

defensive armor, or from the coal carrying capacity. In other words the problem presented to modern science has been to combine in one ship the greatest offensive and defensive power compatible with the duties the ship may have to perform in actual warfare.

In response to an invitation from the Royal United Service Institution, Captain Mahan has recently written a paper on the following thesis:

"THE NAVAL STRATEGY OF THE PAST HAS BEEN DEPENDENT UPON POWER TO MAINTAIN CLOSE BLOCKADE OF HOSTILE PORTS. CAN SUCH BLOCKADE BE MAINTAINED UNDER PRESENT CONDITIONS OF STEAM, STEEL AND TORPEDO BOATS? IF NOT, WHAT MODIFICATIONS ARE DEMANDED BY THE CIRCUMSTANCES LARGELY VARIED FROM PAST WARS?"

In dealing with his subject, the learned writer in the first place institutes a search for principles applicable, as well to former as to present conditions, but in doing so, warns his readers that there can be found no solution of any problem free from the element of doubt, uncertainty or risk, and that in putting any plan into operation, in order to achieve successful results, undue anxiety about one's own dangers is more likely to produce failure than over confidence or rashness. Comparatively fewer ships will be needed to closely watch the enemy, and prevent the egress of his warships, than would be required to follow and capture them, if once they succeed in getting clear away. The object of the British admirals in the days of Napoleon was not so much to maintain a close blockade, in the sense of preventing an enemy from leaving his ports, as it was to induce him to come out, at the same time ensuring his being brought to action and destroyed as close to those ports as possible. The main difference in the conditions between the past and the present is due to the change in propelling power. Then, the direction of the wind was an almost certain guide to an enemy's movements. The application of steam has rendered the duties of a blockading force much more arduous seeing that the vessels can now move in any direction, and at any time, at will. After a full discussion of the difficulties and

chances to be encountered by an inside and outside force respectively, and assuming that the outside force must, of course, be taken to be much the stronger in fighting strength, the conclusion reached is that the success of the blockading squadron must depend chiefly upon a complete organization of its scouting vessels in order at all times to maintain a bright lookout and complete touch between the vessels employed.

The importance which Captain Mahan lays upon the great value of swift cruisers cannot be over estimated. The cry of Nelson and other old admirals ever was for "more frigates." Cruisers are the eyes of the fleet. The danger to which the blockading line of battle is exposed from torpedo attack may obviously be much lessened by their being able to lie at a respectful distance from the blockaded port, a vigilant look-out and close touch being maintained by clouds of cruisers. It is especially in this important respect that Great Britain has so decided an advantage over foreign nations, because she has her immense reserve of fast merchant steamships to draw from.

The torpedo boat destroyers, of which the *Daring* is given as an illustration, are at present 42 in number. These vessels carry a light armament, and their function is, by their great speed (nearly 30 knots an hour), to protect the line of battle by overhauling and destroying the smaller torpedo vessels employed against the fleet.

An illustration is also given of the *Thrush*, a twin screw, composite gun vessel. There are some 40 of these, whose draught and dimensions will admit of their being employed on the Great Lakes. The *Thrush* carries six 4-inch, and two 3-pr., quick-firing guns, and two machine guns. Her speed is 13 knots. These vessels are employed in all parts of the world where necessity exists for protecting the rights of British subjects from being outraged by the smaller, turbulent, semi-civilized powers. Reverting to the subject of blockade, it must be remembered that the means, which, it is probable, will be chiefly relied on, in operating against a blockading squadron will be torpedo warfare.