

out that the gallant Colonel had failed to fully comprehend the whole bearing of the question on which his eloquent lecture was based—by showing that *the occupation and command of the Western Lakes was a prime factor in any theory of defence for Canada*, and moreover, the means that were available for retaining the command of those inland seas, which are briefly, the command of the sea board—the controul of the Mississippi, which would follow, and the sending proper gun boats into those waters—two or three of the type represented by the *speedy* class, or better still, by vessels of the following type which could be employed on coast service, and in the lower St. Lawrence having access to the Upper Lakes by our magnificent canals. The following is taken from the same issue of our contemporary:

"By accounts which have been recently sent from St. Vincent, a most favourable report has been received of the cruise of the turret-ship *El Plata*, under the command of Captain Royle, which was on a voyage from Liverpool to Monte Video, for service in the navy of the Argentine Confederation. The *El Plata* is a turret-ship of 1800 tons, is 185 feet long, 44 feet beam, and draws 9 ft. 6 in. of water, and was built by Messrs. Laird Brothers, of Liverpool. She has no ram, and has a freeboard of only 4 ft. 6 in., notwithstanding which the crew, consisting chiefly of officers and men who lately belonged to the Royal Navy, volunteered to accompany the vessel across the Bay and the Atlantic, to her destination.

"She is particularly designed for river service, and is protected by a belt of armour at the water-line, in addition to the turret, which is composed of 9 in. armour plates, and carries two 123 ton guns. She left Liverpool in the early part of the year, and after a short delay at Holyhead and Milford, left the latter place on the 10th February for Madeira.

On the following day a blow was experienced from the S.W., being nearly dead ahead, but all preparations for bad weather were rendered unnecessary by the wind and sea decreasing towards night, which enabled the vessel to proceed ahead under fore and aft sail and easy steam.

"The weather gradually improved, and on the 15th, the wind veering to the northward, better progress was made. The vessel reached Madeira on the 18th February, after having made a good passage and having burnt during the eight days' voyage only sixty six tons of coal. Surely such a report must give strange comparison between the consumption of coal of this vessel, which proceeded at an average rate of 170 miles a day, with many of our costly armour-plated vessels. Much difference must naturally arise from the draught of water being so small, but we venture to submit that on the face of these figures something might perhaps be accomplished by reducing the draught of water and the freeboard of our monitors without affecting their safety at sea. No masts would be required, but as in the case of the *El Plata* only two poles and a hurricane deck.

"The consumption of coal from Madeira to St. Vincent was again only fifty-six tons, although a southerly gale was met with soon after leaving Madeira, and high southerly winds were experienced instead of the usual N.E. trades.

"Apart from the question of the consumption of coal, which is in itself a most

important one, especially considering that the *El Plata* consumed only about the same quantity of coal during the voyage from England to Madeira, as H.M.S. *Devastation* would burn in one day, there is the main feature of the question consisting of the safety of the vessel itself. On comparing the sizes of the two ships it will be seen that the *El Plata* is only half the size of the *Devastation*, but has, nevertheless, completed the voyage across the bay and a part of the Atlantic, occasionally with a heavy sea running, without raising any of those causes for 'misgivings' which have been so rife in the case of H.M.S. *Devastation*.

The crew, indeed, have expressed themselves most confident in the safety of the vessel in a heavy sea, and we are, therefore, sure that the public will thoroughly support our naval authorities in the decision they have arrived at with regard to H.M.S. *Devastation*. We feel, however, that several persons of great experience have but too justly condemned them for their lack of confidence in the ocean cruising qualities of our low freeboard, unmasted turret ships, after having received so many reliable proofs of their stability. It is clear also that there must be many officers and men in the Royal Navy who, not only for duty's sake, but also for more laudable reasons, would gladly embark in the *Devastation*, and doubtless have already expressed their anxiety to do so if any inference may be derived from the many applications which had to be refused in the case of the *El Plata*.

The danger of men being washed overboard from the upper deck appears to have been somewhat nullified in the case of this vessel by the aptitude she has with her low freeboard in rescuing them from a watery grave. It appeared that on the 22nd February a man fell overboard, whereupon Captain Royle, instead of lowering a boat, thought it would be a quicker course to take the ship itself towards the drowning man. He thereupon put the helm hard over, steered direct for the man, picked him up, and proceeded on his course. The vessel was to leave St. Vincent on the 2nd March, and it was hoped would arrive at Rio about the 20th of the same month."

Our canals affording access from the lower St. Lawrence at Montreal to Lake Ontario have locks 200 feet in length, 45 feet in width, and nine feet of water on sills. They are about being enlarged so that they would readily pass a vessel of the dimensions of *El Plata*; those connecting Lake Ontario, Erie, and Huron are 250 feet long, 65 feet wide and have 12 feet of water; so that the command of the Western Lakes need not be abandoned except through ignorance of their resources, capabilities and importance; and their neglect of overlooking their strategical importance will tend to neutralise all defensive measures as their waters wash at least 500 miles of the shores in front and rear of the richest and most important portion of Canada, so that the system of defence so elaborately designed and described by Colonel Jervoy, is liable to attack in flank and rear, and indeed quite open to both by their hypothesis of defence. Any movement on the Eastern or South Eastern frontiers can only be made by the line of the Kennebec along which Arnold advanced in 1776—if, guarded, it was impassable then it is more so now.

The old *Gate of Canada*, the valley of the Lakes Champlain and George would be effectually closed by the control of the Hudson River which the command of the sea board would involve; that is, if the officer in command of the naval armament understood the true strategy of the Defence of Canada, and it would cost England no exertion beyond thoroughly understanding the true strategical as well as political bearings of a war with the United States to combine her interest in bringing it to a speedy conclusion with ours in defending the Dominion.

The following letter which is copied from *Broad Arrow* of 13th March, exhibits in a striking light the difficulty experienced in forcing on a College trained class of officers any invention no matter how useful or important which has not emanated from their own ranks, or is in accordance with their traditional opinions—this is just the result of *over education*:

SIR—The above is the question now of chief importance, as regards the future planning of permanent defensive works, as well as the construction of our siege batteries. In the *Broad Arrow* of the 6th inst. we learn that forty 38 ton, and fifteen 35-ton guns, in addition to a still greater number of eighteen and twenty-five tons weight, are now in the Service; it is also noted, that two 38 ton and two 35-ton guns, are to be the armament of the turret-ship *Thunderer*. It appears that the only other very heavy guns afloat, are four of thirty-five tons, on board the *Devastation*, but there are some fifty more of thirty-five and thirty eight tons available for use when required. From the delay in placing these Woolwich Infants in position, the inference is, that a doubt exists as to the system they ought to be mounted upon. Up to the close of last year there was not even a 9-inch, i.e., a 12-ton gun, mounted in England, and as for India, its coast defence is entirely in a backward state, even the kind of gun platform best suited for that country has not yet been decided upon, and the forts though planned have not yet been built. Here, by way of parenthesis, it may be observed that a separate "Inspector General of Artillery" is found necessary for India; surely a "Director of Artillery" in that country must be equally needed? perhaps the difficulty about such appointment is, that it must be under the government of India, and independent of the War Office. Returning to the original subject of home defence, it is to be regretted, that public opinion is not sufficiently educated on this subject to ensure a wide and intelligent interest in it, and to counteract the bureaucratic prejudices, which not unfrequently hamper military scientific progress. Of all questions affecting at once both our naval and military efficiency, there is none to compare with the question, How can we best, and with least expense, arm our gunboats and armour-plated vessels, as well as our land, and in part our coast defences? and it is of equal importance as regards the equipment of our siege trains. Are we to go on with the present most costly turret and iron shield embrasure system, or shall we adopt the Moncrieff system, improved as it has been recently, on his "hydro pneumatic" principle?

For civilian readers, it may be explained this system enables the gun, whatever it