

to be found alike in our battleships and big cruisers, and, whilst it lacks the shattering power of the heavier weapons against modern armour, yet its remarkable penetrative qualities, coupled with its rapid fire delivery—three rounds per minute—renders it a deadly effective gun. The Woolwich pattern, Mark X, of this type, weighs 28 tons unmounted, is of 46.6 calibres in length (extreme total 442.35 inches), and has a muzzle velocity of 2,800 foot-seconds with a muzzle energy of 20,665 foot-tons. The projectile weighs 380 pounds, and has a striking power at a range of 3,000 yards equal to carrying it through 25 inches of wrought iron.

The 7.5-inch gun.

The 7.5-inch gun, of Vickers' wire-wound pattern, weighs 16 tons without mountings, is 50 calibres long (extreme length 386.7 inches), and has a muzzle of 3,007 foot-seconds, giving the projectile a muzzle energy of 12,540 foot-tons.

The 6-inch gun.

The 6-inch gun has been said, not inappropriately, to mark the strict limit to the quick fire series, although not officially so regarded. But its projectile of 100 pounds in weight is the heaviest that can be man-handled, and the result is that the weapon can be fired at the rate of twelve rounds per minute. Indeed, nothing but the necessity of waiting for the recoil to spend itself restricts the rapidity of fire delivery with the 6-inch piece. The latest (1908) Elswick pattern weight 8½ tons, is 50 calibres in length (total over all 315 inches), and has the remarkably high muzzle velocity of 3,050 foot-seconds, with a muzzle energy of 6,492 foot-tons.

The 4.7 inch, the 4 inch and Small Q. F. Guns.

The biggest and most familiar type of naval 'mosquito' armament is the 4.7-inch. gun, immortalized by the memorable part it played in the salvation of Ladysmith. This weapon in its latest type weights 3.27 tons, is 45 calibres in length, and throws a shell 45 pounds in weight, with a muzzle velocity of 2,925 foot-seconds, and an energy sufficient to penetrate 8.6 inches of wrought iron at a range of 2,000 yards. But excellent as this gun has proved itself, it has been quite supplanted as a light quick-firer by the 4-inch, wire-wound pattern. This is a piece of ordnance of extraordinary range and penetrative powers for its size. Its weight unmounted is 2,018 tons, and its length 50 calibres (giving an extreme measurement of 208.45 inches). It discharges a projectile 31 pounds in weight at a muzzle velocity of 3,030 foot-seconds, and with a degree of energy equal to penetrating 16 inches of wrought iron at the muzzle. The fire delivery of this gun is estimated at 15 rounds per minute. The 3-inch. naval gun is, strictly speaking, the smallest weapon which can legitimately be classed as big warship ordnance. Below this we come to mere popguns, throwing 6 pound and 3 pound projectiles, and machine guns, which rattle forth a hailstorm of 1.457 inch. bullets at a rate of 300 rounds per minute. These weapons are really designed to repel boat attacks, and within the limits of their effective range would prove very deadly. The 3-inch. gun referred to above, in its latest pattern (1908), has a

length of 50 calibres (156.9 inches over all), weighs 19 cwts. unmounted, and throws a projectile of 12.5 pounds in weight, at the rate of 25 rounds per minute, with a muzzle velocity of 2,700 foot-seconds, and a penetrative energy equal to passing through 9.65 inches of wrought iron at the muzzle.

The four super-Dreadnoughts and capital cruiser ships are to be laid down in April, 1910, and they are to be put in commission in March, 1912. I wish also to refer to another authority, and it may fairly be said that this authority is not prejudiced. The authority to which I refer is Pulsifer, who, in the United States navy book for 1909, gives the following as the comparative strength of the navies of Great Britain and Germany at the present time.

Great Britain.	Number.	Tons.
Battleships (10,000 tons and over)	60	941,450
Coast-defence vessels.
Armoured cruisers.	40	506,350
Cruisers above 6,000 tons.	18	176,250
Cruisers 6,000 to 3,000 tons.	48	214,700
Cruisers 3,000 to 1,000 tons.	24	51,675
Torpedo-boat destroyers.	168	81,356
Torpedo boats.	69	15,014
Submarines.	67	19,078
Total.	494	2,005,873

Germany.	Number.	Tons.
Battleships (10,000 tons and over)	32	436,424
Coast-defence vessels.	8	32,378
Armoured cruisers.	12	151,693
Cruisers above 6,000 tons.
Cruisers 6,000 to 3,000 tons.	26	105,293
Cruisers 3,000 to 1,000 tons.	17	37,626
Torpedo-boat destroyers.	97	49,859
Torpedo boats.	33	5,819
Submarines.	8	1,600
Total.	233	820,692

When we come to the total number of ships and the total tonnage we find that England has of first-class battleships, armoured cruisers, torpedo boat destroyers, all effective 494 with a tonnage 2,005,873, and Germany has a total of 233 ships with a tonnage of 820,692.

From this it will be seen that at the present time the British navy is superior to the German navy by more than the two to one standard. It is therefore, fair to say, that at the present there is no danger from Germany as regards her navy, either now or in 1912, when these vessels are built, and that in 1917, England will be better prepared than ever to cope with Germany if the need should be. But, the point I want to emphasize is this: That in 1917, Canada, instead of adopting the policy propounded by the opposition of giving money and doing nothing else, Canada in 1917 will have at least 800 first-class, thoroughly trained men for these cruisers of ours. In addition to that we will have