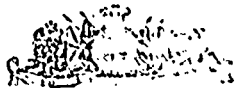


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The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

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"To guard the Monarch from the Law."

OTTAWA, TUESDAY, APRIL 7, 1874.

TO CORRESPONDENTS.—Letters addressed to either the Editor or Publisher, as well as Communications intended for publication, must, invariably, be *pre-paid*. Correspondents will also bear in mind that one end of the envelope should be left open, and at the corner the words "Printer's copy" written, and a two or five cent stamp (according to the weight of the communication) placed thereon will pay the postage.

The following extract is the leading article from the pages of the United States *Army and Navy Journal* of 7th March—it is a review of "Admiral PORTER's Report on monitors and torpedoes"—and we re publish to show how closely it coincides with the opinions long since expressed in the *VOLUNTEER REVIEW* on the value of both as Engines of war.

"The following particulars of the rifle practice at Finspong, in Sweden, with pointed oblied cast iron projectiles of 3 inches diameter against laminated armor of 12 inch thickness, adverted to in the *Journal* on a former occasion, demand careful consideration before a correct judgment can be formed of the merits of Admiral PORTER's report. The targets employed at Finspong were composed of six inches thicknesses of two inch plates, of the best Swedish iron, bolted together as in the monitor turrets. The targets were supported by vertical posts let into the ground, no wood backing being employed, in order that turret walls might be correctly represented by the laminated targets. Twelve feet behind the target, a wooden bulwark, three feet thick was erected, resting against a bank of earth. The

result of the practice may be briefly stated: When firing at a distance of 200 yards, each shot penetrated 12 inch target, the wooden bulkhead and some eight feet of earth. Apart from the great penetrating power of the projectiles against the laminated armor, thus established, fragments of broken plates and armor bolts, weighing from 300 to 500 pounds, were detached at each shot, and spread over the ground behind the target. It will be evident therefore that a monitor's entire turret crew might be destroyed by a single well directed shot, especially since the six thicknesses of two inch plates composing the Swedish targets, presents a far stronger structure than the monitor turrets composed, as they are, of eleven one inch thick plates. It is surprising that in the face of such facts Admiral PORTER, while advising the Navy Department to expend the large amount of \$180,000 on each monitor, should have omitted to recommend the substitution of solid for laminated armor—an omission which at present places the country in an absolutely defenceless state, against even minor naval powers possessing iron clad vessels armed with rifled ordnance. What reason can Admiral PORTER assign, it will be asked, for ignoring the important fact known to the youngest officer in the service, that the rifled guns carried by the iron clads of our maritime rivals, are capable of sending their pointed projectiles through the monitor turrets with the fearful results before adverted to? Regarding Admiral PORTER's estimate, persons acquainted with the subject wonder how the Admiral can expend \$180,000 on a monitor of the *Passaic* class, without reconstructing the turret and side armor with solid plates. The weight of the present light plating composing the turret and side armor of monitors of the class mentioned, scarcely reaches 625,000 pounds, hence if the liberal price of 18 cents per pound be allowed for solid plating, it will be found that \$112,000 will suffice for applying such plating of an aggregate thickness equal to the old laminated armor, \$68,000 would still be left, out of the estimated \$180,000—an amount, it would seem, sufficiently large to be expended on vessels of such light and perishable hulls as the monitors, built during a national crisis. Referring the repairs of the monitors Admiral PORTER says in his report, "Those that have been reconstructed on the plan that I have recommended are excellent vessels." The country will be anxious to learn wherein that excellence consists. Does the Admiral call that an excellent vessel whose guns and gunners are protected by a laminated structure which may be riddled by projectiles fired from rifle guns of very moderate calibre?

Let us now briefly consider that part of PORTER's report which relates to torpedoes. Well informed professional persons view with alarm the unqualified recommendation of certain means of attack, the inherent defects of which are palpable. The adoption of the boom torpedo in our Navy, now so prominently brought before the nation in connection with the naval evolutions at Key West, has directed general attention to the significant fact that, while high expectations have been raised by the loud talk in certain quarters about torpedoes as an irresistible auxiliary in case we should be involved in a maritime war, the fact is now patent to all observers that the plan which has been adopted is, to say the least, of doubtful utility. The public, in perusing the accounts of the great naval drill, has learned with amazement that we possess nothing better, as a means of attack, than a boom suspended over the ship's side by ropes and tackle, with a powder bag at the end, to be poked

under the enemy's hull—we might add, with all permission. The published accounts of this new system of naval attack also conveys the discouraging information that the representative of an enemy's ship, on the occasion, was not an object in motion. But simply a floating target; and that our attacking ships were limited to a speed of four miles an hour in approaching the supposed antagonist. In order to show the utility of the whole thing, let us suppose that, in place of the non-resisting floating target, an enemy's ship in motion had been encountered, which, instead of waiting until the assailant, creeping at the rate of four miles an hour, had come near enough to be enabled to thrust his powder bag under the hull, had fired a broadside of grape, at short range, against the boom with its rope and tackle—not to mention the crew handling the frail and complex gear—what would have happened? But we need not discuss the subject further; our intelligent naval officers understand better than we can point out, that the boom torpedo, arranged and handled as practised during the naval evolutions at Key West, will be of little use in actual warfare.

"Before dismissing the subject we cannot refrain from adverting to Admiral PORTER's silence respecting Captain ERICSSON's movable torpedo, which we have taken considerable pains to investigate and lay before our readers. Had Admiral PORTER, in common with some other prominent naval commanders, advocated attack at long range, the Navy Department might be persuaded that the Admiral had good reasons for abstaining from mentioning the tubular cable torpedo system; but since he deems it practicable to attack an enemy's ship at a distance of a few yards, we think that in a report containing professional advice to the Secretary of the Navy the new system was entitled to serious consideration."

The following lecture on tactics is copied from the *Broad Arrow* of 7th February, although a mere synopsis its value will be apparent to our military readers at sight. We regret that it is not in our power to give it in detail and it does not appear to have obtained a place in any of the military journals to which we have access. It has been the custom hitherto to preserve great reticence on purely professional military or naval subjects, as if they were not fitted to appear before the public, and if some great and subtle design invention or plan of the utmost importance to the public interests were thereby rendered inviolably secret and stored up as it were for future use in the interests of that public during the next war in which it should be involved, but experience has woefully demonstrated that no secret if any ever could exist can prevent the details of any invention or place confided to more than one person from becoming thoroughly well known. As for instance the military authorities of Great Britain jealously guarded the secret of the Harvey torpedo from the knowledge of their own scientific military officers, but most laboriously as well as elaborately prepared printed descriptions with proper drawings, &c., for the use of the United States military engineers as well as those of foreign powers; so that it was to the courtesy of the Engineer