

torpedoes are the cheapest of naval weapons, and within the means of the poorest nations, they are irresistible to the strongest and best prepared. The idea, even, of their employment appeals so strongly to the imagination, that powerful fleets have been kept aloof simply by their supposed presence. During the war of our Rebellion means had to be constantly used for warding off or catching floating torpedoes, and the bottoms of Southern harbors were dragged for stationary ones, which were pulled from their places to the shore; or exploded from a safe distance. The earlier use, both for attack and defence, of these means, devised under the pressure of immediate necessity, employed at the moments has already been largely improved upon, and needs still further elaboration. Further experiments are requisite, and the use of methods of attack and defence in the same hands, in order that each may perfect the other.

Torpedo warfare is still in its infancy: but it is the infancy of a most powerful development, and it is especially the policy of the United States to foster its growth as a weapon adapted to our situation.

The attention bestowed upon this subject by our service has not been without much fruit. A torpedo-boat, just tested at Newport, almost submerged, is controlled by human will acting at a safe distance. It advances, turns, or stops, at the touching of an electric key connected from the operator's hand by a wire unrolled from the boat. This boat carries 500 pounds of explosive material, which can be fired on contact with an enemy.

This subject is in its nature not a matter for much public illustration, and I will at this time only point to the many instances in which torpedoes have played an important part in recent wars, and add, that the judgment of the most careful and experienced officers in our service is unanimous and strong in favor of the use of every means of enlarging and improving our knowledge of torpedoes and of providing liberally for their investigation and use.

"It would be a grave error, however, while advocating the importance of torpedoes as one means of attack and defence, to forget that these will not alone suffice for naval purposes.

"The history of our own recent war show some of the uses for naval vessels, in which torpedoes can take no part.

"Men-of-war add to the security of our citizens in foreign countries, often semi-barbarous; they give protection to our commerce against illegal violence; they strengthen the hands of diplomatists in hostile or half-civilized courts. Situations are frequent in which the words of peace and of reason will, only be heard when supported by the argument of the presence of a man-of-war's battery.

"These considerations have already been frequently presented at length, and it is hardly necessary that I should pause to do more than call attention to them again."

REVIEWS.

The *London Quarterly* for October contains the following articles:—

The Duke of Wellington as a Cabinet Minister.

The completion of St. Paul's.

Baron Stockmar.

The Consciousness of Dogs.

Velasquez.

Journal of a French Diplomatist in Italy.

East African Slave Trade.

The position of parties.

The article on the completion of St. Paul's contains excellent views of St. Peter's at Rome from the south-east, and a front view of St. Paul's—ground plans of both buildings—a section of St. Peter's in elevation, a half section of transept and dome, and half section of nave and half elevation of dome and transept.

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We have to acknowledge the receipt of the *New Dominion Monthly* for December, it has an admirable portrait of the celebrated chief of the Mohawks, Joseph Brant, and the usual amount of valuable as well as instructive literary matter.

We have much pleasure in publishing an extract from the minutes of the Council of Manitoba, and correspondence relating to the conduct of the troops under Major Irvine, previous to the arrival of the present reinforcements, during a rather exciting period. As a large number of men, of whom the extract speaks, have returned home, we would wish our contemporaries in Canada, to see that the members of our Canadian army are not likely to lose their prestige in Manitoba:—

PROVINCIAL SECRETARY'S OFFICE,
Winnipeg, Oct. 4th, 1872.

Sir,—I have the honour to enclose herewith for your information, an extract from the Minutes of a Meeting of the Executive Council, held at Government House, Fort Garry, October 1st.

I have the honor to be, sir,
(Signed) Your obedient servant,
THOS. HOWARD
For the Prov. Secretary.

MAJOR IRVINE,
Acting Deputy Adjutant General,
Militia, Fort Garry.

Extract from Minutes of Council held at Government House, Fort Garry, Oct. 1, 1872.

"The attention of the Council is called to the fact that the troops now on duty here are about to be relieved to return to the Eastern Provinces. The Council avail themselves of the opportunity to place on record, in their minutes, the high sense they entertain of the loyal and efficient manner in which officers and men alike have discharged their duties here.

They further advise that the Major commanding shall be desired to receive for him self, and convey to the officers and men under him the Council's appreciation of their services here, in which they have exhibited in a marked manner, the qualities which distinguish the British soldiers."

HEAD QUARTERS,
Adjutant General's Office,
Ottawa, Oct. 18, 1872.

Sir,—I have the honor to acknowledge the receipt of your letter of 8th inst., enclosing extract from Minutes of Council held at Government House, Fort Garry, on the 1st inst., relating to the conduct of the Force on duty there; and in reply have to express to you the great pleasure with which I have received intelligence of the men's good and soldierlike conduct, and to acquaint you that I will take an early opportunity of bringing the facts you have communicated to the attention of the Government at Ottawa.

It is a pleasure to know that the Council in Manitoba appreciate the services rendered by the Troops, and the knowledge that the conduct of the men has been good and

soldierlike, is highly satisfactory to this department.

I have the honor to be, sir,

Your obedient servant,

W. POWELL, Lt.-Col.,

—Manitoba] Dep. Adj. Gen. Militia.

REMARKABLE EXPEDITION.

The expedition about to be despatched by the British Admiralty, to undertake a scientific circumnavigation of the globe is described at great length by *Nature*. The vessel set apart for this purpose is the corvette *Challenger*, of 2,300 tons, under the command of C. S. Nares, R. N., well known as the author of a valuable work on seamanship who has seen a great deal of active service, formerly in Arctic exploration, and latterly in the Suez survey, which he now leaves to head this expedition. On the scientific staff are Professor Wyville Thompson, F. R. S. as Director; J. Y. Buchanan, of Edinburgh University, chemist; A. N. Mosely, of Oxford, naturalist; Dr. Von Willenboos Sohm, of Munich, naturalist; John Murray, of Edinburgh University, naturalist. The three naturalists take charge respectively of the invertebrata, the vertebrata, and botany. Professor Thompson assumes the charge of the general zoological work. A photographer is also assigned to duty. The whole expedition is under the immediate direction of the hydrographic department of the Admiralty, and the ship is fitted out with a magnificent collection of scientific apparatus.

It is difficult (says the *Nature*) to over estimate the immense benefit which science must derive from an expedition such as this. Apart from the results of intense interest which may be expected from the deep sea work the principal object of the expedition and which must go far to elucidate a subject on which our knowledge is at present of the most imperfect description, abundant opportunity will offer for the accurate investigation of the animal and vegetable life of many highly interesting and yet imperfectly known or totally unexplored regions. The investigation of the floras of such islands as Fernando Noronha and the Morion Crozet, groups cannot fail to yield most instructive results, and it is needless to speak of the intense interest which centres in New Guinea.

The *Challenger* will sail from Portsmouth for Gibraltar, the first haul of the dredge will be made in the Bay of Biscay, if the weather should change to be favorable. From Gibraltar she will proceed to Madeira thence to St. Thomas, the Bahama, Bermuda, the Azores; from thence to Bahia touching at Fernando Noronha; thence cross to the Cape of Good Hope, and after a stay in that neighborhood, southward to the Crozetts and Marion Island Kerguelen's Land. A run southward will then be made as far as possible to the ice, and the course thence be made to Sydney. New Zealand, the Campbell and Auckland groups, Torres Straits, New Guinea, and New Ireland will then be visited. A long cruise of perhaps a year will then be made among the Pacific Islands; thence the expedition, passing between Borneo and Celebes, and visiting Luzon and its neighborhood, will proceed to Japan, where a stay of two or three months is expected. Thence northward through Behring's Straits, and then through the Aleutian Islands, southward to Vancouver's Islands, and so through the deep eastern region of the Pacific by Easter Island, and possibly by the Galapagos Archipelago to the Horn, and thence home. The voyage is expected to take about three and a half years.