lb. cans.
Wheat, cracked	140 lbs.
Lima beans	120 2-lb. cans.
Extract beef	144 1-lb. "
Celery	24 4-oz bottles.
Mutton	24 2-lb. cans.
Crab-meat	48 cans.
Eggs, condensed	504 cans.
Farina	280 lbs.
Figs	180 "
Gooseberries	192 2-lb. cans.
Molasses, N. O.	192½ galls.
Preserved peaches	96 jars.
Pepper, Tobasco	12 boxes.
Pickled sourkrout	18 ¼-bbls.
Soap toilet No. 90	48 cakes.
Rhubarb	10.08 cans.
Quinces	48 3-lb. cans.
Shrimps	48 cans.
Soap, S. water	200 (2½-lb. bars) lbs.
Pork	48 bbls.
Bacon	3,000 lbs.
Beef salt	23 bbls.
" corned	864 2-lb. cans.

" roast.....	120 " "
Hard bread.....	17,899 lbs.
Corn-meal.....	980 lbs.
Beans.....	1,264 lbs.
".....	1,395 "
" baked.....	576 3-lb. cans.
Pease, split.....	420 lbs.
Rice.....	595 "
Hominy.....	1,120 10-lb. cans.
Cheese.....	552 lbs.
Coffee, R. & G.....	1,960 "
Tea, green gunpowder.....	200 "
" black Oolong.....	48 "
" " E. B.....	56 "
Sugar, A.....	3,060 "
Vinegar.....	269 gall.
Candles.....	510 lbs.
Soap.....	240 "
Salt.....	1,568 "
Pepper.....	75 "
Yeast powder.....	108 "
Letter paper.....	2 reams.
Cap.....	1 "
Blotting ".....	24 sheets.
Envelope ".....	3 quires.
Envelopes.....	500 "
Ink, red.....	1 bottle.
Mucilage.....	4 "
Letter folder.....	1
Ruler.....	1
Steel pens.....	2 gross.
Sealing-wax.....	$\frac{1}{2}$ lb.
Penholders.....	12
Lead pencils.....	12
Erasers, steel.....	1
Rubber bands.....	1
Commissary chest.....	1
Cleaver.....	1
Hatchet.....	1
Meat-saw.....	1
Butcher knives.....	3
Tap-borers.....	1
Meat-hooks.....	2
Liquid measures.....	4
Counter scales and weights.....	1
Hammer.....	1
Faucet, wooden.....	2
Molasses gates.....	2
Tin scoops.....	4
Funnels.....	2
Bung-starter.....	1
Gimlet.....	2
Platform scale.....	1

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 13, '83.

Endorsed as follows:

3312, O. C. S. O. Mis.; 1883. 3477, '81
Filed with 700 Mis. 1881.

(237)

FORT CONGER, LADY FRANKLIN BAY)
Grinnell Land, August 15th, 1883.

To the CHIEF SIGNAL OFFICER OF THE ARMY.

SIR:

* * * * *
At 12.30 p. m., August 2d, Littleton Island was reached. A personal and exhaustive

search of seven hours was necessary to find the English mail, which in four boxes and three kegs have been forwarded to you in order that they may be returned to England. There was a very small cairn near the mail, but with no record. A record, enclosure H, was left by me. Lt. Lockwood with a party landed about 6½ tons of coal, as a depot of fuel for possible future use. It is in and around a large cask, on low ground on the southwest side of the island, facing Cape Alexander.

* * * * *

At 2 p. m. the ship stopped in the NE. end of Carl Ritter Bay, where I had decided to place a small depot of provisions in case of a retreat southward in 1883.

About two hundred and twenty-five bread and meat rations were landed by a party under myself, which Lt. Kislingbury and Dr. Pavy accompanied.

A depot was made on the first bench from the sea, just north of a little creek in the extreme NE. part of the bay.

* * * * *

I am, respectfully, y'rs,

A. W. GREELY,
1st Lt 5 Cav., A. S. O. & Ass't, Com'd'g L. F. B. Exp'd

Official extract from the records of the Signal Office. (Full copy of communication from which above is an extract furnished court of inquiry Nov. 9th, 1883.)

W. B. HAZEN,
Chief Signal Officer.

(238.)

[990, Mis. 1881.]

WAR DEPARTMENT,
ADJUTANT-GENERAL'S OFFICE,
Washington, M'ch 29th, 1881.

To the CHIEF SIGNAL OFFICER:

SIR: At the instance of the Secretary of War I have the honor to request that you furnish this office, at the earliest practicable moment, with a brief statement of all action had in the case of the Franklin Bay expedition from its inception to the present time, including what was attempted in the execution of the work.

I am, sir, very respectfully, your obedient servant,

R. C. DRUM,
Adjutant-General

1st endorsement.

OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington, D. C., Mar. 29, 1881.

Respectfully returned to the *Adjutant-General*, War Department.

This paper, just received, is returned with the papers therein called for.

Attention of the *Hon. the Secretary of War* is invited to the importance of speedy action, particularly with reference to the detail of Lieutenant F. F. Kislingbury.

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

(Chief Signal Officer.)

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 13, '83.

Endorsed as follows:

990, O. C. S. O., Mis., 1881.

5886 } War Department, } 1881.
 } received. }

Filed with 700 Mis., 1881.

(239.)

[Vol. 27, p. 1, L. S., '83.]

WAR DEPARTMENT, OFFICE CHIEF SIGNAL OFFICER,
Washington City, May 14, 1883.

To the honorable the Secretary of War :

SIR : In relation to the relief ship to be sent to reach and bring back the party now at Lady Franklin Bay, since it is impracticable under the present provision by Congress to have but one vessel, and as it will limit the safety of Arctic parties to the contingencies of the successful voyage of this one ship, it is respectfully requested that the Secretary of the Navy be communicated with, with a view to his sending a ship of that branch of the service as escort, to bring back information, render assistance, and take such other steps as might be necessary in case of unforeseen emergencies.

She need not enter the ice pack nor encounter any unusual danger.

I believe this step to be in the interests of careful and humane policy.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 12, '83.

(240.)

NAVY DEPARTMENT,
Washington, November 12, 1883.

SIR: In compliance with your request of the 8th inst., I have the honor to transmit, herewith, for the use of the Court of Inquiry now in session in this city, certified copies of instructions, reports, and other papers, on record in this Department, relating to the cruise of the U. S. S. Yantic in Arctic waters, in connection with the Greeley Relief Expedition.

I have to inform you that on the 9th instant the Department, as requested by you, notified Commander Frank Wildes and Lieutenant John C. Colvell, of the Yantic, to hold themselves in readiness to appear as witnesses before the court referred to, should their attendance be required, and directed them to report their address to the Judge Advocate of the court.

Very respectfully,

EDWARD T. NICHOLS,
Acting Secretary of the Navy.

The Honorable ROBERT T. LINCOLN,
Secretary of War.

[4778 B, War Dep. 1.]

UNITED STATES OF AMERICA.

NAVY DEPARTMENT,
Washington, D. C., November 12, 1883.

Pursuant to section 882 of the Revised Statutes, I hereby certify that the annexed are true copies of papers on record in this Department.

In testimony whereof, I have hereunto set my hand, and caused the Seal of the Navy Department of the United States to be affixed, at the City of Washington, this twelfth day of November, in the year of our Lord one thousand eight hundred and eighty-three, and of the Independence of the United States the one hundred and eighth.

[SEAL.]

ED. T. NICHOLS,
Acting Secretary of the Navy.

(241.)

NAVY DEPARTMENT,
Washington, June 9, 1883.

SIR: The steam sealer Proteus, Captain Pike, has been chartered by the Chief Signal Officer of the Army to proceed to Smith's Sound and Kennedy Channel for the purpose of bringing to St. John's, N. F., Lieutenant Greeley, U. S. A., and the party under his command (about twenty in all, who have been stationed at Fort Conger, Lady Franklin Sound), for the past two years, engaged in obtaining meteorological data for the use of the U. S. Signal Service. Lieutenant Greeley's party was conveyed to Fort Conger by Captain Pike, in the Proteus, during the summer of 1881; and last summer an unsuccessful effort was made in the steam sealer Neptune to communicate with the above-mentioned officer.

Inclosed herewith for your information are copies of a letter from Lieutenant Greeley to the Chief Signal Officer, written after the arrival of the former at Fort Conger: "Work of the Signal Service in the Arctic regions;" track chart of the steamer Neptune from July to September, 1882; instructions to Lieutenant Greeley; and instructions to Lieutenant Garlington, U. S. A., "commanding relief vessel to Lady Franklin Bay."

An examination of these papers will acquaint you with the object of the relief expedition and the importance of its success. You will, therefore, when in all respects in readiness for sea, proceed with the vessel under your command to St. John's, Newfoundland.

After having filled up with coal at St. John's, proceed to the northward, through Davis Straits, in company with the steamer Proteus, if practicable; but before leaving that port you will confer with Lieutenant Garlington, and make arrangements which will enable you to act advantageously in the event of an early separation from the Proteus, which ship, being fitted for cruising in the ice, will probably take advantage of opportunities to reach her destination which you would not feel authorized in taking in the Yantic.

In view of the possibility of the destruction of the Proteus, it is desirable that you should proceed as far north as practicable in order to afford succor to her officers and men in the event of such an accident, and it is desired that you should await there the return of that ship, or the arrival of authentic information as to her fate.

Under no circumstances, however, will you proceed beyond Littleton Island, Smith's Sound, and you are not to enter the "ice-pack," nor to place your ship in a position to prevent your return this season. You will take on board at St. John's all the coal that you can safely carry below and on deck, as it is very desirable that you reach your destination with an ample supply still remaining for use. It may be possible to obtain a small supply of coal on the coast of Greenland, but this cannot be relied upon.

In cruising to the northward, you will rely to a certain extent upon the ice pilot, and upon the information which is given you by the Danish authorities at Disco and Upernavik, as to the probable movements of the ice in Smith's Sound, based upon their knowledge of the prevailing winds and their effects upon the moving ice.

The length of your stay to the northward of Upernavik must depend upon your discretion, and should you find it imperative to leave the vicinity of Littleton Island or Cape York before the return of the Proteus, you will establish a station on shore (having previously, in consultation with Lieutenant Garlington, settled upon prominent points on the coasts of Smith's Sound or Baffin's Bay for this purpose), in which you will leave information as to your movements.

In issuing the instructions for your cruise the details must be left to your judgment, and the Department considers it only necessary to call your attention to the desirability of cordially co-operating with Lieutenant Garlington, affording him all the assistance in your power.

The report of the Secretary of the Navy for 1873, containing the reports of the cruises of the U. S. S. Juniata and Tigris [Tigress] in search of the Polaris, and an abstract of the log of the Tigris [Tigress] with her track chart, are forwarded herewith.

Two officers of the Army and eight enlisted men will take passage with you from New York to St. Johns, together with their baggage and the mail of Lieutenant Greeley.

Issue rations and bedding to the enlisted men, and make them and the officers as comfortable as possible.

Good steaming coal can be obtained directly from the mines at Cow Bay or Sidney Harbor, Island of Cape Breton, at about \$1.80 per ton, and upon your return, if you require coal, you will obtain it at one of the above-mentioned ports.

When you have completed this duty you will return with the Yantic to New York.

Very respectfully,

ED. T. NICHOLS,
Acting Secretary of the Navy.

Commander FRANK WILDES, U. S. N.,
Commd'g U. S. S. Yantic, New York (Comd't).

(242.)

NAVY DEPARTMENT,
Washington, June 9, 1883.

SIR: Be pleased to receive on board the U. S. steamer Yantic for transportation to St. John's, N. F., eleven hundred (1,100) pounds of fresh vegetables, part of the supplies for the Greeley relief expedition and left by the steamer Alhambra.

Very respectfully,

ED. T. NICHOLS,
Acting Secretary of the Navy.

Commander FRANK WILDES, U. S. Navy,
Commd'g U. S. S. Yantic.

(Commo. UPSHUR.)

(243.)

U. S. S. YANTIC, 3D RATE,
St. John's, N. F., June 25, 1883.

Commodore J. G. WALKER, U. S. N.,
Chief of Bureau of Navigation:

SIR: I have the honor to report that the Yantic under my command, ordered to accompany the Greeley relief party to the coast of Greenland as a reserve ship in case of disaster to the Proteus, sailed from N. Y. navy-yard at 4 p. m. June 13, and proceeded through Hell Gate, Long Island Sound, and Vineyard Sound.

On the 14th, the wind being fresh from the N. E. and ship making little way, I anchored for the night in Vineyard Haven. The wind having moderated, I got under way early on the morning of the 15th and proceeded to sea by Pollock Reef Lt. ship.

Light easterly and northeasterly winds prevailed the entire passage, and from Sable Island onward dense fogs shut us in. I felt my way around Cape Race by the lead, and by evening of the 20th was within fifteen miles of St. John's. Weather very thick. I put the ship under canvas, banked fires, and stood off and on for 16 hours, when the fog lifted a little I ran in for the land, making Cape Spear and the entrance to St. John's directly ahead, and anchored at 2 p. m. June 21st.

The usual courtesies of the port were offered by Commander Robinson, R. N., harbor-master, and the same day I paid my respects to the governor, Sir Henry Maxse. I attended a reception at the Gov't House the same evening, and dined with the Governor the evening of the 22d.

During the passage Lieut. Garlington, U. S. A., messed in the cabin and Surgeon Harrison in the ward-room. The 7 enlisted men of U. S. A. were made as comfortable as our own men. Immediately on our arrival they were sent ashore to the hotel at Lt. Garlington's request.

When the Yantic sailed from N. Y. her sheathing was under water. As I intended to take about 50 tons coal on deck and not to use it until obliged to do so, and as she buries a good deal with the extra weight, I have decided to put two courses of plank sheathing above what was put on at New York yard, at a probable cost of \$175.

Two ice-pilots only have presented themselves, Cpts. Walsh and Deniff. The former is strongly recommended, and I like his appearance. He has been as far north as Cape York. I have engaged him at \$120 per month.

I shall be ready to sail Wednesday, 27th inst., and shall accompany the Proteus to sea. As she will steam direct to Disco, while it will take the greater part of my coal to do so, as soon as we are clear of the land I shall haul fires and not start them again until we meet the ice.

I will leave communications for the Dept. and for Lt. Garlington at Disco and Upernavik, and for Garlington at Cape York, the westernmost of the Cary Islands, Pandora Harbor, which will be my objective, and Littleton Id.

Unusually heavy ice was met by the sealers on the Labrador coast this spring, but very little has come down to this latitude. One iceberg, very large, is reported 150 miles SE. of St. John's.

I have on board provisions for eight months. In accordance with the Bureau's telegram Lieut. Colwell has reported for duty to Lieut. Garlington. As he is an officer both zealous and energetic it will be a strong addition to the relief party, although it weakens this vessel in a department which should be strong.

Inclosed please find a memorandum agreed upon between Lt. Garlington and myself.

Very respectfully,

FRANK WILDES,
Comd'r, Comd'g.

Memorandum of an agreement between Lieut. Garlington, U. S. A., and Comdr. Wildes, U. S. N.

Yantic will proceed to sea with Proteus and remain in company as long as possible. Yantic will proceed to Disco under sail. Will leave letters for Lt. G. at Disco and Upernavik.

Cairns inclosing bottles or tins will be left at Cape York, NW. Cary Id. or Hakluyt Id., Pandora Harbor, and Littleton Id. Y. will remain in Pandora Harbor not later than Aug. 25th; Disco not later than Sept. 20th.

Lt. G. to leave letters in Disco and Upernavik, and records on N. W. Cary Id. or Hakluyt Id., Littleton Id., and Pandora Harbor, if entered.

Proteus to endeavor to communicate with Yantic at Pandora Harbor before Aug. 25th.

Should Proteus be lost push a boat or party south to Yantic.

Pandora Harbor will be headquarters, but before departure, Yantic will run up to Littleton Id.

[4778 B 2.]

UNITED STATES OF AMERICA.

NAVY DEPARTMENT,
Washington, D. C., November 12, 1883.

Pursuant to section 882 of the Revised Statutes, I hereby certify that the annexed are true copies of papers on record in this Department.

In testimony whereof, I have hereunto set my hand and caused the seal of the Navy Department of the United States to be affixed, at the city of Washington, this the twelfth day of November, in the year of our Lord one thousand eight hundred and eighty-three, and of the independence of the United States the one hundred and eighth.

[SEAL.]

ED. T. NICHOLS,
Acting Secretary of the Navy.

Hon. SECRETARY OF WAR.

(245.)

[Telegram.]

ST. JOHN'S, N. F., *September 13, 1883.*

Hon. WM. E. CHANDLER,
Secretary of the Navy, Washington, D. C.:

United States steamer Yantic has arrived, bringing Capt. Pike and crew of Proteus, Lieut. Garlington and Greeley relief party; all well. Steamer Proteus was crushed in ice six miles north of Cape Sabine, July twenty-third. Crew and relief party, after depositing records at Littleton Island and Pandora Harbor, retreated south in six boats to Upernavik, suffering much hardship in Melville Bay. Yantic reached Littleton Island August third without much difficulty; found records, and immediately proceeded southward; searched coast and islands thoroughly down to Saunders' Islands. Ice pack then closed in, and could neither get around nor through, and was obliged to retreat under lee of Northumberland Island. Ninth. Southward gale having loosened pack, was able to get through and continue search. Coast about Cape York filled with ice packed close. Could not get within twenty miles of land. Tenth. Having ice in all directions but southeast, proceeded to Upernavik; sent fifteen days' rations to Lesinsake and whale boat to Cape Shackleton. Twenty-second. Sailed for coal mine; there to Godsaven. Thirty-first. Lieut. Colwell arrived in Launch from Upernavik, having been thirty-nine days in open boat; had separated under orders at Cape York; sailed same day for Upernavik; found party; arrived Sept. second; proceeded homeward; rough passage; permission wished to coal here.

FRANK WILDET.

(246.)

[Telegram.]

ST. JOHN'S, N. F., *September 15, 1883.*

TO SECRETARY OF THE NAVY, *Washington, D. C.:*

To charter another foreign ship with foreign crew for this duty to go north at this late season would simply invite fresh disaster. Proteus handled very unskillfully and crew behaved shamefully at wreck. Ship must be American manned and officered by Navy

and thoroughly equipped. Unless winter quarters can be reached north of Cape Athol the attempt would be useless. This cannot be done. Melville Bay will be impassable by October first at latest. Ship cannot winter at Upernavik and cannot sledge north from there.

FRANK WILDES.

(247.) (Copy.)

U. S. S. YANTIC, 3D RATE,
St. John's, N. F., Sept'r 17, 1883.

Commodore J. G. WALKER, U. S. N.,
Chief of Bureau of Navigation:

SIR: I have the honor to make a report of a cruise to the west coast of Greenland as reserve ship for the Greely relief expedition under orders dated June 9, 1883.

June 29th, the steamer Proteus, carrying the relief party under Lieutenant E. A. Garlington, U. S. A., being ready, this vessel under my command sailed from St. John's, N. F., in her company for Godhaven, Island of Disco.

I ran a little to the ed. of north in order to avoid the Labrador ice which was reported as very heavy this year, the latest arrival at St. John's from that coast having reported the ice moving off shone, while the Proteus kept to the wd., so we soon parted company. I hauled fires and put the ship under sail, intending to and making the entire passage in that way to save coal.

Variable weather was met with, but the winds were generally fair. Icebergs were seen daily, increasing in number as we proceeded northward, and a good deal of foggy weather prevailed. Off Cape Farewell a SE. gale was encountered lasting twenty-four hours, with heavy sea. The vessel behaved admirably, notwithstanding her deck load of coal, and although she broached to once, having too much sail on, yet she took in but little water.

Light variable airs and calms with fine weather prevailed from Sukkertoppen onward, and I entered the harbor of Godhaven July 12th, just as bad weather was coming on, having made the passage in thirteen (13) days under sail.

I found the Proteus here, she having made the passage in seven (7) days under steam, meeting the Labrador ice off Sandwich Bay. Lieutenant Garlington had been detained by the absence of the inspector, and could not get the stores left here last year, but that officer had just arrived, and having obtained them, the Proteus sailed July 15th for Disco Fiord to procure a native dog-driver, and thence northward.

Repairs on the boiler detained me here six (6) days, when the brig Peru arrived and the inspector gave me 15 tons of coal from her. After waiting two days longer for fog and thick weather to clear, I sailed on the 21st for Kittenbank, Governor Khuntsen having promised me twenty (20) tons of coal.

I arrived there early in the morning, and by night had taken most of it in, but the weather becoming bad and the anchorage being very insecure I was obliged to shift my berth. Having partially cleared next morning I finished coaling, and at 11 a. m. sailed for the Kudlisit coal mine, which was reached at 6 p. m. The weather was thick and rainy, and landmarks could not be seen, and I only recognized the place by seeing the tent of our Eskimo laborers sent ahead to get the coal out.

On landing I found that they had done nothing and were in a state of starvation, so next morning, 25th, I sent our men ashore, and up to 4 p. m. of the 26th had taken on board about thirty tons. The coal is very light and I did not stop to weigh it; but the decks were full, and I dared heap up no more.

At 6 p. m. I sailed for Upernavik, having clear, fine weather. Off Ominak Fiord swung ship for compass deviations, surrounded by hundreds of bergs. Reached Upernavik at 10 p. m. July 27th, and remained until noon July 31st, waiting for thick foggy weather to clear.

Gov. Elborg stated that the previous winter had been very mild, and their fisheries had been a failure. The prevailing winds up to this time had been SW., and he thought it likely there was little ice in Melville Bay, and what there was would be jammed close home on the land.

July 31st I sailed for the north with fine weather and fair wind. Made the well-known points to Arctic navigators of Brown Ids., Berry Ids., Cape Shackleton, Wilcox Head, and Devil's Thumb. Passed the Duck Ids. within a mile at 2 a. m. Aug. 1st, and stood direct for Cape York.

At noon the fog shut down thick, but I kept moving ahead, many bergs appearing and disappearing in the gloom. Snowing fast at 6 p. m. At 8 weather cleared so I could see about three miles. At midnight made streams of loose ice and saw pack-ice on starboard beam, and at 1 a. m., August 20th, it cleared altogether, and I saw Cape

York bearing NNW., and the land as far east as the Peaked Hills. The pack appeared to be jammed close in around the cape, and stretched away to the west, east, and SE. as far as could be seen from the cro'nest, and about thirty miles off shore. The fast ice, consisting of unbroken floes, extended out about half that distance.

I skirted the pack, occasionally cutting off a corner or driving through loose streams, much annoyed by fog which had again set in, and which prevented our seeing far ahead and not at all to the SW., and I was in great anxiety lest we should become involved too deeply. However, at noon it cleared off bright and warm, wind NW., the pack trended away towards Cape Athol and Wolstenholm Id., and I was able to lay a course for the SE., one of the Cary Ids. group, which was reached at 9.30 p. m., August 20.

A cairn was found on a sloping beach of rock and rubble at the SE. end, and a record by Lt. Garlington stating that the "Proteus" had arrived July 21st at 3 p. m., having run through pack-ice since 5.30 a. m. of the 18th inst., Lat. $73^{\circ} 40' N.$, Long. $61^{\circ} 30' W.$ For the most part the pack was loose and a good deal decayed. It had not moved to the S. Comparatively open water from 15 miles south of the island and as far north as he could see; also open water to the west, but quantities of loose ice to the Ed. All well and in excellent spirits. A copy of this record was taken, and I placed in the same cairn, in a tin case, a record of our own proceedings and intentions. At 10.30 p. m. I steamed northward. No ice in sight, weather very fine. Near the cairn was a good whaleboat and a quantity of provisions, all in fair condition, left by the "Alert" for the Polar ships in 1875.

Passed Hakluyt Id. at 2 a. m.; then a dense fog shut down, and I ran slowly until 10.30 a. m. Aug. 30, when a magnificent break in the sky took place, revealing high snow-covered land on the port bow and nearly around to the port beam, a clear sea on the starboard bow, but high, peculiar-looking cliffs on the starboard quarter.

From the outline sketches I readily recognize the crystal-palace cliffs on our quarter, and found that we were on the western side of Smith's Sound and within 12 miles of Cape Isabella; no ice in sight and but few bergs.

I steered for Cape Alexander, which was reached at 1 p. m., and up the coast towards Littleton Id., verifying the points and bays of such remarkable interest as we went along.

While the opposite coast had been entirely free from ice, this side was full of loose streams, the pieces thick and heavy. Still there was room enough for us, and I ran close into Littleton Id., and sent officers around on north side to search for records. Meanwhile, in company with the several staff officers, I climbed to the crest of the Id. and took a look northward.

No words of mine can describe the stern and rugged grandeur of this gateway to the pole as seen on a bright and beautiful day. The great northern pack, rough surfaced and of a yellow mer de glace color, stretched in a huge semicircle from Cape Ingersoll to Cape Sabine. The latter, Cape Hauks, and Cape Louis Napoleon were distinctly visible, and I am quite certain that a high, foggy-looking wall far in the NE. was Humboldt Glacier.

Finding no cairns or records on the hills, and the party on the north side having found nothing, I was on the point of departing when a small cairn was discovered on the SW. end, and a small pile of coal.

On opening this, Lieutenant Garlington's record was found, dated July 26th, 1883, stating that he, Lieut. Colwell, Dr. Harrison, 7 enlisted men U. S. A., 3 civilian employés, and 2 Eskimo's, arrived here at 5 p. m. of same date from a rocky inlet above Life-Boat Cove, in 2 whale boats, and having dinghy in tow, dragging boats over ice and rocks. The "Proteus" was crushed in the ice between Cape Sabine and Cape Albert on the afternoon of the 23rd July. All saved. Much provision gotten overside of ship, but a great quantity went under before it could be removed a sufficient distance. A small depot of the stores saved was landed about 3 miles from Cape Sabine, around point towards Bache Id. A quantity of clothing was left on extreme point of Cape Sabine, and various articles, all poorly secured. Ice very heavy, and rapidly closing. He was making for the south to communicate with this vessel. No mention was made in this record of Captain Pike and crew of "Proteus," and I was forced to conclude that they were still at Cape Sabine. As that point was in plain sight, and only 26 miles distant, and although my orders directed me under no circumstances to go north of Littleton Id., yet I determined to do so, and make an effort to reach them. But before this could be done the fog began to creep down the sound, and by the time I was ready to start Cape Sabine was shut in.

Having deposited my record in the cairn on SW. point near coal pile, I ran down to Pandora Harbor to await the lifting of the fog. Following Sir Allen Young's directions I anchored in this snug harbor at 10 p. m., seeing two cairns, one on Cape Kenrick the other on Cairn Point.

On examination the former proved to be from Capt. Pike, stating that he with his

crew were in the harbor and were proceeding south, hoping to meet this vessel. The other was from Lt. Garlington, and stated that he had arrived here at 7.50 last evening (July 26) with his party, as mentioned above. Capt. Pike and crew of Proteus also in the harbor. When the Proteus was crushed Cape Sabine bore S. by E. $\frac{1}{2}$ E. (mag.) 6 miles. He had 40 days full rations and would go south, keeping close in shore and calling at Cary Ids. to Cape York, or until he should meet some vessel. Hoped to meet this vessel or Swedish str. Sophia, supposed to be about Cape York. Weather since wreck foggy and rainy, delaying progress. Party all well and in good spirits. Would leave at 5 a. m. to-morrow, 27th inst. Had been detained all day by fog.

I immediately got under way, and passing Cape Alexander at midnight, ran the coast down to Cape Robertson, within a mile of the beach, closely scanning it for cairns, boats, or men. I was close enough in to see the Arctic hares among the rocks. Nothing was seen, however, and passing Cape Robertson I ran across Murchison Sound to a point about 5 miles E. of the N. end of Northumberland Id., passing close by a rock, just a wash, 2 miles S. by W. (true) from Cape Robertson.

I skirted the N. shore of Northumberland Id., and then stood across to Hakluyt Id., which was closely examined. The western shore of this latter Id. was the only likely place for a landing. Seeing nothing, I rounded the southern end and stood down the western shore of Northumberland Id., passing the SW. point at 10 a. m. Here the fog shut in so thick that nothing could be seen, and bergs being numerous and not knowing the condition of Whale Sound, I laid close in under the cliffs until 6 p. m., when, the fog lifting, I stood across Whale Sound to a point 7 miles E. of Cape Parry.

A small party of Eskimos living in their summer tents near the loomery on Northumberland Id. was communicated with, but so far as could be made out they had seen no people in boats.

Reaching the opposite shore at 8 p. m., I examined it carefully, passing Cape Parry within $\frac{1}{2}$ mile and running a short distance S. of it; then the fog lifting to seaward, I got a bearing of Cary Ids. and stood for the SE. one of the group, which was reached at midnight. The records had not been disturbed, and I examined the cairn on top of the hill and took a copy of Sir Allen Young's record, which had already been copied by Lt. Greely.

Not being willing to leave this vicinity without further news of the retreating party, I ran back to Hakluyt Id., close around the eastern shore, and then around the northern and eastern shores of Northumberland Id. Passed the SE. point of the latter at noon Aug. 5th, and stood across Whale Sound to a point 12 miles E. of Cape Parry, and ran close along shore to that point.

I deposited a record on a low point 2 miles E. of that cape, and then rounding it, proceeded southward, keeping close in shore and passing Hoppner Point, Fitzclarence Rock, and Three Sister Bees, arrived at a point 5 miles NW. of Saunders Id. Wolstenholm Id. in plain sight at 8 p. m. Booth Sound was full of ice, the floes unbroken.

The ice now thickening up ahead, and the pack being in sight to the Wd. and extending in towards Wolstenholm Id., I ran off shore WSW. to round the northern end; but having closed with the pack I could not see the northern limit, and the ice being too close, and not being willing to enter it at this time, the weather threatening, wind fresh from the north, and fog hanging low down, I stood back to Whale Sound, seeking an anchorage.

The movement of the ice in this case and whence it came was unaccountable. Twenty hours before none was in sight from SE. Cary Id., the top of which, 400 feet high, was visited by Lt. Gibson. When I bore away for Cape Parry, the group was entirely surrounded and the edge of the pack was about 10 miles E. of it.

I ran up Whale Sound for Bardin Bay, but missing it and seeing the passage between Northumberland and Herbert Ids. through the mist, I rounded the SE. point of the former, and anchored at 5.30 a. m., Aug. 6th, in an indentation of the coast formed by a point of land and an old glacier extending out $\frac{1}{2}$ mile. I immediately sent the boats out to reconnoitre, and, having found a good spot, moved the ship into 7 fathoms, soft bottom, far enough in to be out of the stream of ice moving with the tides. I determined to remain here a few days to await the moving off shore of the ice or a loosening up of the pack so I could get through.

The same evening a party of officers visiting the shore found the remains of a camp apparently a week old. Tin cans, known to have been part of the equipment of the relief party, were picked up, matches were lying about, a fire-place and partially burnt stick, just above the beach, and a little further back stones in the shape of a 12-foot square, where a tent had without doubt been pitched. Footmarks were numerous, some having high heels.

On the following day, at a point in the cove one mile distant from the camp just described, the remains of another camping place were found. An iron pot, 3 or 4 lbs. of bread, the skin of an Arctic hare, and one or two gull heads were lying about; also an

old pair of trousers. I concluded that the former was the camp of the relief party, and the latter that of Capt. Pike and crew of the *Proteus*.

Being now certain that the boats were S. of us, it only remained to proceed there ourselves as soon as the state of the ice would permit.

I sent Lt. Gibson and the ice-pilot to the top of the mountain S. of us, 1,400 high. They reported the Cary Ids. in sight, and the pack broken up and moved to the Wd. But a high barometer induced me to remain, and that night it began to blow from SW., and continued so for 24 hours with thick rainy weather.

August 9th the Ex. officer and ice-pilot again climbed the mountain to the Sd., and reported that Whale Sound was closed by the pack, but the passage north was clear, also a water sky to the Sd. Having built a cairn, and deposited a record, I got under way at 3 p. m., and rounding the N. end of Northumberland Id., and passed out between that and Hakluyt Id., and stood southward to continue the search.

At 10 p. m. the pack was reached, loose and broken, extending NW. and SE. so far as could be seen. The weather shut in thick, and it began to snow. Not wishing to enter the ice unless the weather was clear, I steamed around in circle for a while, when, catching a glimpse of SE. Carey Id., I concluded to make another examination of it. Ran close in to the cove and fired two guns, getting no response. Then seeing an opening in the pack with clear water to the Sd., I ran through, and was soon able to head for Cape York, the pack continuing in sight on our port hand all the way.

The ice remained about the land in the vicinity of that Cape very much as we found it eight days before, except that more large floes were visible. Long tongues ran out several miles, continually edging us off to the Southward Sd. Near Cape Dudley Digges I ran close in, but could see no opening; the ice was packed close and reached to the land 20 miles distant. The weather thickened and fog settled down, and I caught a glimpse through a break of heavy pack outside of me to the SW.

At noon of this day, having ice in all directions except SE., and unable to see but a short distance in that direction, the land being unapproachable, our supply of coal greatly diminished, the imprudence of remaining in this vicinity became sufficiently obvious and I bore up for Upernavik, which was reached Aug. 12th, -having thick, rough weather during the passage. The ship was moored in Danish Harbor and the news communicated to Gov. Elbörg, who stated his wish to do all in his power. I chartered one of the launches and sent 15 days' rations for 37 men to Yessuissak, and Gov. Elberg directed the head man at that place to send his whale-boat with an Eskimo crew to Cape Shackleton to await the arrival of the boats.

After mature consideration, Aug. 14th, I hauled fires and determined to remain here until the boats arrived or until the season was well advanced, as this was the most northern point where I could anchor with any degree of security, and very little of that. The ship was moored in the same cove where the *Juniata* laid with her head north and stern held to the rocks by hawsers and stream cable.

The crew was sent ashore for a run and dance with the Esquimau girls, which they enjoyed hugely. Target practice was carried on. The officers went out shooting. The naturalists devoted themselves to their specialties, and under the direction of the executive officer, engineering works on shore procured us a supply of fresh water.

While lying here we were much annoyed by small bergs drifting into the harbor, occasionally capsizing and dancing up and down under our bows, threatening to take our head booms out, midnight being generally the time selected for the performance. These were either towed out by the boats or hove up at high water by a capstan on shore. Some of them were quite unmanageable. The chief danger from them was the liability in their gyrations of punching a hole in the vessel with their sharp projecting tongues.

Aug. 22d, the short summer of this high latitude being at an end, the weather having changed, vegetation having become brown and withered, the birds having departed with their young, ice and frost forming each night, the intervals of good weather becoming rarer, the autumn gales being liable to set in at any time, and knowing that the first one of any severity would put the ship on the rocks, as the only holding ground was bare rock, feeling that I was incurring great risk, increasing daily by remaining longer, I got under way and proceeded to the Kudlisit coal cliffs in Waigat Straits.

Gov. Elbörg stated that if the boats arrived in season he would deck over his large launch and give her to Lt. Garlington to come down to Disco, provided he could arrive by the middle of September. He also stated his ability and willingness to provide during the winter for the party, should they arrive too late to go south.

I remained four days at the coal cliffs, and with much labor and difficulty succeeded in getting on board about 50 tons, constantly annoyed by small bergs, which obliged me to get under way on three occasions, and the last night to remain under way until the ice movement had ceased.

Godhaven was reached Aug. 28th, and the ship moored and fires hauled.

On the morning of Aug. 31st a letter arrived by Kayak from Lt. J. C. Colwell, U. S.

N., dated Noursoak, Aug. 27th, stating that he had arrived at that point in a launch from Upernavik, having separated from the other boats at Cape York under orders from Lt. Garlington, and describing the condition of matters at that time.

At 9 a. m. the launch, with Lt. Colwell, six men, and an Eskimo, arrived in the harbor, and the crew came on board. They had been 39 days in an open boat and traveled about 900 miles, suffering great hardships in the passage across Melville Bay; yet they looked well and hearty, although somewhat thin and weatherbeaten.

Thinking there was a fair chance of the other boats having arrived, although from Lt. Colwell's account there were serious doubts, and stopping only long enough to take in 6 tons of coal kindly given by the inspector, I sailed the same afternoon for Upernavik with the launch in tow, and having fogs and head winds, arrived on the morning of Sept. 20th, and soon had the pleasure of welcoming on board Lt. Garlington with the Greeley relief party and Capt. Pike, with crew of Proteus; all well except Dr. Harrison, whose feet had given out.

Gov. Elbörg could only give me six tons of coal, and having received it I sailed at 3.30 p. m. for St. John's.

The ship was put under sail, and with strong northerly and northwesterly winds and rough seas, I reached a point 250 miles from port on the 11th inst. The wind then failing, steam was raised, and the vessel anchored in St. John's at 10 a. m., Sept. 13th.

Off Cape Farewell, Henry Wilson, G. M., died of apoplexy and was buried.

The customary courtesies were exchanged with the Danish officials at the various ports visited, but the generous hospitality of Gov Elbörg, of Upernavik, deserves more than a passing notice. Although in poor health, yet his interest in all relating to the expedition and his desire to do all possible for the shipwrecked people was keen.

During the cruise, which was a very harassing one, I received every assistance from the officers, and especially from Lt. W. C. Gibson, the Ex. officer, who was indefatigable in his labors to promote the efficiency and welfare of the vessel.

The energy, courage, and professional skill shown by Lt. J. C. Colwell deserves the attention of the Dept. Having separated by order from the other boats at Cape York, he took the first open lead to the SE., intending to steer direct to Upernavik, but a westerly gale coming on he ran before it for 20 hours, snowing heavily, and his crew much exhausted from fatigue and cold. This was immediately followed by a gale from SE. which was rode out under lee of an iceberg. Reaching Upernavik but a few hours after the departure of this vessel, and stopping only long enough to dry his clothing and shift into another boat, he pursued his way southward, reaching Godhaven as stated above.

The holding-ground at the Kudlisit coal cliffs, is bad, and the anchorage open and insecure. Icebergs of all sizes and in vast numbers are continually passing up and down the straits, and a constant watch is required to keep the smaller ones clear from the ship. A breeze anywhere from ESE. to NNW. (true) brings the stream of ice over to this shore, and it is impossible to remain at anchor. Sometimes, apparently with no reason, a stream of small bergs will appear and cause the greatest annoyance.

The first visit we made coal was taken from a vein cropping out from under the cliff to near high-water mark, much worn and weather-stained and scarcely having the appearance of coal. Yet it burned well, though very quickly, the bulk used being about in proportion of 2½ to 1 of anthracite. This vein was worked out.

On our second visit a seam had to be opened about 30 feet up the cliff, and it took one working day and portions of a second and third days to clear away the dirt and rubbish so that the coal could be got at handily and without danger to the men.

So long as the sea remains smooth there is no difficulty in getting the coal off, but a moderate breeze from SE., which was the prevailing wind during our stay, sends a swell on the beach which makes it a wet and difficult business for the boats, the beach of gravel and boulders being a bad one.

The remarkable passage made by this vessel from Upernavik to Littleton Id. has no precedent. Both duty and inclination urged us onward. Difficulties were smoothed away, the ice opened up before us and fine weather prevailed to a fair degree, so that we began to think that Arctic cruising had been somewhat exaggerated, but the terrible news which met us on our arrival, the obstacles to our progress southward, and the absolute necessity for giving up the search, convinced me that this frozen region is not to be trifled with and that the stern realities which constantly confront one are only to be encountered by the fullest and most complete equipment.

Sir Allen Young, one of the highest living authorities on Arctic matters, says, "All objects connected with Arctic navigation must necessarily be very speculative, and it is out of all human foresight to anticipate events in those regions."

The truth of this we have experienced to its fullest extent, and I earnestly represent to the Dept. the inadvisability of again sending a vessel north of New Foundland unless built and equipped to encounter heavy ice, and provisioned and clothed to spend an



*Incidence as Exhbit from Maydell
 Slavy Sniffers
 Sea
 Bank of Coast*

**TRACK CHART
 OF
 U.S.S. YANTIC and ST PROTEUS
 1883
 ARCTIC SEA**
Copyright © 1887

Explanation of Symbols
 ———— Ship's course from Maydell to Estimation of
 continuation of the track
 - - - - - Sounding and depth of soundings in fathoms
 - - - - - Land appearance
 - - - - - Proteus track





Arctic winter. From the latitude of Cape Farewell northward, it is impossible to say where the ice will be met, and thick weather prevails to such an extent that with the utmost care a vessel may become involved.

Had the Yantic been of this description there was nothing to prevent my forcing a passage in to the fast ice about Cape York and remaining there, or of maintaining our position until the ice opened or moved off shore.

I purposely put this vessel on several occasions into the edge of the pack to get some idea of how she would behave, and the result was not encouraging. Damage to screw, rudder, and rudder-post was greatly to be feared. All vessels which cruise in these waters carry heavy iron two-bladed lifting screws, as well as spare ones and a spare rudder.

In conclusion, I have to state that I have made every effort to carry out both the spirit and letter of my orders, and I trust this record of an Arctic cruise will meet with the approbation of the Dept. Originals, and copies where original was left of the various records found, are appended marked A, B, C, &c., and a track chart is also enclosed.

Very respectfully,

FRANK WILDES,
Commander, U. S. N.

(248.)

A.—Copy of a record found on S. E. Cary Is. by U. S. S. Yantic, Aug. 2nd, 1883.

U. S. RELIEF EXPEDITION,
S. E. Cary Is., 21st July, 1883.

Arrived at this island 3 p. m. to-day, having steamed through the pack since 5.30 a. m., 18th inst., lat. 73° 40' N., long. 61° 30' W., taking advantage of the lanes of water & rotten ice, breaking through the latter without difficulty. For the most part the pack was loose, and a good deal decayed by sun and warm currents. It had not moved to the south, evidencing absence of northerly winds this season. Comparatively open water from 15 miles south of the island, and as far north as we can see; also open to the west, but quantities of loose ice to the eastward. From this point I will steer for Hakluyt Island, and then leave a record on its most accessible point, if I can make a landing without difficulty; thence I will go to Littleton Island, leave a record, then proceed north. All well and in excellent spirits. Fine sport on the way up—3 polar bears killed, 3 seals—could have killed any number but for delay in getting them on board—one walrus shot, but lost in the water.

Res'py,
(Signed)

E. A. GARLINGTON,
1st Lt. 7th U. S. Cav., Comm'dg Expedition.

FRANK WILDES,
Comdi. U. S. N.

(249.)

B.—Original record found on Cairn Pt., Pandora Harbor, by U. S. S. Yantic, Aug. 3d, 1883,
Frank Wildes, Comdi. U. S. N.

Str. "Proteus."

U. S. RELIEF EXPEDITION,
22nd July, 1883.

At 6 a. m. we are rounding Cape Alexander, and will enter Pandora Harbor to leave this record. No ice met between Cary Islands and this point, and none to be seen to the north from "Crow Nest" with the aid of a powerful telescope. Weather perfect; if it continues I will go directly north and not stop at Littleton Island to leave record, for it takes but a very short time to change the aspect in these regions.

Respectfully,

E. A. GARLINGTON,
1st Lieut. of U. S. Cav. & A. S. O., Commanding.

(250.)

C.—*Original record found on S. W. end of Littleton Island by U. S. S. Yantic, Aug. 3d, 1883, Frank Wildes, Comdi. U. S. N.*

26th JULY, 1883.

My party, consisting of Lt. Colwell, U. S. Navy, Dr. J. S. Harrison, seven enlisted men U. S. Army, three civilian employés, and two Eskimo, arrived here at 5 p. m. to-day from a rocky inlet above Life-boat Cove in two whale-boats, and having dingy in tow. Very thick fog on way over, and sea quite rough. Boats behaved admirably, considering the strain to which they have been put—dragging them over the floe, rocks, &c.

This party was in steamer Proteus, of St. John, Newfoundland, chartered by U. S. Gov., going to the relief of Lieut. A. W. Greely, U. S. Army, at Lady Franklin Bay, Grinnell Land. The steamer was crushed in the ice between Cape Sabine and Cape Albert, Bache Island, on the afternoon of the 23d instant. All saved. Much provisions gotten over side of ship, but a great quantity went under before it could be removed a sufficient distance from ship for safety. 500 pounds bread, sleeping-bags, and assorted subsistence stores were landed from floe about three miles from Cape Sabine around point toward Bache Island. There is also a cache, made last year, along same shore. The depot was secured as well as possible. Ice was rapidly closing, heavy, &c. A quantity of clothing was left on extreme point of Cape Sabine, and one barrel beef, all poorly secured for same reason as above. I am making for the south to communicate with U. S. steamer Yantic, which is endeavoring to get up. Every effort will be made to come north at once for the Greely party. The Yantic cannot come into ice, and she has crew of 146, so will have to get another ship. All will be done to get as far north as possible before the season closes. Ice thick and heavy. Calm to-day, and I am in great hurry to take advantage of it and tide.

E. A. GARLINGTON,
1 U. S. Cav., Comd'g.

(251.)

D.—*Original record found on Cairn Pt., Pandora Harbor, by U. S. S. Yantic, Aug. 3rd, 1883, Frank Wildes, Comdi. U. S. N.*

U. S. RELIEF EXPEDITION,
Pandora Harbor, 27th July, 1883.

Arrived here at 7.50 last evening with two whale-boats and one dingy in tow, Lieut. J. C. Colwell, U. S. Navy, Dr. J. S. Harrison, seven enlisted men U. S. A., three civilian employés, and two Eskimo & self composing party. Capt. Pike, str. Proteus, and his crew (22 men) also in this harbor.

The Proteus was crushed in the ice about 6 miles from Cape Sabine, May, bearing from Sabine about S. 6 E. $\frac{1}{2}$ E., on the afternoon of the 23d instant. All saved.

I have forty days' full rations for my party; will go south, keeping close into shore as possible and calling at Carey Islands, to Cape York, or until I meet some vessel; hope to meet U. S. S. Yantic or the Swedish str. Sophia, which should be about Cape York. Weather since wreck has been foggy and at times some rain, delaying progress very much. Party all well and in good spirits.

Will leave here at 5 a. m. to-morrow—detained all day by fog.

E. A. GARLINGTON,
1 Lieut., 7 Cav., Comd'g.

(252.)

E.—*Copy of a record found on Cape Kennit, Pandora Harbor, by U. S. S. Yantic, Aug. 3rd, 1883.*

S. S. Proteus crushed with ice and sunk July 23rd. Crew and relief party gone south. Purpose calling at Hakluyt Is., Cape Parry, Cary Is., & coast along south if don't meet U. S. ship Yantic.

(Signed)

RICHARD PIKE,
Master, S. S. Proteus.

FRANK WILDES,
Comdi. U. S. N.

(253.)

F.—*Copy of record found in cairn on top of Southeast Cary Is. by U. S. S. Yantic, Aug. 5th, 1883.*

International Polar Ex'n to Lady Franklin Bay, fitted out by War Department, under the supervision of Gen. W. B. Hazen, Chief Signal Office, U. S. Army, and commanded by 1st Lieut. A. W. Greely, 5th Cav., A. S. O. & Asst.

Left in U. S. Proteus, island of Upernavik, 7 p. m. July 29, 1881, and at 7 a. m. July 31st stopped by a heavy fog about six miles S. of land supposed to be Cape York. Middle passage taken, and found to be entirely unobstructed by ice. All well. This notice deposited Aug. 1st, 1881.

(Sgn.)

OCTAVIUS PARY,

A. A. S. U. S. A.

H. E. W. F. KISLINGBURY,

M. P.

This is a true copy of a document found in the cairn, with a letter addressed to Captain Nares. They will be sent to the English Admiralty.

(Signed,)

O. PARY,

A. A. S., U. S. A.

FRED. F. KISLINGBURY,

2nd Lieut. 1st Inf't. U. S. A., Act. Sig. Off. U. S. Int. Polar Ex'n.

The Pandora sailed from Cowes on her voyage to the Arctic May 31st, and Plymouth June 2nd, 1876, under admiralty instructions to communicate with depots of polar ships at and near entrance to Smith's Sound.

Passed Cape Farewell June 24th; left Godhavn July 11, Kudlisit July 15th, and Upernavik July 19; beset in Melville Bay on the 24th July; escaped from the pack on the 29th July; experienced a violent storm from the S. E. (true) yesterday, the 31 July. Pandora will proceed northward toward Littleton Is. or Gale Pt. in hopes of obtaining some information from H. M. ships Alert and Discovery. The winds during the last ten days have been very strong from S. W. to S. E. (true), with constant thick weather and snow, and the main pack in which we were beset appears to be drawn tight into Melville Bay, leaving a large body of open water to the Sd. in an ENE. and WSW. direction. The Pandora records Sept., '75, will be found in the cairn on top of this island, where they have been deposited for the information of the polar ships.

The Pandora has now on board letters and despatches for the polar ships, and will endeavor to leave them at one of the depots at the entrance to Smith's Sound. The letters of last year will be taken on for the NW. island if the weather permits; but from present appearances it is extremely improbable that a landing can be effected on that island.

(Signed)

ALLEN YOUNG.

FRANK WILDES, *Comdi. U. S. N.*

(254.)

G.—*Copy of record found in cairn on top of S. E. Cary Island by U. S. S. Yantic, Aug. 5th, 1883.*

CAIRN ON S. E. CARY ISLAND,

Aug. 1st, 1876.

I have this day inspected the A depot left on this island by H. M. ships Alert and Discovery and found everything apparently undisturbed and in good condition. The record tin in the boat was not opened, as I supposed it would not contain more information than was found in this cairn by the Pandora last year. There were, in all, 31 casks and 12 cases, besides the tins of preserved meats, which were not counted.

The record left by the Pandora last year has apparently not been disturbed, so will be placed in the same tin as this.

(Signed)

CHARLES A. ARBUTHNOT,

Lt. R. N.

FRANK WILDES,

Com'd'r U. S. N.

4778 B.—War Dep't 3, 1883.

UNITED STATES OF AMERICA.

NAVY DEPARTMENT,
Washington, D. C., November 12, 1883.

Pursuant to section 882 of the Revised Statutes, I hereby certify that the annexed are true copies of papers on record in this Department.

In testimony whereof, I have hereunto set my hand, and caused the seal of the Navy Department of the United States to be affixed, at the city of Washington, this twelfth day of November, in the year of our Lord one thousand eight hundred and eighty-three, and of the Independence of the United States the one hundred and eighth.

[SEAL.]

ED. T. NICHOLS,
Acting Secretary of the Navy.

(255.)

NAVY DEPARTMENT,
Washington, October 10, 1883.

To Commander WILDES,

Commanding U. S. S. Yantic, New York.

SIR: Your report from St. John's, Newfoundland, dated September 17, 1883, of your cruise in the Yantic to the west coast of Greenland as a reserve ship for the Greely relief expedition was duly received and has been carefully considered.

The zeal, energy, and general good conduct of yourself as commanding officer, and of all the naval officers connected with the relief expedition, are not doubtful, and call for the sincere commendation of the Department; but the failure of the expedition to accomplish anything for the relief of Lieutenant Greely and his party, who are therefore forced, if now living, to contend with the hardships and perils of a third Arctic winter, arouses the reasonable inquiry: Did every member of the relief expedition, whether officer, seaman, soldier, or civilian, do *his utmost* to accomplish success and to succor and rescue the unfortunate explorers for whom he went in search? It is probable that the Greely party will be saved in spite of the failure you have recorded. It is possible it might have been lost, notwithstanding the wisest and most energetically conducted efforts for its relief. But those to whom was committed the recent expedition must to-day be judged upon the hypothesis that their success would have saved the ice-bound band, and that their failure will lead to its destruction.

Nothing which good judgment, fidelity, persistency, and courage on the part of any naval officer might have accomplished can have been omitted without the condemnation of the Navy Department and of the whole anxious American people.

Your instructions, under date of June 9th, were to "proceed to the northward through Davis Straits *in company with the steamer Proteus*, if practicable," but not to go beyond Littleton Island. It appears that the "Yantic" and Proteus were together at Disko Island on July 15th, when the Proteus sailed northward, but that the Yantic did not finally leave that island until July 26th. The Proteus reached Carey Island July 21st, the Yantic not until August 2d. The Proteus passed Littleton Island July 22d, and was crushed in the ice July 23d. The Yantic did not reach Littleton Island until August 3d.

Between July 23d and August 3d, namely, on July 26th and 28th, Lieutenant Garlington and the whole party of the Proteus had come to Littleton Island and Pandora Harbor, and not finding the Yantic, had continued to the south in open boats in search of her, notwithstanding the orders of the War Department, given for such a contingency, to land with their stores at or near Life-Boat Cove, on Littleton Island, and to prepare for remaining until next year.

Had the Yantic, however, been at Littleton Island July 28th, instead of being twelve days behind the Proteus, Lieutenant Garlington's relief party would have remained at that point with ample supplies, keeping "their telescopes on Cape Sabine and the land to the northward," and waiting for Lieutenant Greely, whose orders required him to endeavor to reach that vicinity not later than September, 1883, and who would not then have found awaiting him, as is now the case, if he has successfully obeyed his orders, neither house nor provisions, but only the record of the complete failure of the mission of the Proteus and the Yantic.

It does not, therefore, in the present aspect of the facts, seem to the Department that the Yantic properly fulfilled her duty as a tender to the Proteus, with which she had been ordered to proceed in company, while keeping twelve days behind her, and thereby defeating the object of the expedition.

You will make such full explanation on this point as you are able.

Your attention is also called to another point. You had been furnished with copies of the instructions to Lieutenant Garlington, and were aware that he was ordered, in the

event of the failure of the Proteus to reach Lady Franklin Bay, to establish the relief station at Littleton Island, and that Lieutenant Greely would endeavor to reach that point in September, expecting there to find a relief party, a house, fuel, and provisions. You were at Littleton Island on August 3d, and learned that the Proteus had been crushed and that Lieutenant Garlington and his whole party had gone south, leaving nothing for Greely at Littleton Island. You could have readily landed there provision and supplies, but omitted to do so.

You will please explain this omission, and will furnish the Department a schedule in detail of the provisions of all kinds which you then had on board the Yantic and a similar schedule of those you had on board when you arrived at St. John's on September 13th.

In the instructions of the War Department to Lieutenant Garlington, dated June 4, 1883, is the following clause: "A ship of the U. S. Navy, the Yantic, will accompany you as far as Littleton Island, rendering you such aid as may become necessary and as may be determined by the captain of that ship and yourself when on the spot."

You will inform the Department whether or not you had knowledge of this clause.

Enclosed you will also find a copy of a memorandum marked "Enclosure 4," containing instructions for the guidance of the naval tender and the Proteus; and you will inform the Department whether during your voyage these or any such instructions were seen by you or were orally communicated to you.

Very respectfully,

WM. E. CHANDLER,
Secretary of the Navy.

(256.)

U. S. S. YANTIC, 3d RATE,
Navy-Yard, N. Y., Oct. 16, 1883.

Hon. W. E. CHANDLER,
Secretary of the Navy, Washington, D. C.:

SIR: I have to acknowledge the receipt of the Department's letter of the 10th inst., requesting information on certain points in connection with the late cruise of this vessel to the Arctic Seas.

My orders directed me to "proceed to the northward through Davis' Straits, in company with the 'Proteus,' if practicable, * * * which ship being fitted for cruising in the ice will probably take advantage of opportunities to reach her destination, which you would not feel authorized in taking in the Yantic. * * * You will take on board at St. John's all the coal that you can safely carry below and on deck, as it is very desirable that you reach your destination with an ample supply still remaining for use. It may be possible to obtain a small supply of coal on the coast of Greenland, but this cannot be relied on."

I sailed from St. John's with 197 tons of coal below and on deck, the Proteus carried between 500 and 600 tons. The Yantic steaming with six (6) fires makes an average speed of 6½ to 7 knots per hour in smooth water. The Proteus steaming at full speed (which Captain Pike told me he used) made about 8½ to 9 knots per hour. On the run to Godhaven, under sail alone, I kept well to the eastward to avoid the Labrador ice. The Proteus, some 60 miles west of our track, under steam, passed through a stream of ice for 5 hours which was of a heavier nature than they are accustomed to meet on that coast, and which her officers stated could not have been penetrated by the Yantic.

The boilers of this vessel were in an unreliable condition when she was ordered to fit for this northern cruise. Repairs were pushed night and day to hasten her departure, but not being finished on sailing day, the material for completing the work was put on board. Repairs were continued in St. John's, but on our passage to Godhaven they were discontinued, as it was desirable to have steam power ready to use in case of necessity. Having arrived at Godhaven, and knowing that from thence northward our main dependence would be on the engines, I determined to get the boilers in fair condition before leaving. This took six (6) days. One (1) day was then taken to get coal from the brig Peru, which had just arrived. Then thick, stormy weather set in, which delayed our departure (2) two days.

I arrived in Godhaven with 170 tons of coal. In these narrow seas I thought the ship able to carry more than when she left St. John's, and deemed it prudent for future operations to provide as much as possible. For this purpose I went to Rittenbank, where 20 tons were procured, and thence to Kudliset, where the supply was completed. Our bunkers and decks were then full, and, being now as well prepared as I was able, July 25th we proceeded northward.

My instructions also stated that, "You will rely to a certain extent upon the information which is given you by the Danish authorities at Disco and Upernavik as to the

probable movements of ice, &c., &c." I visited Upernavik to obtain this information, arriving at 10 p. m., July 25th. By morning a dense fog had set in, and continued with slight intermissions until the 31st, when it cleared and I proceeded to sea.

No time was lost and no unnecessary delay was made at any point. The Proteus, carrying a large supply of coal and steaming at full speed, had only to delay to obtain the stores left at Godhaven last year and a native dog-driver from Disco Fiord. She then went north without stopping. Had I sailed from Godhaven at the same time as the Proteus, besides being unable to keep up with her, I should have arrived at Littleton Island, 1,000 miles distant, with my coal supply reduced to about 75 tons and the boilers in a leaky, precarious condition. (This vessel burns with six (6) fires, economical steaming, 13 tons per day, besides an average of one (1) ton per day for condensing and galley.) This is without taking into account any detention from thick weather or ice, which cannot be counted on, as the normal condition of this region appears to be fog.

The body of water known as Melville Bay is so little understood generally that a short description may not be out of place here. From Cape Shackleton, which may be regarded as the southern point, the coast trends northerly 150 miles to Cape Walker, thence westerly 150 miles to Cape Dudley Diggs. The coast line is one vast glacier, the rocky headlands only projecting, which constantly discharges multitudes of icebergs, many of enormous size. These, drifting to the westward and grounding in the shoal water south of Cape York, frequently hang up for a whole season the vast fields of ice which accumulate during the winter. When not so hung by bergs the "main" or "middle" pack, which is out of the influence of the current from Smith's Sound to Davis' Straits, drifts back and forth with the prevailing winds, at times leaving open water between it and the fast ice and again closing.

The North Star was caught in August, '49, and luckily broke out after "hairbreadth escapes" on 25th Sept., and succeeded in getting into Wolstenholm Sound, where she wintered. The first Grinnell Expedition in '55 was caught in the pack early in July and not released until Aug. 15th. In '57 the Fox was caught south of Cape York and drifted all winter in the pack. In '75 the Alert and Discovery met the pack just outside the Brown Is's, near Upernavik, and were 34 hours forcing their way through. On the 22nd July, '76, the Pandora was beset for eight days in the pack, and only succeeded by great exertions in freeing herself, having been in imminent danger of being crushed. Many whale-ships have been lost in this bay. During one year the governor of Upernavik states that he had 200 men thrown on his bounty, whose ships had been crushed in the ice. (See proceedings U. S. Naval Institute, Dec. 11th, 1873.) Commander Markham, second in command of the Alert, an Arctic navigator of no mean repute, says: "The dangers connected with a passage through Melville Bay are now so well known to all who have taken any interest in Arctic affairs, or who have devoted any time to the perusal of Arctic literature, that it is needless for me either to explain or dwell upon them at any length. Many a well-equipped ship has been caught in the fatal embrace of this bay. What tales of woe and disaster could its icy waters unfold," &c., &c.

Capt. G. S. Nares, commanding the British polar expedition of 1875-'6, having been 34 hours in the middle pack, says: "Although we made so successful a voyage through a locality justly dreaded by experienced ice navigators, the conclusion must not be hastily arrived at that a similar passage can always be commanded. Had a strong breeze set in whilst we were among the ice, we should have been beset in the pack and at the very least delayed several days."

In view of these facts, I should have felt justified in delaying to a still later date the attempt to cross Melville Bay, or even not making the attempt at all. But I did not delay one moment after I considered my ship prepared and the weather had cleared, but pushed across to Cape York, feeling certain from the thick, foggy weather, raw, chilly air, flurries of snow, and smooth sea, that the middle pack was not far distant.

Pandora Harbor was reached six days after the boats had gone south.

To conclude this part, I did not intend to run the vessel under my command in the haphazard, happy-go-lucky fashion which finally brought the Proteus to grief, but to make sure, so far as possible, of every step which I took.

Had the Proteus been ordered to keep company with the Yantic it would have been vastly better for all concerned.

I sailed from New York, having a ship's company of 124 enlisted men and 20 officers, with 8 months' provisions for 80 men on board; every available space was utilized for there stowage. On our passage northward the usual ration was found insufficient, and 120 rations were issued. On learning of the loss of the Proteus I considered that my first and paramount duty was to pick up the boats, which contained 37 men. Having done that, it would be time to consider what next. I had no doubt that I should do this, and hoped to find them at the Cary Is's, or, failing there, somewhere between Cape Parry and Cape Athol. Should they have reached and entered the ice of Melville Bay,

I thought it impossible to tell when they would appear. Dr. Kane took 80 days to go over the same ground. This would necessitate my remaining very late in the season, as it was quite out of the question to return home without them. But the pack prevented my reaching Cape Athol, and having worked through, on Aug. 9th various fruitless attempts were made to find an opening between Cape Dudley Diggs and Cape York. On the 10th heavy pack appeared to the s'west, the wind was n'east, and the ice moving off-shore down on us; there was ice behind us preventing our return northward. I had no alternative but to proceed to Upernavik.

In taking these steps I was governed by what I have previously stated in regard to the possibilities of Melville Bay and the probabilities of our being beset in the pack. Once involved in ice, I knew we would be helpless and our imprisonment of indefinite duration. I had no fears for Lt. Greely, who, living in a region reported well stocked with game, had economised his provisions. Should he reach Littleton Is., besides the provisions on the west coast, the rocks and waters between that island and the mainland abound in walrus, the stench from their ordure fouling the air for a long distance. On the neighboring mainland reindeer are reported numerous. On the S. E. Cary Island there is a cache of six (6) months' provisions for twenty (20) men known to Lt. Greely, who landed there. They would have to live Esquimau fashion, but Dr. Kane and Lt. Schwatka did that.

The clause of Lt. Garlington's instructions mentioned on the last page of the Dept's letter was known to me.

The memorandum marked "Enclosure 4," with no date or signature, which I presume are the "supplementary instructions" so often spoken of, was never heard of by me until our arrival in St. John's nor seen until now. The schedules of provisions on hand Aug. 3rd and Sept. 15th are enclosed as directed.

In conclusion I beg to state that I am prepared to shoulder all the responsibility which properly belongs to me, and if this statement is not satisfactory and there still remain doubts in the Department that I have not done my duty as an officer of the United States Navy, I respectfully request that a court of inquiry may be ordered on my conduct, as I do not wish to rest under the imputation that I have heedlessly and unnecessarily left Lt. Greely and party to the possibility of perishing by starvation.

I am, sir, your ob't servant,

FRANK WILDES,
Commander, U. S. N.

COMMANDANT'S OFFICE, NAVY-YARD, NEW YORK.

Forwarded Oct. 17th, 1883.

R. W. MEADE,
Captain commanding.

Provisions on hand Aug. 3, 1883.

Quantities.	Articles.	Ration price.	Cost.	
			Dolls.	Cts.
7,000 pounds ...	Bread	\$0.05 cts.		
5,500 pounds ...	Salt beef .....	.08 cts.		
6,000 pounds ...	Pork .....	.12 cts.		
2,500 pounds ...	Preserved meat.....	.24 cts.		
2,000 pounds ...	Flour .....	.04 cts.		
300 pounds ...	Rice .....	.09 cts.		
140 pounds ...	Dried fruit .....	.12 cts.		
750 pounds ...	Pickles.....	.12 cts.		
3,500 pounds ...	Sugar .....	.13 cts.		
47 pounds ...	Tea .....	.96 cts.		
1,800 pounds ...	Coffee .....	.32 cts.		
630 pounds ...	Butter.....	.40 cts.		
360 gallons....	Beans .....	.30 cts.		
40 gallons....	Molasses.....	.60 cts.		
40 gallons....	Vinegar.....	.20 cts.		
pounds ...	Fresh beef	cts.		
pounds ...	Fresh vegetables	cts.		
pounds ...	Fresh bread	cts.		
700 pounds ...	Preserved tomatoes.....	cts.		
	Total amount.....			

Approved:

_____,
_____, U. S. Navy, Commanding Officer.

Received, ———, 188—, from the caterers of the officers' messes, ——— dollars and
 ——— cents, in payment for the above provisions.

\$——— 00

C. M. RAY,
 P. A. Paymaster, U. S. Navy.

(Indorsed:) Expenditure voucher No. ———, for provisions: \$———, ——— quarter,
 188—.

Issues to officers' messes for cash.
 U. S. ship ———.

Pay ———, U. S. Navy.

One copy of this invoice to be forwarded to the Bureau of Provisions and Clothing
 with the final quarterly return of provisions, and the other retained by the pay-officer
 for reference.

Provisions on hand September 15, 1883.

Quantities.	Articles.	Ratio price.	Cost.	
			Dolls.	Cts.
4,000 pounds....	Bread	\$0.05 cts.		
4,500 pounds....	Salt beef.....	.08 cts.		
4,640 pounds....	Pork .....	.12 cts.		
1,500 pounds....	Preserved meat.....	.24 cts.		
400 pounds....	Flour.....	.04 cts.		
175 pounds....	Rice .....	.09 cts.		
140 pounds....	Dried fruit.....	.12 cts.		
675 pounds....	Pickles.....	.12 cts.		
2,400 pounds....	Sugar.....	.13 cts.		
47 pounds....	Tea.....	.96 cts.		
1,200 pounds....	Coffee.....	.32 cts.		
450 pounds....	Butter.....	.40 cts.		
260 gallons....	Beans.....	.30 cts.		
5 gallons....	Molasses.....	.60 cts.		
5 gallons....	Vinegar.....	.20 cts.		
— pounds....	Fresh beef.....	cts.		
— pounds....	Fresh vegetables.....	cts.		
650 pounds....	Preserved tomatoes.....	cts.		
	Total amount.....		\$	

Approved:

———, U. S. Navy, Commanding Officer.

Received, ———, 188—, from the caterers of the officers' messes, ——— dollars and
 ——— cents, in payment for the above provisions.

\$——— 00

C. M. RAY,
 P. H. Paymaster, U. S. Navy.

(Indorsed.) Expenditure voucher No. ———, for provisions: \$———, ——— quarter,
 188—.

Issues to officers' messes for cash.
 U. S. ship ———.

Pay ———, U. S. Navy.

One copy of this invoice to be forwarded to the Bureau of Provisions and Clothing
 with the final quarterly return of provisions, and the other retained by the pay officer
 for reference.

(257.)

NAVY DEPARTMENT,
 Washington, November 2nd, 1883.

SIR: The receipt of your letter of October 16th is acknowledged. In the present as-
 pect of the case the Department condemns (1) the agreement enclosed in your letter of
 June 25th, between Lieutenant Garlington and yourself, contemplating the separation

of the "Yantic" and the "Proteus" until August 25th; (2) your failure to accompany the "Proteus" from Disco Island after you had there rejoined her; (3) your unnecessary visit to Upernavik on July 25th, to enquire of the Danish authorities how the ice was probably moving between yourself and the "Proteus," the six days of your delay at which point would have brought you to Littleton Island before the party of the "Proteus" went south; and (4) your failure, when you found at Littleton Island that the demoralized party of the "Proteus" had gone south in search of the Swedish steamer "Sofia," at Cape York, to land materials for a habitation, clothing, and some food for the forgotten Greely party.

What action, if any, will be taken by the Department has not yet been determined.

Very respectfully,

WM. E. CHANDLER,
Secretary of the Navy.

Commander FRANK WILDES, U. S. N.
Commanding U. S. S. "Yantic," Navy-Yard, New York.

UNITED STATES OF AMERICA:

NAVY DEPARTMENT,
Washington, D. C., November 19, 1883.

Pursuant to section 882 of the Revised Statutes, I hereby certify that the annexed is a true copy of the report of inspection of the steamer Proteus by Lieutenant Commander B. H. McCalla, U. S. Navy, on file in this Department.

In testimony whereof I have hereunto set my hand and caused the seal of the Navy Department of the United States to be affixed, at the city of Washington, this nineteenth day of November, in the year of our Lord one thousand eight hundred and eighty-three, and of the Independence of the United States the one hundred and eighth.

[SEAL.]

W. E. CHANDLER,
Secretary of the Navy.

(258.)

[1 Enclosure.]

BUREAU OF NAVIGATION, NAVY DEPARTMENT,
Washington, June 5th, 1883.

SIR: In compliance with your order of the 17th May, I have the honor to inform you that I proceeded to St. John's, New Foundland, and, upon my arrival, reported to Brigadier-General Wm. B. Hazen, U. S. A., Chief Signal Officer of the Army, for instructions in regard to selecting a steam sealer to be chartered to proceed to Lady Franklin Sound for the relief of the party under command of Lieutenant A. W. Greely, U. S. A.

General Hazen had made all the arrangements necessary to charter the steamer Proteus, belonging to the house of T. and W. Stewart, of St. John's, subject to the inspection of a naval officer. Upon my arrival at St. John's, I was instructed by General Hazen to inspect the Proteus, the steamer which had conveyed Lieut. Greely's party to Lady Franklin Sound two years ago.

As the result of my instructions I enclose a copy of a letter addressed to General Hazen, after having made careful examinations of the steamer Proteus.

The boiler, though eight years old, was in good condition, and had apparently been well cared for, but in view of the fact that boilers of that age are likely to require more or less repairs which cannot be anticipated, I deemed it prudent to recommend that a skilled boiler-maker should form one of the steamer's complement.

Very respectfully,

B. H. MCCALLA,
Lt. Commander, U. S. N.

Commodore J. G. WALKER, U. S. N.,
Chief of Bureau of Navigation, Navy Department.

(259.)

ST. JOHN'S, N. F., *May 26, 1883.*

General WM. B. HAZEN, U. S. A.,
Chief Signal Officer, U. S. Army:

SIR: In compliance with your instructions, I have examined the steamer Proteus, belonging to the house of T. and W. Stewart, with the view of her being chartered to proceed to Smith's Sound during the coming summer for the relief of the party under Lieut. A. W. Greely, U. S. A.

In my opinion, the above-mentioned steamer is fit for this purpose.

It is desirable that, if possible, an examination should be made of the steamer's bottom, and I consider it an essential condition to the charter that a good boiler-maker should form one of her crew.

Very respectfully, your obedient servant,

B. H. MCCALLA,
Lt. Commander, U. S. N.

[8285. Mis. 1883.]

WAR DEPARTMENT,
OFFICE OF THE CHIEF SIGNAL OFFICER,
Washington City, Nov. 19, 1883.

Major HENRY GOODFELLOW,
Recorder Court of Inquiry, Washington, D. C. :

SIR: I have the honor to transmit herewith lists of the subsistence stores issued to Lieut. A. W. Greely for the expedition to Lady Franklin Bay, copied from the original invoices of articles transferred to him.

I am, very respectfully, your obedient servant,

W. B. HAZEN,
Brig. and Bvt. Maj.-Gen'l, Chief Signal Officer, U. S. A.

(Two enclosures.)

(261.)

List of subsistence stores taken by Lieut. A. W. Greely on Expedition to Lady Franklin Bay 1881.

		Reduced to Army ration.	
1,000	lbs. codfish.	} Furnished by the } } Signal Office. }	1,125 (?)
3,540	" pemican.		3,540 (?)
242	" bacon (breakfast).		322
729	" ham (sugar-cured).		972
3,000	" bacon.		4,000
8,400	" pork.		11,200
96	cans salmon (2 lbs.).		256
23	bbls. beef (salt).		3,345
864	cans beef, corned (2 lbs.).		2,304
120	" beef, roast (2 lbs.).		320
24	" mutton, extract (2 lbs.).		48 (?)
48	" crab meat (1 lb.).		48 (?)
6,450	lbs. family flour.		5,733
500	" maccaroni.		500 (?)
1,720	" oatmeal.		1,376
140	" cracked wheat.		112
280	" farina.		280 (?)
980	" cornmeal.		784
17,899	" hard bread.		17,899
1,264	" beans.		8,426
1,395	" "		9,300
576	cans baked beans (3 lbs.).		3,840
420	" split peas.		2,800
595	" rice.		5,950
1,120	lbs. hominy (10 lbs., 112 cans).		11,200
1,900	" Rio coffee (R. & G.).		23,750
196	" Java coffee (R. & G.).		2,450
200	" green tea.		10,000
48	" Oolong tea (black).		2,400
56	" E. B. tea.		2,800
1,063	" sugar, granulated.		7,086
3,060	" " A.		20,400
192½	gals. molasses, N. O.		9,600
108	" syrup.		5,400
296	" vinegar.		26,900
510	lbs. candles.		34,000

Equal to 27,480 rations of meats, being rations for 25 men $36\frac{3}{8}$ months.

Equal to 26,684 rations of breadstuffs, being rations for 25 men $35\frac{1}{3}$ months.

Equal to 41,516 rations of beans, rice, &c., being rations for 25 men $55\frac{1}{3}$ months.

Equal to 41,400 rations of coffee or tea, being rations for 25 men $55\frac{6}{30}$ months.

Equal to 42,486 rations of sugar, being rations for 25 men for $56\frac{1}{3}$ months.

Being rations for 25 men $35\frac{2}{3}$ months.

Being rations for 25 men for $45\frac{1}{3}$ months.

240 lbs. soap.	}	6,000	{	The common soap being rations for 25 men for 8 months; toilet and salt-water soap not counted.
240 cakes soap (toilet)				
48 " " " S. W.				
1,568 " salt.	}	39,200	{	Being rations for 25 men for 52 $\frac{5}{30}$ months; table salt not included.
95 bags " (table).				
10 lbs. pepper (Chili, Colorado).	}	30,000	{	Being rations for 25 men for 40 months.
75 " " "				

Note I.

The party consists of—
 3 commissioned officers.
 19 enlisted men.
 2 Eskimo (estimated).
 1 act. ass't surgeon.

25 total.

Note II, summary.

Meat ration,	36 $\frac{1}{30}$	months.
Flour ration,	35 $\frac{1}{30}$	"
Beans, &c.,	53 $\frac{1}{30}$	"
Coffee and tea,	55 $\frac{6}{30}$	"
Sugar,	56 $\frac{1}{30}$	"
Vinegar,	35 $\frac{2}{30}$	"
Candles,	45 $\frac{1}{30}$	"
Soap,	8	" (not including salt water and toilet).
Salt,	52 $\frac{8}{30}$	" (not including table salt).
Pepper,	40	"

NOTE.—The articles queried do not form part of the regular ration issued to the Army, and the numbers in these cases have therefore been estimated.

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 19, '83.

(260.)

Subsistence stores, Lady Franklin Bay—Continued.

MICELLANEOUS.

5 lbs. allspice.	96 cans oysters (2 lbs.).
456 cans apples (3 lbs.).	144 " peaches (3 lbs.).
100 lbs. " evaporated.	250 lbs. " (evap.).
60 cans " 1 gall.	48 cans pears (2 lb.).
96 cans asparagus.	98 " peas, Am.
3,024 lbs. butter.	96 bot. chow chow (qt.).
204 " chocolate (McCobbs).	100 gal. pickled onions.
200 " " "	250 " " cucumbers.
5 " cinnamon.	48 cans pineapple (2 lb.).
24 cans clams (2 lb.).	1,248 cans potatoes (2 $\frac{1}{2}$ lb.).
5 lbs. cloves.	144 " preserved damson.
144 cans corn, green.	244 lbs. prunes.
24 bott. ex. lemon (4 oz.).	15 ($\frac{1}{3}$ boxes) raisins.
24 " " vanilla (").	66 boxes raisins.
50 pkg. gelatine (Swinburn's).	50 and $\frac{1}{2}$ lb. " "
50 " " (Nelson).	1,006 cans sauce, cranberry.
10 lbs. ginger.	12 bottles sauce, Tobin's Chili.
100 " hops.	12 pts. " Worcestershire.
48 cans jam, blackberry (2 lb.).	504 cans soup, asst'd.
144 " jelly, currant (").	240 pkgs. " vegetable.
48 " lobster (").	40 lbs. starch, corn (32 rations).
1,920 " milk.	25 " tapioca (20 rations).
198 lbs. mustard.	960 cans tomatoes (3 lbs.).
5 " nutmegs.	1,000 lbs. tobacco, plug.
12 bot. oil, olive.	325 " " smoking.
960 cans onions (2 $\frac{1}{2}$ lbs.).	

Subsistence stores, L. B. F.—Continued.

120 cans Lima beans (2 lb.).	18 ½ bbls. sauerkraut.
144 " ex. beef (1 lb.).	1,008 cans rhubarb.
552 lbs. cheese (3,680 rations).	48 " quinces (3 lb.).
108 " yeast powder (2,700).	48 " shrimps.
24 bot. celery extract (4 oz.).	780 lbs. lard.
504 cans eggs, con'd.	288 boxes matches, safety.
180 lbs. figs.	48 pipes, brierwood, No. 2.
192 cans gooseberries (2 lb.).	48 " " No. 3.
96 jars preserved peaches.	120 pipe-stems, cherry.
12 bottles Tobasco pepper.	120 " winchael.

List of subsistence stores, L. F. Bay, furnished by the Signal Service, U. S. A.

24 cans tamarinds.	144 cans carrots.
48 bots. horseradish, pints.	144 " turnips.
24 cans orange marmalade.	144 " beets.
50 lbs. pitted cherries.	120 " sausage.
96 cans blueberries.	24 " peach butter.
48 " whortleberries.	24 " quince "
24 " white O. H. cherries.	36 " plum "
48 " Cal. grapes.	24 " currie powder.
48 " " pears.	6 jars Canton ginger.
72 " squash.	12 pkgs herbs, asst'd.
48 " okra.	12 bots. extracts, asst'd.

List of subsistence stores, L. F. Bay, furnished by the Signal Service, U. S. A.—Continued.

6 2-gal. kegs olives.	144 lbs. dates.
8 ½ bbls. cider.	30 " cocconut.
128 lbs. Brazil nuts.	100 gal. lime juice.
24 cans pear butter.	

Official copy from the records of the Signal Office.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, '83.

(262.)

WAR DEPARTMENT, October 31, 1883.

To the Chief Signal Officer, U. S. Army :

SIR: I have the honor to acknowledge the receipt of your letter of the 16th inst., inclosing the report of First Lieutenant E. A. Garlington, Seventh Cavalry, upon the expedition sent to the Arctic seas this summer for the relief of the international meteorological expedition under the command of Lieutenant A. W. Greely, Fifth Cavalry, and also the letter of the Acting Chief Signal Officer of the 23d inst., inclosing Lieutenant Garlington's responses to your special interrogations.

It is needless to say to you that the disastrous failure of this relief expedition, upon the success of which depended, as it may perhaps hereafter be learned, the lives of a number of men, has widely excited public attention, and that there is a general desire to understand clearly the causes of this failure, and that it may be known where the responsibility therefor rests. It is apparent that two things at least were omitted, either one of which being done the general object of the expedition would have been accomplished up to a certain point, and the party, not seriously crippled, would have been left at a place from which it could have proceeded to execute its further plans for the relief of Lieutenant Greely and his party.

The loss of the Proteus alone, happening where it did, might have been a matter of no importance in this connection. It was fully contemplated that if it failed to reach Lady Franklin Bay it was to return to St. John's, leaving the relief party in winter quarters at or near Littleton Island.

If Lieutenant Garlington had prudently made a base of supplies at or near Littleton Island it would have been a matter of little consequence to him or his party whether the Proteus went to St. John's, or, without loss of life, to the bottom of the ocean.

On the other hand, if the Proteus had succeeded in reaching Lady Franklin Bay, its extra stores would not, as I understand, have been needed by Lieutenant Greely, who was there abundantly provided for, and the taking of these extra stores past Littleton Island was not only useless for any purpose, as I conceive, but was a fatal risk.

It would therefore seem that the directions contained in the memorandum mentioned in your letter, that Lieutenant Garlington should in going up establish a base of supplies, was a most prudent measure, the omission of which, after it had once been thought of, it is as difficult to understand as it is deeply to be regretted. It is now clear that it was never an order to Lieutenant Garlington, but it is equally clear that, having seen it and having under your orders a discretion, he could not have done more wisely than to follow the particular suggestion contained in it above mentioned.

I consider it necessary to inquire further into the history of this memorandum. It appeared as a loose paper, inclosed with your letter of instructions to Lieutenant Garlington, dated June 4, 1883; but it is not mentioned in that letter. I am advised by the Secretary of the Navy that while he was preparing his orders for the Yantic you furnished his Department with a supposed copy of that letter, which, in like manner, did not mention the memorandum and did not inclose it. This copy, as did the original, covered four mentioned inclosures, but only one of them seems to have been like its original. The three other inclosures, as now seen, differ entirely from those with the original letter, and do not, of course, meet their own description as found in the body of the supposed copy of the original letter.

After the telegraphic reports of the disaster were received, I, upon the request of the Secretary of the Navy, directed the Acting Chief Signal Officer, in your absence, to prepare for and furnish to the Secretary of the Navy a copy of your instructions to Lieutenant Garlington. This last, as furnished, contains only three inclosures, four being mentioned in the body of the letter. One of them was substantially like one of the inclosures with the original letter; another was substantially like one of those with the first copy above mentioned; and the third was marked "Inclosure 4" (an inclosure 4 being noted in the letter), and is a copy of the "memorandum" in question. These latter papers were, of course, supposed by the Secretary of the Navy and myself in our conference to be, as stated, an authentic copy of your instructions to Lieutenant Garlington, and we, in our conferences, formed an opinion as to his having disobeyed an order, which it now appears he did not, in fact, receive as an order.

I have had prepared, and herewith inclose, a tabulated statement and memorandum of the above-mentioned discrepancies, and some others of less importance existing in the above-mentioned papers, which it is thought ought to be alike, and I request to be advised what explanation there is, if any, for these discrepancies; and, further, what the records of your office show to have been done with the above "memorandum" after its original preparation; and what, in case Lieutenant Garlington had himself been lost upon this expedition, would have prevented the resting upon his record of the imputation of having disobeyed a positive instruction as to landing his extra stores at or near Littleton Island on his way north.

I may also add that I observe in the agreement between yourself and the owners of the Proteus, under which it started upon this expedition, a clause providing for the sale by the Proteus to Lieutenant Greely's party at Lady Franklin Bay of coal, if needed, to the amount of seventy tons. I beg that you will advise me why it was supposed that that party might need to have the benefit of a contract for fuel to that amount, in case the Proteus had succeeded in reaching Lady Franklin Bay.

The other important omission to which I have referred is the failure of Lieutenant Garlington to keep his ship in company with the Yantic. I have not observed in any of his papers a satisfactory explanation as to his reasons for permitting the Proteus to be separated from the Yantic before their arriving at Littleton Island or its neighborhood. He was informed by his letters of instructions that the Yantic would accompany him as far as Littleton Island. The assistance of the Navy in this way was regarded by us as adding greatly to the probable success of the expedition and as an almost perfect protection against great disaster. But, instead of sailing together, the movements of the vessels were so conducted that for all the good the Yantic was to Lieutenant Greely's party in any way, or to Lieutenant Garlington's relief party in saving their lives or their supplies, the Yantic might as well have left St. John's in 1884 as when it did. At the very outset at St. John's it appears from these papers that Lieutenant Garlington and the commander of the Yantic made an agreement, embodied in an unsigned written memorandum, that upon leaving St. John's the Proteus was to steam and the Yantic was to go under sail; and the agreement does not seem to contemplate the probability of their being again in company until about August 25, at Pandora Harbor, not far from Littleton Island. As if happened, Lieutenant Garlington was still at Godhaven when, on July 12, the Yantic arrived there, the commander of the Yantic saying that he would have to remain about a week to make some repairs and to coal. The Proteus remained four days of this week, and without waiting the other three days steamed away alone to become a wreck. Instead of using the Yantic as a convoy and companion, the Proteus was moved by written agreement and by design as though escaping from the Yantic.

I am not satisfied with Lieutenant Garlington's explanation of the causes which led

him into the very grave and perhaps fatal error of going south from Littleton Island after the loss of the Proteus. If he had remained there he would have been succored by the Yantic in eight days, and a relief station for Lieutenant Greely's party would have been established. The loss of the Proteus would then have been little more than an inconvenience. I cannot understand how it was that while on July 22, on his way north, when, in his own words, "The weather was perfect, calm, warm, delightful, * * * there was no ice as far as could be seen from the crow's-nest with the aid of a very powerful telescope," he felt so safe, even away from all communication with the Yantic, that he saw no necessity of making a base of supplies at Littleton Island; yet four days later, at the same place, he did not suppose the Yantic could get up to where he was, and so put to sea, with all his party, in small boats in an Arctic ocean. The Yantic was bound to go there. Imagine, if possible, the reception which the commander of the Yantic would have had if he had returned home in September with no news of the Proteus and without having been to Littleton Island. It is not forgotten that Lieutenant Garlington was not in a pleasant place, nor that he endured very great hardships; but he had volunteered for the performance of an important duty, with a full knowledge of the certain difficulties and of the desolation which would surround him, and the demand upon him was correspondingly great.

In his supplemental report Lieutenant Garlington says that "when the Proteus encountered the pack in Melville Bay no one on board that vessel thought the Yantic would cross the bay. This opinion was formed from the known intention of the commander of the Yantic not to put his vessel into the ice." This opinion was formed on the way north, and therefore prevailed when Lieutenant Garlington passed Littleton Island. It was in effect that no assistance could come from the Yantic, and that those on the Proteus must depend only upon themselves for the attainment of the two alternative objects of their voyage—first, to reach Lieutenant Greely with their ship, and, failing that, the establishment of a well-provided relief station at or near Littleton Island. The last object could have been assured by merely delaying for a few days their dangerous northward voyage; and it now appears that a delay of but a little more than a week would have permitted not only the establishment of the station, but would have put them again in close communication with the Yantic. For, as Lieutenant Garlington says, "As it turned out to every one's surprise, the Yantic saw no ice in Melville Bay, and had an uninterrupted passage to Littleton Island." Lieutenant Garlington's singularly unfortunate errors of judgment as to his own safety in going in one direction, and as to the Yantic's danger in coming from the opposite direction, were each productive of disaster. It appears to me that Lieutenant Garlington's supplemental report only tends to make an understanding of his failure to remain at or near Littleton Island after the loss of the Proteus more difficult than before. If he had no hope of the Yantic coming north, not from lack of enterprise in its commander, but on account of the assumed unfitness of the ship for such a voyage and the orders by which it was controlled, how is it that he expected to carry out the plan outlined in his supplementary report, where he says that he "determined to communicate with the Yantic as soon as possible to do so, to get from her all the supplies that could be spared, and establish a depot at Life-boat Cove"? Life-boat Cove is near Littleton Island. It is not to be supposed that he thought that the Yantic would accomplish more under his guidance than before, and would come north to Littleton Island or Life-boat Cove to land supplies if its orders or its condition were such as to prevent its coming. It is even more improbable that Lieutenant Garlington could reasonably expect to cross a large expanse of Arctic sea in small boats and return in them, necessarily in a late season, with supplies and shelter for a winter station at Life-boat Cove. Upon due consideration I have thought it proper to submit the case to the President, with my recommendation that he direct the appointment of a court of inquiry to investigate the fitting out of the Greely relief expedition transported by the steamer Proteus, having particular reference to the orders and instructions therefor, and for the conduct of the expedition and the arrangements made for assistance from the U. S. S. Yantic; and also the general conduct of the expedition, including particularly the failure of the Proteus to keep in company with the Yantic up to Littleton Island, or its neighborhood, and the failure to establish a well-provided relief station at or near Littleton Island; and with directions to report their findings and their opinions as to whether the conduct of any officer of the Army in the premises calls for further proceedings before a court-martial, and the reasons for the conclusions which they may reach.

The President has thereupon directed that a court of inquiry be appointed, as recommended, and the necessary orders will be at once issued.

I am, very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

(263.)

Memorandum in relation to instructions to Lieut. E. A. Garlington, 7th Cav., commanding expedition to Lady Franklin Bay for relief of Lieut. Greely and party.

[Lieutenant Garlington's papers.]

Lieut. Garlington, in his report to the Chief Signal Officer, dated October 2, 1883, states "that in obedience to par. 7, Special Orders No. 129, c. s. A. G. O., and instructions from 'the Signal Office (appended and marked 'A,' with four enclosures and memorandum)' he left Washington city on the 11th of June, 1883," &c.

No copy of the par. of Special Orders referred to is found with or embodied in his report.

The other papers mentioned are as follows:

The instructions, "Appendix 'A,'" is a hektograph letter from the Chief Signal Officer, addressed to Lieut. Garlington, dated June 4, 1883; it is signed in black ink by "W. B. Hazen, Chf. Sig. Offr.;" the figure "4" (the date) on page 1, the word "and" interlined between the words "officer" and "enlisted" on page 6, and a line drawn through the words "and Mr. Beebe" on the same page, are also in black ink, and were apparently inserted by the Chief Signal Officer at the time of signing. After the word "enclosure," on page 5, the figure "1" is inserted in pencil, and after the word "enclosure," on page "1," the figure "3" is inserted in pencil. On page 6, in the margin, opposite the words "enclosed memoranda marked B, C, D, E," is the memorandum "Enc. 2" in pencil; pencil marks are also drawn through the words "and Mr. Beebe" on page 6.

The enclosures referred to are:

Enclosure 1. A printed letter from Lieut. Greely to the Chief Signal Officer, dated August 17, 1881.

Enclosure 2 is composed of:

"Memorandum 'A.' Instructions for closing scientific work at Camp Conger."

"Memorandum 'B.' Scientific outfit of the Lady Franklin Bay Relief Expedition of 1883."

"Memorandum 'C.' Instructions as to observations on the voyage."

"Memorandum 'D.' Instructions for Lieut. Garlington at Life-Boat Cove."

"Memorandum 'F.' Instructions in event of being frozen in in the pack-ice of Smith's Sound before reaching Camp Conger."

The memorandums A, B, C, D, E, composing enclosure 2, are fastened together, and are not signed.

Enclosure 3. "List of stores at St. John's, or cached" (not signed).

[Enclosure 4.]

Agreement for use of steamship Proteus.

(Certified copy.)

Memorandum written in black ink and dated at the end, "O. C. S. O., Washington, D. C., June 5, 1883," not signed. (Referred to as "Supplementary Instructions.") Of this memorandum Lieut. Garlington in his report to the Chief Signal Officer, dated Oct. 2, 1883, says:

"I desire to call your attention to the manifest injury done me in the publication of certain statements immediately after the news of the disaster reached here. These statements, purporting to have been authorized from the Signal Office, were to the effect that I had been furnished with supplementary instructions prior to my departure from the United States, which instructions I had positively disobeyed.

"The only instructions I ever received are the original instructions published at the time. An unsigned written paper (with Appendix 'A,' marked 5) was enclosed in the envelope with my instructions. This paper is simply an unauthenticated copy of a memorandum prepared in your office. I was informed that this memorandum was to have been furnished the Secretary of the Navy to form the basis of instructions to be given the commander of the vessel ordered to accompany the Proteus. When I found it among my instructions I at once carried it to you and called your attention especially to that clause relating to landing supplies on Littleton Island. You said, in substance, you did not know how that had gotten in there, and impressed upon me the necessity of carrying out as far as possible the instructions I had received. These instructions were based upon the letter of Lieut. Greely (1st enclosure of Appendix 'A'), and you called my attention to the fact that Lieut. Greely strongly urged that the officer commanding

the relief party should have 'no latitude of action.' The paper was not addressed nor signed, indeed bore no official marks whatever. I did not then, nor have I at any time since, regarded it as an order, and I was surprised to find the statement published that this paper was the 'supplementary instructions.'"

The Chief Signal Officer, in letter dated Oct. 16th, enclosing Lieut. Garlington's report to the Secretary of War, says: "The question of supplementary orders that Mr. Garlington refers to as having been raised, and in unfairness to himself, is, in substance, correctly stated by him."

(264.)

Papers sent by the Chief Signal Officer to the Secretary of the Navy and by him to Capt. Wildes before the departure of the expedition:

1. Hektograph copy of letter of instructions from Chief Signal Officer to Lieut. Garlington.

This copy is not certified. The figure "4" (date) in black ink on page 1 of the original, the pencil memorandum "Enc. 2" in the margin on page 5, the figure "1" in pencil on page 6, figure "3" in pencil on page 7, the word "and" interlined in black ink on page 6, and the line drawn in black ink through the words "and Mr. Beebe" on page 6, are left out; a pencil mark is drawn through the words "Mr. Beebe," on page 6.

At the close this copy is signed "W. B. Hazen, Brig. and Bvt. Maj. Genl., Chief Signal Officer, U. S. A.," instead of "W. B. Hazen, Chf. Sig. Offr.," as in the original.

2. Printed copy of letter from Lieut. Greely to Chief Signal Officer, dated August 17, 1881.

3. Hektograph copy of letter from Chief Signal Officer to Lieut. A. W. Greely, dated June 4, 1883. (Not certified.)

4. Printed pamphlet, "Signal-Service Notes No. V. Work of the Signal Service in the Arctic Regions."

5. Copy of "Track chart of steamer Neptune, July 28 to Sept. 5, 1882, in attempting to reach Lady Franklin Bay, Grinnell Land."

Papers given to the Secretary of the Navy by Capt. Mills, after the disaster, as being copies of the papers given to Lieut. Garlington:

1. Hektograph copy of letter of instructions from Chief Signal Officer to Lieut. Garlington. Not certified.

This copy is different from the original in the following particulars, viz: the figure "4" (date) on page 1 is red ink instead of black ink; the word "one" is written after the word "enclosure" on page 5 in red ink, instead of the figure "1" in pencil; the words "enclosure two" are written in red ink after the letters "B, C, D, E," on page 6, instead of "Enc. 2" in pencil in the margin; the word "and" interlined on page 6 of the original is left out; the lines drawn through the words "and Mr. Beebe" on page 6 are in red instead of black; the word "three" is written in red ink after the word "enclosure" on page 7, instead of the figure "3" in pencil; and the words "enclosure four" are written in red ink at the end of the last paragraph but one on page 8, but do not appear at all in the original or in the copy given to the Secretary of the Navy before the departure of the expedition. It is closed "H. B. Hazen, Bvt. Maj. & Brig. Genl.; U. S. A., Chf. S. O.," instead of "W. B. Hazen, Chf. Sig. Offr."

This copy is endorsed on the back, "Lieut. Garlington's instructions," in black ink, and "Five enclosures," in red ink, which endorsement is not on the back of the original or on the copy first given to the Sec'y of the Navy. None of the words in red ink in this copy were in the copy given to the Sec'y of the Navy before the expedition started.

2. Printed copy of letter from Lieut. Greely to Chief Signal Officer, dated August 17, 1881.

3. Printed pamphlet, "Signal-Service Notes No. V. Work of the Signal Service in the Arctic Regions."

4. "Enc. 4." This is a copy of the "Memorandum," with "Appendix A," of Lieut. Garlington's report, except that it is made by the hektograph; the word "it" occurs before the word "dangerous," instead of "in," and the word "up" occurs in the last line of the copy, and is not in the original.

The date "O. C. S. O., Washington, D. C., June 5, 1883," is not on the copy.

This paper is pinned to No. 1 of the papers given to the Sec'y of the Navy after the disaster, and is marked on the back "Enc. 4," which mark is not on the original.

Lieut. Garlington's papers.	Papers given to Sec'y of the Navy before departure of expedition.	Papers given to Sec'y of Navy by Capt. Mills after the disaster.
Letter of instructions, June 4, 1883 ("Appendix A").	Copy of letter of instructions, not dated, &c.	Copy of letter of instructions. Red-ink insertions in this copy not in original or in copy first given to Sec'y of the Navy.
Printed copy of Lieut. Greely's letter to C. S. O., Aug. 17, 1881 (Enc. 1).	Printed copy of Lieut. Greely's letter to C. S. O., Aug. 17, 1881.	Printed copy of Lieut. Greely's letter to C. S. O., Aug. 17, 1881.
Memorandums A, B, C, D, E, instructions, &c. (Enc. 2).		
"List of stores at St. John's or cached" (Enc. 3).		
Charter of steamship "Proteus" (Enc. 4).		
Memorandum ("supplementary instructions") not mentioned in letter.	..... Copy of letter from C. S. O. to Lieut. Greely, June 4, 1883. Printed pamphlet, "Signal-Service Notes No. V." Printed copy of "Track chart of steamer Neptune," 1882.	Imperfect copy of memorandum ("supplementary instructions") pinned to copy of letter & marked "Enc. 4"; called in red-ink note on page 8 "enclosure four." Printed pamphlet, Signal-Service Notes No. V.

(265.)

1 [Signal Office, War Department.]
SIGNAL SERVICE NOTES NO. X.
REPORT ON LADY FRANKLIN BAY EXPEDITION OF 1883.

Prepared under the direction of Brig. & Bvt. Maj. Gen'l W. B. HAZEN, Chief Signal Officer of the Army.

By ERNEST A. GARLINGTON,
1st Lieut. 7th U. S. Cavalry, Acting Signal Officer.
BY AUTHORITY OF THE SECRETARY OF WAR.
WASHINGTON CITY, SIGNAL OFFICE, 1883.

2 NOTE.

This note is published for the information of those interested in research in the Arctic regions.

Ordinarily, the letter of transmittal of the Chief Signal Officer would have preceded the report of the officer in command of the supply expedition; but as that letter contains questions that are answered in Lieutenant Garlington's supplementary report, it has been deemed best to print the papers chronologically.

3 LADY FRANKLIN BAY EXPEDITION.
REPORT OF LIEUTENANT GARLINGTON.

[Endorsed 7076—O. C. S. O.—Mis.—1883.]

WASHINGTON, D. C., October 2, 1883.

CHIEF SIGNAL OFFICER, U. S. A.:

SIR: I have the honor to report that, in obedience to par. 7, Special Orders No. 129, c. s., A. G. O., and instructions from your office (appended and marked-"A," with four

enclosures and memorandum), I left Washington city on the 11th of June, 1883, and proceeded to New York, thence by United States steamer Yantic to Saint John's, Newfoundland, where I arrived on the 21st of June, without incident worthy of notice. I learned from the United States consul, Mr. Malloy, who came aboard almost immediately after the ship arrived, that the stores that had been shipped from New York on the 7th of June, on the steamer Alhambra, had arrived and had been turned over to Captain Pike, master of steamship Proteus, which had been previously chartered for the expedition. As soon as possible I went ashore and visited the Proteus, then lying at her wharf taking in cargo.

Everything was already on board except the house and stores left at Saint John's from the expedition of last year. In order to get at the meteorological instruments necessary to carry on the work called for by my instructions, a large portion of the cargo had to be broken out; this was done on the 22d of June. Captain Pike reported that he would be ready to go to sea at the end of a week.

I then proceeded to get together the stores at Saint John's which had been previously ordered by letter. Many of the articles thus ordered were not as good as they should have been, but it was then too late to replace them, so they had to be taken. I found that Consul Malloy had not secured the services of the three native sealers as you supposed had been done. As all the best of these sealers had made their arrangements for the summer at the fisheries, I found it very difficult to get any one suitable for the service; however, after several days, I succeeded in shipping three men, who proved to be very good and reliable.

While in Saint John's, Lieut. J. C. Colwell, U. S. Navy, at his own request, strongly recommended by me, was detailed for duty with the relief expedition and reported for duty the 23d of June. On the evening of the 28th, Captain Pike reported ship ready to leave the wharf, my detachment went aboard, the ship dropped out into the harbor and anchored.

As a result of a consultation with Commander Wildes, the agreement was entered into, which is hereto appended and marked "B."

At 4 o'clock p. m., the 29th of June, the steamships Yantic and Proteus steamed out of the harbor of Saint John's for Godhavn.

The day was beautiful, the wind was blowing a gentle breeze off shore. After clearing the narrows, the Proteus set her course close in shore; the Yantic set sail and went more to eastward; we lost sight of her at 7.30 o'clock p. m., and saw her no more until she reached Godhavn.

On the morning of the 1st of July several icebergs were sighted, and during the day we passed several small pans of floe ice, also many scattered pieces of ice.

At 5 o'clock p. m. the same day, in latitude $53^{\circ} 50'$ north, longitude $52^{\circ} 50'$ west, a large field of floe ice was sighted ahead, extending to the southward and eastward; we therefore altered our course slightly and ran into more open water. The ship was now forced through a large field of broken ice, very hard and blue in color, of peculiar forms and shapes, generally with flat tops, one-half to three-quarters under water, deeply washed horizontally, with long, projecting, shelf-like sides extending outward and downward into the water.

At 11.20 p. m., on the night of the 1st of July, we had to lie alongside very heavy ice for five hours, on account of an intensely dense fog. At half-past four o'clock, a. m., on the 2d, we were again under way, and at 11 o'clock were clear of ice, after doing a little butting.

At 11 o'clock p. m. the temperature of the water was 33° Fahr. at the surface; the minimum temperature of the atmosphere during the night was 31° Fahr. On the morning of the 2d of July much ice was seen from aloft to the southward and eastward, but we soon lost sight of it, and no more floe ice was seen south of Disco, although many icebergs were passed.

On the night of the 4th of July the sun went below the horizon for the last time during the month. On the night of the 5th, at ten minutes to 12 o'clock, the sun touched the horizon, and, after an instant's apparent rest there, started on its upward course.

The coast of Greenland, very high and snow-capped, supposed to be old Sukkertop, was sighted at quarter of one o'clock on the afternoon of the 5th. Disco Island was sighted at 11 o'clock on the morning of the 6th, about fifty miles to the northward.

Owing to some error in his bearings, the captain ran by the entrance to the harbor of Godhavn, and was making about due course for Ritenbenk, when some one on deck discovered a small boat several miles astern of us, evidently endeavoring to attract our attention. The ship was put about, and, after steaming five or six miles, came up to the boat, which proved to be the pilot boat from Godhavn. The pilot came aboard and showed Captain Pike the way in. We were anchored in harbor at 7.30 p. m. I immediately went ashore, and was very courteously received by Governor Djurhuus, from whom I learned that the inspector, Herr Andersen, was at Egedesminde, not having as

yet changed his residence to Godhavn. He also informed me that no skin clothing had been prepared for this expedition at Godhavn, for the reason that he had received no instructions, and for the same reason he could not furnish me the Eskimo dog drivers, whom I expected to secure here. He could not tell me whether the inspector had received such instructions, so I determined to go to Egedesminde, as it was necessary for me to see him in person.

Governor Djurhuus very kindly offered to accompany me, and accordingly the next day we got the ship under way and proceeded to that settlement. The ship was steamed into harbor, no soundings being taken, and the anchor let go in three fathoms of water. In a few minutes she swung around and grounded under her stern; a warp was run out from the starboard quarter and the ship was pulled clear without much difficulty. I found the inspector absent on his annual tour of inspection, and as Godhavn was included in that tour, and the probabilities were that he would reach that place in a few days, I returned at once to await the arrival there of the Yantic as well as the inspector. At Egedesminde, I learned from the governor there that the inspector had, as far as he knew, received no instructions whatever in regard to an expedition from the United States. This was discouraging, as I knew it would then be impossible to procure skin clothing in any quantity, and I apprehended some difficulty in procuring the services of two Eskimo dog drivers in the absence of instructions from the home Government.

From the 7th of July until the 16th I remained in the harbor of Godhavn, the crew being engaged in shifting cargo, filling coal bunkers, and generally trimming
5 ship. My own men were employed in preparing stores for forming depots as ordered (four of these were prepared of two hundred and fifty rations each), moving stores so as to be easily accessible in case of having to abandon ship, airing skin clothing, and getting alongside stores which had been left here by the expedition of last year.

Herr Andersen, the inspector, arrived on the afternoon of July 12th. I immediately called upon him, and through Governor Djurhuus (the inspector speaking no English) learned that no instructions had been received by him in reference to an expedition from the United States. He, however, said he would gladly do all in his power to further the success of the expedition; that it was of course too late now to procure clothing, but that he would furnish two strong and reliable Eskimo, one of them from Godhavn, the other from Disco fjord, which we would pass on the way north, and could stop there to take him on board. This was satisfactory; the failure to get skin clothing was of no great consequence, as I already had a large supply.

The Yantic arrived at 7.15 p. m., the 12th of July. She had come all the way under sail and had encountered no ice at all. Commander Wildes informed me that he would remain there probably a week to repair the ship's boilers, then go to the coal mine in Waigatt Strait and mine and get aboard about one hundred tons of coal. He subsequently told me, before leaving Godhavn, that he had succeeded in procuring from the inspector an order for thirty tons of coal from Ritenbenk, and that he would call there for it.

At 1 o'clock a. m. of the 14th, Nordenskjöld's steamer, the Sofia, arrived and left for Ritenbenk the next morning. She was to land a portion of her scientific party on Disco Island, put on coal at Ritenbenk, then proceed to Cape York and remain there thirty days. While here they procured the services of Hans Christian for the Cape York party.

On the afternoon of the 14th the Eskimo dogs were gotten on board (twenty-one in number) and placed in a pen on deck, the Eskimo Nicholas taking charge of them.

I determined now to proceed north without further delay. The time necessary for repairing the boiler of the Yantic and the additional delay in procuring coal would be longer than I deemed justifiable in further delaying my progress north. I therefore determined to leave Godhavn as soon as the state of the weather warranted. Outside the harbor it had been thick and threatening since the 12th of July, and Captain Pike did not think it prudent to put to sea. On the morning of the 16th the fog lifted, and at 6 a. m. the ship was under way, intending to call at a small settlement about fifteen miles up Disco fjord to get the other Eskimo whose services had been secured for the expedition.

The inspector and also the governor of Godhavn both assured me there would be no difficulty in reaching the settlement with the ship, and that Nicholas, the Eskimo, was perfectly acquainted with the fjord. At 8 a. m., when abreast of a small island lying on the eastern side of the entrance to the fjord, and which we had to round in entering, the mate reported shallow water ahead. Captain Pike thought there was plenty of water, calling attention to several icebergs ahead as evidence of the fact (these proved to be aground), but took no precaution to ascertain the depth of water by sounding. He caused the ship to "slow down" to half speed, and almost immediately gave signal "astern full speed," but before she answered she struck about midships on the starboard side, made one or two jumps, and hung on her starboard quarters; she slewed around easily and to the southward, and lay north and south with a slight list to the

port side. There was a slight swell, causing the ship to bump several times. Lieutenant Colwell got several casts of the lead; over the starboard quarter the line indicated five fathoms of water. He was nonplussed to account for the ship's striking in five fathoms of water, when one of the crew standing near told him that three fathoms had been cut from the lead-line, so that in reality there were but twelve feet of water where she struck; soundings showed nineteen feet over the bow. When the ship hung, the engines were put ahead and astern at full speed, and in a few minutes she started, and with two or three jumps swung clear.

An examination was made by the chief engineer, who reported the main injection pipe cracked, but repaired it with canvas and white lead. A few splinters of wood floated to the surface, which were ground from her false keel as the ship swung on the rocks. The careless manner in which the ship was being navigated was thus again brought forcibly to my mind, and although I was determined not to interfere in the slightest way with Captain Pike in his duties as master, I could not refrain from calling his attention to the matter, and insisting on more care in the future. After the ship was clear, wishing to take no more chances, I called away one of the whale-boats, and with Lieutenant Colwell, and crew of my own men, including the Eskimo Nicholas, started for the settlement in Disco Fjord, which we reached after three hours' sailing.

I soon found the man designated by the inspector to accompany me, and Nicholas gave him the inspector's orders. In a few minutes he was ready to accompany us, with all his earthly possessions, a kyack and the skin clothing he had on his back. Before we could get out of the fjord a very dense fog set in, and it was with great difficulty that we finally got clear, there being so many inlets running from the fjord inland. However, I had made arrangements with Captain Pike to begin at 1 p. m. and fire his small swivel-gun at intervals of fifteen minutes, and to sound the steam whistle at intervals of five minutes; so, after arriving within hearing, we experienced no further difficulty, and reached the ship at 4 p. m. It cleared at 5 p. m., and the ship was under way again. Running around the southwest corner of Disco Island, the course was set for Cape York.

On the morning of the 17th we passed Hare Island, about forty miles to the eastward. Icebergs were numerous in all directions, as well as fragments, of all sizes, from those which had foundered. Saunderson's Hope was sighted at 6.20 p. m., fifty or sixty miles to the eastward. I was awakened on the morning of the 18th by being nearly thrown from my bunk, and upon looking through my port, saw ice in all directions.

I immediately went on deck, it being 6.30 a. m., and found that the ship was forcing her way through floe ice, the greater portion of which had the appearance of being very rotten and for the most part thin, varying from two to six feet in thickness; other portions, however, were very hard, blue in color, and from ten to twelve feet in thickness, showing manifestly the presence of Arctic ice. Scattered through this ice were numerous floe and icebergs of weird, fantastic shapes. On the top of the flat pans were numerous pools of water, which Captain Pike pronounced fresh. I procured a cup full and tested it with nitrate of silver, which showed that it contained salt.

He caused pieces to be broken from the highest points of the floe and put in the tank, which, when melted, were also subjected to the test, and it showed the precipitate at once, so I therefore ordered it to be used for washing purposes only.

The ship was stopped at 4.30 a. m., July 9th,* by an impenetrable pack. She was backed out and went south for a distance of eight miles, then a more easterly course was taken, and at 7.15 a. m. we sighted land, pronounced by Captain Pike to be Bushman Island, with Cape York to the westward. We continued in a general easterly course, working our way through the pack, hoping to find an open lead to the northward. At

4 p. m. the ship was brought to a standstill by the solid floe. Here I determined to lay until it was possible to get an observation for longitude, and thus ascertain our true position. The pack was unbroken in all directions except to the southward. With an artificial horizon placed on the floe, Lieutenant Colwell determined longitude to be $61^{\circ} 30' W.$, Captain Pike proving to be entirely in error as to his position, and the land pronounced by him to be Cape York was, in reality, Cape Walker, and the island one of the Belgoui group. I was not surprised at the error made by Captain Pike, as he had no idea of what was the local deviation of his compass, which must have been great and variable for different courses, due to the large amount and unequal distribution of iron about the binnacle. At 7.20 p. m. the ship was turned south and made about twenty miles in that direction, when a lead to the west was discovered and followed, with many changes in course to keep in open water, making as much northing as possible. At 8 o'clock on the morning of the 20th we were again stopped by an impenetrable pack to the north and west.

The ship was again turned about and went twenty or twenty-five miles to the southward, when the course was changed to north and west through loose and rotten ice. Cape York was in sight all the afternoon.

* This date was presumably the 19th.—Ed.

At 7 p. m. we sighted Conical rock and steered directly for it. This island was passed at 1 a. m. the 21st, a few miles to the eastward. On this night young ice formed from the fresh water from the melting icebergs, as temperature of the water was only 31° Fahr. During the night and morning we passed through much loose ice and a large number of icebergs. At 9 a. m. 21st, Saunders' Island bore abeam. We were within twenty miles of S. E. Carey Island, but could not see it for the fog. At 11 p. m. we were stopped by the pack and forced to retrace our course to the south, to find passage to the north and west, which was done when opposite Wolstenholme Island. We were clear of ice at 12 p. m., and reached S. E. Carey Island at 3 p. m., the cache of the "Nares' Expedition" being plainly in sight on the southwest end of the island.

As there was quite a breeze from the west, the ship passed around to the leeward of the island and lay there while I, with Lieutenant Colwell, visited the cache to leave a record for Commander Wildes, in case he should reach this place, and to examine the condition of the stores.

I found everything there undisturbed. From a careful examination of two barrels of bread and three cans of meat I estimated that sixty per cent. of the provisions are in good condition, while perhaps seventy-five per cent. could be eaten in emergency. The boat was also in good condition. I took a copy of the records of Lieutenant Lockwood, of the Greely expedition, also a copy of the records of Sir George Nares, and left the original and my own record well secure under the boat. These copies were all lost in the wreck; the original record of Lieutenant Lockwood, afterwards furnished me by Commander Wildes, is appended, marked "C."

While on the island Lieutenant Colwell obtained a good observation for longitude, and his computation placed it more to the southward and eastward than now indicated on the chart. I saw several broods of young ducks, which indicated, according to Captain Pike, an early season in this region. I sent Artificer Moritz to the top of the island to examine the cairn, which he found as it had been left by Lieutenant Greely, and nothing was disturbed. The quantity and character of the ice encountered was interpreted as showing that a great deal had passed out of Smith's Sound. At 7.20 p. m. we were under way, no ice in sight, steaming for Cape Alexander.

At 6 a. m., the 22d, we rounded the cape and entered Pandora Harbor. I went ashore to leave a record (appended and marked "D"), but I could not find the record left by the expedition of last year. The cliffs around the harbor were covered with birds which kept up a deafening chattering.

The weather was perfect, calm, warm, delightful, and the hills were green with the pretty flowering moss of those regions, with occasional patches of grass of luxuriant growth. There was no ice as far as could be seen from the "crow's-nest" with the aid of a very powerful telescope.

I determined, if conditions continued the same, not to stop to leave a record at Littleton Island, but to take advantage of the open water and auspicious circumstances, and push to the northward as far as Cape Prescott, where I had determined to make my first cache of provisions and to leave a whale-boat. We passed Littleton Island at 9.45 a. m., the coal pile being plainly visible and apparently undisturbed. There was still no ice seen from the "crow's-nest," but at 10.30 a. m. it was reported, and at 11.30 a. m. the ship lay alongside of it. It presented an unbroken front—no leads to the north. I then decided to go to Cape Sabine to examine cache there, leave records, and await further developments.

We reached Payer Harbor at 3.30 p. m. I immediately landed Privates Ellis and Lamar, with magnetic and other instruments, thinking we would remain in Payer Harbor long enough to get a set of observations.

I then, with a crew of my own party in one of the ship's boats, went to search for the cache of the expedition of last year, which I found after some difficulty. The tripod with flag marking the place had fallen down. Everything was in good condition except the boat, which bore marks of the claws of bears, a patch of lead having been pulled off; however, the damage was slight. The tarpaulin which covered the stores that could not be put under the boat had been torn up by wild beasts. The tripod was placed in position and as well secured as possible. While the men were at work I examined the condition of the ice to the northward, and discovered that the pack had broken, and that open lanes of water had formed leading across Buchanan Strait, along Bache Island, and across Princess Marie Bay as far north as a point of land which I took to be Cape Hawks and around it. After satisfying myself with the glass that there could be no mistake about the presence of a favorable lead, I started back to the ship, hurrying as rapidly as possible, appreciating the rapid changes in the condition of the ice and the treacherous movement of the pack. I reached the ship at 6.30 p. m., and at once got the observers aboard, and told Captain Pike of the open way, and requested him to get under way and steam out of the harbor to make an examination of the leads and an effort to proceed north.

We were under way at 8 p. m. As we rounded Cape Sabine, at my request Lieutenant Colwell took station in the "crows's-nest" with the mate. We proceeded through the open leads in the broken ice, which was very heavy, to within four miles of Cape Albert, when the ship was stopped about six hundred yards from the open water, which extended along the coast as far as could be seen from the "crow's-nest." Captain Pike thought the ship could be forced through and entered a crack in the ice, and we accomplished about half the distance by "ramming." But after this the "ramming" was ineffectual, as the fragments of ice about the ship had become ground up so fine that when she backed out it would fill up the space immediately in front of the new fracture in the ice, and, as the ship came forward to ram, it acted as a cushion, which reduced her momentum to such an extent that when she struck the ice itself she had not sufficient force remaining to have any effect upon it. About midnight the attempt at this point was given up. A lead was found more to the eastward, in which the ship made fair progress until 2 a. m. the 23d, when we were jammed, and unable to move in any direction, within two hundred yards of open water. The ice here was not so heavy as it was in the position left at midnight, and Captain Pike pronounced the ship in no danger on account of its yielding nature. Soon after, at 5 a. m., the ice immediately in front separated, and we were in the open water which had been in our immediate front the night before. On arriving within four miles of Cape Albert it was discovered that the open lane of water seen the night before had disappeared, and that the solid pack now held its place.

9 The attempt to proceed north was then relinquished for the time, and the ship was turned to the southward to make its way out of the pack. We proceeded in that direction until 11 a. m., when the ice closed in and effectually checked further progress. The ship was held here until 1 p. m.; the ice was much broken, and there was no danger of a "nip." As soon as it was possible, we started and made good progress for some time by frequently changing course and following the most favorable leads.

The large pans of ice which the evening before were passing to the southward were now being brought back by the tide. Buchanan Strait was rapidly filling up from the same cause. About 2.45 p. m. the ship was brought to a standstill within four hundred yards of open water, and movement in any direction was impossible. She was lying east and west. The ice in front and along the crack we were following immediately began to show signs of enormous pressure. The ship was in a most dangerous situation, and I realized that we would have a veritable "nip." I called my men quietly, and at once put them to work getting stores ready to be thrown on the ice at the first evidence of the ship sustaining serious injury. The Neptune had been beset in very nearly the same position last year, but had withstood the strain, rising three feet, and had gotten clear without damage. I hoped that the ice floes would cease or part before doing their fatal work. The pressure against the ship's sides was incalculable; the heavy ice, from five to seven feet in thickness, as it came against her sides under this powerful strain, broke and rafted up on the floe amidships and astern, but still there were no signs of giving way. I yet hoped that the pressure would cease. At 4.30 p. m. the starboard rail gave way with a crash.

At this time I was in the "main hold" with part of my detachment getting out provisions; another detail, under Sergeant Kenney, was in the "fore peak" getting out the prepared depots. Lieutenant Colwell came to the "hatch" and told me that the bulwarks had given way, but that he thought the "nip" was easing. I requested him to look after getting the boats clear. About the same time Sergeant Kenney reported the depots on deck. Almost immediately after there was another loud crash; the ice had forced its way through the ship's side into the starboard coal bunker.

The deck planks began to rise and seams to open out. I at once set the men to work throwing provisions overboard as rapidly as possible. I observed that many of the boxes were going under the ship's side as they were thrown over on the starboard side, and two men were sent on the ice to move them farther on this floe as they came over, but this they could not do rapidly enough, and about thirty per cent. of the stores thrown over went under.

All the stores on deck and those near at hand in the hold were thrown overboard. Lieutenant Colwell was at this time getting the boats on the ice. The dingy and the starboard whale-boat were gotten off without much difficulty; a small hole, however, was stove in the whale-boat. There was now much water in the hold, and prevented more provisions being taken out, I now turned my attention to getting those stores already on the ice to a place of safety, and taking my detail proceeded to remove the boats and provisions to a safe distance from the ship, as I feared that when the ship would go down she would keel over to one side or the other and break the ice for some distance from her sides. Lieutenant Colwell was still at work on the port whale-boat, which was jammed and resisted all efforts to move it. The ship began to settle: the alarm was given "she is sinking." All hands on the ship then left her, but she settled only a few inches, and

there appeared to be in no immediate danger. Lieutenant Colwell then went back to the whale-boat, and the detail, assisted now by the engineer of the *Proteus*, Mr. Carmichael, and the boatswain of the *Proteus*, Mr. Taylor, succeeded in getting it from the gallows frame, but here it stuck hard and fast between the ice and the ship. The pressure fortunately eased a little on that side, and with the assistance of axes the boat was cleared.

The chronometers, sextants, and records were gotten out of the cabin and safely placed on the ice by Privates Ellis and Lamar. At 6.50 p. m. those who were still on the ship, saving whatever they could, left her, Lieutenant Colwell leaving last. At 7.15 p. m. she began to sink, and slowly passed out of sight on an even keel. One boat and a large quantity of stores were on the floe which had been on the port side of the ship, and it was necessary to get them on the other floe with the rest of the stores, and to move those already there, the ice showing signs of breaking where they were. Two boats' loads were successfully ferried over through the broken ice, the floe rapidly passing to the eastward. The line gave way and another boat could not be sent back. Lieutenant Colwell and party, who were on that side attending to the transfer, had by this time floated three-fourths of a mile away. They took what they could carry, and walked on the floe to a point opposite our position.

The dingy was sent and brought the party over. By this time more water had made and Private Murphy took Nicholas, the Eskimo, in the dingy, and by going about a mile and a half reached the point on the other floe where the stores were, and succeeded in bringing over one load, Nicholas having secured seven dogs. The dogs had scattered in all directions over the ice after being thrown over the ship's side, and, with the exception of those caught by Nicholas, ran off. Sergeant Kenney, with three men from the "*Proteus*," whose bags were on that side, also made a successful trip in the ship's "punt" through a lead which had now formed more to the eastward. I then proceeded to get things ready in case we had to suddenly quit the floe.

The services of Lieutenant Colwell during this trying time cannot be overestimated; but for his courage and presence of mind one of the whale-boats would have been lost, which would have seriously embarrassed, if it did not prevent, a successful retreat. Dr. Harrison is also deserving of commendation for zeal displayed in saving provisions, clothing, &c. The men of my detachment worked as I never saw men work before, and were as cool and collected as if it were an every-day exercise. With the exception of the chief engineer of the "*Proteus*," Mr. Carmichael, and the boatswain, Mr. Taylor, none of the crew lent any assistance to me in saving property. At the first alarm those on duty abandoned their posts and all rushed to look after their own property in the fore-castle, and did nothing toward saving provisions until after their bags had been packed and safely put on the ice. As soon as the stores began to go over the ship's side, they commenced to appropriate anything that suited their fancy. Boxes were broken open and rifled, bags of private clothing were opened and contents stolen. Lieutenant Colwell lost all of his clothing after it had been thrown on the ice; he afterward recovered a portion of it from the possession of one of the assistant engineers of the ship. The crew, with two or three exceptions, seemed bent on robbing from the start, and appeared to think it a matter of right that they should have any and everything they wanted. I think, however, that if their own officers had taken the proper stand, there would have been no difficulty in preventing the carrying into successful prosecution their stealing propensities. I protested to Captain Pike against this outrageous conduct; he admitted it, but said he was powerless to prevent it, saying: "they (the crew) are the worst lot of scoundrels I ever saw." The men of the crew were, of course, shipped under the English law for an English ship. They claimed that, as their pay stopped when the ship went down, their shipping articles were no longer in force, and that they owed no allegiance to the officers of the ship except what they choose to give. To assume control of the crew and to enforce disciplinary regulations necessary to a successful retreat from our perilous position, force would have been necessary, and more force than I had at my command. To avoid this, as well as any resulting complications, I

determined to keep my men and stores separate and distinct, avoiding, if possible, any unnecessary collision, and, if a retreat to the southward should be decided upon, I would sail in company with and give to Captain Pike and his crew all assistance consistent with the safety of the whole party. I called his attention to the importance of saving all the provisions possible, and of abandoning all unnecessary articles. It was agreed that his men should be divided among his three boats, mine in two whale-boats, and that we should sail in company and work for the mutual good, the first objective point being the land. About 12 p. m. the chances looked quite favorable for making land. After consulting with Lieutenant Colwell, it was decided that he should take a whale-boat and make the attempt. As my own men were much exhausted and the crew of the "*Proteus*" were comparatively fresh, having done, really, little hard work

during the day, I asked Captain Pike for a crew for the boat. In response to his call for men, only four signified their willingness to go.

Lieutenant Colwell succeeded in making land, and in caching the provisions about three miles west of Cape Sabine. They were secured as well as circumstances permitted, and covered with a tent fly. This cache consisted of hard bread, tea, bacon, canned goods, tobacco, and sleeping bags, estimated at five hundred rations. This cache was not disturbed again. Lieutenant Colwell returned at 2 a. m. I took one of the men who had been with him, launched the other whale-boat and started for the land, but, after going half a mile, found all approaches closed, so returned and pulled the boats on the floe. I then directed the men to make themselves comfortable, and get all the rest they could, and waited a favorable time for making another attempt. This occurred at 5 a. m. the 24th. At first I decided to launch all the boats and endeavor to reach the land, but after consulting with Lieutenant Colwell and Captain Pike, it was decided to send but one of my boats, and one of Captain Pike's. Soon after Lieutenant Colwell left, everything looked so favorable, and the plan we were on having begun to move to eastward, I determined to start at once; Captain Pike also started two of his boats at the same time. It took a long time to make the distance to Cape Sabine, as I had only two men who knew how to row. The boat came near swamping on the way over, by reason of the plug in the bottom having been worked out of its place by boxes rubbing against it. I immediately unloaded the boat, left a man to watch the stores (a part of the "Proteus" crew being already there), and started back to the floe, one of Captain Pike's boats also returning. I found that all approaches to the floe were cut off, and now having but three men, it would be impossible to handle the boat in the ice. I therefore returned to Cape Sabine, and Captain Pike's boat also returned. Lieutenant Colwell in the mean time had reached the floe, and at 9.30 a. m. returned to Cape Sabine, bringing eight of the crew of the "Proteus" besides ten of my own men. He reported great difficulty in getting out of the floe, which was rapidly moving out to the eastward. When, after many failures, he at last found an opportunity to quit the floe, it became necessary to leave nearly all of the stores, which he had been hauling about the floe with much difficulty, in order that he might be able to bring away eight men of the crew of the "Proteus," who had been left on the ice, against their most earnest protests, by the master and officers of that ship. It was impossible to launch the dingy, and it was left on the floe. Sergeant Kenney, Corporal Elwell, Artificer Moritz, and two men from the crew of the "Proteus" made another trip to the shore in the ship's "punt," and secured a load of provisions and clothing. Artificer Moritz brought back the dingy loaded, having pulled it alone for about four miles. None of the Eskimo dogs were saved. The ice was running very thick between the Cape and the floe, which was now passing away rapidly, and all further attempts to reach it were abandoned. At 12 o'clock m., the 24th of July, every one was on the rocks at Cape Sabine; the boats 12 were then hauled up and made as secure as possible. An inventory of the provisions showed about forty days' rations on hand. A large quantity of clothing, consisting of buffalo overcoats, fur caps and gloves, arctic overshoes, uniform clothing, and underclothing, &c., was cached on Cape Sabine.

The two sidereal chronometers were placed in this cache. Each man's allowance of baggage was fixed; one buffalo overcoat, one fur cap, one pair of mits, a suit of skin clothing, and two changes of underclothing. All were very much exhausted, and I decided to do nothing until the men got at least a short rest.

It rained lightly during the day, and towards evening a thick fog set in, which continued until the afternoon of the 25th. During the stay I visited Brevort Island, and left the record appended and marked "E."

The prime object of the expedition was now defeated; what was the best course to follow to be able to accomplish something looking to the relief of Greely was the great problem to be solved. To have gone north in small boats was altogether impossible, and therefore out of the question, and even had it been feasible would have been useless under the circumstances. If the Yantic should reach Littleton Island or Pandora Harbor the question would become one of easy solution. I could get from her all the stores she could spare, including clothing, coal, and canvas, establish a station at Life-Boat Cove, remain there with two or three men, and send the rest of the party and crew of the Proteus to Saint John's. A sealer could then have been secured and sent north. But could she reach Littleton Island? This was the point I had to settle in my mind from my knowledge of the condition of the ice as I found it on my way north from Disco Island, taken in connection with Commander Wildes' instructions as far as I knew them. The Yantic crew was large, about one hundred and forty men, had a limited supply of provisions, and was not at all adapted to contend against the ice. It had taken the Proteus, specially built for ice navigation, three days to force her way through the ice in Melville Bay. The commander of the Yantic, as far as I was informed, had specific orders not to go into the ice, or to place his ship in any position which would risk hav-

ing to remain in those regions during the winter. When the ice through which the Proteus had passed off Labrador was described to Commander Wildes, when I met him in Godhavn in July, he said he would not have put the Yantic in it if he had encountered it. And while I was confident that he would go to Littleton Island if he deemed it prudent and consistent with the safety of his vessel and crew, I did not believe he would succeed in getting through Melville Bay where we had met so much ice. But I also thought if the conditions had changed in Melville Bay in the meantime, and if the Yantic should cross and reach Littleton Island, she would find my record, know of the disaster, and easily follow us along the coast and pick us up very soon; if she did not sight us on her way north. It was my honest opinion that the Yantic would not cross Melville Bay. I therefore determined to cross Smith Sound at the first favorable opportunity and to proceed to the southward as rapidly as possible for the purpose of opening communication. There was a possibility of meeting relief at Cape York in the Swedish steamer Sofia. I considered the chances of her crossing Melville Bay more favorable than those of the Yantic, as she was smaller, properly equipped, and commanded by a master of extensive Arctic experience.

While on Cape Sabine I took a large quantity of clothing from the crew of the Proteus, which they had taken from my supplies. They surrendered it with bad grace, notwithstanding that I explained to them the urgent necessity of leaving everything not absolutely needed for Lieutenant Greely's party. I afterward saw that they did not give up all they had in their possession.

It cleared somewhat on the afternoon of the 25th of July, and at 3.20 p. m. all the boats were launched and under way, the dingy being towed by Lieutenant Colwell's boat.

13 Crossing the sound, fog becoming thicker, the boats became separated. My two boats, after being worked through a string of ice along shore, at 12 p. m. put into a small cove just north of Life-Boat Cove. I determined to remain there until it cleared. It was then raining. It snowed and rained all night. It cleared up the next morning, and we left for Pandora Harbor, stopping at Littleton Island to leave a record (appended and marked "F"). Upon reaching Pandora Harbor at 7.50 p. m., we found Captain Pike's boats there, they having arrived during the morning. In the same cairn which I made on my way north, I now deposited another record (appended and marked "G"). We were detained here until the afternoon of the 28th by fog. At 4.45 p. m. we got under way, heading for Northumberland Island.

At Radcliff Point we were stopped by fog, but could not land. As the fog lifted we put into Sontag Bay, hoping to find a place to secure the boats; it was full of ice and icebergs, among which we felt our way carefully, going entirely around the bay without finding a suitable place. There were several traps along the shore of the bay, but no recent signs of Eskimo. Although the fog was very thick, it was necessary to go on. We reached Cape Sumarez before finding a place to haul up the boats. Having but two men in my crew at all versed in the management of a small boat, at this camp I asked Captain Pike to let me have one of his sailors, if he could recommend a good one. He willingly consented, and it was arranged that the boatswain, Taylor, should come the next morning. When morning came Taylor told me that the rest of the crew "were making so much fuss" he would have to remain with them, but finally, after some conversation, he decided to come, notwithstanding their objections. He remained with me during the remainder of the boat journey, doing good and faithful service. The next morning, the 29th, at 5.45 a. m., we were under way, and after a long, weary pull on the oars, reached Northumberland Island at 7.10 p. m. We were delayed here by a strong easterly wind until the afternoon of the 30th. On this island were seen numerous signs of Eskimo, but all old. At 4.40 p. m. the wind subsided and allowed us to get under way, and the next morning we reached a point about seven miles north of Cape Parry, and were stopped there by the threatening outlook ahead. We were kept here two days by a heavy storm from the east, with snow.

After consulting with Lieutenant Colwell, I decided not to go to Carey Island, as originally intended. He thought it would be extremely hazardous with our heavily-laden boats. We left this camp at 8.30 a. m., August 2. When off Fitzclarencere rock we ran into "slack ice," and through it the rest of the day. We landed on Saunders' Island at 9.20 p. m., hauled up the boats, and made camp. There was a good deal of ice to the southward. On this island were numerous signs of Eskimo, from three weeks to a month old. There was also small igloos or huts, which had been inhabited at no very distant date. An Eskimo dog, with one fore foot tied up to his neck, was also seen. Some of the men found two oars, one marked "Active," the other "Polynia." We were delayed at Saunders' Island one day by the fog and running ice.

I deposited a record in a prominent cairn (copy of it lost). The boats were launched and gotten under way at 5.30 p. m., of the 4th. After making about seventeen miles we were stopped by the ice at 12.30 a. m. The boats were hauled up on a convenient

point of rocks. Here I picked up a piece of a thermometer; there were old signs of Eskimo. At this place we were delayed by rain, fog, snow, and running ice until the 7th of August. At 11 a. m. of that day we got under way and ran through loose ice, which became closer as we proceeded, and very thick when opposite Potowik glacier.

The leads of water rapidly closed. Finally, about 5.45 p. m., when about three-quarters of a mile from Conical rock, all openings through the ice closed, and the 14 boats were completely jammed. Every man was on the ice in an instant and by quick and heavy hauling all the boats were hauled up on a small pan of ice. After an hour's delay, a small lead to the southward opened, the boats were launched and worked through it by pulling and pushing. In a short time we reached Conical rock. The boats lay here while I went to the top of the island to make an examination of the condition of the ice to the southward. I discovered a lane of water following the general trend of the shore. Returning to the boats, we again started and proceeded with great care and caution. Several times the boats narrowly missed being caught between the moving pans. It was impossible to reach the land at any time. During the night there was frost, and young ice formed from one-quarter to three-eighths of an inch in thickness. We succeeded in making land at 10.30 a. m. of the 8th.

We remained here until the afternoon of the same day, when we launched the boats and made about five miles, when we were stopped by the ice about fourteen miles from Cape York. The boats were hauled up on shore and the ice almost immediately jammed into the shore, completely blockading us. The wind, which was from the east, and to which we looked to free us, completely subsided. The tide came and went out without changing the condition of affairs. We were now very near Cape York, with no immediate prospect of being able to get our boats in the water. It was very important to communicate with Cape York, for the purpose of finding out from the Eskimo there whether any ship was in that vicinity or whether any had passed north. It would be necessary to drag the boat for some distance on the ice, so I decided to ask Captain Pike for his "punt," a small, light, and strong boat, specially built for knocking about in the ice, to send on to Cape York with a small party. He consented to furnish the boat and three men. He met with some difficulty in getting men willing to go, but after some parleying one of his engineers and two firemen signified their willingness to go; Artificer Moritz and Nicholas completed the crew. Lieutenant Colwell took charge of the boat and left for Cape York 9.30 a. m., of the 9th. I instructed him to find out all he could from the Eskimo there, and if I did not join him within a reasonable time, to return. It began to snow at 11 a. m. and continued, with occasional rain, until night. It then began to blow quite strong from the northeast, which drove the ice from the shore immediately in front of camp, but it still remained unbroken to the southward. Shortly after midnight an open lane of water formed, following the trend of the shore, and the boats were immediately launched. It became necessary to put into the land, after having made four or five miles, on account of a very strong head wind. After about three hours the wind moderated, and we were able to proceed. When about eight miles beyond Cape York, our attention was attracted by the report of a rifle fired on shore. We immediately steered for the point whence the sound proceeded, and in a few minutes arrived at Lieutenant Colwell's camp. The evening before he had discovered some natives on shore and had gone to communicate with them. He reported that the camp consisted of three men, four women, and nine children, and that they were well supplied with blubber and birds. With the aid of Nicholas he learned from them that there was no ship in the vicinity at that time; beyond that he could ascertain nothing definitely. One of the men had seen ten ships going to the eastward, but whether that year or during his lifetime it was impossible to make out. A ship had stopped there at some time, but when, that year or some previous year, it was impossible to form an idea. They remembered Hans Christian, but had not seen him for a very long time; so we knew the Sofia had not been there.

From them we understood that there was a large settlement farther up in Immelick Bay, and that we could secure the boats there. Thinking that I might be able to find out something more definite in regard to passing ships, I determined to go on. We went about eleven miles and were stopped by the ice, which closed in rapidly and 15 prevented our going further or returning. The boats were with difficulty pulled up on the rocks. Very soon after we landed, several natives came down from the rocks. I found it impossible to learn anything further than that the large settlement was inland some distance, and that they were there only temporarily. There were ten or twelve men in this party, no women or children. They appeared kind and generous, giving away their blubber for fuel and offering birds for food. I gave them some hard bread and a few cans of meat. There seemed to be no scarcity of game, many reindeer bones, antlers, &c., lying about, and several large caches of the blubber of seal, walrus, and white whale were found among the rocks. The natives themselves were strong and healthy-looking, comparing very favorably in appearance with the Eskimo of the more

southern settlements. They have no boats or kyacks, and travel entirely by dog sledge. Their only weapon is a short spear; with this they kill all their game, including reindeer and polar bear. We now realized that it would be necessary to cross Melville Bay in the small boats, and after consulting with Lieutenant Colwell it was determined to load his boat as light as possible, and to send him directly to Disco at the first favorable opportunity, and that the other boats should proceed to Upernavik, keeping as close into the land as possible, on the outside of the ice. This course was decided upon because it was thought the Yantic would not remain at Upernavik for any length of time, owing to the insecurity of the harbor, and that there was a strong probability of her leaving Disco before we could accomplish the distance by following the more circuitous route, which was necessary for the more heavily loaded and less seaworthy boats. Lieutenant Colwell's instructions are appended, marked "I." We were delayed in that camp until the evening of the 12th, it having rained and snowed all the time. There was so much ice that it prevented the boats being launched at any time.

At 7 p. m., the 12th, a small lead having opened, the boats were put in the water and an attempt made to get out of the bay. We met with considerable difficulty, having at one time to haul the boats on the ice and drag them for some distance, but finally reached open water.

At 1 a. m. on the 13th we landed very near the place where we had overtaken Lieutenant Colwell a few days before. At this point we were delayed until the 16th. The time was occupied in rigging the boats with weather cloths and wash streaks, under the supervision of Lieutenant Colwell. Sea anchors were also prepared and made ready to use at short notice. The bows of the two whale-boats, along the water-line, were sheathed with tin to protect them from the young ice.

At 10 a. m. of the 16th, although still cloudy, the boats all left in company. At 1 p. m. we bade Lieutenant Colwell "good bye" and "good luck," his course taking him more to the southward. We made fair progress during the afternoon, and all night there was a heavy frost and frequent snow squalls.

On the morning of the 18th ice began to offer more obstruction to progress; there were large fields of it, but for the most part "slack." Icebergs were numerous. It snowed and rained at intervals during the day. The ice stopped us at 4 p. m., and it was necessary to retrace our course for several miles, then take a more southerly course. There was a heavy swell from the southeast all day; the wind increased towards night and at 5 p. m. was blowing a half gale and snowing hard. The sea was very high, the wind still blowing from the southeast. It was extremely hazardous to keep the boats under way any longer, and they were made fast under the lee of a large iceberg. We remained here about an hour, when a large iceberg coming down upon us forced us to cut loose and seek another protecting berg. We lay on our oars among the ice, keeping under the lee of the larger pieces and out of their way until about 8 o'clock, when we succeeded in mooring the boats to a low berg. We remained here three hours; then the foundering

16 of a very large berg in our immediate vicinity necessitated another move. We rowed about among the ice as best we could for two hours, when we reached a floe-berg and made fast under the lee of it. This afforded us shelter until the morning of the 18th. It snowed hard all night during the night of the 17th; a soft, slushy snow, as bad as rain. There was also a heavy swell from the southeast. Finally, at 2 a. m. the 18th, the wind and sea moderated sufficiently to allow us to proceed on our course. After a hard drag on the oars all day we reached an island, supposed to be Thom's Island, at 10.30 p. m. Here we landed and made camp, having been in the boats sixty-one hours. There were some very old signs of Eskimos on this island. At 9 o'clock next morning we were again under way. There was still much ice, but it was "slack;" icebergs also became more numerous. Many were foundering, and their hard fragments made it very dangerous navigation for small boats. We reached Browne's Island on the morning of the 20th and stopped there long enough to go ashore and prepare a hot meal. From a cairn on top of this the record of Sir James Ross, commanding ships *Enterprise* and *Investigator* was taken. (Appended and marked "K.") This cairn had remained undisturbed for thirty-five years. We left the island at 9 a. m. and steered for Red Head, then in sight. Very soon we found ourselves in a perfect labyrinth of icebergs of immense size, piled upon each other, and were continually foundering. My boat scarcely got from under one, over a hundred feet high, as it parted with the report of a 20-inch gun, making the water boil and seethe as it was ground into fragments. While endeavoring to steer the boat rapidly out of the way of a large piece of ice that day, Private Murphy lost his footing and went overboard. He was pulled into the boat without much difficulty, and experienced no ill effects from his arctic bath. At 9 p. m. we reached a group of small rocky islands, landed and made camp. It was now bright and clear for the first time since August 7th.

On the 21st Private Ellis got an observation, which put this island in latitude $74^{\circ} 51'$. At 12.45 p. m. we again started, weather continuing fine. There was a great deal of

ice, but slack; also countless icebergs lying around the island and along the shore. Large glaciers lined the whole coast, and the mer-de-glace extended as far inland as the eye could reach.

At 7.30 a. m., the 22d, we reached Baffin Island, where we moored boats and landed to get breakfast. There had been long ago a large settlement of Eskimo on this island, as indicated by several ruins of stone igloos and many old graves; also by large numbers of bones lying about. Some Arctic blueberries were found here, but not ripe. A thick heavy fog set in soon after arriving and prevented further progress for the time. While lying here a very large berg, about three miles away, foundered with a tremendous report, and produced a wave that broke the boats of Captain Pike from their moorings. At 7.30 p. m. we started under sail and passed Cape Shackleton at 2 a. m. At 4 a. m. we saw a puff of smoke rising from an island ahead; it was evidently a signal. Heading for it, we soon distinguished people among the rocks. We landed and found a party of Eskimo from Tessuissak with a whale-boat. The man in charge, who belonged to Upernavik and talked a little English, turned over to me two bags of ship's biscuits and two cans of coffee. From him I learned that Commander Wildes had heard of our disaster and had sent a lot of stores, of which these were a part, to Tessuissak; that he had been sent to this point to keep a lookout for my boats, deliver the provisions, and pilot us to Upernavik. He had been on the island six days. We left this island at 7.55 a. m., and a few hours later reached the most northern of the North Greenland settlements, Ivitarsuk, but did not stop. At 2.30 p. m. we reached Tessuissak. Here I received a letter from Commander Wildes, dated August 13, at Upernavik, saying: "I shall remain here as long as prudent, and then proceed to the coal mine at Godhavn." Governor Klieman delivered to us the supplies which had been sent up by Commander

Wildes, fifteen days' rations for thirty-seven men. I determined to proceed 17 to Upernavik, and although Captain Pike's men made some objection to getting under way before the next day, we all started at 6.10 p. m. We had a favorable wind and made fair progress, keeping inside the islands and piloted by the Eskimo from Upernavik, until we were stopped at 11.30 p. m. by the thickest fog I ever saw. After groping around in it for a short time we made an island but could not land, so we lay under its lee until 7 a. m. the 24th. The fog then lifted sufficiently for us to proceed on our course. Hundreds of icebergs were in Kikertarsok Fjord, having been discharged by the Upernavik glacier.

At 11.30 a. m. we reached Upernavik, to find the Yantic gone. Governor Elborg met me at the landing, and at once took me to his house and insisted upon my being his guest as long as I remained there, the minister, Mr. Christiansen, kindly inviting Dr. Harrison to become his guest. Governor Elborg, before my arrival, had a large comfortable house cleared out and ready for occupancy by my men and the crew of the Proteus, also a house for storing my property. These he at once placed at my disposal. The boats were secured, stores housed, and the men took possession of their new quarters. Governor Elborg informed me that anything in the way of clothing, rations, fuel, &c., that I wanted he would be too glad to furnish. I availed myself of his kind offer to the extent of getting some potatoes, tobacco, and coal. It was impossible for him to have been kinder, more obliging, or more thoughtful of our comfort. Here I learned the first news of Lieutenant Colwell since he left me on the 16th; he had arrived the day before, the 23d, and almost immediately started for Disco, transferring his crew to a small schooner kindly furnished by Governor Elborg.

Governor Elborg gave me a letter from Commander Wildes, in which he said: "The time has arrived when I think it a serious risk to keep this ship in this high latitude. It is necessary to obtain coal at the mine at Disco, and the uncertainty of the weather and insecurity of the anchorage at that place make it doubtful if we can do much there. I shall remain in Godhavn until about September 15th, not later, and then proceed home."

I decided to await here news from the Yantic, and in case she did not return to Upernavik, to winter there with my party. The coast is very abrupt between Upernavik and Waigatt Strait, affording no harbor even for small boats, and the passage across Omenak Fjord in rough weather extremely hazardous, if not impossible, in open boats. While at Upernavik I inquired particularly as to how far north the Eskimo of that settlement and its dependencies had succeeded in going. There was no remembrance or legend, as far as could be ascertained, of any having gone beyond Cape Shackleton. No one at Upernavik knew anything of the old settlement on Baffin Island described to the governor by me.

At no time within the memory of the oldest one of these people had they communicated with the Cape York Eskimo. This matter was looked into with a view to ascertain the feasibility of making a sledge journey to Cape York. I concluded it to be impracticable. I also examined into the report brought there by the Swedish steamer *Sofia*, of the death or killing of the "doctor" of Greely's party, at first interpreted as referring

to Dr. Pavy, but afterward thought to refer to the commander or leader of the expedition. It appears that Hans Christian claimed to have been told by the Cape York Eskimo, while he was there on the *Sofia*, that the two Eskimo belonging to Lieutenant Greely's party had visited them, and had told them that the doctor of the party at Lady Franklin Bay had been killed, his arms and legs cut off. There was another story purporting to have come from Hans Christian that the Cape York Eskimo had received their information from the natives living about Cape Ohlsen, who had received it from a party

18 of white men on Littleton Island. The records of former Arctic expeditions show that full reliance cannot be placed upon the statements of Hans Christian, and I do not think, under the circumstances, that the least credit should be given to those which he makes now. There were no evidences at Cape Sabine, Littleton Island, Life-Boat Cove, Pandora Harbor, or other points visited by me that any one had visited that vicinity from the station of Lieutenant Greely, and I am confident that all sensational stories which have been recently published in regard to himself and party are without foundation in fact.

If any white men had come south from Lady Franklin Bay as far as Littleton Island, they would most certainly have left a record. It is not within the range of probability that the Eskimo belonging to Lieutenant Greely's party would have been sent or even allowed to come south alone, and it is quite certain that if they did reach the Eskimo settlements they would not have returned to Fort Conger. There are no Eskimo above Rensselaer Bay, nor, as far as I have been able to learn, do they go farther north. The Etah Eskimo do not cross Smith Sound, and there are no settlements on the west side. So the only possible means of communication would have been by a party from Fort Conger, and that there was no such communication is, in my opinion, certain.

The "*Yantic*" arrived on the morning of the 2d of September; Lieutenant Colwell had reached Godhavn on the 31st of August, (copy of his report appended and marked "L.") and Commander Wildes had at once started for Upernavik.

My own party and the crew of the "*Proteus*" were soon aboard, and 1 p. m. steamed out of the harbor for St. John's, where we arrived on the 13th of September. As soon as possible I sent you the telegram notifying you of the fatal termination of the expedition, and I need scarcely add, General, the sending of that telegram was the saddest duty I had ever been called upon to perform.

Pursuant to telegraphic instructions, the "*Yantic*" left St. John's on September 20th with myself and party on board, and arrived in New York on the 29th.

At Carl Ritter Bay there are two hundred and twenty-five rations (Greely); on Cape Collinson two hundred and forty rations (reported by Lieutenant Greely); at Cape Hawks about fifteen hundred rations (reported by Lieutenant Greely); at Cape Sabine seven hundred and fifty rations, a large cache of clothing, and a whale-boat in a damaged condition; on a small island near Brevoort Island an English depot of about two hundred and forty rations; at Cape Isabella, a whale-boat; and across the sound on Littleton Island, a depot of two hundred and fifty rations and six and one-half tons of coal. The next depot is on S. E. Cary Island, consisting of at least eighteen hundred rations and a whale-boat. This season there was game in abundance on both sides of Smith Sound. On the small islands about Cape Sabine there were ducks and gulls, and from Life-boat cove to Cape York the shore and islands were alive with ducks, lumes, and auks.

About Littleton Island we saw at least one thousand walrus and some seal; in Pandora Harbor a white whale, and in the hills back of the harbor reindeer. There were also Arctic hare seen there and frequently afterwards along the coast.

At Cape Athol, Artificer Moritz thought he saw a herd of musk oxen at a long distance, but they are more likely to have been reindeer. There were reindeer bones and antlers at each of the old Eskimo camps visited. The natives at Cape York reported reindeer very numerous about that place. I am of the opinion that if Lieutenant Greely should reach Littleton Island this season he will divide his people among the different Eskimo settlements, and the stores he will find on his line of retreat, supplemented by the game of that region, will be sufficient food for his party during the coming winter. Unless the condition of the ice permits Lieutenant Greely to leave Discovery Harbor in his boats, I do not think he will attempt the journey to Littleton Island this season. Previous experience shows that a sledge journey in the fall of the year in that

19 latitude is attended with so many difficulties as to make it almost impossible. The attempt of the English expedition of 1875-'76 at fall sledging was abandoned in the face of insurmountable difficulties. I think that the experience of two winters will have shown to Lieutenant Greely the futility of making an effort to reach Littleton Island by sledges in the fall. The conditions for sledging in the spring are much more favorable. He has at Discovery Harbor a good house, plenty of fuel and provisions, with what game the country affords, to carry him to next spring. He could then start south as early as the state of the season permitted and reach Cape Sabine without much comparative difficulty. This will, in my opinion, be the course adopted

by Lieutenant Greely, unless he has found Lady Franklin Sound and Kennedy Channel free of ice, which is improbable. I take great pleasure in calling attention to the very valuable services of Lieut. J. C. Colwell, U. S. Navy; to his professional knowledge is added great energy and determination, and a sound practical judgment, which qualities, with his experience of this year, eminently fit him for duty in the Arctic regions, and I earnestly recommend that his services be secured to command the relief vessel of the next expedition. The men of my detachment deserve the highest commendation for the cheerfulness and willingness with which they performed their onerous duties under the most trying circumstances, and I hope that the Chief Signal Officer will grant them such reasonable indulgence as they may ask.

I desire to call your attention to the manifest injury done me in the publication of certain statements immediately after the news of the disaster reached here. These statements purporting to have been authorized from the Signal Office, were to the effect that I had been furnished with "supplementary instructions" prior to my departure from the United States, which instructions I had positively disobeyed.

The only instructions I ever received are the original instructions published at the time. An unsigned written paper (with appendix "A" marked 5) was enclosed in the envelope with my instructions. This paper is simply an unauthenticated copy of a memorandum prepared in your office. I was informed that this memorandum was to have been furnished the Secretary of the Navy to form the basis of instructions to be given the commander of the vessel ordered to accompany the Proteus; when I found it among my instructions I at once carried it to you and called your attention especially to that clause relating to landing supplies on Littleton Island. You said, in substance, you did not know how that had gotten in there, and impressed upon me the necessity of carrying out, as far as possible, the instructions I had received. These instructions were based upon the letter of Lieutenant Greely (first enclosure of appendix "A"), and you called my attention to the fact that Lieutenant Greely strongly urged that the officer commanding the relief party should have no "latitude of action." The paper was not addressed nor signed; indeed bore no official mark whatever. I did not then nor have I at any time since regarded it as an order, and I was surprised to find the statement published that this paper was the "supplementary instructions."

I am, very respectfully, your obedient servant,

E. A. GARLINGTON,
1st Lieut., 7th Cav., A. S. O., Commanding.

This paper is endorsed in ink "Appendix A."

[Indorsed: 2-706. A. C. S. O. Mis., 1883.]

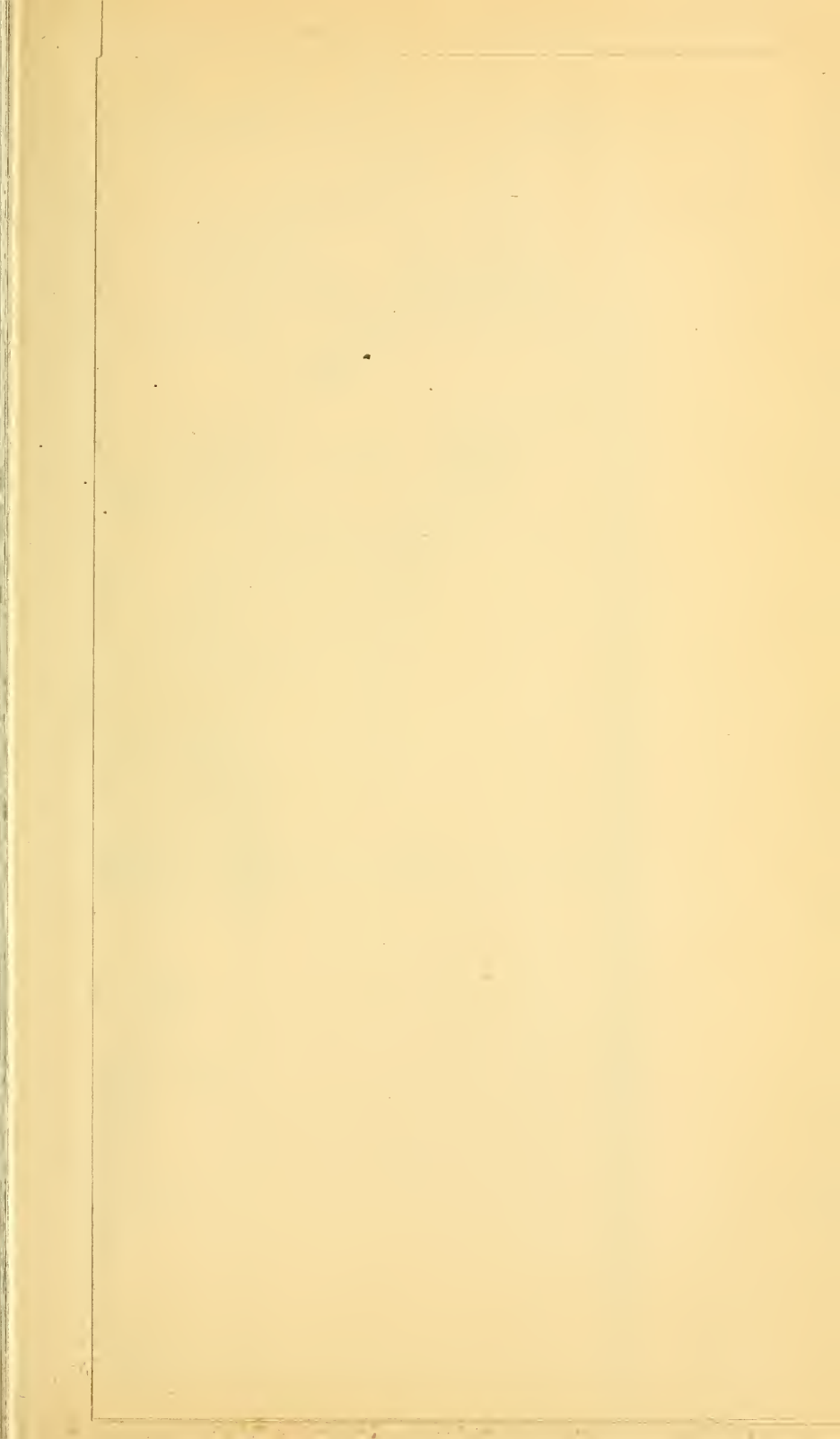
[Enclosure 1.]

A.

FORT CONGER, GRINNELL LAND, August 17th, 1881.

CHIEF SIGNAL OFFICER OF THE ARMY:

SIR: I have the honor to recommend that in connection with the vessel to visit this station in 1882 there be sent some captain of the merchant service who has had experience as a whaler and ice-master. Five enlisted men of the Army are requested to replace men invalidated or who are found to be unfit otherwise for the work. One of the number should be a signal service sergeant. Sergeant Emory Braine, 2d Cavalry, and Sergeant Martin Hamburg, Company E, 10th Infantry, are recommended most highly, and without they are physically or morally unfitted within the year, their detail is requested. The two remaining men should be such as have had some sea experience. All the men should be rigidly examined as to their physical condition. The ice-master should be expected to see that every effort is made to reach this point by the vessel sent. In case the vessel cannot reach this point, a very possible contingency, a depot (No. "A") should be made at a prominent point on the east coast of Grinnell Land (west side of Smith Sound or Kennedy Channel) consisting of ninety-six cans chocolate and milk, ninety-six cans coffee and milk, one-half barrel of alcohol, forty-eight mutton, forty-eight beef, one keg rum, forty-eight cans sausage, forty-eight cans mulberry preserves, two barrels bread, one box butter, forty-eight cans condensed milk, one-half barrel onion pickles, forty-eight cans cranberry sauce, forty-eight cans soup, twenty-four cans tomatoes, one gross wax matches (to be in water-tight case), one-eighth cord of wood, one wall-tent (complete), one axe and helve, one whale-boat. At Littleton Island, carefully cached on the western point, out of ordinary sight, with no cairn, should be placed an equal amount (Depot "B"), but no boat. A notice as to the exact locality should be





S. EX. 100-1, 48.

*In evidence from original
 into No. 10 (1883)
 Henry Bowditch
 Jd.
 Recorder of Court.*

23 left in the top of the coal (preferably in a corked and sealed bottle), buried a foot deep, which was left on that island. A second notice should be in the edge of the coal farthest inland, and a third in the Nares cairn, now open, which is on summit southwest part of island.

The second boat should be left at Cape Prescott, or very near, in order that if boats are necessarily abandoned above that point one will be available to cross to Bache Island and go the southward. These boats should be not exceeding forty feet and not less than twenty above high-water mark, and their positions should be marked by substantial scantling well secured and braced, to the top of which a number of pieces of canvas should be well nailed, so that it may be plainly and easily seen. A second staff, with pieces of canvas, should be raised on a point which shows prominently to the northward, so a party can see it a long distance. Depots "A" and "B" should be made ready in Saint John's, and be plainly marked and carefully secured.

The packages during the voyage should be easily accessible. Depot "A" should be landed at the farthest possible northern point. A few miles is important, and no southing should be permitted to obtain a prominent location. The letters and dispatches should all be carefully soldered up in a tin case and then boxed (at Saint John's) and marked, or put in a well-strapped, water-tight keg, and should be left with depot "A," if such depot shall be at or north or in plain sight of Cape Hawks, and the newspapers and periodicals left at Littleton Island. If Depot "A" is not so far north, the letters and all mail should be returned to the United States. After making Depot "B" at Littleton Island, the vessel should, if possible, leave a record of its proceedings at Cape Sabine. If the party does not reach here in 1882, there should be sent in 1883 a capable, energetic officer, with ten (10) men, eight of whom should have had practicable sea experience, provided with three whale-boats and ample provisions for forty (40) persons for fifteen months. The list of all provisions taken by me this year would answer exceedingly well. In case the vessel was obliged to turn southward (she should not leave Smith sound near Cape Sabine before September 15th), it should leave duplicates of Depots "A" and "B" of 1882 at two different points, one of which should be between Cape Sabine and Bache Island, the other to be an intermediate depot between two depots already established. Similar rules as to indicating locality should be insisted on. Thus, the Grinnell Land coast would be covered with seven depots of ten days' provisions in less than three hundred miles, not including the two months' supplies at Cape Hawks.

The party should then proceed to establish a winter station at Polaris Winter Quarters, Life-boat Cove, where their main duty would be to keep their telescopes on Cape Sabine and the land to the northward. They should have lumber enough for house and observatory, fifty tons of coal, and complete meteorological and magnetic outfit. Being furnished with dogs, sledges, and a native driver, a party of at least six (6) men should proceed, when practicable, to Cape Sabine, whence a sledge party northward, of two best fitted men, should reach Cape Hawks, if not Cape Collinson. Such action, from advice, experience, and observation, seems to me all that can be done to insure our safety. No deviation from these instructions should be permitted. Latitude of action should not be given to a relief party, who on a known coast are searching for men who know their plans and orders.

I am, respectfully yours,
(Signed)

A. W. GREELY,
1st Lieut., 5th Cav., A. S. O. and Asst.,
Commanding Expedition.

A true copy:

LOUIS V. CAZIARC,
1st Lieut., 2d Art., A. S. O.

24 MEMORANDA OF DEPOTS CONTAINING SUPPLIES LOCATED IN SMITH SOUND AND KENNEDY CHANNEL.

Southeast Carey Island.—One whale-boat and depot of provisions. (Expedition Sir George Nares, 1875.)

Visited in 1881 by Lieutenant Greely, and supplies reported in good condition.

Littleton Island.—Six and one-half tons of coal on low ground, southwest side of island, facing Cape Alexander. (Greely's expedition, 1881.)

Two hundred and fifty rations left in cache well secured. (Expedition, 1882.)

Cape Sabine.—Small depot of two hundred and forty rations (Nares' expedition, 1875) reported by Lieutenant Greely, but not visited by him.

Visited by expedition, 1882, and reported in good condition.

One whale-boat, one-eighth cord of birch wood, and two hundred and fifty rations left in cache well secured and covered. (Expedition, 1882.) August 31.

Cape Hawks.—Small depot, consisting of bread, two kegs pickles, two kegs rum, two barrels stearine, one barrel preserved potatoes. (Nares' expedition, 1875.)

Reported serviceable by Lieutenant Greely. (Expedition, 1881.)

Cape Collinson.—Small depot of two hundred and forty rations (Nares' expedition, 1875) reported by Lieutenant Greely, 1881, but cache not visited.

Carl Ritter Bay.—Small depot of two hundred and twenty-five bread and meat rations on first bench from the sea, northeast part of the bay. (Lieutenant Greely's expedition, 1881.)

Thank God Harbor.—Depot containing supplies, amount and condition unknown. (Hall's expedition, 1874.)

Cape Isabella.—One whale-boat. (Expedition, 1882.)

Highest latitude reached by expedition of 1882, 79° 20' north, August 10.

Highest point at which landing was possible, Cape Sabine, August 31, 1882.

31

[Endorsed: 5.7076. O. C. S. O. Mis. 1883.]

[Enclosure 4.]

SAINT JOHN'S, NEWFOUNDLAND, *May 26, 1883.*

This agreement, made by I. & W. Stewart, owners of the good steamship Proteus, burthen per register 467 tons net, or thereabouts, Richard Pike, master, parties of the first part, and General W. B. Hazen, now in Saint John's aforesaid, Chief Signal Officer of the Army of the United States of America, and acting on behalf of the Government of the United States, party of the second part, witnesseth:

That the parties to the first part agree that, in consideration of the terms hereinafter set forth, the said steamship or vessel being light, staunch, and strong, and in every way fitted for the voyage hereinafter described, shall be ready for the said voyage and shall be at the disposal of the Chief Signal Officer of the Army of the United States from the fourteenth day of June, 1883, when the voyage shall be construed to have begun, and the said party of the second part hereby, in consideration of the aforesaid, contracts to pay for the use of said vessel for at least three and a half months at the rate of six thousand dollars (\$6,000.00) per month of thirty days, in Newfoundland currency, at one and one-half per cent. premium, being difference of exchange; the said party of the second part further agrees that the said compensation shall be paid at the end of each month by draft on the office of the Chief Signal Officer, Army of the United States, the first draft to be made payable fourteenth of July, 1883.

It is also mutually agreed by the parties hereto that should the said vessel be detained on the said voyage beyond the time stipulated, then the same rate of six thousand dollars per month shall be paid for her until her return to Saint John's, Newfoundland, the said expenses to be paid at the end of each month as is herein provided for the payment of the compensation, and that, in the event of the loss or abandonment of said vessel, the party of the second part shall continue and pay the stipulated hire monthly until the arrival of any portion of the crew in Saint John's aforesaid.

It is further agreed by the parties of the first part to provide all necessary food and provisions for the force accompanying the relief expedition or returning from Lady Franklin Bay, said food to be equal to the usual ship's fare and to be furnished at the rate of four dollars (\$4.00) per week of seven days each, in Newfoundland currency, for each individual comprising said force, and the party of the second part agrees to pay for the food thus furnished at the same time, and in the same draft, that final payment is made for use of said vessel.

It is hereby further mutually agreed, that in the event of the force of Lady Franklin Bay (Fort Conger, Discovery Harbor) being in need of coal, the said parties of the first part will deliver to said force, or at points designated by the agent of the Chief Signal Officer, such quantity as may be needed to the amount of seventy (70) tons, at the rate of four dollars (\$4.00) per ton, in Newfoundland currency, to be drawn for upon the return of the vessel to Saint John's.

It is agreed by the party of the second part, that persons constituting the relief force shall render the captain and crew of the said vessel all the assistance in their power to expedite the landing of supplies at all points where landing shall be made.

It is further agreed that Lady Franklin Bay (Fort Conger, Discovery Harbor) is the extreme northern point which it is desired that the vessel aforesaid shall reach, but if the master of the vessel, and the officer or agent representing the Chief Signal Officer aforesaid, after consultation, shall agree that it is impracticable to reach said bay by reason of ice barriers, lateness of season, or any other insurmountable obstacle, then the said Richard Pike, master aforesaid, may leave Smith Sound (or the northernmost point attainable) to return to Saint John's aforesaid, not earlier than September 1st, 1883, and he shall discharge and cache stores, as may be required by the agent of the Chief

Signal Officer aforesaid. The parties of the first part hereby agree that this contract shall be performed by them.

The act of God, the Queen's enemies, fire, and all and every other danger and accident of the seas, rivers, and navigation of whatsoever kind and nature, always excepted. The parties of the first part further agree that they will pay to the agent of the Chief Signal Officer, Army of the United States, as a penalty for non-performance of this contract, the sum herein agreed to be paid by the officer of the Chief Signal Officer aforesaid, for the use of said vessel for the period of three and a half months.

33 Signed, executed, and delivered at Saint John's, Newfoundland, this twenty-sixth day of May, one thousand eight hundred and eighty-three.

(Signed)

W. B. HAZEN,
Chief Signal Officer, U. S. Army,
p. p. I. & W. STEWART.
J. SYME.

Witnesses:

(Signed) JAS. CODY.
THOS. MOLLOY,
[SEAL.] U. S. Consul.

A true copy:

LOUIS V. CAZIARC,
1st Lieut., 2d Art., A. S. O.

Note.—This paper was also endorsed, in ink: 1-4919, P. D. O. C. S. O. 1883. "A."

[Endorsed: 7.7076. O. C. S. O. Mis. 1883.]

[Copy.]

B.

MEMORANDUM OF AN AGREEMENT BETWEEN LIEUTENANT GARLINGTON, U. S. ARMY,
AND COMMANDER WILDES, U. S. NAVY.

Yantic to proceed to sea with the Proteus and remain in company as long as possible. Yantic will proceed to Disco under sail, will leave letters for Lieutenant Garlington at Disco and Upernavik.

Cairns enclosing bottles or tins will be left at Cape York, S. E. Carey Island, or Hakluyt Island, Pandora Harbor, and Littleton Island. Yantic will remain in Pandora Harbor not later than August 25, Disco not later than September 20.

34 Lieutenant Garlington to leave letters in Disco and Upernavik and records on S. E. Carey Island, or Hakluyt Island, Littleton Island, and Pandora Harbor if entered.

Proteus to endeavor to communicate with Yantic at Pandora Harbor before August 25. Should Proteus be lost, push a boat or party south to Yantic.

Pandora Harbor will be headquarters, but before departure Yantic will run up to Littleton Island.

[Endorsed: 8.7076. O. C. S. O. Mis. 1883.]

[Copy.]

C.

INTERNATIONAL POLAR EXPEDITION TO LADY FRANKLIN BAY, FITTED OUT BY THE WAR DEPARTMENT, UNDER THE SUPERVISION OF GENERAL W. B. HAZEN, CHIEF SIGNAL OFFICER UNITED STATES ARMY, AND COMMANDED BY 1ST LIEUTENANT A. W. GREELY, 5TH CAVALRY, A. S. O. AND ASST.

Left in the steamship Proteus, island off Upernavik, 7 p. m., July 29, 1881, and at 7 a. m. July 31, stopped by heavy fog about six miles south of land supposed to be Cape York. Middle passage taken and found to be entirely unobstructed by ice. All well. This notice deposited August 1, 1881.

(Signed)

J. B. LOCKWOOD,
Lieut. 23d Inf., U. S. Army, 3d Officer.

[Memoranda.]

One keg of biscuits opened and found mouldy. One can of beef opened and found good. Stores generally found apparently in same condition as when deposited here in 1875.

(Signed)

J. B. LOCKWOOD,
Lieut., U. S. Army.

COPY OF THE COPY OF THE RECORD OF SIR GEORGE NARES.

ARCTIC EXPEDITION, *July 27, 1875.*

H. M. S. Alert at Carey Island.

Any one finding this depot of provisions and boat is requested not to appropriate it to their own use. The depot is deposited by the English Arctic expedition of 1875, for use in the event of the crews of the ships having to travel south to Upernavik. The Alert and Discovery passed through the middle ice in two days. They leave for Smith Sound at 6 a. m. this morning.

(Signed)

G. S. NARES,
Capt. R. N., in command of the Expedition.

A true copy of the original taken this 1st day of August, 1881, by expedition under Lieutenant A. W. Greely, U. S. Army, for whose record see bottle herewith.

COPY OF ENDORSEMENT OF LIEUTENANT GARLINGTON.

UNITED STATES RELIEF EXPEDITION,
4 p. m., 21st July, 1883.

Left Godhavn, Disco Island, 16th July, 1883. Encountered pack 18th July in lat. 74° 40', long. 61° 30', steamed through it in various directions until fifteen miles south of this island. Open water to the north. Depot apparently same as left in 1881. Opened two barrels of bread; one spoiled, one a little mouldy, but eatable, and two cans of beef; one good, one spoiled.

E. A. GARLINGTON,
1st Lieut., 7th Cav., A. S. O., Commanding.

35

[Endorsed: 9-7076. O. C. S. O. Mis. 1883.]

[Copy.]

D.

STEAMER PROTEUS,
United States Relief Expedition, 22d July, 1883.

At 6 a. m. we are rounding Cape Alexander, and will enter Pandora Harbor to leave this record. No ice met between Carey Island and this point, and none to be seen to the north from the "crow's-nest" with the aid of a powerful telescope. Weather perfect; if it continues I will go directly north and not stop at Littleton Island to leave a record, for it takes but a very short time to change the aspect in these regions.

(Signed)

E. A. GARLINGTON,
1st Lieut., 7th Cav., A. S. O., Commanding.

[Endorsed: 10-7076. O. C. S. O. Mis. 1883.]

[Copy.]

E.

UNITED STATES RELIEF EXPEDITION.
Cape Sabine, 24th July, 1883.

The steamer Proteus was nipped midway between this point and Cape Albert on the afternoon of the 23d instant, while attempting to reach Lady Franklin Bay. She stood the enormous pressure nobly for a time, but had to finally succumb to this measureless force. The time from her being "beset" to going down was so short that few provisions were saved. A depot was landed from the floe at a point about three miles from the point of Cape Sabine as you turn into Buchanan Strait. There were five hundred rations of bread, sleeping bags, tea, and a lot of canned goods; no time to

classify. This cache is about thirty feet from the water line, and twelve feet above it on the west side of a little cove under a steep cliff. Rapidly closing ice prevented its being marked by a flag-staff or otherwise; have not been able to land there since. A cache of two hundred and fifty rations in same vicinity left by the expedition of 1881; visited by me and found in good condition, except boat broken by bears. There is a cache of clothing on point of Cape Sabine, opposite Brevoort island, in the "jamb" of the rock, and covered with rubber blankets. The English depot on the small island near Brevoort Island in damaged condition; not visited by me. There is a cache of two hundred and fifty rations on the northern point of Littleton Island, and a boat at Cape Isabella. All saved from the Proteus. The U. S. steamer Yantic is on her way to Littleton Island with orders not to enter the ice. A Swedish steamer will try to reach Cape York during this month. I will endeavor to communicate with these vessels at once, and everything within the power of man will be done to rescue the brave men at Fort Conger from their perilous position.

The crew of the Proteus consisted of Captain Pike and twenty-one men; my own party of Lieut. J. C. Colwell, U. S. Navy, Acting Assistant Surgeon J. S. Harrison, five enlisted men of the line of the Army, two Signal Service men, three Newfoundlanders, and two Eskimo.

It is not within my power to express one tith of my sorrow and regret at this fatal blow to my efforts to reach Lieutenant Greely.

I will leave for the eastern shore just as soon as possible, and endeavor to open communication.

E. A. GARLINGTON,
1st Lieut., 7th Cav., A. S. O., Commanding.

36

[Endorsed: 11-7070. O. C. S. O. Mis. 1883.]

[Copy.]

F.

UNITED STATES RELIEF EXPEDITION,
Littleton Island, 26th July, 1883.

My party, consisting of Lieutenant Colwell, U. S. Navy, Dr. J. S. Harrison, seven enlisted men, U. S. Army, three civilian employés, and two Eskimo, arrived here at 5 p. m. to-day from a very rocky inlet above Life-Boat Cove in two whale-boats and having dingy in tow; very thick fog on way over and sea quite rough. Boats behaved admirably, considering the strains to which they have been put, dragging them over the floes, rocks, &c. This party was in the steamer Proteus, of Saint John's, Newfoundland, chartered by the United States Government, going to the relief of Lieut. A. W. Greely, U. S. Army, at Lady Franklin Bay, Grinnell Land. The steamer was crushed in the ice between Cape Sabine and Cape Albert, Bache Island, on the afternoon of the 23d instant. All saved. Much provisions gotten over side of ship, but a great quantity went under before it could be removed a sufficient distance from the ship for safety. Five hundred pounds of hard bread, sleeping bags, and assorted subsistence stores were landed from the floe about three miles from Cape Sabine around point towards Bache Island. There is also a cache, made last year, along same shore. The depot was secured as well as possible. Ice was rapidly closing, heavy, &c. A quantity of clothing was left on extreme point of Cape Sabine, and one barrel of beef—all poorly secured for same reason as above. I am making for the south to communicate with the U. S. steamer Yantic, which is endeavoring to get up. Every effort will be made to come north at once for the Greely party. The Yantic cannot come into the ice, and she has a crew of one hundred and forty-six men. So will have to get another ship. Everything will be done to get as far north as possible before the season closes. Ice thick and heavy. Calm to-day, and I am in a great hurry to take advantage of it and tide.

(Signed)

E. A. GARLINGTON,
1st Lieut., 7th Cav., A. S. O., Commanding.

[Endorsed: 12-7076. O. C. S. O. Mis. 1883.]

[Copy.]

G.

UNITED STATES RELIEF EXPEDITION,
Pandora Harbor, July 27, 1883.

Arrived here at 7.50 last evening with two whale-boats and one dingy in tow. Lieut. J. C. Colwell, U. S. Navy, Dr. J. S. Harrison, seven enlisted men, U. S. Army, three

civilian employés, two Eskimo, and self, composing party. Captain Pike, of the steamer Proteus, and his crew (twenty-two men) are also in this harbor. The Proteus was crushed in the ice about six miles from Cape Sabine, magnetic bearing from Cape Sabine about S. by E. 1-2 E., on the afternoon of the 23d inst. All saved. I have forty days' full rations for my party. Will go south, keeping close into shore as possible, and calling at Carey Islands, to Cape York, or until I meet some vessel. Hope to meet U. S. steamer Yantic, or the Swedish steamer Sofia, which should be about Cape York. Weather since wreck has been foggy, and at times some rain, delaying progress very much. Party are well and in good spirits. Will leave here at 5 a. m. to-morrow; detained all day by fog.

E. A. GARLINGTON,
1st Lieut., 7th Cav., A. S. O., Commanding.

37

[Endorsed: 13-7076. O. C. S. G. Mis. 1883.]

[Copy.]

H.

UNITED STATES RELIEF EXPEDITION,
Immelick Bay, Near Cape York, 12th August, 1883.

The steamer Proteus, Saint John's, Newfoundland, Captain Pike, chartered by the United States Government to carry relief expedition under my command to Lady Franklin Bay, Grinnell Land, was caught in pack six miles NNW. $\frac{1}{2}$ W. from Cape Sabine, and was crushed, sinking at 7.30 p. m., on the 23d July, 1883. The crew and relief party all saved, and also about forty days' provisions for all hands, together with a lot of fur and other clothing. My party fitted out, and the rest left in a cache on the point of Cape Sabine. A cache of provisions and twelve sleeping bags left at a point along northern shore of Cape Sabine, about three miles from point of the cape. This cache contains about four hundred pounds of hard bread, canned meats, fruits, and bacon sufficient to make full load for whale-boat. A large quantity of stores went down under the sides of the vessel after being thrown overboard; much had necessarily to be abandoned on the floe, and it was impossible to secure all of it afterwards, although several boat-loads were secured subsequent to leaving floe. The party made a landing on Cape Sabine on the morning of the 24th July, and remained there until the evening of the 25th, when the ice opened sufficiently to allow our leaving, but closed in almost before we got under way. Pike's men in three boats, my party in two whale-boats, Colwell's boat towing dingy.

We crossed Smith Sound and made land just above Life-Boat Cove at 12.30 p. m. in a dense fog. Remained there until next day and made Pandora Harbor at 7.50 p. m., which place Pike's boats had reached the night before; from that point we have come here, having been delayed by bad weather, fogs, and ice more than half the time. Just north of Conical Rock we were "jammed" in the ice and had to drag the boats on a "pan." Things looked very dubious for a time.

From this point Lieutenant Colwell with second whale-boat goes direct to Disco, as it is probable that U. S. steamer Yantic will be in that vicinity; the ice having prevented her progress north, and the harbor at Upernavik not admitting of a long stay at that place. I, with Pike's party, will go hence to Upernavik (his party not being well equipped with boats), keeping as close in to shore as possible, but on the outside of the ice. In the event of no ship coming to my relief I will winter at Upernavik and divide my party among the neighboring settlements.

Everybody well and in good spirits. With God's help we all hope to reach port in safety in good time.

E. A. GARLINGTON,
1st Lieut., 7th Cav., A. S. O., Commander.

First whale-boat: E. A. Garlington, 7th Cavalry, U. S. Army; Dr. J. S. Harrison, acting assistant surgeon; Sgt. John Kenney, 1 Troop, 7th Cavalry; Private J. J. Murphy, F Company, 11th Infantry; Private R. F. Rogge, 3d Infantry; Pvt. F. W. Ellis, Signal Corps observer; Nicholas, Eskimo, from Godhavn; George Taylor, boatswain of the Proteus; F. J. Huostul, Newfoundland.

Second whale-boat: Lieut. J. C. Colwell, U. S. Navy; Corpl. Frank Elwell, 3d Infantry; Artificer O. E. Moritz, 17th Infantry; Pvt. W. H. Lamar, Signal Corps observer; George A. Wight, A. F. Macdonald, Newfoundland; David, Eskimo, from Disco fjord.

3

[Endorsed: 14-7076. O. C. S. O. Mis. 1883.]

[Copy.]

I.

UNITED STATES RELIEF EXPEDITION,
Cape York, August 12th, 1883.

Lieut. J. C. COLWELL, U. S. Navy:

SIR: Having volunteered for the duty, you will, with your boat and crew as now constituted, except Dr. J. S. Harrison, acting assistant surgeon, U. S. Army, proceed, at the first favorable change in the weather, hence to Godhavn, Disco Island, endeavoring to communicate with the U. S. steamer Yantic, which is supposed to be somewhere along the Greenland coast. When the Yantic is found, representation of the present state of affairs will be made to Commander Wildes, and of the proposed route of retreat of the rest of the party by way of Upernavik. In the event of the Yantic's having gone south, you will endeavor to make arrangements with any ship which may be at Disco, or neighboring settlements, to come to the relief of my party. The Swedish ship Sofia, or some of the Danish ships may still be in the vicinity of Godhavn. In case all the ships have gone south, you will make the best arrangements for wintering at Godhavn with your party, taking advantage of the first opportunity to communicate with me at Upernavik, state of your party, and such other information as you deem desirable [advisable*]. You will, however, not send a sledge party for the purpose specially. If no ship comes to our relief, I will winter at Upernavik and divide party among the neighboring settlements. In the equipment of your boat, personal baggage and provisions, you will be governed by your judgment of the necessities of the case.

Wishing you a successful trip, and as pleasant and comfortable one as the conditions will allow,

I am, very respectfully, your obedient servant,

E. A. GARLINGTON,

1st Lieut., 7th Cav., A. S. O., Commanding.

[Endorsed: 15-7076. O. C. S. O. Mis. 1883.]

[Copy.]

K.

H. M. S. ENTERPRISE AND INVESTIGATOR,
6th of August, 1848, Lat. 75 1-4, Long. 59.

Placed in a cairn erected on (the supposed) Browne Island. Officers and crews all well, and prospects of a speedy passage satisfactory.

(Signed)

JAS. C. ROSS,

Commander of Expedition.

Whoever finds this paper is requested to forward it to the Secretary of the Admiralty, London, with a note of the time and place at which it was found; or, if more convenient, to deliver it for that purpose to the British consul at the nearest port.

[Endorsed: 16-7076. O. C. S. O. Mis. 1883.]

L.

WASHINGTON, D. C., *October 9, 1883.*

SIR: In accordance with your request, I beg leave to submit the following report of the movements of the second whale-boat and the party under my command after separating from you at Cape York:

39 Leaving Cape York on the morning of August 16, we kept together while working out through the ice until, at 1 p. m., open water was visible to the southward. I then parted company, pulling off to the southward, got into open water shortly after, and set foresail to fresh west-northwest breeze. Steered south-southeast (true) for Upernavik, and at 1.30 p. m. lost sight of all the other boats, under sail, well together, and steering about east. They were in range with Bushman's Island, and bore north.

At 2 p. m. I met the edge of another pack, extending to northward and eastward as far as I could see, and kept off to southward to keep inside the broken ice on its western

* Corrected in blue in the original.

edge. Wind increasing to moderate gale, with frequent snow squalls; close reefed the foresail. About 4 p. m., the south edge of the pack trending off to the northward and eastward, I left the ice and again set course for Upernavik. While inside the edge of the pack the swell was considerable, but the seas did not break. After leaving it I encountered a short, heavy, breaking sea, wind still increasing from west-northwest, until, at 6 p. m., no ice was in sight, with the exception of a few distant, scattered bergs. By that time I was unable to longer steer my course, and was obliged to run before the gale and heavy, breaking sea.

Three of my crew were very sea-sick, and the Eskimo too frightened to understand any English; so I was reduced to two men, and right well they stood to their work. The weather brightened slightly towards midnight, and I saw land to the northward and eastward, but by 1 a. m., August 17, it was again overcast and thick, snow squalls at frequent intervals, wind, however, moderating and hauling to west. At 4 a. m. I gave the tiller to Wight and lay down until 6 a. m., snowing heavily in the mean time, but wind decreasing to light breeze. By burning some alcohol in a tin can I made a pot of tea and warmed some canned meat, the first we had had to eat since starting, with the exception of some wet hardtack.

The wind hauling to southward and eastward, shook reef out of foresail and set mainsail after breakfast, making east coarse on the wind. Sea still rough and irregular, but not breaking. Sighted land ahead at 9.30 a. m. Wind freshened towards noon and weather looked very threatening to southward and eastward. Close reefed both sails, but was obliged to take in the mainsail soon after. Sea getting up; headed for a small island in sight to northward and eastward, but missed it in a thick snow squall which came up about noon. Sighted it again about 1 p. m., but found myself a mile to the leeward of it with too heavy a sea to attempt to pull against. Ran for a line of icebergs to northward and eastward, to get out of the heavy sea and constantly increasing wind, and at 3 p. m. made fast to a small berg. Snowing heavily, with constantly increasing gale until midnight. I was obliged to cast off my boat and pull to a safer place four times, on account of the berg breaking, or the too close approach of neighboring ones, giving the men a longer pull each time than was really necessary, to prevent their getting benumbed by the cold and wet. I finally made fast to a flat berg with a large mound in its center, which lasted us six hours, until the gale broke. When I made fast to it it was about one hundred and fifty yards long, but by masses breaking from it, was reduced to barely fifty yards, when I finally left it. While fast to the bergs I kept the bow oarsman with an axe ready to cut the painter in case of sudden danger, but fortunately, we always had timely warning to leave.

During all this time the unflinching courage of the men and their cheerful readiness to comply with any call I made on them, exhausted as they were from loss of sleep, sea-sickness, and constant exposure, wet to the skin for two days, and not knowing what minute might be their last, are evidences of a spirit deserving the highest commendation.

The [For*] fourteen hours they sat on the thwarts, the oars out ready to pull at a moment's notice, dozing over their oars as they were able, covered with snow, and the boat snowed full, the constant crash sounding in their ears of the hundreds of bergs driven by before the gale, grinding together and foundering in all directions, and not a despondent word or other than attempts at cheerful remarks from any of them.

About 1 a. m., August 18, I started a fire with some alcohol in a tin and managed to warm some bacon and a little water for tea, which, with a couple of doses of whisky during the night, prevented their becoming too much exhausted.

At 4.30 a. m. snow stopped, wind moderated, and clouds commenced to break to westward. Saw land to eastward, and recognized the locality as being off Thom Island, in Melville Bay, near the place the Proteus was stopped on her way north on July 19. Cleared snow out of the boat, and at 5.30 a. m. started, under oars, pulling to the SE.

A few miles to northward of my position the bergs, driven in by the gale, were packed together as solidly as a glacier face, and the view was blocked by them in every direction.

Pulled along through the bergs against a moderate head wind, getting a couple of hours' sleep during the forenoon. About 3 p. m. a light NE. breeze came up, made sail to it and allowed all the crew to sleep. At midnight we were off Cape Seldon, about forty miles distant, and still among many bergs, with occasional strings of lump ice from the bergs.

The men were divided into two watches, the three strongest in one watch, with Corporal Elwell in charge, the other three in my watch. Pulled watch and watch at night, all hands from 8 a. m. to 8 p. m., and this arrangement was kept up until I reached the Yantic. Saw the sun set below the horizon at 11.30 p. m. on this evening.

* Corrected in blue in the original.

Sunday, August 19, shortly after midnight passed a rocky islet one-fourth mile long in N. and S. direction, by one hundred and fifty yards wide, and standing about twenty feet out of water.

Wind increased and hauled to southward shortly after. Could make nothing working to windward, so at 3 a. m. took in sail and tried to pull to eastward, but the wind and sea were too much for the exhausted men. Ran back to the small islet passed at midnight, arriving at 9 a. m. The rock was perpendicular on its leeward side and about twelve feet high. Tied the boat by her painter, keeping her clear with a couple of oars. Started an alcohol fire on the rock and had a meal, the men taking advantage of the opportunity to stretch themselves on the rocks and get a short nap. I found a very old moss-covered cairn in a hollow in the center of the islet with one very old bone lying near by. Approximate magnetic bearings from this islet: Red Head, SSW.; Cape Selden, SSE. $\frac{1}{2}$ E.; Cape Walker, E. $\frac{1}{2}$ S.; a small islet, NNE., about ten miles, and another about ten miles SSE., in a line with Cape Selden. Left a record in a tin can in a small cairn on the summit of this rock, and replenished the water supply from the melted snow in the crevices.

Wind falling light, left at 11.30 a. m. and pulled in for Red Head. Wind dying out, changed course at 3 p. m. to SSE. (true). Made sail at 6 p. m. to light E. breeze, very many bergs and occasional strings of lump ice. Sailed along all night and until 11 a. m., August 20, when, being headed off to SW., took in sail and manned oars, pulling in for Devil's Thumb, which I did not sight until 7.30 p. m. Heavy swell from southward during forenoon and first part of afternoon, until I got in among a great many bergs and lump ice off the coast. At midnight Wilcox Head bore E. (true).

Pulled along until 1 a. m. August 21, when made sail to light N. breeze, steering SSE. Carried sail until 7 a. m., when it again fell calm and oars were manned. Bright, pleasant day. Pulled until 4.30 p. m., when made sail to light NNW. breeze. A heavy fog bank, coming up from northward and westward, shut down thick at 6 p. m. Wind failed at 7 p. m.; manned oars and pulled for passage between Baffin Island and main land.

Dense fog until 9 p. m., when it lifted sufficiently for me to see the neighboring land and that I was in the channel I was steering for. Calm and thick fog at intervals until midnight; weather very cold. August 22 commenced clear and cold, fog in patches. Made sail to gentle N. breeze at 2 a. m. At 4 a. m. found we had run in among a lot of high, uncharted islands off a large glacier. Great numbers of bergs and quantities of lump ice frozen together in solid sheets in places. At 5 a. m. wind died away; manned oars and pulled to southward and westward to get clear of ice. Struck the swell of open water clear of the islands at 9 a. m. Set foresail to fresh NNW. breeze which came up about 9.30 a. m. and steered south. Wind increased to moderate gale; thick fog rolled in from seaward and sea got up. Close reefed foresail, and steered probable course for Upernavik, having concluded to land there to leave notice for the Yantic, in case she should stop there before I met her.

Not having been able to get a sight of the sun, and fog obscuring the land, I could only estimate my position, and supposed I was below Tessuisak at noon.

At 6 p. m. I sighted an island which I supposed to be Long Island, adjoining Upernavik Island to the sound [southward*]. Round its south end and hauled up along its east side for next island to northward, looking for the settlement. While sailing along its coast we sighted a barrel on the shore, which had a very exhilarating effect on the spirits of all hands, but, on searching the south side of the next island and seeing no signs of natives, they felt pretty low.

The weather had by this time cleared off showing a large glacier to eastward. This, from its size, I took to be Upernavik Glacier, that being the only one marked on the chart tracing I had. I informed the men that we had missed Upernavik, and that, after cooking a meal with the barrel we had passed, I did not intend to again land until reaching Godhavn. This decision, to their credit, they very cheerfully accepted, notwithstanding they very much needed a rest and dry clothing.

I sailed back and landed at the barrel, with which I started a fire and cooked a solid meal of the best we had. The place was evidently a summer camp of natives, and had not been long abandoned.

From bearings I got of the glacier, which I supposed to be that of Upernavik (but which afterwards proved to be Tessuisak Glacier), and of a high point on the sound [to the southward*], which I took to be Sanderson's Hope, I located myself about eight miles ESE. of Upernavik.

Having finished our meal, and after leaving a record in a tin can in a small cairn, we started again at 9.30 p. m. under sail.

August 23 commenced bright and clear, thick to southward and heavy swell. Wind dying away at 1 a. m., manned oars and pulled along with the watch. At 2 a. m. sighted a store-house to southeastward, which I supposed to be Proven, and, after a

*Corrected in blue in the original.

while, concluded to pull in and leave a notice to be sent to Upernavik. Landed at 5 a. m. and sent David to call up the natives at the only hut in sight, not even a dog being visible. He came back with the information that we were at Upernavik, when I roused up the watch in, who had not been awakened by the landing and the shots I had fired to attract attention, manned all oars, and pulled around the south side of the island for the settlement on the other side, Danish harbor being the place I had landed. I was met at the landing by Governor Moller, of Proven, with the information that the Yantic had left at 9 p. m. the previous evening for the south, a very great disappointment to us all.

The governor of Upernavik, Mr. Elborg, was up and met me when I reached his house, and did everything in his power to make us comfortable. I was given a letter, addressed to yourself, from Commander Wildes, of the Yantic, in which he stated his intention to fill up with coal at the Kudlisøet mines in Waigatt Strait, then to remain at Godhavn not later than September 15th, at which time he would proceed south to Saint John's, Newfoundland.

Wishing to reach him in time to have the Yantic come back north for the rest of the party, who I thought were probably blocked in the ice in Melville Bay, I proposed starting at once in my boat. The combined protests of both governors and the minister against crossing Omenak Fjord in a whale-boat, a trip that had only once been accomplished, and then at a very great danger, and the urgent offers of Governor Elborg, influenced me to leave my whale-boat and accept a heavy, open launch belonging to him. This boat was also more roomy, admitting of lying down and moving about, impossibilities in the whale-boat. Mr. Elborg wished me to wait two days while he decked it over, but I decided to start the same day, and at 3 p. m. left Upernavik for Kudlisøet Mine.

While at Upernavik the hospitality and kindness of Mr. Elborg and Mr. Kristensen, the missionary, could not be exceeded. Everything was placed at my disposal; a large house was assigned the men to sleep in; a substantial meal and all necessaries for their comfort furnished; and all the wet clothing and provisions taken out of the boat and carefully dried. The governor and Mrs. Elborg did all for my personal comfort their kindness could suggest, while the minister presented me with a pair of his own boots, articles of which I stood very much in need, and a chart of the coast, of which I had only a rough tracing.

When we were ready to leave the entire population, after stowing our supplies in the boat, gathered to see us off, giving us a hearty cheer as we set [made*] sail out of the harbor.

On examining my stores at Upernavik I found nearly all my hard bread sour from having been so long wet, so I had to get a barrel of bread from the supplies of the settlement, the governor of Proven to furnish it from his stores. I was also to get the water-casks Mr. Elborg gave me filled at Proven, to avoid longer delay at Upernavik. Mr. Moller, governor of Proven, was to accompany me to that place, and Joseph, an Eskimo from Upernavik, was to accompany me as pilot as far as Svarten Huk, and to lend a hand generally until I returned the boat to Upernavik.

I arrived at Proven at 4 a. m. August 24, sailing to within eight or ten miles of the harbor, when the wind died away and oars were manned. As the boat pulled only four oars and was very heavy, the men found it hard work after the light whale-boat. At Proven I met with the same kindness from Mr. Moller I had experienced at Upernavik. He had the water-casks filled for me, furnished the barrel of bread, presented us with two quarters of reindeer, with some fresh provisions and fire-wood from his own slender stock, and, when I left at 3 p. m., accompanied me with his boat, towing for two hours. The only return I could make him was the present of my shot-gun and the few cartridges I had remaining.

The weather was calm, so we pulled all night and until 9 p. m. the next day, August 25th, when made sail to light N. breeze which lasted four hours. Calm again at 1 a. m., 26th. Manned oars and pulled until 6 a. m., when made sail to light NNW. breeze off Svarten Huk, increasing to moderate breeze and lasting all day until 9 p. m. Manned oars again and pulled until afternoon of the next day. At 8 a. m. 27th, when off Noursoak, about five miles distant, some hyaks came off from shore, and, after ascertaining from David who we were, carried the news on shore. Shortly afterwards the governor pulled out to us and again illustrated the hospitality of these people by bringing off some bottles of gin to present us. The governor was a half-breed, and spoke very little English, but he informed me he had seen a steamer, presumably the Yantic, pass down the Waigatt Strait on the 23d instant, and that he had news by a native boat that she stopped at Kudlisøet coal mine two days, but had left.

Wishing to get word to the Yantic as quickly as possible, I wrote a note stating the condition of affairs, and requesting Commander Wildes to communicate with me at Riten-

* Corrected in blue in the original.

43 benk, for which place I would make if I failed to meet him at Kudlisœt. This note the governor agreed to send direct to Godhavn by kyaks, then returned to the shore. Half an hour later two kyaks passed us going down the strait with the note. Made sail to light NW. airs during afternoon to rest the men, manning oars again at 6 p. m. and pulling till 11 p. m., when I was able to make sail to a gentle NW. breeze, which lasted until 7 a. m. 28th. This was the first night we had had dark enough to necessitate a light to read the compass. Pulled all day and night and until 8 p. m. the next day, 29th. Passed Kudlisœt at 11 p. m. 28th, but it was too dark to see more than the Yantic was not there. Weather was overcast, heavy fog banks at intervals these two days, and frequent showers afternoon of 29th. Passed settlement of Oyorsasook at 5 p. m., from which two kyaks came off. They said the Noursoak kyaks had passed that day, and that the Yantic had passed three days before. I engaged these two men to carry a note to Commander Wildes, informing him that I would not stop at Ritenbenk but would keep on to Godhavn.

Made sail to light SE. breeze at 8 p. m. and beat to windward until 1 p. m. August 30, making only about ten miles. Manned oars when wind failed and pulled around Fletterhuk (southeast point of Disco Island) until 5 p. m., when made sail to light E. breeze.

Breeze increased to stiff wind and hauled to ENE., carried all sail before it and ran all night along the coast, about four miles distant.

Ran under lee of promontory on south side of Godhavn Harbor at 2.30 a. m. August 31. Double reefed the sails and tried to beat in; wind blowing directly out the entrance. Reef points tore out of the main-sail, and after beating for three hours and making very little to windward, missed stays twice on south side of channel and went on the rocks. I then sent a signal man on the hill to flag the Yantic, which I could see at anchor in the harbor. I had got the boat clear and was about standing off again when the Yantic's first cutter was sighted coming around a point a couple hundred yards away. My boat was taken in tow, and I was brought alongside the Yantic at 8.30 a. m.

On reporting to Commander Wildes, I found the note I had sent by kyacks from Noursoak had arrived about an hour previously, and the second note had not yet come.

On my representing the situation of the rest of the party, and their probable condition, Commander Wildes gave orders for getting the ship under way, and at 6.30 p. m. she was steaming out of the harbor for Upernavik, the launch belonging to that place in tow. David, my Eskimo, disappeared when I got alongside the Yantic and I did not again see him.

Had pleasant weather, light breezes, and smooth sea to Upernavik, where we arrived at 7.30 a. m. September 2, and I rejoined you with my party.

Very respectfully, &c.,
(Signed)

J. C. COLWELL,
Lieut. U. S. Navy.

1st Lieut. E. A. GARLINGTON, 7th U. S. Cav., A. S. O.,
Commanding Greely Relief Expedition, Washington, D. C.

45 *LETTER OF TRANSMITTAL OF CHIEF SIGNAL OFFICER.*

SIGNAL OFFICE, WAR DEPARTMENT,
Washington City, October 16, 1883.

Hon. ROBT. T. LINCOLN,
Secretary of War :

SIR: I have the honor to enclose the report of 1st Lieutenant E. A. Garlington, 7th Cavalry, upon the expedition sent to the Arctic seas this summer for the relief of the International Meteorological Expedition, under the command of Lieutenant A. W. Greely, U. S. A. The report describes the passage of the ship Proteus carrying stores and a rescuing party for Lieutenant Greely, who with his men were to have been brought away could they have been reached. The report also describes the loss of the ship and a large proportion of the supplies intended for Lieutenant Greely. The failure to find stores and dogs ready in Greenland, as had been expected, is not understood, since the Danish Government had been communicated with upon that subject at the proper time, which was all that could be done or had been usual in previous years.

The question of supplementary orders that Mr. Garlington refers to as having been raised, and in unfairness to himself, is, in substance, correctly stated by him. After Lieutenant Greely arrived in Lady Franklin Bay, in 1881, he wrote out and sent to this office full directions for the party that might be sent to relieve him, ending as follows: "No deviation from these instructions should be permitted. Latitude of action should

not be given to a relieving party, who on a known coast are searching for men who know their plans and orders." This made it a matter of greatest delicacy to give any directions that in any manner might change the programme there marked out.

Congress had afterwards, however, added another element to the question, in this, that the party should be brought away this summer. This at first caused the instructions to be determined upon, that the stores be landed at Littleton Island before going north of that point. Afterwards it was arranged to send a ship of the U. S. Navy with the Proteus as a convoy, and this so far obviated the absolute necessity of first stopping to unload at Littleton Island, the convoy itself being a depot, that it was thought best that Lieutenant Greely's directions should remain as Lieutenant Garlington's guide, and that it be suggested only that the landing be first made. Just before starting Lieutenant Garlington brought a copy of a memorandum that had been prepared for the Secretary of the Navy to aid him in preparing instructions to the convoy, which contained the original condition of first landing at Littleton Island, explaining that it would conflict with the plans of Lieutenant Greely, so far as it should consume the time of the expedition, and in case he should find clear weather and open water beyond, with a fair prospect of getting straight through, while by stopping he might lose the opportunity if he should not at once proceed. I replied that the authority and discretion which must always rest with the commander on the spot, must in such case be his guide.

The great delicacy in imposing positive instructions in cases like this seemed to make the simple suggestion in that paper sufficient. The strictures upon Lieutenant Garlington, so far as they refer to the question of disobedience, have been unwarranted.

As to the situation of Lieutenant Greely and his party, while serious, I do not
46 consider it desperate and fully look for his rescue next season, preparations for which must be timely and complete. Lieutenant Garlington has been asked to explain more fully, 1st, why he did not endeavor to make a depot at Littleton Island with what stores he could gather during the remaining time he might have remained in that region; 2d, why a large portion of Mr. Greely's stores were abandoned on an ice-floe so long as the season still permitted work with boats; 3d, why, out of six boats, none were left for Mr. Greely and his party; 4th, why he started south with 40 days' supply in place of leaving a large portion of them for Lieutenant Greely when the country was full of game, seals, walrus, and fish, and the party well supplied with means for its capture, which was an ample source of food; 5th, why he came south of Cape York at all, it being in the friendly Eskimo country and fairly supplied with the necessities of life.

These explanations will be furnished you as soon as received.

I have the honor, sir, to be, very respectfully, your obedient servant,

W. B. HAZEN,

Brig. and Bvt. Maj. Gen'l, Chief Signal Officer, U. S. A.

47

Reply of Lieutenant Garlington to Chief Signal Officer.

WASHINGTON, D. C., October 20, 1883.

Chief Signal Officer, U. S. Army.

GENERAL: I have the honor to acknowledge the receipt of your letter of the 18th instant, and beg leave to submit in reply to the questions asked the following answers:

1. "Why did you not endeavor to make a depot at Littleton Island with what stores you could gather during the remaining time that you might have remained in that region?"

Answer. As I stated in my report, I decided, while at Cape Sabine, to make a prompt and earnest effort to communicate with the Yantic, and to proceed south at once for that purpose. Having come to this conclusion, I proceeded to gather together all the stores I could spare and reclaim from the bags of the crew of the Proteus, and make a cache of them on the rocks in Payer Harbor under Cape Sabine. The cache made there contained clothing—blouses, trousers, flannel shirts, socks, stockings, mits, buffalo overcoats, fur caps, flannel drawers, undershirts, woolen and rubber blankets; all wrapped in rubber blankets, covered with a tent-fly and weighted down with rocks. The supply of clothing is sufficient for twenty-five men for six months. Near this cache is a new top-sail and two boats [bolts*] of new canvas, left by Captain Pike, a sufficient supply to furnish shelter for a large number of men.

In a cove about three miles west of Cape Sabine a cache of provisions was made. This cache contained fifteen sleeping-bags, six hundred pounds of hard bread (three barrels and two painted canvas bags), an unknown quantity of bacon, about seven hundred pounds of canned meats, vegetables and fruits, a box of tea (forty pounds), a box of gunpowder, a can of matches, a tin pot, and a quantity of clothing—all secured as well as possible in a crevice of the rocks, covered with two tent-flies, and the whole weighted

* Corrected in blue in the original.

down with stones. In a conspicuous cairn on the top of Brevoort Island, built by the Nares expedition, I deposited a notice of the loss of the *Proteus*, a definite description of the locality of the caches of clothing and the provisions, and also of my proposed movements and efforts to communicate with the *Yantic* and return to the relief of Lieutenant Greely.

The record of the late Mr. W. M. Beebe is in the same cairn. I did not disturb the cache left by the expedition of Mr. Beebe of last year further than to see if the stores were in good order and the boat serviceable. The depot of the English expedition on the small island south of Payer Harbor was not disturbed.

I brought the members of my party down to one suit of clothing, one change of underclothing, one buffalo overcoat, one sealskin suit, one pair overshoes, two pairs of socks, one pair of mits, and one cap. Everything else was left in the depot. Having made these arrangements, I started for Pandora Harbor, stopping at Littleton Island to leave a record. In this record I reported the wreck of the *Proteus*, my intention to go south, and my reasons therefor, and indicated my course along the coast to Cape York. I stated that I would visit Carey Islands, but this was afterwards found to be unadvisable on account of stormy weather, the heavily loaded boats, and the inexperienced crew.

The reasons which induced me to decide upon going south at once I gave in my report, but I will enter into them more fully.

48 After the *Proteus* was lost, I determined to communicate with the *Yantic* as soon as it was possible to do so, to get from her all the supplies that could be spared and establish a depot at Life-boat Cove. I intended to remain there with a small party, while the *Yantic* could proceed to Saint John's, report the disaster, and endeavor to secure a vessel suitable for ice navigation and come north with additional supplies. If anything was to be done this season looking to the relief of Lieutenant Greely, it was of the greatest importance to communicate with the *Yantic* at once. When the *Proteus* encountered the pack in Melville Bay no one on board that vessel thought the *Yantic* would cross the bay. This opinion was formed from the known intention of the commander of the *Yantic* not to put his vessel into the ice.

The *Proteus* had run into the "middle pack" about one hundred miles northwest of Upernavik, and it was very nearly four days from that time until she arrived off Cape York. The ice in the bight of Melville Bay had not broken this season, and if the "middle pack" should move off to the westward, leaving a passage around the edge of the fast ice, this ice was still to break up, and would form a pack which would prove a barrier to the *Yantic*. As it turned out, to every one's surprise, the *Yantic* saw no ice in Melville Bay, and had an unobstructed passage to Littleton Island.

If I had remained a fortnight at Littleton Island for the chance of the *Yantic's* arrival, my supplies would have been reduced to a dangerously small margin. If she did not arrive, I would have had to commence my retreat during a rapidly closing season, with inadequate provisions. It would probably have been necessary to force our way through much young ice, which, at even that date, formed one-quarter of an inch thick during calm nights.

This would have delayed the progress of the boats and prevented communication of the disaster to the *Yantic* in time that she might render any assistance to Lieutenant Greely, if it did not prevent me entirely from reaching the Danish settlements this season, and the sending of the news of the disaster home this year. If I had remained in that region until it was too late to reach the Danish settlements it would have been necessary to draw on the supplies already deposited for Lieutenant Greely, and if he should arrive he would find his own supplies diminished and the addition to his party of another body of men no better off than his own party. If I started at once I would secure the arrival of my party at the Danish settlements before the close of the season. If the *Yantic* succeeded in crossing Melville Bay there was nothing to prevent her reaching Littleton Island, the *Proteus* having encountered no ice north of Carey Islands until she ran into the ice-fields of Smith Sound, and that ice had not yet moved out to obstruct the channel. I therefore reasoned that she would at once, after finding my record on Littleton Island, proceed along the coast following my indicated line of retreat, steaming in a day the distance it would take me a week to cover. If she should miss my boats in thick weather, I thought she would endeavor to communicate with me at Cape York, which was my stated objective point. It would then still be early enough to carry out my original plan of remaining at Life-boat Cove with supplies from the *Yantic* while that vessel proceeded to Saint John's with the news of the wreck.

I left Littleton Island on the 26th of July, and on the 7th August had made out one hundred and thirty miles.

I reached Cape York on 10th August, and was confirmed in my belief that the *Yantic* had not crossed Melville Bay. The natives at Cape York had not seen any vessel pass to the northward and westward lately, and they knew nothing of the Swedish steamer *Sofia*, which was to have come there for a series of scientific observations. This

49 fact convinced me that the *Sofia* had not been able to get through the Melville Bay pack, and if she had not, I thought the *Yantic* most certainly had not.

I afterwards learned that the "*Sofia*" had reached a point about thirty miles west of Cape York. After starting on the retreat south, I pushed on as rapidly as possible, stopping only when compelled to do so by bad weather or ice. I knew if the *Yantic* did not succeed in crossing Melville Bay, it would be necessary for me to make the passage during the month of August. Young ice begins to form during that month, and if it was encountered in extensive sheets it would be fatal to my own party. The few patches of this young ice we had already met cut the bows of my boats badly. The constant exposure and the hard work were already beginning to tell on my men, and it was very questionable whether we would be able to cross the bay. If I had concluded to take the risk of waiting at Littleton Island for the *Yantic*, I would not have gathered any of the supplies at Cape Sabine and the west coast of Smith Sound to form a depot at Littleton Island. These stores are much more available to Lieutenant Greely where they are than they could be if on Littleton Island. There are three caches of provisions between Lady Franklin Bay and Cape Sabine, one of them consisting of two months' supplies for Lieutenant Greely's party. Cape Sabine, according to Lieutenant Greely's own plan, was his first objective point in a retreat south. If he arrives there this season he will find the record of the loss of the *Proteus*, and will know that there is no depot on Littleton Island. He will have at Cape Sabine, food, clothing, and facilities for making shelter. If he comes south in his boats and reaches Cape Sabine after the 1st September, it is questionable whether he could cross Smith Sound at that season, even if he should desire to do so. The ice is then in motion with the winds and tides, and the young ice is rapidly forming. If he should come down later in the fall in sledges (which is improbable), the same difficulties would exist to a greater extent. So, in my opinion, depots of supplies on the west coast of the sound are in better position to afford relief to Lieutenant Greely than they would be if on the other side. I saw no natives about Life-Boat Cove or Littleton Island, nor any recent signs of their presence, so I could not have formed a depot of supplies procured from that quarter. Birds were plentiful, but I had but one shot-gun and eighty-six cartridges in my party, so could not have secured many birds.

Although I made every effort to do so, I was unable to find the guns and ammunition provided for the expedition.

Walrus were very numerous, but at that season they were very wild and wary, taking to the water at the slightest alarm; moreover, they sink when shot in the water. A harpoon and line are necessary to secure them. After ice forms of sufficient thickness to bear their weight, they are easily speared or shot if they are caught away from their holes, or if the holes freeze over. One of them was shot, but he sank immediately. Seals are difficult to secure for the same reason; several were shot during the retreat, but sank immediately.

In the spring of the year these animals float when killed. Any attempt at securing game would have seriously retarded my progress south, which I desired to hasten as much as possible, for reasons already given.

2d. "Why were a large portion of Mr. Greely's stores abandoned on an ice floe so soon [long*] as the season still permitted work with boats?"

Answer. The boats worked all night and until twelve o'clock the next day, getting the stores saved from the ship on Cape Sabine. Each trip was attended with great danger; the ice was all in motion, and running rapidly to the southeast before a strong wind from the northwest and the ebb tide. The large floes of heavy Arctic ice were continually crushing and grinding together, cracks opening and closing, the edges of the floes

50 marked by ridges of ice blocks piled up ten or twelve feet high, by the enormous pressure of the great masses of ice as they jammed against each other. The boats when pulling through the closing cracks were compelled to haul up on the ice and wait for the crack to reopen. One boat was detained in this way for two hours, being walled in on a circular floe by blocks of ice seven feet thick piled around its circumference. The risk of handling the boats in that sea of moving ice was so great that it was seriously argued by a party of the crew of the *Proteus*, then on the floe, to give up the attempt to reach Cape Sabine and trust their fortunes to the solid ice floe they were then on, rather than run the chances of being crushed while endeavoring to make land. When I last saw the floe having the provisions on it, it was about two miles away, the sea between covered with heavy broken running ice, and the floe itself moving to the southward and eastward at the rate of two and a half miles an hour. I lost sight of it soon after, and saw no more of it or any trace of the wreck. The men had now been working almost continuously for twenty-four [one*] hours, having eaten nothing except some hard bread and tea during that time, and were worn out with fatigue and loss of sleep. I did not consider the stores remaining on the floe of sufficient importance to again endanger the lives of my men or seriously risk the loss of my boats.

* Corrected in blue in the original.

As near as I can ascertain, when the last boat left the floe there remained on it two barrels of assorted canned goods, some loose cans, a small quantity of lumber, two sails, some scattered clothing, the theodolite, and some boxes of newspapers.

3d. "Why out of six boats were none left for Mr. Greely and his party?"

Answer. I had two ordinary navy-built whale-boats and a dingy. The dingy was a very light, shallow cedar boat, for use in perfectly smooth water and a very light cargo. She would have been of no use to Lieutenant Greely, and I took her along in tow that she might lighten the cargoes of the other boats and serve as a shelter for the men when on land. When I left the shelter of the land at Cape York she was left above high-water mark above that point. The two whale-boats were necessary to carry my own party of fifteen men: one would not have been sufficient. Even with their light crews of seven in one boat and eight in the other, their gunwales were not six inches above the water when loaded. They floated lighter at the start; but after a few days, when everything became water-soaked with the frequent rain, snow, and spray, they were dangerously overloaded.

The three boats of the *Proteus* were old, very much out of repair and badly equipped. They had neither spars, sails, nor rudders fitted, and only four oars each could be found for them. Makeshift rudders and sails were fitted at Cape Sabine. I subsequently loaned them one of my sails, which they used in their largest boat throughout the trip. These boats were twenty-one feet, nineteen feet, and fifteen feet six inches long, and carried crews of nine, seven, and six men, respectively. No two of the boats would have carried the crew of the *Proteus*. To have left one of the *Proteus* boats, or to leave one of my whale-boats and distribute my surplus men in the *Proteus* boats, a resort to force would have been necessary, which I was not prepared to make for the questionable benefit of leaving a boat.

Lieutenant Greely has with him three whale-boats and a steam-launch. At Polaris Bay, opposite Lady Franklin Bay, there is a twenty-foot ice-boat, left there by Lieutenant Beaumont, of the *Discovery*; also a whale-boat in Newman Bay, left by the *Polaris*.

If he comes to Cape Sabine without boats, there is a whale-boat, left there last year and needing only a small patch replaced to be perfectly serviceable. Twenty miles below Cape Sabine, at Cape Isabella, is another whale-boat. He has eight boats available on the west coast and another on Carey Islands.

A boat at Littleton Island would prove of no benefit to him, for, after reaching the Greenland coast, he would have no further need of boats until next summer, when, it is to be hoped, he will not be reduced to the necessity of trying to make his way south in small boats.

51 4th. "Why you started south with forty days' supply, in place of leaving a large portion of them for Lieutenant Greely, when the country was full of game, seals, walrus, and fish, and the party well supplied with means for its capture, which was an ample source of food?"

Answer. The exact amount of supplies I had for my party of fifteen men (afterwards increased by one man) when I left Cape Sabine was as follows:

Six hundred pounds of hard bread in bags, a great deal of which got wet and soured and had to be thrown away; three hundred pounds of bacon, eighty pounds of tea, one-half barrel of sugar, one hundred and forty pounds of pemican, from last year's stores, about half of which was spoiled; about four hundred pounds of canned meats, vegetables, and fruits, and one-half barrel of alcohol.

This was a smaller quantity of food than was taken by any party retreating from that region. I could not foretell the exact length of time necessary to make our journey. Dr. Kane retreated from a short distance north of Littleton Island to Upernavik, taking with him all the provisions he could carry in his three boats. It took him eighty-four days to make the journey. I made the distance from Littleton Island to Upernavik in twenty-nine days.

The *Polaris* people started south with supplies for two months and a half, but were picked up a short distance from Cape York by a whaler, after having been in their boats twenty-three days. At that time of the year I could not expect to meet a whaler, for they only visit the vicinity of Cape York in the early season on their way to the whaling grounds of Pond's Inlet and Jones Sound, where they remain until September, when they are able to cross Davis' Strait, for the southward, homeward bound.

In my answer to your first question I have stated why it would have been impossible for me to have killed sufficient game to subsist my party and at the same time make rapid progress to the southward. I saw no fish in that region, and, if I had, I had no means of catching them. If I had left any of my small stock of provisions at Littleton Island, I would have seriously endangered the safety of my men to no purpose. As it was, the short rations of sometimes one and never more than two meals a day began to tell heavily upon them by the time I reached Upernavik.

After leaving Cape York I saw no game, except two or three seals, until I reached the islands about Tessuisak.

5th. "Why did you come south of Cape York at all, it being in the friendly Eskimo country and fairly supplied with the necessaries of life?"

Answer. I did not remain at Cape York because I did not see then, nor do I see now, how I could have possibly been of any service to Lieutenant Greely.

The friendly Eskimo I saw about Cape York consisted of three families of sixteen people (three men, four women, and nine children) at one place, and six men at another place about ten miles distant. From these people I learned that the settlement near Cape York, which they indicated as being somewhere to the northward and westward, consisted of about forty people, and that they were only there temporarily hunting, that they would soon return to the main settlement. The only habitations I saw along the coast were several abandoned winter huts, at long distances apart, and the three skin tents in which the three families referred to above were living. From the best information attainable, I am of the opinion that there are no more than one hundred and twenty-five Eskimo from Cape York to Renssalaer Bay, and it is a well-known fact that they are a very improvident and shiftless race, and on the verge of starvation every winter. To have quartered a party, howsoever small, without provisions on these people with the chance of Lieutenant Greely's reaching there with his party during the fall, would have been but to seriously endanger the lives of the whole community, without being able to accomplish any good whatever. I had not more than two weeks' supplies when

52 I left Cape York. I left that point for the same reason I left Cape Sabine—to endeavor to help Lieutenant Greely and party in the only way which seemed to me practicable. As I have stated from the information received there (Cape York), I was convinced that the Yantic had not crossed Melville Bay, and, consequently, had not found my records. The only alternative left to me was to endeavor to reach Upernavik and Disco just as soon as possible, still making every effort to communicate with the Yantic, detaching Lieutenant Colwell to make communication more certain.

If my actions in this matter are not explained to the satisfaction of yourself and the honorable Secretary of War, I have the honor to request that a court of inquiry be ordered to investigate the whole case.

Very respectfully, your obedient servant,
(Signed)

E. A. GARLINGTON,
1st Lieut., 7th Cav., A. S. O.

Pages 3 to 52, inclusive, of the foregoing, except the two head-lines on page 3, the running titles and numbering of pages, and the first line on pages 45 and 47, are true copies of the original papers and inclosures now filed in the office of the Secretary of War.

W. B. HAZEN,
Chief Signal Officer.

Nov. 9, 1883.

The corrections made in blue were suggested by the court of inquiry and have been verified.

W. B. HAZEN,
Chief Signal Officer.

SIGNAL OFFICE, Nov. 14, 1883.

(266.)

[4741 B, War Dept., 1, 1831, 8-4898. A. G. O., 1883.]

UNITED STATES OF AMERICA,
WAR DEPARTMENT,
Washington City, November 15, 1883.

Pursuant to section 882 of the Revised Statutes, I hereby certify that the annexed papers, being:

No. 1.—A letter of May 14th, 1880, from the chief clerk, War Department, to Mr. Finkle.

No. 2.—A letter of May 24th, 1880, from the Secretary of War to the Secretary of State.

No. 3.—A letter of June 1st, 1880, from the Secretary of War to the Commissary General of Subsistence.

No. 4.—A letter of February 4th, 1881, from the Secretary of War to Hon. James H. Blount, chairman subcommittee on appropriations, House of Representatives.

No. 5.—A letter of March 16th, 1881, from the Secretary of War to the Secretary of State.

No. 6.—A letter of March 29th, 1881, from the chief clerk, War Department, to the Chief Signal Officer.

No. 7.—A letter of April 6th, 1881, from the Secretary of War to the Secretary of the Navy.

No. 8.—A letter of April 13th, 1881, from the chief clerk, War Department, to the Secretary of the Navy.

No. 9.—A letter of April 16th, 1881, from the chief clerk (for the Secretary of War, in his absence) to Hon. W. W. Crapo, M. C.

No. 10.—A letter of April 23rd, 1881, from the Secretary of War to the Secretary of the Navy.

No. 11.—A letter of May 31st, 1881, from the chief clerk (for the Secretary of War, in his absence) to the Secretary of State.

No. 12.—A letter of June 16, 1881, from the Secretary of War to J. W. Anderson.

No. 13.—A letter of July 25th, 1881, from the Secretary of War to the Secretary of State.

No. 14.—A letter of August 19, 1881, from the Secretary of War to Rev. M. Stone.

No. 15.—A letter of September 9, 1881, from the chief clerk (for the Secretary of War, in his absence) to the Secretary of State.

No. 16.—A letter of September 17, 1881, from the chief clerk (for the Secretary of War, in his absence) to the Secretary of State.

No. 17.—A letter of October 3, 1881, from the chief clerk (for the Secretary of War, in his absence) to the Secretary of the Treasury.

No. 18.—A letter of October 14th, 1881, from the chief clerk (for the Secretary of War, in his absence) to the Secretary of State.

No. 19.—A letter of December 9, 1881, from the Secretary of War to the Speaker of the House of Representatives.

No. 20.—A letter of December 13, 1881, from the Secretary of War to the Secretary of State.

No. 21.—A letter of March 13th, 1882, from the Secretary of War to L. F. Grover, of Committee on Military Affairs, U. S. Senate.

No. 22.—A letter of May 10th, 1882, from the Secretary of War to the Secretary of the Navy.

No. 23.—A letter of May 17, 1882, from the acting chief clerk, War Department, to the Chief Signal Officer.

No. 24.—A letter of May 18th, 1882, from the Secretary of War to the President.

No. 25.—A letter of June 9th, 1882, from the Secretary of War to the chairman Committee on Appropriations, House of Representatives.

No. 26.—A letter of June 22d, 1882, from the Secretary of War to Hon. O. D. Conger, U. S. Senator.

No. 27.—A letter of June 27th, 1882, from the Secretary of War to the President.

No. 28.—A letter of June 30, 1882, from the Secretary of War to the Surgeon-General.

No. 29.—A letter of July 3d, 1882, from the Secretary of War to the Secretary of State.

No. 30.—A letter of July 17, 1882, from the Acting Secretary of War to the Secretary of State.

No. 31.—A letter of September 16th, 1882, from the acting chief clerk, War Department, to the Chief Signal Officer.

No. 32.—A telegram of September 25, 1882, from the Chief Clerk, War Department, to the Secretary of War.

No. 33.—A letter of September 26th, 1882, from the Chief Clerk, War Department, to the President.

No. 34.—A General Order, without number or date, signed "Approved, Chester A. Arthur."

No. 35.—A letter of October 31st, 1882, from the Secretary of War to the Secretary of State.

No. 36.—A letter of March 14th, 1883, from the Secretary of War to W. H. Gilden, esq., Herald Office, New York.

No. 37.—A letter of April 6th, 1883, from the Secretary of War to the Chief Signal Officer.

No. 38.—A letter of May 8th, 1883, from the Secretary of War to Mrs. Lilla M. Pavy.

No. 39.—A letter of May 4th, 1883, from the Secretary of War to the Secretary of the Navy.

No. 40.—A letter of May 14, 1883, from the Secretary of War to the Secretary of the Navy.

No. 41.—A letter of June 23, 1883, from the Secretary of War to the Secretary of the Navy.

No. 42.—A letter of July 7, 1883, from the Secretary of War to William Atherton.

No. 43.—A letter of July 14, 1883, from the chief clerk (for the Secretary of War, in his absence) to Mrs. Allie Moritz.

No. 44.—A letter of September 19, 1883, from the Secretary of War to the Secretary of the Navy.

No. 45.—A letter of October 23, 1883, from the Secretary of War to Rev. M. Stone.

No. 46.—A letter of October 24, 1883, from the Secretary of War to the Secretary of the Navy: are true copies from the official records in this Department.

In witness whereof I have hereunto set my hand and caused the seal of the War Department to be affixed, on the day and year first above written.

[SEAL.]

ROBERT T. LINCOLN,
Secretary of War.

[5427 W. D. 1880. L. B. 87-451.]

[Number 1.]

WAR DEPARTMENT,
Washington City, May 14th, 1880.

MR. FINKLE:

Will you please send to this office for record the requisition of the Chief Signal Officer for certain supplies to be furnished by the Q. M. Department, which was approved by the Secretary of War May 7th, but not recorded in this office. It will be returned as soon as recorded.

Yours truly,

H. T. CROSBY,
Chief Clerk.

[5780 W. D. 1880. L. B. 88-464.]

[Number 2.]

WAR DEPARTMENT,
Washington City, May 24th, 1880.

SIR: I have the honor to enclose herewith a letter from Lieut. A. W. Greeley, 5th Cavalry, commanding the expedition fitting out in this city for the polar regions, that inquiries be made of the Government of Great Britain whether any stores are cached north of Cape York by the English Arctic expedition of 1875 & 1876, yet remain, and, if so, whether they will be placed at the disposal of the expedition under his command.

Inviting your attention to the endorsement thereon of the Chief Signal Officer, I beg to request that if the application is a proper one it may be favorably considered.

Very respectfully, your obed't ser'v't,

ALEX. RAMSEY,
Secretary of War.

The honorable the SECRETARY OF STATE.

[A. B. 87-500. No book number.]

[Number 3.]

WAR DEPARTMENT,
Washington City, June 1, 1880.

TO THE COMMISSARY-GENERAL OF SUBSISTENCE:

Mr. Chester, an experienced Arctic packer, will report to you for duty in connection with supplies ordered for the expeditionary force to the Arctic seas. He is acting under the orders of the Chief Signal Officer, who is authorized to instruct him in the premises, as well as others connected with that force.

ALEX. RAMSAY.

[L. B. 72-101. 1368. W. D. 1881.]

Number 4.

WAR DEPARTMENT,
Washington City, February 4th, 1881.

HON. JAMES H. BLOUNT,

Chairman Sub-Committee on Appropriations, House of Representatives:

SIR: The honorable Secretary of War desires to invite the attention of your honorable committee to the scientific importance, by favorable consideration of the esti-

mate of this office for \$25,000, of continuing the work in connection with the International Polar station at Lady Franklin Sound. This station was authorized by the act of Congress, approved May 1st, 1880, by virtue of which law this Department has so far acted.

I am, very respectfully, your obedient servant,

ALEX RAMSEY,
Secretary of War.

[L. B. 92-200. 2770. W. D. 1881.]

Number 5.

WAR DEPARTMENT,
Washington City, March 16, 1881.

The Honorable the SECRETARY OF STATE :

SIR: I have the honor to enclose herewith, and to commend to favorable consideration, a copy of a communication of the 12th instant from 1st Lieut. A. W. Greeley, 5th Cavalry, A. S. O., and assistant commanding the expedition for the establishing of an international polar station at Lady Franklin Bay, requesting the co-operation of the Department of State, in certain matters which he suggests in connection with said expedition.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 92. 226-2364. W. D. 1881.]

Number 6.

WAR DEPARTMENT,
Washington City, March 29th, 1881.

GENERAL: Will you please return to this office for examination the letter which was approved by Secretary Ramsey, authorizing Lieut. A. W. Greeley to take charge of the Lady Franklin Bay expedition. The Secretary desires it for a few moments.

Very truly, yours,

H. T. CROSBY,
Chief Clerk.

Gen. WM. B. HAZEN,
Chief Signal Officer.

[L. B. 92-241. 3524. W. D. 1881.]

Number 7.

WAR DEPARTMENT,
Washington City, April 6th, 1881.

The honorable the SECRETARY OF THE NAVY :

SIR: Acknowledging the receipt of your letter of the 2nd instant, I have the honor to inform you that, in compliance with your request therein contained, the Quartermaster-General has been instructed to sell to the Navy Department, for the use of the Arctic expedition in search of the "Jeannette," the following articles, viz :

100 Army-regulation fur caps and 80 Army-regulation fur gloves.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 92-263. 3968. W. D. 1881.]

Number 8.

WAR DEPARTMENT,
Washington City, April 13th, 1881.

SIR: I have the honor to enclose herewith a communication from Lieut. A. W. Greeley, commanding the Lady Franklin Bay Polar Expedition, dated the 12th instant, referring to previous correspondence with the Navy Department, respecting certain changes in the construction of the steam-launch now building at the Washington Navy-Yard, and intended for the use of said expedition, and recommending that, in case such changes would be at the expense of the War Department, that the vessel be completed as an ordinary service launch, &c.

I would invite your attention to the endorsement on said letter of the Chief Signal Officer approving the recommendation, and beg to state the same meets the approval of the Secretary of War.

Very respectfully, your obedient servant,

H. T. CROSBY,
Chief Clerk.

The honorable the SECRETARY OF THE NAVY.

[L. B. 92-272. 3502. W. D. 1881.]

Number 9.

WAR DEPARTMENT,
Washington City, April 16th, 1881.

SIR: I have the honor to acknowledge the receipt of your favor of the 29th ultimo, calling attention to the bark Bounding Billow, which is for sale, as a suitable vessel to convey the Arctic expedition under Lieut. Greely to Lady Franklin Bay.

In reply, I beg to inform you that the subject was duly referred to the Chief Signal Officer for his views, and that he reports that a steam and sail vessel is required for the purposes of the proposed expedition, and consequently it would not be practicable to purchase the vessel mentioned.

Very respectfully, your obedient servant,

H. T. CROSBY,
Chief Clerk.
(*For the Secretary of War, in his absence.*)

Hon. W. W. CRAPO, M. C.,
New Bedford, Mass.

[L. B. 92-284. 4350. W. D. 1881.]

Number 10.

WAR DEPARTMENT,
Washington City, April 23d, 1881.

SIR: I have the honor to transmit herewith a letter from Lieut. A. W. Greely, commanding the expedition to Lady Franklin Bay, dated the 15th instant, in which, referring to your communication of the 12th instant, stating that an officer of the Navy would be detailed for the inspection of sealing steamers at St. John's and Harbor Grace, he expresses a preference for Lieut. John F. Merry to perform the duty.

In this connection I beg to invite your attention to my endorsement of the 4th instant on letter from the Chief Signal Officer of same date, wherein, referring to a similar request of Lt. Greely, I stated "it is preferred that the Hon. Secretary of the Navy make choice of such officer as he may deem most suitable."

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

The honorable the SECRETARY OF THE NAVY.

[L. B. 92-364. 5656. W. D. 1881.]

Number 11.

WAR DEPARTMENT,
Washington City, May 31st, 1881.

The Honorable the SECRETARY OF STATE:

SIR: I have the honor to acknowledge the receipt of your communication of the 18th instant, enclosing duplicate copies of the chart and list indicating the position of the several depots of provisions left by the Arctic expedition under Sir George Nares in 1875.

The documents named will doubtless prove of great value to the expedition soon to sail under command of Lieutenant A. W. Greely for Lady Franklin Bay, and it is respectfully asked that will please cause thanks of this Department to be appropriately conveyed to the British Admiralty for the courtesy of placing the information at our service.

Very respectfully, your obedient servant,

H. T. CROSBY,
Chief Clerk,
(*For the Secretary of War, in his absence.*)

[L. B. 92-393. 5938. W D 1881.]

Number 12.

WAR DEPARTMENT,
Washington City, June 16th, 1881.

SIR: Your letter of the 4th instant to the Hon. Secretary of the Navy, requesting to be enlisted for the Arctic Expedition under Lieut. A. W. Greely, U. S. Army, was referred to that officer through this Department June 6th, 1881.

Under date the 14th instant, Lieut. Greely reports that "the entire party has been selected and detailed." Under these circumstances your request cannot of necessity receive favorable consideration.

Very respectfully,

ROBERT T. LINCOLN,
*Secretary of War.*Mr. J. W. ANDERSON,
138 North Front street, Baltimore, Md.

[L. B. 92-477. 7420. W. D. 1881.]

Number 13.

WAR DEPARTMENT,
Washington City, July 25th, 1881.

SIR: In compliance with the request conveyed by your letter of the 16th instant, I have the honor to transmit herewith, for the use of the Department of State, two sets of instructions governing the establishment and management of the Polar Expedition to Lady Franklin Bay and Point Barrow.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

The honorable the SECRETARY OF STATE.

[L. B. 92-516. 8134. W. D. 1881.]

Number 14.

WAR DEPARTMENT,
*Washington City, August 19th, 1881.*Rev. M. STONE,
Lebanon, Ohio:

SIR: Acknowledging the receipt of your letter of the 9th inst., stating that your daughter, wife of Doctor Octave Pavy, of the "Howgate Arctic Expedition," now in Greenland, is dependent upon her husband's salary for support, and inquiring whether she cannot avail herself thereof without waiting until she can receive an order from him for that purpose, I beg to inform you that if Mrs. Pavy will write to the Paymaster-General of the Army, this city, she can learn from him the proper method of drawing any part of the pay of her husband.

Very respectfully,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 94-3. 8972. W. D. 1881.]

Number 15.

WAR DEPARTMENT,
Washington City, September 9th, 1881.

SIR: I have the honor to enclose herewith a letter from the Chief Signal Officer of the Army, dated the 3rd instant, in which he requests that the accompanying vouchers be signed by Mr. Robert C. Morgan, as disbursing agent of your Department, when a check for \$17.00 will be forwarded to reimburse the Department of State for two consular flags relinquished by the consul at St. John's to Lieut. A. W. Greely, U. S. Army, on the 4th of July, last.

It is respectfully requested that the accompanying papers be returned to this office, after the vouchers have been properly signed.

Very respectfully, your obedient servant,

H. T. CROSBY,
Chief Clerk,
(For the Secretary of War in his absence.)

The honorable the SECRETARY OF STATE.

[L. B. 94-17. 9280. W. D. 1881.]

Number 16.

WAR DEPARTMENT,
Washington City, September 17th, 1881.

SIR: I have the honor to enclose herewith copy of a telegram received by the Chief Signal Officer of the Army on the 12th instant, from Lieutenant A. W. Greely, acting signal officer, commanding expedition to Lady Franklin Bay, and to beg, in compliance with the Chief Signal Officer's recommendation of the 13th instant, that it be transmitted to the British Admiralty, as it concerns their depots and stores located in the arctic region

Very respectfully, your obedient servant,

H. T. CROSBY,
*Chief Clerk,**(For the Secretary of War in his absence.)*

The honorable the SECRETARY OF STATE.

[L. B. 93-27. 9443. W. D. 1881.]

Number 17.

WAR DEPARTMENT,
Washington City, October 3d, 1881.

The honorable the SECRETARY OF THE TREASURY:

SIR: I have the honor to forward the enclosed report of the Chief Signal Officer in respect to the contents of certain packages belonging to the Greely Expedition, shipped from St. John's, New Foundland, to New York, by the Allan Steamer "Carmina," and to request, in view of the statement therein set forth, the free delivery of said packages, subject to such inspection as the Treasury Department may see fit to require.

Very respectfully, your obedient servant,

H. T. CROSBY,
*Chief Clerk,**(For the Secretary of War in his absence.)*

[L. B. 94-35. 9610 W. D. 1881.]

Number 18.

WAR DEPARTMENT,
Washington City, October 4th, 1881.

SIR: In compliance with the request of the Chief Signal Officer of the Army dated the 29th ultimo, I beg to extend the thanks of this Department for the very efficient aid given by Mr. Thomas N. Molloy, U. S. consul at St. John's, N. F., in the outfit of the expedition under command of Lieutenant Greely to Lady Franklin Bay, and for his promptness in transmitting information of its safe arrival.

Very respectfully, your obedient servant,

H. T. CROSBY,

(For the Secretary of War in his absence.)

The Honorable the SECRETARY OF STATE.

[L. B. 94-150. 11598. W. D. 1881.]

Number 19.

WAR DEPARTMENT,
Washington City, December 9th, 1881.

The SPEAKER of the House of Representatives:

The Secretary of War has the honor to transmit to the House of Representatives a letter dated the 2nd instant from Brigadier-General W. B. Hazen, Chief Signal Officer, enclosing a copy of a letter dated July 5, 1881, from Lieutenant A. W. Greely, acting signal officer and assistant, office of Chief Signal Officer, commanding expedition to Lady Franklin Bay, in which he estimates that the sum of \$33,000 (\$13,000 of which should be immediately available) will be needed for the support of the expedition for the next fiscal year.

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 94-159. 11,704. W. D. 1881.]

Number 20.

WAR DEPARTMENT,
Washington City, December 13th, 1881.

The honorable the SECRETARY OF STATE:

SIR: I have the honor to state that the Chief Signal Officer of the Army has, by letter dated the 5th instant, reported to this Department the receipt, per steamer Proteus, from Lieutenant A. W. Greely, U. S. Army, commanding the Lady Franklin Bay Expedition, of six packages of periodicals, newspapers, letters and despatches, being a part of the records of Her Britannic Majesty's ships Discovery and Alert.

Said report was accompanied with certain papers relating to the subject, which papers (17 in number) are herewith enclosed, with request that they be transmitted to Her Majesty's Government, asking for information as to the disposition which it desires shall be made of the several packages first herein referred to.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 95-29. C. 260. W. D. 1882.]

Number 21.

WAR DEPARTMENT,
*Washington City, March 13th, 1882.*HON. L. F. GROVER,
Of Com. on Mil. Affairs, United States Senate:

SIR: I have the honor to acknowledge the receipt of your letter of the 19th of January last, enclosing S. 400, "A bill authorizing full pay to Lieutenant Frederick Schwatka, United States Army, while on leave to serve in command of the Franklin search expedition in the Arctic," and requesting to be furnished a copy of the order granting this officer a leave of absence from March 5th, 1878, to October 1st, 1880, and copies of any records of the Department touching the subject-matter of said bill, and also requesting my views on the objects of the proposed legislation.

In reply, I beg to invite your attention to the enclosed report, dated the 9th instant, from the Adjutant-General, and accompanying copies of orders in relation to the detail of the above-named officer.

In view of the fact that Lieutenant Schwatka was on leave of absence and performed no military service during the period mentioned in the bill, it is not deemed proper to charge the military appropriations with the amount necessary to meet the requirements of the bill.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 57-58. 1888 C. W. D. 1882.]

Number 22.

WAR DEPARTMENT,
Washington City, May 10th, 1882.

The honorable the SECRETARY OF THE NAVY:

SIR: Having to-day approved a request of the Chief Signal Officer that an agent be sent at once to St. John, Newfoundland, whose duty it will be, whenever appropriation shall be made, to charter a steamer of proper character to be ready July 1st to proceed to Lady Franklin Bay with the fresh supplies for Lieut. Greely's expedition, I have the honor to request that an officer of the Navy be ordered to St. John to assist in selecting a suitable vessel at as early a date as convenient. A similar order was issued by the Navy Department last year.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 77-87. 1919 B. W. D. 1882.]

Number 23.

WAR DEPARTMENT,
Washington City, May 17th, 1882.

The CHIEF SIGNAL OFFICER:

GENERAL: Referring to your letter of the 12th instant, in regard to the expedition to Lady Franklin Bay, the Secretary of War desires you to furnish him, as soon to-day as possible, a statement, not in very great detail, showing the general character of the disbursement of the appropriation of last year of \$25,000 for this purpose.

Yours, very respectfully,

JOHN TWEEDALE,
Acting Chief Clerk.

[L. B. 17-90. 1919 B. W. D. 1882.]

Number 24.

WAR DEPARTMENT,
Washington City, May 18th, 1882.

The PRESIDENT:

SIR: I have the honor to inclose herewith a communication addressed to this Department, under date of the 12th instant, by Captain James W. Powell, jr., Acting Chief Signal Officer, in which he represents the necessity of a special appropriation being made not later than June 1st, proximo, for the purpose of dispatching a vessel with men and supplies for the relief of the expedition which was last year sent to Lady Franklin Bay, Grinnell's Land, pursuant to the act of March 3, 1881, containing an appropriation of \$25,000 "for continuing the work of scientific observation on or near the shores of Lady Franklin Bay, and for transportation of men and supplies to said location, and return." [21 Stats., p. 447.]

Observing that mention is made by the Acting Chief Signal Officer of an understanding had, that the party composing the expedition of last year would remain at the point of their destination, to be visited year by year, whenever the state of navigation rendered it possible, until finally recalled, I have to remark that I know of no such understanding.

The original act of 1880 authorized the establishment of a "temporary station;" and the act of March 3d, 1881, made an appropriation for the "transportation of men and supplies to said location and return."

I enclose a statement showing the general character of the distribution made by the Chief Signal Officer of the appropriation of last year, from which it will be seen that the appropriation was exhausted in the purchase of such supplies as are not included in regular Army supplies, and in the transportation of the expedition to its station, leaving no provision for its return.

It is manifestly of extreme importance in view of the present situation of the officers and men of this expedition that provision be made at once, by appropriation, for an expedition to Lady Franklin Bay either to reinforce and resupply them, or to bring them home.

In view of these facts I have respectfully to recommend that the attention of Congress be invited to the subject.

I have the honor to be, very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 38-58. 1919-2272. B. W. D., 1882.]

Number 25.

WAR DEPARTMENT,
Washington City, June 9th, 1882.

Hon. FRANK HISCOCK,

Chairman Com. on Appropriations, House of Representatives:

SIR: On the 22nd of May last the President transmitted to Congress a recommendation from this Department that a special appropriation be made by Congress for an expedition to Lady Franklin Bay, supplementary to the one sent last year under the act of March 3, 1881, and for its relief. In the communication of the Chief Signal Officer, which was transmitted by the President, it was stated that the safety of the officers and men who have voluntarily gone to those inhospitable and inaccessible regions may be jeopardized by delay to grant the necessary funds.

In the estimates for the next fiscal year (page 182 of the Book of Estimates) is an

item for this purpose; but, as the sundry civil bill has not yet been reached, and as I am advised by the Chief Signal Officer that it is of the utmost importance that an appropriation should be immediately made so that a relief vessel may be hired to start from St. John's without any delay to avoid the danger of its being prevented by ice from reaching Lady Franklin Bay, I am led to call your attention to this subject and to respectfully urge that the matter may have special attention, and I would suggest the propriety of an appropriation by a separate joint resolution. It is the wish, as I understand, of the Chief Signal Officer, who has immediate charge of this subject, to take up additional men and supplies needed for the expedition already there, and to bring back such of the party who went last year as circumstances may require.

I have the honor to be, very respectfully, yours,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 99-229. 2569 B. W. D. 1882. Telegram.]

Number 26.

WAR DEPARTMENT,
Washington City, June 22nd, 1882.

Hon. O. D. CONGER,
U. S. Senate:

House resolution 239 appropriating \$33,000 for Lady Franklin Bay Expedition appears by record to have been referred in Senate June 19, to Committee on Commerce. Time is getting very short, and I suggest the advisability of pressing the passage if it can be done.

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 97-233. 2581 B. W. D. 1882.]

Number 27.

WAR DEPARTMENT,
Washington City, June 27th, 1882.

To the PRESIDENT:

SIR: I have the honor to return herewith act H. Res. 239 "Making an appropriation to continue the work of observation and exploration in the Arctic Seas," received with your letter of yesterday's date, and in reply to your inquiry, I beg to state that this Department knows of no objection to its approval.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

L. B. 98-140. A. 2553. W. D. 1882.]

Number 28.

WAR DEPARTMENT,
Washington City, June 30th, 1882.

To the SURGEON-GENERAL:

GENERAL: I will thank you to furnish me with a copy of the contract made with Assistant Surgeon G. S. Oldmixon for duty with the expedition to Point Barrow, Alaska.

Very respectfully,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 96-275. 2591 C. W. D., 1882.]

Number 29.

WAR DEPARTMENT,
Washington City, July 3d, 1882.

The honorable SECRETARY OF STATE:

SIR: I have the honor to transmit herewith, for such action as may be deemed appropriate, a letter of the 26th ultimo from the Chief Signal Officer of the Army, request

ing that the thanks of the Department be tendered to the United States Consul at St John's, Newfoundland, for his services to the Signal Corps in procuring a vessel and stores for the relief expedition to Lady Franklin Bay.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 97-329. 991 A. W. D. 1882.]

Number 30.

WAR DEPARTMENT,
Washington City, July 17th 1882.

The honorable the SECRETARY OF STATE:

SIR: Referring to your letter of March 10th last, in relation to certain packages and papers of her Britannic Majesty's ships "Discovery" and "Alert," received from Lieutenant A. W. Greely, commanding the Lady Franklin Bay Expedition, I have the honor to enclose herewith a letter upon the subject from the Chief Signal Officer of the Army, dated the 12th instant, from which it will be perceived, that said package, &c., will be shipped at once from his office to New York City: thence by American and European Express, at the expense of the United States, to the Admiralty, London, England.

Very respectfully, your obedient servant,

WM. E. CHANDLER,
Acting Secretary of War.

[L. B. 97-511. 3974 C. W. D., 1882.]

Number 31.

WAR DEPARTMENT,
Washington City, September 16th, 1882.

The CHIEF SIGNAL OFFICER, U. S. A.:

SIR: I am directed by the Secretary of War to inform you, in answer to your inquiry dated the 8th instant, that he has approved your recommendations dated the 10th ultimo, for the appointment of Private W. M. Beebe, gen'l service U. S. A., now on duty with the Lady Franklin Bay Expedition, as a clerk of class one in your office, and for the transfer of Sergeant Wm. H. Cross, gen'l service, now with the Lady Franklin Bay Expedition, and Private John Balster, gen'l service, now on duty as watchman in your office, to the Signal Corps, whenever vacancies occur.

The return of Sergeant Cross and Private Beebe should be reported to the Secretary of War immediately upon their arrival, so that the necessary action may be taken to carry out your recommendation.

Private Balster can be transferred to the Signal Corps as soon as notice is received that a vacancy exists; he must, however, under the act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June 30, 1883, be discharged from the general service before October 1, 1882.

Very respectfully,

JAY STONE,
Acting Chief Clerk.

[L. B. 98-453. 4299 A. W. D., 1882.]

Number 32.

WAR DEPARTMENT,
Washington City, September 25th, 1882.

HON. ROBERT T. LINCOLN,
Secretary of War.

(On Chicago train westward bound, Harrisburgh, Pa.)

Acting Chief Signal Officer asks that Quartermaster-General be directed to telegraph authority to provide transportation for the parties comprising supply expedition sent to Lady Franklin Bay last July returning here from Newfoundland. June last you approved recommendation of the Quartermaster-General for transportation from here to Newfoundland. Do you approve present request?

JOHN TWEEDALE
Chief Clerk.

[L. B. 98-459. B 4162. W. D. 1882.]

Number 33.

WAR DEPARTMENT,
Washington City, September 26th, 1882.

To the PRESIDENT:

SIR: I have the honor to transmit herewith a draft of a general order, which directs that whenever officers, civil employés, or enlisted men belonging to, or detailed from the Army for duty with the Signal Service United States Army, are ordered by the Secretary of War to duty in Alaska or on the Arctic stations they will be paid four months' advance pay and allowances on presentation of the order of assignment to the proper disbursing officers. I also beg to invite your attention to the remarks of the Chief Signal Officer of the Army, contained in his letter of the 18th instant—copy herewith.

The Secretary of War requests me to forward these papers to you with the recommendation that the General Order be approved for issue.

I have the honor to be, very respectfully, your obedient servant,
JOHN TWEEDALE,
Chief Clerk.

[L. B. 992. 4625. B. W. D. 1882.]

Number 34.

WAR DEPARTMENT,
*Washington City (no date), 18—.*GENERAL ORDERS }
No. —. }

The President has approved the following orders, under section 3648 of the Revised Statutes:

Whenever officers, civil employés, or enlisted men, belonging to or detailed from the Army, are ordered by the Secretary of War to duty in Alaska, or on the Arctic Stations, they will be paid four months' advance pay and allowances on presentation of the order of assignment to the proper disbursing officers; and all persons assigned to duty in like manner, at Pike's Peak, Colorado, and Mount Washington, New Hampshire, will be paid three months' advance pay and allowances.

Approved.

CHESTER A. ARTHUR.

[L. B. 100-25. 4922 C. W. D. 1882.]

Number 35.

WAR DEPARTMENT,
Washington City, October 31st, 1882.

The Honorable the SECRETARY OF STATE:

SIR: I have the honor to enclose herewith a letter of the 26th ultimo from the Chief Signal Officer of the Army, and to ask, in accordance with the recommendation therein submitted, that the thanks of the Department be appropriately tendered to Mr. Molloy, consul at St. John's, Newfoundland for the valuable assistance rendered by him in the outfit of the supply expedition to Lieutenant Greely of this year.

Very respectfully, your obedient servant.

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 102-317. B. 1352. W. D. 1883.]

Number 36.

WAR DEPARTMENT,
*Washington City, March 14th, 1883.*W. H. GILDEN, Esq.,
Herald Office, New York City:

SIR: I am in receipt of your letter of the 10th instant, tendering your services to accompany the party to be organized for the relief of Lieutenant Greely in the Arctic regions.

In reply, I beg to state that a sufficient party for the purpose stated has already been selected at the request of the Chief Signal Officer of the Army, and that the service of any one additional to those already ordered to be detailed will not be needed.

Very respectfully,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 102-389. B. 1773. W. D. 1883.]

Number 37.

WAR DEPARTMENT,
Washington City, April 6th, 1883.

To the CHIEF SIGNAL OFFICER of the Army:

SIR: The act making appropriations for the sundry civil expenses of the Government for the fiscal year ending June 30, 1884, provides that there shall not be expended from any moneys appropriated by the act entitled "An act making appropriations for the support of the Army for the fiscal year ending June 30, 1884, and for other purposes," any money for the support of the Signal Service or Corps, except the pay of such commissioned officers as the Secretary of War may detail for service in that corps.

It is undoubtedly by inadvertence that provision was not therein made for the pay, etc., of the enlisted men of the Army detailed for the Lady Franklin Bay expedition, and such legislation as may be necessary to correct the inadvertence can be easily procured early in the next session of Congress.

If I am correctly informed, the detailed men now at Lady Franklin Bay, excepting Sergeant William H. Cross, general service U. S. Army, left no vouchers on which their pay could be collected, and therefore the prohibition is of no practical consequence for the present, except as to Sergeant Cross. If he is a man of family, and the vouchers left by him are in the nature of a provision for his family during his absence, I would be disposed to use such authority as I may have to enable his vouchers to be paid as though the prohibition did not exist, trusting to my action being hereafter ratified by Congress.

The prohibition equally applies to the eight enlisted men of the line who have been detailed but who have not yet started upon the relief expedition. Two ways occur to me for taking care of them. One is that they should be discharged from their present enlistment and enlisted in the Signal Corps. This is perhaps objectionable, as you will undoubtedly need all of the force authorized to be enlisted in the Signal Corps for conducting the business of the military telegraph lines and the weather bureau service. Another course which may be practicable would be the procurement of an advance of their pay by direction of the President, under section 3648 of the Revised Statutes. There are some objections to this course which are obvious, and I would be glad to have your views and any suggestions which you may be able to make in the matter.

Very respectfully, yours,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 101-497. 2197 B. W. D. 1883.]

Number 38.

WAR DEPARTMENT,
Washington City, May 8th, 1883.

Mrs. LILLA M. PAVY,
Lebanon, Warren County, Ohio:

MADAM: In response to your letter of the 30th ultimo, requesting that diligent search may be made for certain letters addressed by you to your husband, Dr. Octave Pavy, on duty at Lady Franklin Bay, and that when found they be returned to you, I have the honor to transmit herewith a copy of a report dated the 4th instant, from the Chief Signal Officer of the Army, on the subject, from which it will be seen that the letters as described by you cannot be found.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 102-514. 2323 B. W. D. 1883.]

Number 39.

WAR DEPARTMENT,
Washington City, May 14th, 1883.

The honorable the SECRETARY OF THE NAVY:

SIR: I have the honor to transmit herewith for your information and such action as may be deemed proper in the premises, a letter of the 10th instant, from the Chief Signal Officer of the Army, requesting that application be made for the detail of an officer of the United States Navy to inspect the vessel to be selected for the relief expedition of this year to Lady Franklin Bay, and suggesting the name of Chief Engineer Melville as a most suitable one for that duty.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 102-519. 2366 B. W. D. 1883.]

Number 40.

WAR DEPARTMENT,
Washington City, May 14th, 1883.

The honorable SECRETARY OF THE NAVY:

SIR: I have the honor to transmit to you a communication from the Chief Signal Officer, bearing this date, on the subject of the relief of the Lady Franklin Bay Expedition.

A relief expedition failed to reach this party last year, and it is very important that it should be relieved during the approaching summer.

Under recent legislation by Congress it will be necessary, if possible, not only to relieve the party by furnishing supplies, but to bring it home. A specific appropriation to be disbursed by this Department has been made which is only sufficient to hire one vessel, and the Chief Signal Officer thinks that much valuable assistance would be given if a naval vessel could also be sent.

It is important that the relief expedition should not fail this year, and I commend the application of the Chief Signal Officer to your favorable consideration.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 104-183. 2974 B. W. D. 1883.]

Number 41.

WAR DEPARTMENT,
Washington City, June 23d, 1883.

The honorable the SECRETARY OF THE NAVY:

SIR: I have the honor to enclose to you a copy of a communication this day received by me from the Chief Signal Officer of the Army, and of a telegram enclosed therein, to all of which I invite your attention.

I am anxious that the relief expedition mentioned by the Chief Signal Officer should not fail in reaching and bringing home Lieutenant Greely and his party. It is represented to me that Lieutenant Colwell of the Navy, now at St. John's, is anxious to volunteer to accompany Lieutenant Garlington and that his services would be of great value, especially in view of the fact that Lieutenant Garlington's party has been materially reduced by accident and by desertion.

I have, therefore, the honor to request that, if Lieutenant Colwell's services can be spared for this duty, and you see no objection to his performing it, the necessary orders may be given by telegraph.

I am, sir, very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

S. Ex. 100—AP—16

[L. B. 104-129. 303 A. W. D. 1883.]

Number 42.

WAR DEPARTMENT,
Washington City, July 7th, 1883Mr. WILLIAM ATHERTON,
La Clair, DeKalb County, Illinois:

Sir: The Department is in receipt, by reference from the Navy Department, of your letter of the 27th ultimo, inquiring whether O. F. Moritz has sailed with this year's relief expedition to Lady Franklin Bay, and stating that his wife, at whose instance you write, is without means of support.

In reply I beg to inform you that upon a reference of the subject to the Chief Signal Officer of the Army, he reports, under date of the 3d instant, as follows:

"Artificer Orville F. Moritz, Co. "A," 17th Infantry, sailed with the relief expedition of this year to Lady Franklin Bay. He drew advance pay to include October 31st, and left a request, with receipted vouchers, that his pay after that date be deposited to the credit of H. E. Moritz, Salem, Richardson County, Nebraska. Whether or not this is his wife, or a deposit to her benefit, this office has no information."

Very respectfully,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 104-146. 3228 B. W. D. 1883.]

Number 43.

WAR DEPARTMENT,
Washington City, July 14th, 1883.Mrs. ALLIE MORITZ,
La Clair, Ills.:

MADAM: In reply to your inquiry under date of the 5th instant, I beg to inform you that the Chief Signal Officer of the Army, to whom your inquiry was referred, reports that Artificer Orville F. Moritz, Company "A" 17th Infantry, sailed with the relief expedition of this year to Lady Franklin Bay, and that he drew advance pay to include October 31st next, and left a request with receipted vouchers that his pay after that date be deposited to the credit of H. E. Moritz, Salem, Nebraska.

Very respectfully,

JOHN TWEEDALE,
Chief Clerk
(*For the Secretary of War in his absence.*)

[L. B. 104-313. 4076 B. W. D. 1883.]

Number 44.

WAR DEPARTMENT,
Washington City, September 19th, 1883.

The honorable the SECRETARY OF THE NAVY:

SIR: In accordance with the request of the Acting Chief Signal Officer of the Army, as conveyed by his enclosed letter of the 17th instant, I have the honor to ask that you will please provide by telegraphic orders for the return of Lieutenant Garlington and his party by the first naval vessel leaving St. John's, N. F., for a port of the United States (probably to New York), and that early information of the time of departure and destination of the vessel be furnished this Department, in order that arrangements may be made for the transportation of the party to this city.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 104-385. 4270 B. W. D. 1883.]

Number 45.

WAR DEPARTMENT,
Washington City, October 23rd, 1883.Rev. M. STONE,
Care of R. M. Stone, Omaha, Neb.:

SIR: Acknowledging the receipt of your letter of the 30th ultimo making inquiry respecting the pay due to Dr. Octave Pavy of the Greely Arctic Expedition, I beg to

inform you that the Chief Signal Officer of the Army, to whom the matter was referred, reports under date of the 20th instant as follows: "Probably through carelessness Dr. Pavy sent back to this country from Lady Franklin Bay only two sets of vouchers upon which Maj. Wm. Smith, paymaster, paid to Mrs. Pavy, by check No. 16,153, two hundred (200) dollars, and by check No. 16,151 nine hundred and thirty-six (936) dollars and sixty-seven (67) cents.

"In the absence of other vouchers or of any general power of attorney, it has been impossible to make further payments to Mrs. Pavy.

"A letter from Mrs. Pavy to the Chief Signal Officer has been answered, in which such explanations were given as were necessary to her full understanding of the matter. The stories told by the Eskimo regarding the death of Dr. Pavy are not credited by this office."

Very respectfully,

ROBERT T. LINCOLN,
Secretary of War.

[L. B. 173-332. 4489 B. W. D. 1883.]

Number 46.

WAR DEPARTMENT,
Washington City, October 24th, 1883.

The honorable the SECRETARY OF THE NAVY:

Sir: In compliance with your memorandum request of the 22nd instant, I have the honor to enclose herewith, for your information, a copy of the record left at Cape Sabine for Lieutenant Greely, by Lieutenant E. A. Garlington, 7th Cavalry, commanding the late Greely Relief Expedition.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

HEADQUARTERS DEPARTMENT OF THE PLATTE,
JUDGE-ADVOCATE'S OFFICE,
Omaha, Nebraska, Nov. 27th, 1883.

Personally appeared before me, H. B. Burnham, judge-advocate U. S. Army, and judge-advocate Department of the Platte, John P. Hawkins, an officer of the Subsistence Department U. S. Army, who, being duly sworn, deposes as follows: That he was stationed at New York City from August 1st, 1879, to September 22nd, 1883, and during that period was engaged in the purchase of subsistence stores for the U. S. Army; that in the month of June, 1882, he purchased and invoiced to Lieut. A. W. Greely, 5th Cavalry, then preparing for an expedition to Lady Franklin Bay, a quantity of subsistence stores, a copy of the invoice of which is here appended, marked No. 17, and of date 13th day of June, 1882, and officially signed by him as a true copy; that in the month of May, 1883, he purchased and invoiced to Lieut. E. A. Garlington, 7th Cav'y, then preparing for an expedition for the relief of Lieut. Greely, a quantity of subsistence stores, a copy of the invoice of which is here appended, marked No. 29, and of date 31st day of May, 1883, and officially signed by him. He further deposes that the stores on said invoices were furnished by direction of the Com'sy-Gen'l of Subst.; that they were of the best quality to be had in the city of New York; that special care was taken in the selection of the stores, and in their packing, with a view to their best preservation; that during the time of the purchase and packing of the said stores he had frequent consultations with the said Greely and said Garlington concerning quality of the articles, varieties, and modes of packing, and that much interest was always shown by them in these details, and a desire manifested that everything possible should be done to insure a perfect quality and a suitable variety, of stores; and he further expresses his belief that so far as the subsistence stores are concerned, and especially in relation to these embraced in invoice No. 29, of 31st day of May, 1883, there was never a better outfit furnished for any expedition of like nature, by land or by sea, both as concerns quality and variety of food.

JOHN P. HAWKINS,
Maj. C. S.

Sworn and subscribed before me, at Omaha, Nebraska, this 27th day of November, 1883.

H. B. BURNHAM,
Judge-Advocate U. S. A., and Judge-Advocate Dept. of the Platte.

[8.—1384.—D. E., 1883.]

No. 17.

Invoice of subsistence stores turned over at New York City, this 13th day of June, 1882, by Major John P. Hawkins, C. S., to Lt. Colonel H. C. Hodges, deputy quartermaster-general, U. S. A., for transportation and delivery to Lt. A. W. Greely, 5th Cav'y, A. S. O. and A. C. S., at Lady Franklin Bay.

Packages.	Articles and quantities.	Cost.	Gross weight.
			<i>Pounds.</i>
9 boxes	1,002 p'ds bacon.....	p'r p'd. \$0 14	1,272
8 "	192 cans beef, roast, 2 lb.....	" doz. 3 45	584
20 kits	20 kits fish, pickled mackerel, 20 lb.....	" kit. 1 75	600
42 casks	5,000 p'ds hard bread.....	" p'd. 6 $\frac{1}{2}$	7,400
3 packages	411 " cheese.....	" " 11 $\frac{1}{2}$	510
2 casks	672 " corn-meal.....	" " 3 $\frac{1}{2}$	797
15 h'f bbls	1,916 " sugar.....	" " 9 $\frac{3}{4}$	2,081
4 boxes	240 " soap.....	" " 6 $\frac{5}{16}$	272
5 "	100 " salt water.....	" " 6 $\frac{1}{16}$	130
20 sacks	1,000 " salt.....	" " 1 $\frac{1}{16}$	1,040
1 box	25 " pepper.....	" " 22	45
9 "	108 " yeast powder.....	" " 40	198
10 "	240 cans apples, 3 lb.....	" doz. 1 50	750
2 h'f bbls	161 p'ds bacon, b'kfast.....	" p'd. 18	230
21 boxes	1,512 " butter.....	" " 38	2,520
1 package	96 " chocolate.....	" " 37	195
28 casks	8,400 " flour, family.....	" " 5 $\frac{1}{16}$	10,192
2 boxes	12 " ginger.....	" " 41 $\frac{1}{2}$	20
10 "	1,000 " hams, S. C.....	" " 16 $\frac{1}{2}$	1,316
3 "	30 " hops.....	" " 25	45
2 "	48 cans jam, blackberry.....	" doz. 4 20	124
6 "	144 " jelly, currant.....	" " 4 00	372
17 "	1,020 p'ds lard.....	" p'd. 14	1,360
7 "	336 cans lobster, 1 lb.....	" doz. 1 65	490
4 "	576 boxes matches, safety.....	" gross. 3 55	44
20 "	960 cans milk.....	" cans. 16	1,300
9 "	968 p'ds oatmeal.....	" p'd. 7 $\frac{2}{16}$	1,502
8 "	96 bottles oil, olive, "Italian".....	" doz. 7 20	254
17 "	408 cans onions, 3 lb.....	" " 3 50	1,275
10 "	240 " peaches, 3 lb.....	" " 3 60	750
1 "	50 p'ds " evaporated.....	" p'd. 46	57
6 "	144 cans peas, green, "Am.".....	" doz. 1 75	300
1 "	10 p'ds pepper, Chili, Colorado.....	" p'd. 47	17
6 boxes	72 jars pickles, C. & B., ass'ted, quarts.....	p'r doz. 5 75	396
25 "	600 cans potatoes, 3 lb.....	" doz. 2 50	1,875
6 "	144 " preserve, damson.....	" " 4 35	372
3 kegs	160 p'ds prunes.....	" p'd. 9	196
1 package	20 boxes raisins, L. L., 4's.....	" box 1 13	216
7 "	103 p'ds Sultana.....	" p'd. 13	115
6 boxes	144 cans salmon, 2 lb.....	" doz. 3 00	300
1 "	17 bags salt, table, 3 lb.....	" bag 3 $\frac{7}{16}$	80
3 "	72 cans sauce, cranberry.....	" doz. 2 40	150
16 "	192 bottles ".....	" " 3 83	960
2 "	48 " " Worcestershire, p'ts.....	" " 4 65	110
1 "	48 cakes soap, toilet, Cowdray's, ass'ted.....	" " 3 25	20
1 "	72 " " " No. 90.....	" " 96	28
2 "	144 " " " palm.....	" " 1 02	50
5 "	120 cans soup, mock-turtle.....	" " 2 75	270
5 "	120 " " ox-tail.....	" " 2 62 $\frac{1}{2}$	375
5 h'f bbls	460 p'ds sugar, cut.....	" p'd. 11 $\frac{1}{16}$	515
8 boxes	40 gall's syrup.....	" gall. 91	536
2 h'f bbls	45 $\frac{1}{2}$ " " N. O. molasses.....	" " 88	585
2 boxes	12 " " maple.....	" " 1 41 $\frac{3}{4}$	156
1 "	25 p'ds tobacco, snok'g, Lone Jack.....	" p'd. 1 20	42
1 "	25 " " " Durham.....	" " 49 $\frac{1}{16}$	32
18 "	432 cans tomatoes, 3 lb.....	" doz. 1 55	1,350
	24 towels, No. 30.....	" " 1 85	.....
	24 " " 98.....	" " 2 30	.....
	24 " " 220.....	" " 3 30	.....
Salt.....	504 cans eggs, condensed.....	" can 18	483
21 boxes	150 p'ds farina.....	" p'd. 7 $\frac{1}{16}$	187
1 "	303 " figs.....	" " 14	396
29 "	696 cans rhubarb, 3 lb.....	" doz. 1 75	2,175
7 kegs	70 gall's pickles, cucumbers.....	" gall. 70	742
5 "	50 " " onions.....	" " 95	530
8 h'f bbls	128 " " sauer kraut.....	" " 34 $\frac{3}{4}$	1,152
4 boxes	48 bottles preserve, peaches.....	" doz. 12 00	212
4 "	96 cans strawberries, 2 lb.....	" " 2 50	200
1 "	60 p'ds onions, evaporated.....	" p'd. 50 $\frac{1}{16}$	98
1 "	60 " potatoes.....	" " 16 $\frac{1}{16}$	92

(Signed)

A true copy.

JOHN P. HAWKINS,
Major and C. S.
JOHN P. HAWKINS,
Major and C. S.

No. 29.

Invoice of subsistence stores turned over at New York City, this 31st day of May, 1883, by Major John P. Hawkins, C. S., to Lt. E. A. Garlington, 7th Cav'y, A. C. S., at New York City, New York.

Packages.	Articles and quantities.	Cost.	Total cost.
20 bbls.	20 barrels pork..... per bbl.	\$20 00	\$400 00
95 boxes	9,500 p'ds bacon { 9,100 lbs	14½	1,319 50
8 "	400 " " " " " " " " " " " "	15	60 00
37 casks	192 cans beef, roast, 2 lb..... " doz.	3 25	52 00
121 "	11,856 p'ds flour..... " p'd.	4½	503 88
12 boxes	14,000 " " hard bread..... " " "	6½	910 00
6 bbls	960 " " corn-meal..... " " "	4¼	40 80
1 "	1,614 " " beans..... " " "	3 ⁴⁴ / ₁₀₀	55 52
1 "	250 " " black..... " " "	4½	11 25
3 boxes	144 cans " baked, 1 lb..... " doz.	1 17½	14 10
7 "	168 " " " 2 " " " " " " " " " "	1 47½	20 05
17 "	408 " " " 3 " " " " " " " " " "	1 65	56 10
2 bbls.	426 p'ds peas..... " p'd.	2 ⁶³ / ₁₀₀	11 05
2 "	593 " " rice..... " " "	6¼	37 06
25 boxes	2,500 " " hominy..... " " "	4½	112 50
6 sacks	1,032 " " coffee, green..... " " "	8½	90 30
6 boxes	480 " " roasted and ground..... " " "	17	81 60
3 packages	198 " " tea, black, oolong..... " " "	82½	163 35
3 boxes	14 " " " Eng. b'kfast..... " " "	67½	9 45
26 h'f bbls	120 " " green, gunpowder..... " " "	75	90 00
5 ½ bbls	3,567 " " sugar..... " " "	8 ²³⁷⁵ / ₁₀₀₀₀	295 48
3 boxes	171 gall's vinegar..... " gall.	15	25 05
8 "	90 p'ds candles..... " p'd.	16 ²² / ₁₀₀	14 60
5 "	525 " " soap..... " " "	6 ¹⁰ / ₁₀₀	33 08
10 sacks	100 " " salt water..... " " "	6 ¹⁰ / ₁₀₀	6 10
2 boxes	1,000 " " salt..... " " "	1 ¹⁰ / ₁₀₀	12 00
17 "	50 " " pepper..... " " "	23 ⁹ / ₁₀₀	11 95
1 "	204 " " yeast powder..... " " "	40	81 60
15 "	5 " " allspice..... " " "	38½	1 92
4 h'f bbls	360 cans apples, 3 lb..... " doz.	1 15	34 50
6 boxes	250 p'ds " dried..... " p'd.	9½	23 75
1 "	300 " " evaporated..... " " "	19½	58 50
6 h'f bbls	24 cans asparagus..... " doz.	3 25	6 50
1 box	487 p'ds bacon, breakfast..... " p'd.	18½	91 31
14 "	24 brushes, hair, large..... per doz.	13 00	26 00
3 packages	1,008 p'ds butter..... " p'd.	35	352 80
8 boxes	395 " " cheese..... " " "	17 ¹³ / ₁₀₀	67 66
2 "	96 cheeses, Edam..... " cheese	8½	85 44
1 "	96 p'ds chocolate..... " p'd.	39	37 44
1 "	500 cigars, "Cheif"..... " M.	31 00	15 50
1 "	500 " " "Queen"..... " " "	58 00	29 00
1 "	5 p'ds cinnamon..... " p'd.	68½	3 42
1 "	5 " " cloves..... " " "	56½	2 83
With towels	42 combs, coarse, horn, medium..... " doz.	1 02	3 57
17 boxes	42 " " fine,..... " " "	57½	2 01
50 packages	408 cans corn, green..... " " "	1 65	56 10
1 box	150 tins crackers, soda, 5 lb..... tin.	1 09	148 50
8 h'f bbls	150 " " water wafer, 5 lb..... " " "	1 03½	155 25
2 boxes	48 bottles extract lemon, 4 oz..... doz.	3 40	13 60
4 "	24 " " vanilla, 4 oz..... " " "	4 50	9 00
10 h'f bbls	800 p'ds flour, family..... " " "	5 ¹⁵ / ₁₀₀	41 20
5 boxes	96 p'k'ts gelatine..... " doz.	1 62	12 96
1 "	20 p'ds ginger..... " p'd.	38½	7 67
6 "	960 " " hams, S. C..... " " "	17½	170 40
25 "	50 " " hops..... " " "	1 05	52 50
10 "	24 cans jam, blackberry..... " doz.	4 25	8 50
20 "	144 " " jelly, currant..... " " "	4 00	48 00
3 packages	1,500 p'ds lard..... " p'd.	14½	217 50
8 boxes	250 " " macaroni..... " " "	12 ⁶ / ₁₀₀	31 50
4 "	960 cans milk..... " can.	16	153 60
2 "	24 p'ds mustard..... " p'd.	47½	11 40
1 "	24 bottles " French..... " doz.	1 62½	3 25
With towels	24 papers needles..... " " "	42	84
With French peas	50 needles, darning..... " M.	1 05	05
8 boxes	4 p'ds nutmegs..... " p'd.	1 55	6 20
8 "	600 " " oatmeal..... " " "	7 ⁹⁴ / ₁₀₀	42 24
3 packages	96 bottles oil, olive, Berier..... " doz.	7 20	57 60
8 boxes	120 p'ds onions, evaporated..... " p'd.	50	60 00
4 "	192 cans " 3 lb..... " doz.	3 50	56 00
4 "	96 " " oysters, 2 lb..... " " "	2 25	18 00
4 "	96 " " peaches, 3 lb..... " " "	3 75	30 00
3 boxes	96 " " "pie fruit"..... " " "	1 65	13 20
2 "	150 p'ds peaches, dried..... per p'd.	9	13 50
12 "	100 " " evaporated..... " " "	30	30 00
1 "	288 cans peas, green, American..... " doz.	2 25	54 00
1 "	50 " " "French"..... " can.	23	11 50
1 "	20 p'ds pepper, Chili-Colorado..... " p'd.	42	8 40

Invoice of subsistence stores turned over at New York City, &c.—Continued.

Packages.	Articles and quantities.	Cost.	Total cost.
6 boxes	72 jars pickles, C. & B. ass'ted, quarts	per doz. \$5 75	\$34 50
15 kegs	150 gall's " onions	" gall. 85	127 50
14 " "	140 " " cucumbers	" " 45	63 00
1 box	24 cans pineapple	" doz. 3 95	7 90
with towels	48 papers pins	" " 62 ²³ / ₁₀₀	2 51
1 box	48 pipes, briar-wood, No. 2	" gross. 48 25	16 05
	24 " " " No. 1	" " 40 75	6 79
2 " "	100 pipe-stems, cherry	" " 10 65	7 40
1 " "	48 cans preserve, damson	" doz. 4 20	16 80
2 " "	55 p'ds prunes, French	" p'd. 13 ¹ / ₂	7 43
2 " "	110 " " Turkish	" " 8	8 89
2 package	10 boxes raisins, L. L., $\frac{1}{2}$'s	" box. 90	9 00
1 box	219 p'ds " Sultana	" p'd. 14	30 66
1 " "	24 cans salmon, 2 lb	" doz. 3 00	6 00
1 " "	33 bags salt, table, 3 lb	" bag. 4 ¹ / ₂	1 49
1 " "	100 boxes sardines, $\frac{1}{2}$	" box. 32	32 00
6 " "	144 cans sauce, cranberry, 2 lb.	" doz. 2 00	24 00
11 " "	264 cans " " 2 lb.	" " 3 00	66 00
2 " "	48 bottles " Worcestershire, pints	" " 4 70	18 80
1 " "	48 cakes soap, toilet, Low's B. W	" " 1 63 ³ / ₄	6 75
6 " "	400 " " " white castile	" " 1 00	33 33
1 " "	72 " " " Giumauve	" " 1 00	6 00
1 " "	72 " " " No. 90	" " 95 ⁵ / ₈	5 75
1 " "	72 " " " palm	" " 1 02	6 12
2 " "	48 cans soup, ox-tail	" " 2 62 ¹ / ₂	10 50
2 " "	48 " " " mock-turtle	" " 2 75	11 00
2 " "	48 " " " mutton, with barley	" " 2 50	10 00
2 " "	48 " " " chicken	" " 3 00	12 00
1 package	72 p'k'ts " vegetables	" " 1 85	11 10
2 boxes	40 p'ds starch, corn	" p'd. 7 ¹ / ₂	2 90
5 h'f bbls	500 " " sugar, cut loaf	" " 9 ¹⁷⁶ / ₁₀₀₀	49 38
7 boxes	42 gall's syrup	" gall. 96	37 80
2 " "	12 " " maple	" " 1 41 ¹ / ₂	17 00
7 boxes	42 gall's syrup, N. O. molasses	per gall. 95	39 90
1 box	25 p'ds tapioca	" p'd. 9	2 25
	48 spoils thread, linen, white	" doz. 69	2 76
	48 " " " black	" doz. 69	2 76
15 boxes	600 p'ds tobacco, plug	" p'd. 53 ¹ / ₂	321 00
4 " "	100 " " " smok'g, Lone Jack	" " 1 20	120 00
1 " "	50 " " " Little Joker	" " 41	20 50
20 " "	500 " " " Durham	" " 44 ³ / ₄	223 75
42 " "	1,008 cans tomatoes, 2 lb.	" doz. 1 00	84 00
1 " "	120 towels, No. 98	" " 2 30	23 00
2 " "	150 p'ds wheat, cracked	" p'd. 70 ¹ / ₁₀₀	10 56
1 " "	24 cans Chili con-carne	" doz. 4 00	8 00
3 " "	72 " " " beans, lima	" " 1 50	9 00
6 " "	144 " " " string	" " 2 50	30 00
1 " "	24 " " " blackberries	" " 1 00	2 00
3 " "	72 " " " brawn, 3 lb	" " 6 00	36 00
1 " "	12 bot's celery salt	" " 2 25	2 25
2 " "	100 p'ds cherries, dried	" p'd. 30	30 00
4 " "	96 cans chicken, roast	" doz. 4 50	36 00
2 " "	96 " " " chipped beef	" " 2 50	20 00
1 " "	6 bot's curry powder, $\frac{1}{2}$ pints	" " 3 00	1 50
3 " "	166 p'ds dates	" p'd. 12	19 92
25 " "	600 cans eggs, condensed	" doz. 3 25	162 50
3 packages	293 p'ds figs	" p'd. 20	58 60
2 h'f bbls	200 " " " flour, buckwheat	" " 4 ³ / ₈	9 50
19 " "	1,000 " " " rye	" " 3 ³ / ₈	37 50
4 boxes	150 " " " farina	" " 6 ¹ / ₈	9 75
2 " "	12 jars ginger preserve, $\frac{1}{2}$ p'ts	" doz. 7 80	7 80
5 " "	120 cans gooseberries, 2 lb	" " 1 25	12 50
1 " "	24 " " " herbs	" " 82 ¹ / ₂	1 65
2 " "	48 bot's horse-radish	" " 2 00	8 00
4 kegs	40 gall's juice, lime	" gall. 1 35	54 00
1 box	24 cans mince-meat, 5 lb	" doz. 3 50	7 00
20 " "	480 cans mutton, roast, 2 lb	" doz. 2 50	100 00
2 " "	288 boxes matches, wax	" gross. 8 75	17 50
4 " "	576 " " " sulphur	" " 4 00	16 00
With curry powder	5 p'ds mustard-seed	" p'd. 25	1 25
12 boxes	288 cans okra, 3 lb	" doz. 1 65	39 60
10 boxes	600 p'ds potatoes, evaporated	per p'd. 14	84 00
25 " "	600 cans " " 3 lb.	" doz. 3 00	150 00
1 " "	12 bot's peaches, preserve	" " 12 00	12 00
4 " "	48 cans plums, 1 gall.	" " 4 00	16 00
15 $\frac{1}{2}$ -bbls	15 $\frac{1}{2}$ -barrels pigs' feet	" $\frac{1}{2}$ bbl. 2 00	30 00
7 boxes	168 cans rhubarb, 3 lb	" doz. 1 75	24 50
6 " "	144 " " " raspberries, 2 lb	" " 2 25	27 00
30 kegs	300 gall's sauer kraut	" gall. 55	165 00
2 boxes	48 cans strawberries, 2 lb	" doz. 2 75	11 00
12 " "	288 " " " sausage, 2 lb	" " 3 50	84 00

Invoice of subsistence stores turned over at New York City, &c.—Continued.

Packages.	Articles and quantities.	Cost.	Total cost.	
4 boxes	200 p'ds sugar, maple	per p'd ..	\$0 17½	\$34 50
1 "	24 cans squash, 3 lb	" doz ..	1 75	3 50
4 "	90 " turkey, roast, 2 lb	" " ..	4 50	36 00
10 "	240 " whortleberries, 2 lb	" " ..	2 00	40 00
	Total			9,916 27

JOHN P. HAWKINS,
Major and O. S.

List of officers and men left at Lady Franklin Bay, August, 1881.

1st Lieut. A. W. Greely, 5th Cavalry, acting sig. officer and assistant.

2d Lieut. Frederick Kislingbury, 11th Infantry, A. S. O.

2d Lieut. James B. Lockwood, 23d Infantry, A. S. O.

Sergeant Edward Israel, Signal Corps, U. S. Army.

Sergeant Winfield S. Jewell, " " "

Sergeant George W. Rice, " " "

Sergeant David C. Ralston, " " "

Sergt. Hampton S. Gardiner, " " "

Sergeant William H. Cross, general service, "

Sergeant David L. Brainard, Co. "L," 2d Cavalry.

Sergeant David Linn, Company "C," 2d Cavalry.

Corporal Nicholas Salor, Company "H," 2d Cavalry.

Corporal Joseph Elison, Company "E," 10th Infy.

Private Charles B. Henry, Company "E," 5th Cavy.

Private Maurice Connell, Company "B," 3d Cavy.

Private Jacob Bender, Company "F," 9th Infy.

Private Francis Long, Company "F," 9th Infantry.

Private William Whisler, Company "F," 9th Infy.

Private Henry Bierderbick, Company "G," 17th Infy.

Private Julius Fredericks, Company "L," 2d Cavy.

Private William A. Ellis, Company "C," 2d Cavy.

Private R. R. Schneider, Battery "A," 1st Artillery.

Acting Assistant Surgeon Octave Pavy, U. S. Army.

Two Esquimaux (estimated).

Commissioned officers	3
Enlisted men	19
Acting assistant surgeon	1
Esquimaux (estimated)	2
Total	25

Official extract from the records of the Signal Office.

W. B. HAZEN,
Brig. and Bvt. Maj. Genl., Chief Signal Officer, U. S. A.

SIGNAL OFFICE,
Dec. 27th, 1883.

[Number 47.]

A.

INTERROGATORIES.

Interrogatories to be propounded to Thomas N. Malloy, esq., U. S. consul at St. John's, Newfoundland, and to Mr. I. Syme and Mr. Lache, agents for J. & W. Stewart, ship-owners, of the same place, whose testimony is required before a court of inquiry appointed by the President of the United States to investigate the causes of the failure of the U. S. Arctic expedition of 1883 to Smith's Sound, of Baffin's Bay.

The deposition of Mr. Malloy, to be taken before any notary public or other officer duly authorized to administer oaths in the province of Newfoundland.

The depositions of Mr. Syme and Mr. Lache may be taken by the U. S. consul, who, under section 1750 Revised Statutes, is thereto authorized. After the witnesses shall have been duly sworn and examined and their depositions respectively completed and signed they will be duly sealed and forwarded by mail, addressed to Major Henry Goodfellow, United States Army, recorder of court of inquiry, care of the Adjutant-General of the Army, Washington City, D. C., United States of America.

1st Q. State your name, residence, business, avocation, or office.

2nd Q. Did you know the steam vessel the Proteus, which sailed from St. John's, Newfoundland, in June, 1883, carrying an Arctic expedition from the United States?

3rd Q. If you answer yes to the foregoing interrogatory, state fully all you know of the fitness of said vessel for the navigation of the seas and ice of the Arctic regions at the time she so sailed or departed from St. John's; state also your means of such knowledge.

4th Q. State what, if anything, you may know of the equipment and outfit of said vessel at the time mentioned; state what boats she carried when leaving and what was the description of each of them, its seaworthiness, age, and fitness in general for the work naturally to be expected of them.

5th Q. State if you personally made any examination of such equipment and outfit, and when you made such examination, when you last saw the boats and equipments of such ship, and when you last examined them critically; how long before the departure?

6th Q. Do you know the character and general reputation of Richard Pike, master of said ship, with reference to seamanship, and as an ice navigator? If so, state it fully.

7th Q. If you know what experience Captain Pike had had in ice navigation, state it fully.

8th Q. State, if you know, when and by whom the crew of the Proteus was shipped or enlisted; when the said shipping and enlistment was completed; how many days or hours before the ship sailed. State fully.

9th Q. How did said crew, if you know, compare with the average standard of men who habitually are employed in the seal fishery?

10th Q. Did you see all of said crew, and how often did you see them?

11th Q. Did you critically examine and inspect said crew, or did any one else critically examine and inspect said crew in behalf of the owners of the Proteus; and, if so, who made such examination, and when and where—how long before the sailing of the ship?

12th Q. When did you last see the crew of said ship?

13th Q. Did you know anything personally, or had you any credible assurance; and, if so, what; or the history or antecedents of any of said crew; and, if yes, of how many, and which of them? State fully.

14th Q. Had any of said crew, if you know, and, if you answer yes, state which of them by name, ever before been in the service of J. & W. Stewart, owners of said Proteus; and, if yes, for how long a period, and what was their reputation during such prior employment?

15th Q. Did Mr. Syme, agent, &c., promise General Hazen that a crew of first-class men should be shipped for the service?

16th Q. When did Mr. Syme have his last interview with Gen. Hazen and conversation with him relative to the ship or crew; how long before the sailing of the ship?

17th Q. How did the Proteus compare with any other ships from which a selection might have been made at the time the Proteus was chartered?

18th Q. How does Captain Richard Pike compare in intelligence and capacity as a ship-master with any other who, so far as you know, might have been selected?

19th Q. Was the time at which said crew was shipped favorable for obtaining a good class of men, or was there any special cause, such as the lateness of the season, which prevented a good and free choice of men?

20th Q. Was a practical boiler-maker enlisted, and did such an artisan accompany the ship, as recommended by Lieut. Commander McCalla, the naval officer who inspected the ship?

21st Q. State fully and particularly anything else that you may know material to the subject-matter of this investigation.

By order of the court:

HENRY GOODFELLOW,
Judge-Advocate, Recorder of the Court.

WASHINGTON CITY, November 23d, 1883.

Answers of Thomas N. Molloy, United States consul at St. John's, Newfoundland, to the annexed interrogatories, marked A, taken upon oath before Henry T. B. Wood, esquire, a commissioner of affidavits, duly authorized to take and administer oaths, at St. John's, and taken under and by virtue of the annexed letters of advice, marked B and C.

The said THOMAS N. MOLLOY, being sworn, saith:

To the 1st interrogatory: Thomas Norris Molloy, general commission merchant, and holding the office of United States consul at the port of St. John's, in the island of Newfoundland.

To the 2nd: Yes.

To the 3rd: This is one of the four first-class sealing steamers sailing out of St. John's. She was fully equipped for any Arctic voyage, and had been previously engaged in taking Lieut. Greely and his party to Lady Franklin Bay.

To the 4th: She was fully equipped for any Arctic voyage. Her hull, spars, rigging, and sails were complete and perfect. She had four boats; one large life-boat, one quarter or jolly boat, and two new sealing punts, which were thoroughly seaworthy and fitted in every respect for the work.

To the 5th: I visited the vessel several times during her preparation for the voyage, and inspected her outfit and equipment; and the day she left the port I examined the ship and her outfit and equipment and accompanied her out of the harbor in a steam launch.

To the 6th: Yes. His reputation stands high for sobriety and probity; and as to seamanship and ice-navigation he has not, to my knowledge, any superior in the trade. I have known him for the past twenty years, and he has been captain of sail vessels and steamers for many years.

To the 7th: He has been captain of a sealing steamer out of Newfoundland for 13 or 14 years, and previous to that he was captain of a sailing vessel to the ice and on foreign voyages.

To the 8th: The crew were selected by Captain Pike.

To the 9th: The crew compared well with men employed in the seal fishery.

To the 10th: I saw all the crew. They were strong, able, and hardy men, accustomed to work at the seal fishery and cod fishery.

To the 11th: There was no occasion to critically examine them, as I was assured by the captain and from my knowledge of the character of the men that they were fit for the voyage.

To the 12th: On the day of sailing.

To the 13th: No, except from the credible assurance that they were men in the habit of sailing in Messrs. J. & W. Stewart's vessels and steamers, and that that firm had no object in sending an inferior crew, and Mr. Syme, the manager, gave Capt. Pike authority to pay extra high wages in order to obtain good men.

To the 14th: Most of the crew had been in the service of J. & W. Stewart, and had sailed in their vessels, and from enquiries made by me before the Proteus left St. John's I found the crew were men of good reputation.

To the 15th: He did, and such a crew was shipped.

To the 16th: To the best of my recollection the last interview and conversation of General Hazen and Mr. Syme was in my office at St. John's the evening of the day on which General Hazen left St. John's for home via Halifax. This was the day the contract was signed, the 26th of May, I think.

To the 17th: The Proteus was the best qualified ship for the expedition that could be obtained in the trade.

To the 18th: Captain Pike, I consider, as fully qualified in intelligence and capacity as any captain that could have been obtained, and his knowledge, obtained from the previous voyage to Lady Franklin Bay, rendered him superior, in my judgment, to any one else.

To the 19th: I do not know of any cause which prevented a good choice of men. Captain Pike, I think, could at any season get a good, qualified crew.

To the 20th: Yes.

To the 21st: Everything was done in St. John's that could be done to ensure the success of the expedition. The owners of the Proteus put an extra supply of pro-

visions on board, and also provided a full outfit and equipment and made a full provision for a fifteen months' voyage in case of detention. I was not present at any particular conversation between Lieut. Garlington, Mr. Syme, and Capt. Pike.

THOS. N. MOLLOY,
U. S. Consul.

Sworn and taken at St. John's, Newfoundland, this twenty-sixth day of December, anno Domini one thousand eight hundred and eighty-three, before me.

HENRY T. B. WOOD,
Commissioner for taking affidavits.

I, Daniel Joseph Greene, of St. John's, Newfoundland, notary public, duly admitted and sworn and practicing therein, certify that Henry T. B. Wood, whose name is signed to the jurat of the annexed answers of Thomas N. Molloy, general commission merchant and consul for the United States of America, is a commissioner of affidavits for the colony of Newfoundland, and as such is duly authorized to take and administer oaths in the said colony; and I further certify that the signature "Henry T. B. Wood," appended to the jurat of the said answers, is the proper handwriting of the said Henry T. B. Wood.

In testimony whereof I have hereunto set my name and affixed my notarial seal of office, at St. John's, in the island of Newfoundland, this twenty-sixth day of December, anno Domini one thousand eight hundred and eighty-three.

[SEAL.]

D. JOS. GREENE,
Not. Pub., Newfoundland.

Answers of John Syme, of St. John's, Newfoundland, merchant, to the annexed interrogatories, marked A, taken upon oath before Thomas N. Molloy, U. S. consul at St. John's, Newfoundland, by virtue of section 1750 of the Revised Statutes, and under the annexed letters of advice, marked B and C.

The said JOHN SYME, being sworn, saith :

To the 1st interrogatory : John Syme, of St. John's; merchant.

To the 2d: Yes.

To the 3d: Vessel was as fine a ship as could be got anywhere, and so far as I know there was not a weak point in her.

To the 4th : The vessel's equipment was complete in every particular ; no expense was spared to insure success, and my instructions to Capt. Pike were to provide every equipment necessary for Arctic navigation. Both Mr. Stewart and myself took a deep interest in the result, and were sincerely anxious to succor Lieut. Greely and his party. Four boats, viz: Life-boat, jolly-boat, and two new sealing punts. The two former were nine years old, clinker-built, and copper fastened, and had been little used, as they were never taken to the ice. They were looked to and painted every year, and thoroughly overhauled before being placed on board the past season ; altogether the boats were very suitable for Arctic work.

To the 5th : In conjunction with Capt. Pike, superintended the equipment and outfit as vessel was preparing, critically examined the boats and other gear, and saw them safely put on board before vessel started for Sydney, C. B., to take in her supply of coal. Examined them again on her return from Sydney about 18th June. Two days thereafter I started for Britain, and Mr. Lash took charge.

To the 6th : I have known Capt. Rich. Pike for the past 21 years, and long before he was connected with our firm. He always bore the reputation of a first-class ice navigator, and when we secured his services for sealing master other firms were bidding for his services. He has been with us for ten years and we consider him one of the best ice navigators in this island. He has also commanded the Proteus in foreign service.

To the 7th : He has been trained to ice navigation since his boyhood and the fact of his having risen to the command of a sealing steamer like the Proteus is sufficient evidence of his ability and knowledge of ice navigation.

To the 8th : Crew all selected by Capt. Pike personally, immediately after contract completed with General Hazen, and shipped 28th May. Vessel then started for Sydney, 29th, took in coal and returned here 13th June. Vessel then ready and waiting to take in relief supplies. Capt. Pike had instructions to secure the best crew obtainable and pick his men ; if necessary offer good wages. This was done and two pounds per month higher wages were given than on any former expedition.

To the 9th : As good a crew of men as ever went to the seal fishery.

To the 10th : Yes ; every day whilst they were in port, up to 20th June.

To the 11th : No ; I did not examine said crew, as Capt. Pike had the selection without interference by any one ; but some of them I knew personally from their having been in our vessels, both sealing and foreign voyages, for some years.

To the 12th : 20th June, which day I sailed for Britain.

To the 13th: I knew the following portion of the crew, and can vouch for its being intelligent and reliable:

Robert Pike, mate.

Archibald Carmichael, 1st engineer.

George Buckingham, 2nd do.

Geo. Taylor, boatswain.

Wm. Carlson, steward.

John Hunt, cook.

Patrick Ryan, Henry Jewer, John Wells, firemen.

Edward Bonia, blacksmith.

Philip Constantine, Patrick Kelly, George Lambert, Michael Dawley, Edward Breen, George White, seamen.

The only parties whose antecedents I have no knowledge of were James Kennessey and James Moores, seamen; and James Ritchie, 3rd engineer and boiler-maker.

To the 14th: The following have been in our service, as under:

Robert Pike, 5 years.

Arch. Carmichael, 5 years.

Geo. Buckingham, 3 years.

Geo. Taylor, 10 years.

Wm. Carlson, 11 years.

John Hunt, 10 years.

Patrick Ryan, 9 years.

Henry Jewer, 8 years.

Will. Constantine, Patrick Kelly, grown up in the service.

Maurice Doyle, John Wells, Edward Breen, off and on in our service.

The reputation of the men of whom I had personal knowledge is free from reproach of any thing, so far I know.

To the 15th: Yes, and such a crew was selected by Capt. Pike in accord with instructions given him by me in presence of Consul Molloy, and to offer highest wages to secure this.

To the 16th: I had my last interview and conversation with General Hazen on 26th May, three days before vessel sailed for Sydney.

To the 17th: She was acknowledged to be the most suitable in the trade.

To the 18th: No better man could have been selected, if as good, and his former successful expedition gave him a knowledge which others did not possess.

To the 19th: If the charter had been arranged earlier and before sealing crew of Proteus were paid off a greater choice of men might have been obtained, but hardly think any better crew could have been selected.

To the 20th: Yes, James Ritchie was a practical boiler-maker and engineer; Bonia, an experienced blacksmith, was engaged as fireman, lest such services should be required. These appointments were all well considered to ensure a successful result to expedition.

To the 21st: Vessel was supplied with a spare rudder, two spare propellers, two spare shafts, spare cordage of every description, and provisions for twelve months, lest any mishap should occur. Four rifles and cartridges and traps for killing game, to provide the crew with fresh meat, in case of their being ship-wrecked and had to face an Arctic winter. Over and above ship's coal, 70 tons were left on board to be landed at Life-Boat Cove, as Gen. Hazen informed me a house was to be put up there and this quantity of coal might probably be required.

After the failure and return of the expedition to St. John's, Lieutenant Garlington requested an interview with Capt. Pike in my presence, and these two, with Lieut. Colwell, met in my office. Lieut. Garlington asked Capt. Pike if he had ordered him to leave Cape Sabine and proceed north against his will. So far as my recollection goes Capt. Pike replied: "You went ashore at Cape Sabine, and after having gone upon the hills you came back in all haste and said there was clear water as far as you could see. I replied, 'Yes, I could see some water from the ship, but I did not consider it prudent to start; besides, I had the bunkers to fill and other work to do which would occupy two or three days, and by that time the ice would be worked well out of the sound (Smith's). You, Lieut. Garlington, in a peremptory manner reiterated the statement, and in such a way that I felt that if I did not proceed and the expedition was unsuccessful my lingering at that point might have been ascribed as the cause of the failure.'" Capt. Pike also stated to Lieut. Garlington that he went in consequence and against his better judgment.

J. SYME.

Sworn and taken at St. John's, Newfoundland, this twenty-sixth day of December, anno Domini one thousand eight hundred and eighty-three, before me.

THOS. N. MOLLOY,

U. S. Consul.

Answers of John Lash, of St. John's, Newfoundland, accountant, to the annexed interrogatories, marked A, taken upon oath before Thomas N. Molloy, U. S. consul at St. John's, Newfoundland, by virtue of section 1750 of the Revised Statutes, and under the annexed letters of advice, marked B and C.

The said JOHN LASH, being sworn, saith :

To the 1st interrogatory: John Lash, of St. John's, Newfoundland; accountant in the employ of Messrs. J. & W. Stewart.

To the 2nd: Yes, perfectly well.

To the 3rd: Vessel was built expressly for Messrs. J. & W. Stewart, under special supervision, and was as strong as wood and iron could make her, to fit her for contending with heavy Arctic ice; no expense has been spared in keeping her in thorough order; as far as I could judge and learn, was as strong and well fitted for contending with ice as the first year she came to the country.

To the 4th: Vessel was fully equipped for the voyage on which she was bound; was furnished with spare rudder, two spare propellers, two spare shafts, spare sails, canvas, cordage, &c., and prepared as far as possible for any contingency that might arise; carried four boats, viz: a life-boat or a large whale-boat, clinker-built and copper fastened; jolly-boat, same build; and two sealing punts, built expressly for knocking about amongst ice; two former were nine years old, and had only been used on a few foreign voyages, the balance of the time being kept in our store; two latter were new; were thoroughly overhauled and examined before putting on board ship, and as far as strength, durability, and seaworthiness were concerned, were everything that could be desired.

To the 5th: Went all over the vessel with captain a couple of days before sailing, and found everything in the way of outfit satisfactory; boats were then all in order; asked captain if he had everything he required, to which he replied in the affirmative.

To the 6th: Yes, well; there is no man sailing out of this island has a better reputation as a foreign-going master, sealing-master, and ice navigator.

To the 7th: He has been going to the seal-fishery since his boyhood. Was master of a sailing sealing brig for some years, and has been in command of a steam-sealer. Can personally testify to his capabilities as ice navigator, having been five weeks in a sealing voyage with him, during which time we had to contend with heavy Arctic ice.

To the 8th: The crew was selected by the captain, and shipped before our local shipping master a month before the vessel sailed on the Arctic expedition, and made a trip to Sydney, C. B., in the mean time.

To the 9th: The crew I considered a good one, fully up to, if not above, the average standard, being thorough seamen and accustomed to going to the ice fields.

To the 10th: Yes, saw them every working day for a fortnight.

To the 11th: No, there was no necessity, as the crew, with one or two exceptions, were personally known to me.

To the 12th: The day vessel sailed.

To the 13th: Knew all the crew with the exception of two, James Hennessey and James Moore, who, however, bear a good character here.

To the 14th: Yes; Wm. Carlson, 11 years; John Hunt, 10 years; Patrick Ryan, 9 years; Henry Jewer, 8 years; Robert Pike, 5 years; Arch. Carmichael, 5 years; George Buckingham, 3 years; Philip Constantine and Patrick Kelly, from their boyhood; Maurice Doyle, John Wells, and Edward Breen made several voyages in different of our vessels.

To the 15th: Cannot say.

To the 16th: Cannot say.

To the 17th: I do not think her equal, and certainly not her superior, could be obtained.

To the 18th: I consider him one of the most intelligent sealing masters out of the country, and such is the opinion of our general public, and do not think a better man could have been procured for the enterprise.

To the 19th: Yes. Had contract, however, been arranged earlier, there would have been a greater number to choose from, but doubt if a better crew would have been the result.

To the 20th: Yes.

To the 21st: There is nothing further that I can say.

JOHN LASH.

Sworn and taken at St. John's, Newfoundland, this twenty-sixth day of December, anno Domini one thousand eight hundred and eighty-three, before me,

THOS. N. MOLLOY,
U. S. Consul.

I, Thomas Norris Molloy, consul for the United States of America at the port of St. John's, Newfoundland, hereby certify that the foregoing answers of John Syme, of St. John's, merchant, and John Lash (the person called "Locke" in the interrogatories and letters of advice, marked respectively A, B, and C), of St. John's, accountant, to the annexed interrogatories, marked A, were duly taken upon oath, before me, on the day of the date thereof, under the annexed letters of advice, marked B and C, and pursuant to the powers vested in me by section 1750 of the Revised Statutes; and I further certify that the signatures "J. Syme" and "John Lash" to the said answers are of the proper handwriting of the said John Syme and John Lash.

In testimony whereof I have hereunto set my name and annexed my official seal at St. John's, in the colony of Newfoundland, this twenty-sixth day of December, anno Domini one thousand eight hundred and eighty-three.

[SEAL.]

THOS. N. MOLLOY,
U. S. Consul.

B.

WAR DEPARTMENT,
Washington, D. C., November 26, 1883.

THOMAS N. MOLLOY, Esquire,
U. S. Consul at St. John's, N. F.:

SIR: I have the honor to enclose a list of interrogatories to be propounded to yourself, as well as to Mr. Syme and Mr. Lache, agents, now or lately, for the Messrs. J. and W. Stewart, at St. John's.

The State Department has been or will be requested by the Secretary of War to instruct you to endeavor to obtain depositions under these interrogatories, which may be taken from the witnesses other than yourself by you as consul, and your own by the vice-consul of the U. S., if there is one, or if there is none, then before a notary public, or other official thereto authorized by the laws of Newfoundland.

Under the last interrogatory I desire to direct the attention of yourself and of Mr. Syme to any conversation that may have taken place between Capt. Pike and Lieutenant Garlington, in your hearing or that of either of you, respecting the circumstances and causes of the loss of the Proteus, especially to an alleged conversation at an appointed interview between these gentlemen in Mr. Syme's presence. Such conversation, if testified to, should be repeated as nearly as possible in the words of the parties.

With the depositions should be sent to the court for its inspection the log-book of the Proteus, or that book may be brought by Captain Pike, whose attendance you will be requested to procure before the court on the nineteenth of next December, 1883, in this city.

Very respectfully, your obedient servant,

HENRY GOODFELLOW,
Judge-Advocate U. S. A., Recorder of the Court.

C.

WAR DEPARTMENT,
Washington City, December 1st, 1883.

SIR: I have the honor to inclose herewith a letter of advice from Major Henry Goodfellow, Judge-Advocate U. S. Army, recorder of the Proteus court of inquiry, to T. N. Molloy, esq., U. S. consul at St. John's, Newfoundland, dated the 26th instant, enclosing interrogatories addressed to Mr. Molloy and to Mr. Syme, agent for J. & W. Stewart, also to Mr. Lache, agent of the same firm, with a view of obtaining their depositions respectively, and to request that you will please forward the same to Mr. Molloy with such instructions as may be deemed necessary to the procurement of the depositions desired.

Very respectfully, your obedient servant,

ROBERT T. LINCOLN,
Secretary of War.

The honorable the SECRETARY OF STATE.

INDEX TO APPENDIX

LADY FRANKLIN BAY EXPEDITION OF 1881.

	Page.
Act May 1, 1880, authorizing expedition	3, 4
General Orders, April 12, 1881, relating to expedition	2, 3
Greely Expedition, abstract daily journal, July 1 to 28, 1881.....	17-21
Special Orders (A. G. O.) relating to expedition.....	2
(97, C. S. O., June 17, 1881), officers and enlisted men detailed for expedition	5, 6
LETTERS.	
Caziarc-Greely, June 10, 1881, transmits Robeson's instructions, &c.....	5
C. S. O.-Adjutant-General, May 23, 1881, transportation of supplies to St. John's, N. F.	4
November 30, 1881, enlisted detail for 1882 expedi- tion, whom preferred	34
C. S. O.-Beetle, December 5, 1881, two whale-boats ordered built	35
Bennet, December 5, 1881, proposals for supplies invited	36
Browning Bros., December 5, 1881, proposals for supplies invited....	36
Danish minister, December 5, 1881, requests certain supplies be pre- pared	36, 37
Greely, June 17, 1881, Greely's instructions.....	6, 14
Greely's outfit	14, 15
Grieve & Co., December 5, 1881, proposals for supplies invited.....	36
Munn & Co., December 5, 1881, proposals for supplies invited.....	36
Recorder Court of Inquiry, November 9, 1883, transmits principal cor- respondence relating to expedition.....	1
Secretary of War, March 16, 1881, requests return of certain papers ("Greely Plan.")	1
March 16, 1881, requests orders issued Lieut. Kis- lingbury to report without delay.....	2
May 25, 1881, copy Nares' chart, &c., acknowl- edged	5
June 20, 1881, ammunition from naval vessel at St. John's	16
November 25, 1881, copies communications, &c., for transmission to Secretary of Navy.....	34
December 2, 1881, \$13,000 needed; recommenda- tions.....	34, 35
C. S. O.-Stewart (J. & W.), December 5, 1881, proposals for supplies invited. Surgeon-General, December 3, 1881, medical works for 1882 expedi- tion	36
Malloy, December 5, 1881, to inspect and pass upon certain supplies; copy letter same date to United States consul, Stockholm, inclosed.	35
Consul at Stockholm, December 5, 1881, requested to order preserved mulberries.....	37
De Bille-C. S. O., February 18, 1882, Danish Government will furnish certain supplies. (Greely's req., August 17, 1881).....	31
Greely-C. S. O., July 5, 1881, about to start; contracts with people of St. John's.	21
July 5, 1881, conduct of men; naval engineer	21
July 5, 1881, cost of vessel for 1882 expedition; contracts....	21
July 5, 1881, delay in forwarding ammunition, photographic material, &c	21
July 6, 1881, steam-launch Lady Greely	22
July 7, 1881, description Proteus, captain, crew, &c.; insur- ance	22, 23
July 21, 1881, arrival at Rittenbank; supplies received; dogs, &c	24
July 21, 1881, contract with Dr. O. Pavy; Mr. H. Clay hired.	24

	Page.
Greely-C. S. O., July 21, 1881, Herr Smith; Eskimo hunters; movements, weather, &c	24, 25
July 26, 1881, duplicate contracts with Dr. Pavy; oath of office transmitted	25
July 29, 1881, clothing must be ordered in Greenland a year in advance	25
July 29, 1881, stores for 1882 expedition; clothing, &c.; recommendations	25
August 15, 1881, arrived at Lady Franklin Bay; details of trip to that point	26-29
August 17, 1881, forwards map; Discovery winter quarters	31
August 17, 1881, forwards map showing course of Proteus in Smith's Sound	31
August 17, 1881, supplies from Danish Government for 1882 expedition	31
August 17, 1881, to provide charts for 1882 expedition	30
August 18, 1881, intentions; recommendations; musk oxen seen	32
August 18, 1881, Starr to return; progress of work	32
August 18, 1881, statement as regards enlisted force	32
Letters, minor importance, forwarded from Godhavn, Rittenbank, and Upernavik	23, 24
Greely- { Kislingbury, } August 16, 1881, if willing, to remain and command { Lockwood, } party subsequent to 1883	29
{ Pavy, }	
Kislingbury-Greely, August 16, 1881, reply to Greely's inquiry	30
Lockwood-Greely, August 16, 1881, reply to Greely's inquiry	30
Pavy-Greely, August 16, 1881, reply to Greely's inquiry	30

MEMORANDUMS.

Greely-C. S. O., August 20, 1881, Proteus delayed; what done	33
August 25, 1881, start a party north in a few days	33
August 25, 1881, stores under cover; freezing weather; Starr and Ryan returned	33

TELEGRAMS.

Caziarc-Greely, June 28, 1881, naval vessel; no spare ammunition	17
June 28, 1881, Schneider's vouchers	17
June 28, 1881, inquiry as to ammunition ordered June 3, 1881	17
C. S. O.-Greely, June 25, 1881, instructed to purchase certain ammunition	17
July 3, 1881, final greetings; condition of President	21
Greely-C. S. O., July 1, 1881, date intends to start; mail (?)	21
July 18, 1881, arrival at Disco; party; weather	23
August 18, 1881, brief <i>résumé</i> of trip; health of party; what done	33
August 18, 1881, English Arctic mail recovered; coal landed at Fort Conger	33

LADY FRANKLIN BAY EXPEDITION OF 1882.

Depots in Smith's Sound and Kennedy Channel containing supplies	58, 59
Neptune, provisional charter; Schedule A; depots, &c	60, 61
Programme for the International Polar Expeditions	44, 48
Special Orders (No. 53, C. S. O.), May 6, 1882, convening Board of Officers to consider relief expedition	39
(139, A. G. O.), June 16, 1882, orders to Acting Assistant Surgeon Hoadley, U. S. A.	63
(140, A. G. O.), June 17, 1882, orders assigning certain enlisted men to expedition	63

LETTERS.

Beebe-C. S. O., May 31, 1882; report of trip to St. John's; what done; Pike as ice master; stores, &c	51
June 4 and 7, 1882; caches on Greely's line of retreat; charts, arms, and ammunition, &c	52-54

	Page.
Beebe—C. S. O., June 4 and 7, 1882; desires promotion.....	52-54
June 4 and 7, 1882; Neptune; Captain Sopp; purchases	52-54
June 4 and 7, 1882; reports progress at St. John's; what done; views, intentions, &c.....	52-54
June 13, 1882; copy Neptune's provisional charter forwarded.....	60
June 27, 1882; communications of June 6, 7, 9, and 15, and one June 9 (Powell) received; what done.....	72
July 6, 1882; men; supplies; additional purchases made necessary.....	73
July 17 and 19, 1882; trip from St. John's to Disco; details ..	74, 75
September 28, 1882; Beebe's report; relief expedition of 1882.....	77-82
Caziarc-Beebe, May 13, 1882; contract for no vessel not named by Commander Greene (copy furnished Commander Greene).....	43
June 18, 1882; Beebe's instructions.....	64
Caziarc-Clapp, June 21, 1882; to remain till stores are shipped; trouble about men for expedition.....	66
June 22, 1882; delay in men; only those reported to go.....	69
June 24, 1882; powder that cannot be shipped to be returned to depot from which received.....	70
Caziarc-Greely, May 19, 1882, incloses Part II, Bulletin International Polar Commission.....	44
June 18, 1882, advises as to measures for his relief, &c.; supplies.....	65
June 21, 1882, forwards descriptive lists of men.....	67
June 21, 1882, men detailed for expedition.....	67
Clapp-Walker, September 25, 1882, certain charts from Hydrographic Office requested.....	77
C. S. O.—Adjutant-General, June 15, 1882, requests orders for Dr. F. H. Hoadley, contracted as A. A. S., U. S. A.....	62
June 21, 1882, delay of certain men reporting.....	68
C. S. O.—Beebe, May 8, 1882, Beebe ordered to St. John's to charter steamer; instructions.....	41
May 8, 1882, Beebe to visit Greenland and procure certain clothing, dogs, &c.....	41
June 6, 1882, list of stores to be bought in St. John's.....	55, 56
June 7, 1882, depots to be established in compliance with Greely's letter August 17, 1881; copy letter August 17, 1881, inclosed.....	56-58
June 15, 1882, purchase of certain ammunition at St. John's authorized.....	62
C. S. O.—De Bille, October 26, 1882, requests certain articles be prepared for 1883 expedition; copy letter to Mr. Knuhtsen inclosed.....	84, 85
C. S. O.—Greely, June 28, 1882, forwards invoices and receipts for \$1,575.....	73
C. S. O.—Hoadley, June 19, 1882, scientific observations in addition to duties as surgeon.....	65, 66
June 22, 1882, copies for Professor Baird, Smithsonian Institute.....	65, 66
C. S. O.—Hodges, June 6, 1882, quartermaster purchases in New York; to be notified if not received this week.....	54, 55
C. S. O.—Knuhtsen, September 11, 1882, request for certain supplies for 1883 expedition.....	76
C. S. O.—Malloy, October 11, 1882, to look after stores brought back by Neptune.....	83, 84
C. S. O.—Quartermaster-General, June 27, 1882, unused transportation orders returned.....	71
C. S. O.—Recorder of court, November 9, 1883, transmits principal correspondence, &c., relating to expedition.....	38
C. S. O.—Secretary of War, May 8, 1882, recommends William M. Beebe; sent to St. John's to charter steamer; recommendation approved, but contract in advance of appropriation forbidden.....	40
May 8, 1882, requests approval of requisitions for certain stores.....	39
May 8, 1882, suggests request for naval officer to inspect steamer at St. John's.....	40
May 25, 1882, exceptions to statement; Arctic appropriation exhausted, leaving no provision for return of party.....	48, 49

	Page
C. S. O.—Secretary of War, May 25, 1882, organization and purposes of Lady Franklin Bay expedition	48, 49
May 26, 1882, copy plan Lady Franklin Bay Expedition forwarded; recommendation.....	50
June 7, 1882, declination to forward letters of May 25 and 26, 1882, to Congress; explanations.....	59
October 10, 1882, advises Secretary of War of failure of 1882 expedition.....	83
October 10, 1882, forwards Beebe's report; remarks.....	82, 83
November 15, 1882, requests authority to select an officer to sell certain stores of 1882 expedition..	85
Greely—C. S. O., August 17, 1881, establishment of supply depots by expeditions of 1882 and 1883	57, 58
Greene—C. S. O., May 27, 1882, description of vessels inspected; recommendations	50
Malloy—C. S. O., May 19, 1882, advises probable difficulty in chartering steamer	41
May 30, 1882, recommends Proteus, with Pike as master, for expedition	51
Powell—Beebe, May 13, 1882, authorized to sign provisional contracts	42, 43
May 13, 1882, instructed, contracts binding only in event Congress makes appropriation.....	42, 43
May 13, 1882, not to sign contracts until authorized.....	42, 43
Powell—Greene, May 13, 1882, instructions governing selection of steamer...	43
Powell—Secretary of War, May 12, 1882, necessity of appropriation prior to June 1, 1882.....	42
June 10, 1882, requests contract with Dr. W. A. Aplegate.....	60
Secretary of War—Secretary of Navy, May 10, 1882, requests naval officer to assist in selection of steamer at St. John's.....	40
Walker—Greene, May 13, 1882, Greene ordered on special duty to select steamer.	41

TELEGRAMS.

Beebe—C. S. O., May 25, 1882, at St. John's; waits orders; date Commander Greene sails.....	48
May 31, 1882, reports tenders of Neptune and Proteus; price, &c	51
June 22, 1882, instructions relating to depots and purchases received; whale-boats?.....	68
June 23, 1882, bricks nor suitable lumber at St. John's; purchase in New York.....	70
June 27, 1882, inquiries as to men; space for supplies and coal	71
July 7, 1882, everything aboard; to sail July 8, 1882	74
September 23, 1882, reports failure of expedition	76
September 25, 1882, telegram of yesterday not understood; what?	77
Powell—C. S. O., May 12, 1882, Secretary of War forbids contracts in advance of appropriation	42
C. S. O.—Beebe, June 21, 1882, delay in Alhambra's sailing.	66
June 22, 1882, whale-boats shipped; delay of Alhambra in sailing.....	68
June 23, 1882, money appropriated; owners Neptune to be notified	70
June 24, 1882, purchase of powder authorized	70
June 28, 1882, \$1,500, Greely's credit with assistant treasurer, New York.....	72
June 28, 1882, men; supply space; coal	72
September 24, 1882, storage of supplies; discharge of men	76
September 25, 1882, telegram of 24th explained	77
C. S. O.—Caziarc, June 1, 1882, Proteus on same terms as 1881; if declined, Neptune to be accepted.....	52
C. S. O.—Clapp, June 21, 1882, to buy oars; no delay in delivery of stores	66
June 23, 1882, purchase and ship bricks and lumber.....	70
C. S. O.—Terry, June 19, 1882, whereabouts of certain men.....	68
June 23, 1882, Bean and Brinicombe not to start if cannot reach Washington June 26, 1882	69

RELIEF EXPEDITION OF 1883.

Page.

Act March 3, 1883, appropriation for completing work at Lady Franklin Bay, &c	103-105
Certificate of United States Consul Malloy that the answers of John Syme and John Lash were made under oath, &c	253
Correspondence, schedule, book-marks, &c	86, 87
Deposition of Maj. John P. Hawkins, commissary of subsistence, U. S. A.:	
Relating to stores furnished	243
Invoice subsistence stores turned over June 13, 1882	244
Invoice subsistence stores turned over May 31, 1883	245-247
Deposition of United States Consul Malloy (replies to interrogatories)	249
John Lash (replies to interrogatories)	252
John Syme (replies to interrogatories)	250
Interrogatories to be propounded to Mr. J. Syme and Mr. Lash, agents for J. & W. Stewart	248
Thomas N. Malloy, U. S. consul at St. John's, N. F.	248
List of officers and men left at Lady Franklin Bay August, 1881	247
Special Orders (31, A. G. O.), February 6, 1883, directing Garlington and certain men to report	97
(67, A. G. O.), March 22, 1883, certain men ordered to report to C. S. O	105
(113, A. G. O.), May 16, 1883, General Hazen ordered to St. John's, &c	113, 114
(117, A. G. O.), May 21, 1883, Garlington ordered to New York	114
(128, A. G. O.), June 5, 1883, Sergeant Wall, Third Infantry, ordered to St. John's	127
(129, A. G. O.), June 6, 1883, Garlington's orders to command expedition	127
Subsistence stores, list of stores on hand, by Greely, June 30, 1881	170-172

LETTERS.

Adjutant-General-C. S. O., March 29, 1881, requests statement of action as regards expedition from inception to date	173
(Indorsement:) Transmits information called for; urges speedy detail of Lieutenant Kisingbury ..	173
Caziarc-Garlington, June 5, 1883, directs purchase paper balloons and Coston lights	127
June 6, 1883, arrangements to meet draft for subsistence while on Proteus	128
June 7, 1883, course of Proteus to be traced	129
September 22, 1883, order to return; transportation	134
Mem.—Party returned to Washington October 1, 1883, and reported to C. S. O	132
October 17, 1883, asks for complete project for 1884 expedition	136
Caziarc-Greely, April 13, 1883, authority to condemn and sell certain stores on way back	110
Clapp—Chief of Ordnance, March 12, 1883, requisition ordnance and ordnance stores for officers and men 1883 expedition	101
Clapp-Molloy, March 13, 1883; purchase coal, fish, dog food	102
Clapp, C. S. O., February 28, 1883, has turned over all papers and memoranda relating to 1883 expedition to Lieutenant Garlington	99
Clapp-Secretary of War, March 10, 1883, requisition, clothing, &c., for officers and men 1883 expedition	101
medicinal supplies for officers and men 1883 expedition	100
subsistence stores for officers and men 1883 expedition	100
C. S. O.—Adjutant-General, November 10, 1882; selection of officer and men for 1884 expedition	90
November 10, 1882; transmits letter, substituted for one October 27, 1882, considered objectionable; explanations	90

	Page.
-C. S. O.—Adjutant-General, January 13, 1883; requests detail of certain men..	93
requests telegraphic instructions	
directing Lieutenant Garlington to report here.....	93, 94
January 18, 1883; necessity Garlington's reporting at once.....	96
-Commissary-General Subsistence, January 29, 1883; 1882, stores shipped to depot commissary at New York	96
February 12, 1883; relating to certain stores (1882 expedition) received at New York.....	98
De Bille, February 26, 1883; acknowledges letter of February 11....	98
English (Commander), January 17, 1883; requests sail-needles, sewing-palms, &c.....	94, 95
Garlington, June 4, 1883; Garlington's instructions.....	118, 119
Mem. A—Closing scientific, at Camp Conger.....	119, 120
B—Scientific outfit	120-122
C—Instructions; observations on voyage	122, 123
D—Instructions while at Life Boat Cove	123
E—Instructions if frozen in in Smith's Sound	124
Inclosure 3; stores at St. John's and cached, invoiced to Garlington.....	124-126
" Inclosure 4," (?) "supplementary instructions".....	126
Greely, June 4, 1883; instructions relating to abandonment of station and return to United States.....	117
Hodges, February 23, 1883; "1882" stores not receipted by Greely..	98
Malloy, December 16, 1882; requests engagement of J. W. Norman and three men.....	91
January 6, 1883; stores of 1882 expedition to be returned to depot commissary, New York	91
January 10, 1883; buildings to be contracted for; description.	92, 93
Nonman, June 22, 1883; why not employed for expedition.....	130
Quartermaster-General, March 21, 1883; requests issue of clothing; requisition transmitted	103
March 23, 1883; requests issue of certain quartermaster's stores; requisition transmitted	105, 106
March 26, 1883; boots and mits for party...	107
Recorder of court, November 9, 1883; transmits principal correspondence, &c	86
supplementary correspondence	86
November 14, 1883; transmits copies of papers relating to original project, Greely expedition...	136
Inclosure 1, May 20, 1879; Lieutenant Weyprecht to C. S. O., relating to International Polar expedition	137
2, September 8, 1879; C. S. O. to Lieutenant Weyprecht; reply	138
3, May 27, 1880; C. S. O. to Secretary of War, relating to Arctic expedition.	138-140
4, May 1, 1880; act to authorize and equip expedition to the Arctic seas.	151
5, stations promised by different nations	141
6, March 11, 1881; Special Order 57, A. G. O., assigning Greely to command	141
7, March 9, 1880; House Report No. 453, Forty-sixth Congress, second session, "Expedition to the Arctic seas".....	142-150
8, List officers and men detailed for expedition	150
9, March 28, 1881; Greely's Mem.; medical supplies furnished.....	151
10, May 27, 1880; proceedings of Board to consider Howgate's plan for Arctic work.....	151-154

	Page.
C. S. O.—Recorder of court, Inclosure 11, March 13, 1881 (same as inclosure 9).	154
12, March 27, 1880; request for certain commissary stores	155
13, May 7, 1880; request for certain commissary stores	156
14, May 13, 1880; purchase of frame house and lumber	157
15, May 7, 1880, request for certain quartermaster stores	157
16, March 28, 1881, Dr. O. Pavy engaged.	158
17, April 30, 1880, report of Board; plan for scientific work in high latitudes.	159-161
18, April 23, 1880, mem.; plan approved by the President	162
19, April 27, 1880, mem.; expedition, ship, crew, and permanent party	162, 163
20, March 30, 1880, engineer outfit from Willets Point	163, 164
21, March 27, 1880, quartermaster stores for expedition	164
22, March 16, 1881, Secretary of War to Secretary of State requesting co-operation in certain matters	164, 165
23, September 17, 1880, president International Polar Commission to C. S. O.	165, 166
24, Arctic region, circle map	167
25, May 1, 1880, act authorizing expedition to Arctic seas	167
26, appropriation for observation and exploration in Arctic seas, &c	168
27, March 8, 1881, outline of plan for establishing station at Lady Franklin Bay	168
28, March 29, 1881, request for Greely's authority to command expedition. Indorsement: March 29, 1881, original not in S. O.; probably with Adjutant-General.	169
29, March 24, 1881, why expeditionary party should not all be taken from Signal Corps; supplies to June 30, 1882, only	169
30, April 6, 1881, necessity of immediate approval of L. F. B. expedition by Secretary	170
Lucien Young, master, U. S. N. (not marked inclosure)	156
November 19, 1883, transmits list of subsistence stores taken by Greely in 1881	192-194
C. S. O.—Secretary of War, November 1, 1882, plan for relief expedition, 1884; recommendations	88, 89
First indorsement: Returned for views of C. S. O., whether it would not be more desirable that Navy should furnish party.	
Second indorsement: Views of C. S. O. why Army should furnish party.	
November 15, 1882, requests Dr. Hoadley's station fixed at Washington	90, 91
March 16, 1883, appropriation insufficient to bring back both parties in 1884; recommendations	102
March 26, 1883, amended regulation for commissary stores; insufficiency of appropriation	107
April 21, 1883, recommends contract with Dr. James L. Camp.	
Indorsement: Secretary desires project for expenditure of amount appropriated for medical service	111

	Page.
C. S. O.—Secretary of War, April 25, 1883, submits project for expenditure of amount appropriated for medical service; renews recommendation of 21st April.....	111, 112
May 10, 1883, requests authority to proceed to St. John's to secure vessel.....	112, 113
May 10, 1883, requests detail of naval officers to inspect vessel at St. John's.....	113
May 14, 1883, requests naval tender to accompany Proteus.....	174
June 23, 1883, submits Garlington's application for Lieutenant Colwell.....	131
October 16, 1883, incloses Garlington's report; remarks.....	135
October 16, 1883, transmits Garlington's report; explanations.....	223, 224
C. S. O.—Terry, October 27, 1882, requested to suggest officer and men for 1883 expedition.....	88
C. S. O.—Walker, Commander, January 17, 1883, requests compasses and lead-line material.....	94
C. S. O.—Wilson, Chief Constructor, January 17, 1883, requests boats, sheet-lead, &c.....	95
De Bille—C. S. O., February 11, 1883, supplies; remarks as to dog-drivers....	97
Dunwoody—Secretary of War, October 23, 1883, forwards Garlington's supplementary report, called for October 18, 1883.....	136
Garlington—C. S. O., October 2, 1883, Garlington's report.....	199-212
Inclosure A, letter; Greely to C. S. O., August 17, 1881.....	212
B, Garlington—Wilder agreement.....	215
C, Lockwood's notice and mem. August 1, 1881.....	215, 216
Copy Sir George Nares' record; Garlington's indorsement.....	216
D, July 22, 1883, notice left at Pandora Harbor.....	216
E, July 24, 1883, notice of wreck, caches, &c., left at Cape Sabine.....	216, 217
F, July 26, 1883, notice left at Littleton Island.....	217
G, July 27, 1883, notice left at Pandora Harbor.....	217, 218
H, August 12, 1883, notice Immelielk Bay near Cape York; separation of party.....	218
I, August 12, 1883, Colwell's instructions to proceed south.....	219
K, August 6, 1848, Commander Ross's notice..	219
L, October 9, 1883, Lieutenant Colwell's report; movements after separation from Garlington.....	219-223
Depots, Smith's Sound and Kennedy Channel.....	212, 213
Proteus, charter party (Inclosure 4).....	214
October 20, 1883, replies to questions propounded in letter of October 18, 1883.....	224-228
Mills, May 19, 1883, requests arms and ammunition.....	114
Greely—C. S. O., August 15, 1881, extract Greely's report.....	172, 173
McCalla—Walker, June 5, 1883, reports action (inspection) at St. John's.....	191
Inclosure: McCalla to Hazen, May 26, 1883; has examined Proteus and is of opinion ship is fit for expedition.....	191
Powell—Garlington, June 2, 1883, to personally satisfy himself supplies are delivered as ordered; responsibility.....	117
Powell—Surgeon-General, May 1, 1883, requests contract with Dr. James L. Camp.....	112
Recorder of court—Malloy, November 26, 1883, transmits list of interrogatories to be propounded to himself, Mr. Syme, and Mr. Lash.....	253
Secretary of Navy—Secretary of War, May 18, 1883, Lieutenant-Commander McCalla selected to inspect vessel at St. John's.....	113
(Acting)—Wildes, June 9, 1883, Commander Wildes' instructions.....	175
June 9, 1883, Wildes instructed to transport certain expeditionary supplies to St. John's.....	176
October 10, 1883, requests why Yantic failed to accompany Proteus or land stores at Littleton Island.....	186, 187

	Page.
Secretary of Navy-Secretary of War, November 2, 1883, certain acts and failures condemned	190, 191
(Acting)-Secretary of War, November 12, 1883, transmits copies instructions, reports, and other papers relating to cruise of Yantic	174
Secretary of War-C. S. O., October 31, 1883, notification that the President has directed a court of inquiry convened. Desires explanation of conflicting orders, discrepancies, &c	195-199
Recorder of court, November 15, 1883, transmits certified copies of the following letters and papers	228-230
No. 1. May 14, 1880. Crosby-Finkle	230
No. 2. May 24, 1880. Secretary of War to Secretary of State.	230
No. 3. June 1, 1880. Secretary of War to Commissary-General Subsistence.....	230
No. 4. February 4, 1881. Secretary of War to Hon. James H. Blount, M. C.	230
No. 5. March 16, 1881. Secretary of War to Secretary of State	231
No. 6. March 29, 1881. Crosby to C. S. O	231
No. 7. April 6, 1881. Secretary of War to Secretary of Navy.	231
No. 8. April 13, 1881. Crosby to Secretary of Navy.....	231
No. 9. April 16, 1881. Crosby to Hon. W. W. Crapo, M. C..	232
No. 10. April 23, 1881. Secretary of War to Secretary of Navy	232
No. 11. May 31, 1881. Crosby to Secretary of State.....	232
No. 12. June 16, 1881. Secretary of War to J. W. Anderson.	233
No. 13. July 25, 1881. Secretary of War to Secretary of State.	233
No. 14. August 19, 1881. Secretary of War to Rev. M. Stone.	233
No. 15. September 9, 1881. Crosby to Secretary of State...	233
No. 16. September 17, 1881. Crosby to Secretary of State .	234
No. 17. October 3, 1881. Crosby to Secretary of Treasury..	234
No. 18. October 4, 1881. Crosby to Secretary of State	234
No. 19. December 9, 1881. Secretary of War to Speaker H. R.	234
No. 20. December 13, 1881. Secretary of War to Secretary of State	235
No. 21. March 13, 1882. Secretary of War to Hon. L. F. Glover, M. C.	235
No. 22. May 10, 1882. Secretary of War to Secretary of Navy.	235
No. 23. May 17, 1882. Tweedale to Chief Signal Officer	236
No. 24. May 13, 1882. Secretary of War to the President...	236
No. 25. June 9, 1882. Secretary of War to chairman Committee on Appropriations H. R.	236
No. 26. June 23, 1882. Secretary of War to Hon. O. D. Conger, U. S. S.	237
No. 27. June 27, 1882. Secretary of War to the President..	237
No. 28. June 30, 1882. Secretary of War to Surgeon-General	237
No. 29. July 3, 1882. Secretary of War to Secretary of State.	237
No. 30. July 17, 1882. Acting Secretary of War (Chandler) to Secretary of State	238
No. 31. September 16, 1882. Acting Chief Clerk (Jay Stone) to Chief Signal Officer.....	238
No. 32. September 25, 1882. Tweedale to Secretary of War (telegram)	238
No. 33. September 26, 1882. Tweedale to the President....	239
No. 34. General order, without number or date, approved by the President	239
No. 35. October 31, 1882. Secretary of War to Secretary of State	239
No. 36. March 14, 1883. Secretary of War to W. H. Gilden	239
No. 37. April 6, 1883. Secretary of War to C. S. O	240
No. 38. May 8, 1883. Secretary of War to Mrs. L. M. Navy.	240
No. 39. May 14, 1883. Secretary of War to Secretary of Navy.	241
No. 40. May 14, 1883. Secretary of War to Secretary of Navy.	241
No. 41. June 23, 1883. Secretary of War to Secretary of State.	241
No. 42. July 7, 1883. Secretary of War to William Atherton.	242
No. 43. July 14, 1883. Tweedale to Mrs. Allie Moritz	242
No. 44. September 19, 1883. Secretary of War to Secretary of Navy	242
No. 45. October 23, 1883. Secretary of War to Rev. M. Stone	242

	Page.
Secretary of War, No. 46. October 24, 1883. Secretary of War to Secretary of Navy	243
Secretary of War to Secretary of State, December 1, 1883, request that certain transmitted interrogatories be forwarded Mr. Malloy to secure certain desired depositions.	253
Wildes-Walker, June 25, 1883, Wildes' report of trip of Yantic from New York to St. John's	176, 177
September 17, 1883, Commander Wildes' report	178-183
Record A, found at S. E. Cary Island, August 2, 1883 (Garlington's notice, July 21, 1883).....	183
B, found at Pandora Harbor, August 3, 1883 (Garlington's notice, July 22, 1883)	183
C, found at Littleton Island, August 3, 1883 (Garlington's notice, July 26, 1883)	184
D, found at Pandora Harbor, August 3, 1883 (Garlington's notice, July 27, 1883).....	184
E, found at Pandora Harbor, August 3, 1883 (Pike's notice, July 23, 1883)	184
F, found at S. E. Cary Island, August 5, 1883 (Pavy-Kislingbury notice, August 1, 1881). Also, copy of document of Allen Young, relating to trip of Pandora in 1876	185
G, found at S. E. Cary Island, August 5, 1883 (Arbuthnot's notice, August 1, 1876).....	185
Wildes-Secretary of Navy, October 16, statement why Yantic did not accompany Proteus or land stores at Littleton Island.	187-189
provisions on hand August 3, 1883.....	189
provisions on hand September 15, 1883.....	190

MEMORANDUMS.

Clapp, Captain, February 28, 1883, to transfer supervision of expeditionary work to Lieutenant Garlington	99
C. S. O.-Secretary of War, April 1, 1883, reasons why all expenses of <i>personnel</i> of expeditions should not be charged against Signal Service	109
(Indorsement): Signification of "Signal Service"; upon whose urgency Secretary placed expeditions on foot.....	109, 110
April 1, 1883, why Army members of expeditionary force should be paid from Army appropriations, and not charged against Signal Service.....	108
Signal Service notes No. X, report Lady Franklin Bay expedition of 1883	199

TELEGRAMS.

Caziarc-Garlington, May 25, 1883, Proteus ready June 14; when freight must be shipped.....	114
May 28, 1883, naval supplies ready and ordered	115
May 30, 1883, surgeon, compasses, and lead line	116
May 30, 1883, surgeon secured, &c	116
May 31, 1883, Dr. J. S. Harrison contracted; medical supplies	117
May 31, 1883, surgeon, compasses, lead line; Commodore Upshur's letter.....	116
September 13, 1883, what stores left for Greely? if anything can be done this year.....	132
Caziarc, Mills-Garlington, September 13, 1883, did Yantic leave stores any where? project for immediate return to Littleton Island.....	132
September 13, 1883, what stores left for Greely? can anything be done this year?	131, 132
C. S. O.-Garlington, June 6, 1883, directs purchase certain vegetables; shipment.....	128
June 6, 1883, hammocks, bedding, &c., for party on Yantic	128
June 6, 1883, party to go on Yantic; Wall on Alhambra.	129
June 25, 1883, request for Lieutenant Colwell approved; Wall returned.....	131

	Page.
C. S. O.—Lynn, April 9, 1883, to see United States Consul Malloy ; steamer....	110
Malloy, March 29, 1883, bid of William Campbell to construct building, accepted	107
April 2, 1883, inquiry as regards steamer for expedition.....	110
Garlington—Caziare, May 30, 1883, surgeon to be secured in Washington	116
May 28, 1883, necessity having surgeon at once.....	115
C. S. O., May 29, 1883, surgeon ; has had two offers.....	115
June 6, 1883, recommends party to go to St. John's by Alhambra	129
June 6, 1883, to go on Yantic ; no reply having been received to telegram this date.....	129
June 21, 1883, arrival at St. John's.....	130
September 13, 1883, reports failure of expedition.....	131
September 14, 1883, quantity of stores left for Greely ; where	132
September 15, 1883, reports why stores were not left at Littleton Island.....	133
Mills—C. S. O., September 15, 1883, amount of supplies left at Cape Sabine ; no no further expedition this year.....	133
Garlington, September 14, 1883, Secretaries War and Navy desire full replies from Garlington and Wildes, why stores were not landed at Littleton Island.....	132
September 15, 1883, no further expedition this year ; return of party.....	133
September 19, 1883, Secretary declines to change order	134
Wildes—Secretary of Navy, September 13, 1883, reports rescue of Garlington party	177
September 15, 1883, deems it impracticable to return north ; remarks as regards officers and crew of Proteus	177
S. Ex. 100—AP—18	

2184





LIBRARY OF CONGRESS



0 029 708 231 0