

in the forts—the latter all heavy pieces—pounded away at each other for some time. Our infantry meanwhile were advancing all along the line, taking skillful advantage of the bushwood and other cover. The final assault was splendidly delivered, the enemy being driven headlong from their works, after making a gallant stand.

By the evening Port Arthur was in our possession, but the enemy still held some eight or ten redoubts on the coast line, totaling about 20 guns. The Japanese bivouacked on the hills and in the captured forts.

Early on the morning of Thursday Laonia and other forts were attacked in succession, all being captured without serious loss on our side.

We estimate the Chinese losses at over 1,000 killed and wounded, and several thousand prisoners; the enemy numbered over 20,000.

We have taken quite 80 guns and mortars in use in the captured forts and redoubts, and many others found in the dockyard. An immense quantity of ammunition has also fallen into our hands; completely equipped torpedo stores, and much rice and beans.

The whole of the credit for this magnificent success belongs to Marshal Oyama and his gallant troops. The fleet, under Admiral Ito, took no part whatever in the capture of Port Arthur. Some of the warships are now off the port, and signaling is going on.

### Mr. Wickham's R. N., Lecture at the Military Institute, Toronto, Dec. 10th.

The first paper of the season was read at the Military Institute last night by Mr. H. J. Wickham, R. N., who took for his subject "Canada's Maritime Position and Responsibilities." Lt. Col. Fred. Denison presided, and there was a large gathering, in spite of the disagreeable weather.

Mr. Wickham touched briefly upon the early history of the Canadian mercantile marine, and his reference to the Royal William, a Quebec-built ship, being the first steam-driven vessel to cross the Atlantic, was greeted with cheers. He touched upon what the Dominion Government had done for navigation by buoying and lighting the St. Lawrence and providing graving docks at Esquimaux, Kingston and Levis. The largest on the continent was that at Halifax, owned by a subsidized company. It could take in a vessel 600 feet in length. If any of the American battleships had to dock, they would have to come to Halifax. (Cheers.) It would not be the first time that an American man-of-war had come to Halifax. Canada's natural advantages in the shape of good harbors on both the Atlantic and Pacific oceans, and her large coal deposits on both coasts, placed her in a position of the first importance, and her fisheries on both coasts would provide a constant supply of hardy seamen. Canada stood fifth in the world as regards tonnage, and her ocean borne commerce, exports and imports, during the past year, exclusive of her trade with the United States, amounted to over \$145,000,000. He went on to show that it was necessary that there

SHOULD BE AN ADEQUATE NAVY to protect this enormous trade, and quoted statistics to show that in case of a war with two European powers Britain would be obliged to maintain by far the greater part of her fleet in European waters and would be unable to detach more than a very few cruisers to patrol the trade routes. With her fortified coaling stations and telegraphic communication, it was held by some that an enemy's cruisers could do little harm to British trade, more especially as no other nation possesses coaling stations, but the cables might be cut. Then the cruiser that was lying in wait for its prey with engines stopped would burn only about one-third the coal of the cruiser that was racing up and down looking for her, and his calculation was that it would require six cruisers for every one of the enemy's to secure the safety of our ships, a proportion which he never expected to see unless at the very outset Britain crushed her enemies and so crippled their fleets as to set a large part of her own fleet free for commerce protection. In the opinion of Prince Louis of Battemberg, the Suez canal would be blocked before the declaration of war, and this would mean a diversion of trade to the Cape or the trans-Canadian route. The lack of sufficient cruisers to patrol the main trade routes being shown, Mr. Wickham proceeded to state that 10 of the fastest mail steamers were fitted, or partially fitted, so that they could be used as cruisers, and there were 12 others held at the disposition of the Admiralty. The Teutonic and the Majestic, of the White Star Line, were specially constructed for armed cruisers, and 12 guns could be mounted on them within 48 hours. They could each carry 1,000 cavalry and their horses, or 2,000 infantry. They could reach Halifax in five days, Cape Town in 12 1-2 days, Bombay, via the Suez canal, in 14 days, Hong Kong in 21 days, and Sydney in 22 days. These he regarded as the most mercantile cruisers we have. Comparing these vessels, and the Lucania and Campania with the Powerful and Terrible class of cruisers, he figured that the latter would, with the weight of armament reduced one-half, and the coal reduced to the amount which suffices the Campania for one high-speed trip across the Atlantic, have 2,000 tons left available for cargo, as compared with the 1,600 tons capacity of the Campania. The hull and machinery of each of these cruisers was £438,000 each, so that £500,000 would be a liberal figure to assign as the cost of an ordinary passenger steamer of the same tonnage and speed.

#### THE HUDDARD SCHEME

of four 20-knot vessels on the Atlantic service and five 16-knot boats on the Pacific, was to involve a capital of £3,000,000, whereas nine vessels of the Powerful class would cost about £4,500,000. It seemed a very fair assumption that the 50 per cent. greater cost would be more than met by the 50 per cent greater capacity. On this point Mr. Wickham said: "It was pointed out at the conference that most of the mail subsidies granted by the British Government fall within the next few years, and the imperial delegate, Lord Jersey, intimated that in granting new subsidies the British Government wished to consider not merely one particular line, but the whole question. I feel convinced that Great Britain and her great self governing colonies, by uniting in a well considered and comprehensive scheme for the liberal subsidization of fast steamship lines of the class I advocate between the various parts of the empire.

#### TO BE MANNED AND OFFICERED

by trained men of the Royal Naval Reserve, and always ready for an emergency, will secure the means whereby our trade routes will receive adequate protection, and the means adopted by facilitating and stimulating inter-imperial

and intercolonial trade will build up and solidify the empire. Such a policy will give to Canada a splendid opportunity for developing her shipbuilding resources. The province of Nova Scotia possesses such large deposits of iron ore, coal and flux in close proximity to each other, and to ship harbors that capital and skill should find a splendid opening for successful enterprise. The establishment of naval reserve ships at Halifax and Vancouver for the training of naval reserve men would do much to foster and promote that maritime spirit which has made Great Britain what she is to day. The Intercolonial Conference held at Ottawa this year, in which we may say Canada was the prime mover, will, it is hoped, do much towards removing obstacles in the way of closer union between the different parts of the empire in commercial matters. The question of the due protection of the trade routes may well form that subject for arrangement at another such conference at an early date. A solution of the problem would seem to lie in the direction of separating, to some extent, the duty of commerce protection from that of the fighting line of battle, and placing the responsibility therefor under a distinct department of the admiralty. Naval reserve ships should be stationed at the principal colonial ports, in which the officers and men who will man our mercantile cruisers will be kept constantly

DRILLED IN THE USE OF THE WEAPONS they will have to use. The captains of these cruisers would hold dormant commissions, which would come into effect upon a declaration of war. At the Ottawa Conference a complete system of telegraphic communication, with cables touching only British territory, was discussed, and one of the most valuable services which such a system of cruisers could render would be the protection of our telegraphic communication." (Applause.)

#### VOTE OF THANKS.

A vote of thanks was moved by Commander Law, seconded by Col. Mason, and adopted by acclamation. The thanks of the meeting were conveyed to Mr. Wickham by Col. Denison in a graceful speech.

The next paper will be on "The State and Condition of the Rural Battalion," by Lieut.-Col. R. B. Davis, of the 37th Battalion.

Remarkable results are reported from America of the trials of the new cruisers Columbia and Minneapolis. On a contractor's trial a speed of just 23 knots an hour was maintained, which exceeds anything we have done on this side with vessels of similar size—about 7,000 tons. These cruisers are driven by three propellers, a system for which many advantages are claimed. Many critics, however, do not believe that the Columbia and Minneapolis could overtake the British high-speed Atlantic liners, notwithstanding that, as commerce-destroyers, they were ostensibly built to beat them. A public expression of this unbelief has been made by Rear-Admiral Richard W. Meade, of the United States Navy, and in the fittest place—at a meeting of the Institution of Naval Architects and Marine Engineers of the United States just held at New York. Indeed, he went further, and said that when he got the vessels added to his squadron he would have a series of full-speed trials, unless he met with direct orders to the contrary from the Department. "I will have the trials first, and report them afterwards," said the Admiral, in the hearing of the Engineer-in-Chief. "I will have the cruiser, with picked coal and everything else that goes to make fast time, waiting for the Teutonic or Majestic, and order her to chase and catch one of them going out of New York Harbour. Such a tussle would be worth a thousand measured-mile runs."