

The United States Army and Navy Journal gives the following description of two of the non-descripts of which the British navy is composed, as there has been no practical experience of the value of those rams and as the *Hotspur* has already figured in collision with a wooden vessel and got the worst of it, there does not appear to be any great reason to anticipate very satisfactory results from her efficiency in action.

It would appear that the value of these vessels was predicated on the assumption that their opponent possessed less speed and would not answer their helms as readily; practical experience so far proves that they are a particularly unmanageable class of vessels and like the United States *Mantduunk* more mischievous to friends than to foes.

The latest addition to the British iron clad fleet is the *Rupert*, a heavily armored ram. She, with the *Hotspur* was designed by Mr. Reed, for the special work of attack by running down the enemy, and for the use of the heaviest metal that could be placed on shipboard. For fighting at such close quarters the thickest armor was evidently necessary, and for operating as a ram great speed was equally demanded. But these two qualities could be combined only on a comparatively small vessel. Accordingly the *Rupert* has a length of 250 feet, a width of 53 feet, and a burden of 3,159 tons, dimensions that prohibit the employment of more than two of the 18 ton guns for which she is designed. Her side plating is of 12 inch armor, reaching five feet below and two feet above the water line, and has behind it a foot of teak and an inner skin of 1 1/4 inch thick. Above the water rises an elliptical breastwork also plated with 12 inch armor, and covering about two thirds of the vessel's deck. Above this is the revolving turret, with its guns 11 feet above the water line, where they can be used in rough weather. The peculiarity of the *Rupert* consists in her spear shaped ram, with its point projecting ten or twelve feet from the perpendicular line of the bow, and lying about eight feet below the water level. Her engines are nominally of 700 horse power, with twin screws and are expected to give her a speed of twelve knots an hour. She has two light masts, with a few fore and aft sails, intended to serve as an auxiliary to the steam power. The *Hotspur*, companion to the *Rupert*, differs from her in having a fixed turret containing one 25-ton gun, mounted on a turntable, and supplemented by two 64 pounders on the after deck.

Naval warfare has not yet presented us with a combat in which any of the great rams built for crushing their antagonist out of sight, were used. In our own war there were many examples of bold ramming by ordinary ships, as witness the *Sassacus* and the *Albemarle*, and the fights in the harbour of Mobile and the bay of Lissa will be ever memorable for similar acts. From these occurrences we may estimate the value of such ships as the *Rupert* and *Hotspur* in harbor defence, and in the meeting of hostile squadrons. These vessels are peculiarly valuable too in respect to the struggle for supremacy between the gun and armor plate, for in the rivalry they are *hors concours*. Whether the victory lies with the gun or the armor plate, vessels of this kind will be practically unconquerable by gun fire, for those shots that immediately destroy a vessel's power to move are comparatively rare, and while the ram can move she can injure and destroy, whatever becomes of her upper works.

Having no great faith in the ram as the war ship of the future, we have far less in the "Naval weapons of the future" as described by John T. Bucknill, R. E., it is to be supposed that this gentleman belongs to the distinguished corps of Royal Engineers; a little reflection might have sufficed to teach him the value of a torpedo boat able to boom out 100 lbs. of gun powder thirty feet in front of her cut water and to ascertain the effects of the explosion on herself, the whole value of her action is predicated on being able to get within 30 feet of her adversary.

In order to be successful it must be assumed that either the Yankee Captain possesses the ring of Gygis or he can conjure up a Nantucket fog, or every soul on board the other vessel is fast asleep, likely contingencies all; is the R. E. one of Cardwell's officers by selection, competitive examination, or some other variety of the patent methods by which brains are manufactured? It would seem so:—

To the Editor of the London Times.

SIR. It may interest your readers to know that the Americans have commenced the reconstruction of their navy, in doing which they seem fully alive to the fact that torpedoes will in all probability become the principal naval weapon of the future, whether used offensively or defensively, whether for cruising or for harbor defence. This fact cannot too forcibly be borne in mind by us, who confidently rely on heavy armored vessels designed for an artillery encounter, and not constructed so as best to manipulate and fight the torpedo. Naval authorities in the United States appear unanimously to hold the opinion that the torpedo will be the chief naval weapon of the future. Not only is it an opinion, but it is being acted upon with great energy.

A school of "torpedoing" has been formed at Newport, Rhode Island, where a number of naval officers are instructed in the practical employment of torpedoes in suitable and purpose-built vessels. As many as twenty go through the class at a time, when they enter into all details of torpedoing theoretically, and practically, just as the advanced class of artillery officers at Shoeburyness enter into details appertaining to gunnery. The course lasts several months, and the officers have the great advantage of seeing and taking part in the numerous torpedo experiments which are continually going on there during the mild weather. So much for education.

Each vessel of the United States Navy now carries besides a number of towing torpedoes, an arrangement whereby a torpedo containing a little over 100 pounds of gunpowder can be boomed out 24 ft. in front of the cut-water. The iron clad monitors, about thirty in all, are fitted with beams for torpedoes to be worked from their decks, and it is considered that they will thus become very formidable vessels for harbor defence, where from the narrowness of a channel and other reasons speed is not of prime importance. Twelve powerful tugs, which were built during the late war, are having tubular outriggers fitted in their forecastles. This arrangement consists essentially of a tube with suitable valves, through which is thrust another and longer cast-iron tube, carrying the torpedo, which can pass through the first tube on to its outer extremity. The whole apparatus is entirely hidden from the

view of an enemy, who cannot therefore, from the appearance of the vessel, divine her dangerous character. A minute description of these tubular outriggers will be sent to the proper authorities. It is asserted that four torpedoes can be trust out and fired per minute in this way. These tugs are only intended for use during the night, as their engines and boilers are much exposed, and a single shot would be almost certain to place them *hors de combat*. These as well as the other outrigger torpedoes, are fired by an electrical fuse and small frictional machine.

The United States Government are so well satisfied with the torpedo experiments and their results that three special torpedo vessels have quite recently been commenced—one at the Boston Navy-yard, one at New York, and the third in one of the southern Navy-yards. The Boston torpedo vessel is to have a length of 175 feet, beam thirty five feet, and free board of eight or nine feet, she is to be protected to a certain extent with iron, and great stress is laid on her speed, which it is hoped will exceed sixteen knots. I will not apologize for trespassing on your space, etc., for the simple reason that no more important subject can be discussed at the present time than the probable effect that the practical application of torpedoes to sea going vessels of high speed may have on the naval supremacy of Great Britain.

JOHN T. BUCKNILL, R. E.
PORTLAND, ME., February 26.

THE ALABAMA CLAIMS IN EUROPE.

The traditional policy of the Washington Cabinet, its aims, objects and their ultimate effects on European politics, are well understood everywhere outside the British Isles, with the infatuation of vain doctrinaires the rulers of Great Britain will not see the tendency of the measures to which their desire of binding the great Anglo-Saxon family in the link of brotherhood is leading them.

The following article is from the pen of an eminent Italian publicist, and it shows how clearly the effects of the Washington treaty has been criticised in continental Europe.

M. Petrucelli della Gattina, whose letters from Paris were read with such interest during the late war, is now writing from London to the *Pungolo* of Naples on the subject of the Alabama claims. The Alabama claims, M. Petrucelli writes, are a simple pretext on the part of America, and if she puts them forward it is simply in order that their refusal may enable her to carry out her "occult views."

"By the first war with Great Britain the Americans obtained their independence; by the second, in 1812, they compelled the English to renounce the insolent right of search which they had hitherto exercised over the whole shipping of the world. And by a new war they hope to become the masters of every inch of the American continent. Imagine the immense advantages which would accrue to them from the mere possession of the St. Lawrence, of the vast fisheries of the Atlantic ports, of the provinces of Canada. The stars and stripes would wave over the entire soil of America from Newfoundland to the Pacific. This is the burning wish of every American heart, a yearning desire like that of the Italians when they saw the Austrians at Venice and the French at Rome. Their real object in putting forward these inadmissible claims.