

of the greatest practical advantage. Its strides in the domain of science have proved great in importance and extent.

It would be invidious to compare the officers of our Navy with those of other branches of the public service. It is but just, however, to say that they are alive to the importance of keeping up the high reputation of their predecessors in the Navy who have passed away, but left behind them the memory of an imperishable fame; that they have fully and faithfully profited by the example of their predecessors, and have availed themselves of the ample advantages which the government has extended to them for their thorough training in all the scientific, practical, and theoretical branches of their profession.

Upon the whole, whether it be as a means of self-protection to the long line of cities and harbors upon our coasts, or to guard our commerce on the high seas; or to insure our citizens sojourning in foreign lands and their property and persons against outrage; or to take and keep our proper place among nations; or to maintain the sentiment of patriotism connected with our Navy, and with the memories of its departed heroes; or to reap the advantages of the researches, and labors of its officers in the further progress of advanced science; it becomes the duty of Congress to see to it that the Navy of the United States should not be left to perish through inanition, but should be restored to a condition of usefulness in which it may upon occasion be so expanded as to become the ready means of protection at home or of active and aggressive warfare in the ports and waters of an enemy.

Considerations like these induced the department at an early period to adopt some means by which Congress should be induced to enlarge and restore to usefulness our languishing and neglected Navy. Warned by the history of such attempts, often resulting heretofore in failure, it was thought wise, so far as practicable, to present to Congress a scheme which would meet with the general approval of the different branches of the officers of the Navy.

The danger arising from the advocacy of different and conflicting views and theories, it was thought might be defeated by the creation of an advisory board. Such a board was accordingly ordered, and entered upon the discharge of its duties on the 11th day of July last. The members of the board were officers of recognized ability, experience, and attainments. Many of them had not yet reached the highest ranks in the service. It was deemed wise that those who were to command the new ships, to navigate and perhaps to fight them, should have a potential voice in directing their size, models, equipment, and armament.

The department has been gratified to observe with what alacrity the board entered upon its important and arduous duties. It has labored faithfully and well. It brought to the discharge of its duties, judgments enlightened by high scientific attainments, large practical experience, and a knowledge of the most advanced improvements in naval matters. Its recommendations avoid the perils and expenditures of experimental

construction. It recommends proper and effective vessels, combining sufficient speed, facility of maneuver, and a power of resistance deemed sufficiently effective for practical purposes. They are adapted to the depth of water in our ports and harbors; and whilst requiring no fine work, extravagant and useless, it is believed they will adequately supply the pressing wants of this arm of our power. In reaching a result where there must necessarily have been divergent opinions, it is fortunate that there has been in the end so slight a difference in the views of the members of the board.

The department recommends as entitled to the entire approbation of Congress, the adoption of the views of the majority of the board. There is so slight a difference by a few members to it in its entirety, as to justify its being regarded as the unanimous judgment of the board. Indeed the minority of the board themselves declare that the points of difference between them and the majority "do not in any way militate against the objects of the department in calling an advisory board, but in their opinion further them by presenting additional arguments, and exhibiting the subject in a different light."

The report of the majority of the advisory board is appended to, and intended to form a part of, this report.

ARCTIC EXPEDITIONS—THE JEANNETTE, THE RODGERS, AND THE ALLIANCE.

The act making appropriations for sundry civil expenses of the government approved March 3, 1881, contained the following clause:

To enable the Secretary of the Navy to immediately charter or purchase, equip and supply a vessel for the prosecution of a search for the steamer Jeannette, of the Arctic exploring expedition (which the Secretary of the Navy is hereby authorized to undertake), and such other vessels as may be found to need assistance during said cruise, one hundred and seventy-five thousand dollars: *Provided*, That said vessel shall be wholly manned by volunteers from the Navy.

In the execution of this duty, which had devolved on me, the first step was to obtain a suitable vessel for the service to be undertaken. But little time remained in which to procure, prepare, equip, and man her, and to dispatch her to the Arctic regions in season to prosecute a search before severe winter should set in.

A course through Behrings Strait being manifestly the proper direction for the expedition, there was no time left to charter or purchase a vessel on the Atlantic coast and to send her round to the Pacific. A vessel had, therefore, necessarily to be provided on the Pacific coast. The department was able to find at San Francisco a steam whaler well adapted, with some alterations and additions, to the emergency.

The Mary and Helen, a comparatively new and strong vessel of proper size, was offered for sale to the government. A board of experienced officers thoroughly inspected her, and upon their recommendation and such knowledge of the vessel as could otherwise be obtained, the depart-

ment decided to purchase her. This step was considered more advantageous than to charter the vessel, as her qualities would render her a desirable vessel for use in the naval service upon her return from the expedition. The sum of \$100,000 was the least at which she could be purchased. Under all the circumstances, that sum was not considered exorbitant, and she was accordingly purchased.

On the 14th of March I convened at the Navy Department a board of officers, to whom the duty was intrusted of suggesting the best plan for carrying out the act of Congress above mentioned. The main subjects for the consideration of this board were: 1st, the direction of the search; 2d, the means best adapted to it; 3d, the details of the search expedition.

The board was composed of Rear Admiral John Rodgers, Capt. Jas. A. Greer, Lieut. Comdr. Henry C. White, Lieut. Wm. P. Randall, Lieut. R. M. Berry (recorder), Paymaster Albert S. Kenny, Surgeon Jerome S. Kidder. They were officers of great experience, and most of them had been identified with earlier Arctic expeditions and explorations in that region. They made a thorough investigation of the whole subject, in the course of which they examined many gentlemen who had been engaged in the whaling service, and some of whom were the last who had seen the Jeannette. This board, on the 26th of March, submitted a full, interesting, and valuable report of the results of their deliberations.

The direction of the search, the means best adapted for it, and the details for it were minutely and admirably defined. There was nothing remaining to be done but to carry out as far as practicable the suggestions of the board.

The name of the Mary and Helen was subsequently changed by me to the Rodgers, in compliment to the distinguished naval officer who was the president of the search expedition board. The vessel was at once strengthened at the navy-yard, Mare Island, and officered and manned and provisioned not only with supplies for the officers and crew of the Rodgers, but also with ample provision for the relief of any of the people of the Jeannette or the missing whaling vessels that might be fallen in with.

The command of the Rodgers was given to Lieut. Robert M. Berry, an officer in whom the department has the greatest confidence, and who volunteered for this service. The other officers were also volunteers. As on all previous occasions, where bold and hazardous services were to be required, the difficulty of the department lay in making a selection out of the number of gallant officers of the Navy who volunteered for this adventurous expedition.

The Rodgers sailed from San Francisco June 16, and arrived at Petropavlovski, Kamtschatka, July 19, and at Saint Lawrence Bay August 18. From the Russian authorities and the officers of the Russian vessels stationed or cruising in the arctic regions, Lieutenant Berry has received every facility and all the information which they were able

to afford in furtherance of the object he has in view. The Rodgers left Saint Lawrence Bay August 19, and the next morning entered the Arctic Ocean in company with the Russian corvette, *Strelock*. After touching at *Serdze Kamen* for information, a partial examination was made of *Herald Island* by a boat sent in for the purpose, and on the 25th of August the Rodgers anchored in a harbor on the southern coast of *Wrangel Land*, to the westward of *Cape Hawaii*. She remained there until September 13, during which period *Wrangel Land*, or rather *Wrangel Island*, as *Lieutenant Berry* found it to be, was examined by three exploring parties organized for the purpose; but no tidings of the *Jeannette* nor of the missing whaling vessels could be obtained. Interesting reports from *Lieutenant Berry*, with charts and sketches of *Wrangel Island*, will be found in the appendix to this report. The whole coast of the island, with the exception of a few miles of outlying sand spits, was examined, and *Lieutenant Berry* believes it impossible that any of the missing parties ever landed there. The country is indebted to *Lieutenant Berry* and the party under his command for their energetic labors while at *Wrangel Island*, the results of which have satisfactorily established the character of that formation, and the probability that the *Jeannette* never touched there. On September 14 the Rodgers again visited *Herald Island*, and a boat was sent in for further examination. The eastern end of the island was pulled around, but no landing could be effected. On the 16th the Rodgers left *Herald Island* and proceeded to the northeastward as far as latitude $73^{\circ} 44'$ north, longitude $171^{\circ} 48'$ west, which was as far as the ice pack would permit; returned to the northeast point of *Wrangel Island*, and took a course in a northerly and westerly direction in the hope of finding the high land north of *Wrangel Island*, reported as "situated in 178° west longitude, and extending as far north as 73° north latitude, as the eye could reach," by *Captain Smith*, of the whale bark *New Bedford*. She crossed the 178th meridian and reached a position in latitude $73^{\circ} 28'$ north, and longitude $179^{\circ} 52'$ east, and then recrossed the same meridian in 73° north without sighting land, the horizon and sky being at the time clear to the northward.

The Rodgers returned to *Herald Island* and finished its examination, which was fruitless so far as finding any traces of the missing parties. Proceeding thence to the coast of *Siberia*, *Lieutenant Berry* examined the coast from the ship to the eastward to a point as far as *Cape Serdze*, and there put up a house and left a party of six, under command of *Master C. F. Putnam*, to remain for the winter. They were bountifully supplied with clothing, provisions for one year, dogs, sledges, &c., and will explore the coast in search of the *Jeannette's* crew and the survivors of the *Mount Wollaston* and *Vigilant*.

The Rodgers left on the 8th October, and arrived at *Saint Lawrence Bay* on the 15th, where the ship was to be put in winter quarters. When the ice opens next summer she will proceed first to *Plover Bay*, fill up

with coal, then to Saint Michaels for mails, and afterwards return to the arctic, take up the party at Cape Serdze, and continue the search.

In order to avail itself of every possible means of relieving the *Jeannette*, or her officers and crew in the event of her loss, the department determined, last spring, to send a naval vessel to search for the missing ship between Greenland, Iceland, and the coast of Norway and Spitzbergen, at least as far north as 77° latitude, and as far as $77^{\circ} 45'$ if it should be possible to get there without danger from the ice. This determination was upon the suggestion of the liberal and public-spirited citizen through whose munificence and disinterested efforts to contribute to the cause of science the *Jeannette* was sent upon her voyage of exploration. The United States steamer *Alliance* was selected for this service, and Commander George H. Wadleigh was assigned to her command.

The vessel was ordered to proceed to the Norfolk navy-yard, where special preparations were immediately commenced for her cruise. The bow of the ship was sheathed with live oak of the proper thickness, with a strong iron guard on the stem to form a protection against drift ice. Every other precaution was taken to fit her, in all respects, for her voyage. On the completion of these preparations, full instructions having been given and all necessary charts and sailing directions having been furnished, the *Alliance* left Hampton Roads the 16th of June on her mission. While she was not fitted for arctic exploration, but only as a relief ship, her commanding officer was instructed to make such observations as opportunity permitted for the benefit of navigators and in aid of science. She carried an extra supply of provisions and clothing in case she should fall in with the *Jeannette* or any of her party. She reached St. John's, Newfoundland, after a passage of eight days, and, on the 9th of July, made the port of Reikjavik, Iceland. On the 24th of that month she arrived at the port of Hammerfest, Norway, having anchored *en route* off Seidis Fiord. While at Reikjavik, Commander Wadleigh distributed papers containing a description of the *Jeannette*, printed in Icelandic, and offered a reward for any reliable information in regard to that vessel. He was kindly aided in his efforts in this direction by Governor Finssen at Iceland, and Governor Blackstat at Hammerfest. On the 29th of July the *Alliance* proceeded to Bel Sound and Green Harbor, Spitzbergen. After cruising as far as latitude $80^{\circ} 00' 36''$ north, and longitude $8^{\circ} 14' 30''$ east, she was stopped by the pack ice. She sailed along the edge of this pack and succeeded, on the 20th of August, in reaching latitude $80^{\circ} 10'$ north, longitude $11^{\circ} 22'$ east, and as far east as longitude $13^{\circ} 15'$ east and latitude $79^{\circ} 58'$ north, about 10 miles northwest of Welcome Point, beyond which the ice was impenetrable. In latitude $79^{\circ} 49'$ north, longitude $11^{\circ} 15'$ east, on a bowlder in the middle of a small bight west of Hukluyts Headland, Amsterdam Island, a copper plate, marked with the ship's name, was spiked. A spike was also driven in a natural tablet on the cliff bearing northeast and north from

the plate, and the cliff was also marked with the name of the ship. On the 27th of August the Alliance left Spitzbergen, and cruised under sail until September 11 when she returned to Hammerfest. She left that port on the 16th and again proceeded to Spitzbergen, and reached as far north as $79^{\circ} 3' 36''$. While in port, Commander Wadleigh obtained specimens of the bottom; the beaches were searched for drift-wood; floral and geological collections were made, and specimens of birds and animals were collected. At sea, near the land or ice, a careful watch was kept for anything promising to throw light on the object of the cruise. Fishing vessels were communicated with, and furnished with a description of the Jeannette. The position of the Alliance, in a sealed bottle, was thrown overboard every day, and all observations were made as carefully as possible with the means at command. On the 25th of September the ship left Spitzbergen on her return to the United States; arrived at Reikjavik the 10th of October; at Halifax, Nova Scotia, the 1st of November; and on the 11th at New York. I regret to say that the Alliance proved unsuccessful in the main object of her cruise.

THE SQUADRONS, ETC.

The force on the NORTH ATLANTIC STATION is commanded by Rear-Admiral Robert H. Wyman, and consists of the Tennessee (flagship), Vandalia, Kearsarge, Alliance, and Yantic, regular cruisers; the five monitors in semi-commission on the James River, and the Wyoming and Pawnee at Port Royal, S. C.

The force on the SOUTH ATLANTIC STATION consists of the Shenandoah (flagship) and the Marion, and is under the command of Rear-Admiral James H. Spotts, who relieved Rear-Admiral Andrew Bryson on the station on the 25th of July last. The Brooklyn is preparing for sea at New York, and will relieve the Shenandoah.

The force on the EUROPEAN STATION is commanded by Rear-Admiral J. W. A. Nicholson, who left New York on the Lancaster, his flagship, on the 10th of October, and is now in the Mediterranean. Rear-Admiral John C. Howell, late in command of this station, hauled down his flag from the Trenton, at New York, on the 9th of November. The vessels on this station, at present, are the Lancaster, Quinnebaug, Galena, and Nipsic.

The force on the PACIFIC STATION is commanded by Rear-Admiral George C. Balch, who hoisted his flag on the Pensacola, at San Francisco, on the 18th of July last, succeeding Rear-Admiral Thomas H. Stevens, who was retired on the 27th of May. The Pensacola, Lackawanna, Alaska, Adams, Wachusett, and Ranger, with the Onward (store-ship), at Callao, comprise the force on this station. The Ranger is at present on detached special service, and the Wachusett is stationed in the waters of Alaska. The Essex, recently commissioned at League Island, will join the force in the Pacific.