

able up to the day of CORNWALLIS's surrender or CLAYTON's advance in immediate pursuit would at once have changed the aspect of affairs, but one was too indolent and the other too stupid; the event favored the daring, although it displayed utter ignorance of the art of war by the United States General, as he gave his adversary ninety nine chances out of one hundred. Our next article will contain a review of the celebrated "*March to the Sea*" and the *Strategy of Invasion* illustrated thereby, especially as the most important portion of the operations were undertaken over the very same line of march pursued by Earl CORNWALLIS eighty-three years earlier, but with a far clearer knowledge of the object to be attained, and the effect produced, than was possessed by that able general and his enterprising associates.

Taking into account the difference in time and accessories, especially the modern appliances of science and manipulative skill to the art of war, the similarity of events in both cases always excepting the final close, is sufficiently striking and remarkable, and plainly proves that the general principles governing the art of war are unchangeable.

The *Athenaeum* (we do not mean the Club of that name) has long since ceased to be regarded as an authority in the world of letters, and we do not think there can be much hope that it will recover its position by going in for the sensational business of literature in a small way. The attempt last week to surprise the public with a pretended intimate knowledge of the authorship of "*A True Reformer*" ("*Novels of the Week*," p. 788), seems to us to be as clumsy a performance as it certainly is an ill-mannered one. In venturing a bad guess as an authentic statement of fact the reviewer only succeeds in naming a Colonel Chesney, who can hardly be the right one in the present instance; and who, right or wrong, assuredly had nothing to do with "*The Battle of Dorking*," the success of which, says this offhand writer, nevertheless seems to have spoiled him. According to the old adage, that "it never rains but it pours," the reviewer having committed himself to one blunder, proceeds to add others if possible more glaring, in his account of the novel itself. Thus, he actually praises, as an exact delineation of a high political official now in the War Office, one of the sketches in the work which every one who knows British Indian history for the last half-dozen years will fix on instinctively as that of an officer distinguished for his very demonstrative outward devotion to financial reform, combined with consistent endeavours to build up a costly department for himself. To take the Sir Mordaunt Burley of the novelist for Mr. Cardwell's present right hand man—as the reviewer does—is to prove that he has undertaken to write about great persons of whom he is ignorant, as his first sentences showed him to be, of the authorship of the most famous pamphlet of his own age.

*Broad Arrow* of 23th June, takes a contemporary periodical of considerable standing in the literary world to task for presumed want of courtesy in dealing with one of the heroes of the best satire of the age,

quite coolly ignoring its own impertinence in dealing with the character of the gallant officer in command of the Canadian Army, and it might well be asked how often our contemporary has been caught "venturing a bad guess as an authentic statement of fact."

In the present case, however, it is notorious that the man "of the broad and beefy chest" is that high political official now in the War Office, and no one else; and the character of Sir MORDAUNT BURLEY was intended for Mr. CARDWELL's present right hand man and, moreover, it fits exactly.

The idea of the Indian financier is entirely too far fetched, *Broad Arrow* is not particular in striking at a presumed or actual political opponent, especially if he does not belong to the ranks of that Republican party that has maintained an existence since CARDWELL's time, and in this the individual crime seems to be that he was not as great a humbug as Sir MORDAUNT and failed in building up a costly department for himself.

Our contemporary can hardly be serious in the travesty he proposes to make of the ablest sketched and most prominent figure in "*A True Reformer*," it is a fact, however, whether intended or otherwise that the whole of this clever *novellette* is taken to be a clever caricature of the Whig Radical Government and the destruction of the British Army by the recommendation of an obscure subaltern officer with the complicated and useless system imposed on the country in its stead, an exact counterpart of CARDWELL's patch-work.

Our contemporary however, has no true claim to disinterestedness in this case, and with all his talent will not be able to save his friends from the consequences of the fearful mistakes they have made in the reorganization of the British Army.

The last idea in the torpedo line is taken from the *Scientific American* of July, 19th omitting the sketch or diagram, which is simply that of an ordinary gracefully designed *ram*, without masts. The closing remarks are from the United States Army and Navy Journal, and we think our readers will not imagine the gallant admiral's vessel to be so very formidable or offensive after all.

"A vessel, which although not yet finished, has already attained a world wide fame, is Admiral PORTER's torpedo boat."

"The sketch, taken from the ship as she lies unfinished on the stocks at the Brooklyn Navy yard; does not necessarily aim to present the details of construction with accuracy, but serves to convey a good idea of the general configuration and shape of the vessel. She is 174 feet long, 23 feet broad, and 13 deep and is built of thoroughly tested charcoal iron. The sheathing of the hull is from three eighths to half an inch thick, and in some portions this is increased. As we explained, in a recent article on "*Iron Ship Construction*," this boat is built after what is known as the English "bracket

plate system," that is, two vessels may be said to be constructed, one within the other and of equal strength. Within the outside shell three longitudinals of immense strength run the entire length of the vessel and are connected with bars running in a horizontal direction by brackets. The whole is then covered with anti-rust plating, forming a distinct and perfectly air-tight bottom and sides. The different sections can be used and entered by manholes, which enable a person to pass between the inner and outer vessel from stem to stern, so as to effect repairs in case of injury. The compartments are all water tight, so that in event of grounding or other damage, only a small portion of the vessel will fill. The deck is of fine plated steel, and of about half an inch in thickness. The new Fowler propeller wheel will be employed, the blades of which being operated by an eccentric on the shaft have their pitch changed, so that steering and propelling will thus be done by the same means, the rudder being merely auxiliary. The engines, now in process of construction at Roach's iron works in this city, are of the compound type, built in the most careful manner, and it is expected that the boat will be able to steam both astern and ahead at a very high rate of speed. Electric apparatus connects with the engine room and pilot house, from either of which points the vessel can be steered.

"In the engraving, the boat is shown in fighting trim. That is, her compartments are filled with water, so that she is entirely submerged with the exception of some three feet. Her three masts are lowered out of the way, and nothing is visible on her deck except her smoke stack, low pilot house, and the heavy gun which she is to carry on her forecastle."

"Although built with a 'snout,' ramming is only a secondary means of attack. In fact her bow is not a solid piece, but it is built out some twenty feet in order to allow torpedoes to be thrust forward well in advance of the boat. An opening near the lower edge of the extension of the bow runs at a slightly elevated angle to one of the forward compartments, and through this the shell placed on the end of a staff 20 feet long is shoved. Of course, after the explosion, a ram given at full speed, accompanied by a shell from the heavy gun, would leave little probability of the attacked vessel remaining on the surface for a very protracted period. The two apertures or ports, shown on the broadside, one amidships and the other near the stern, also serve to push torpedoes from, and are used when the boat is obliged to range alongside a ship instead of meeting her bows on."

"We may add that the torpedo boat is to have two horizontal direct-acting compound engines working on a central vertical shaft through bell cranks. The high pressure cylinders are 20 inches in diameter, and the pressure 33 inches, with a stroke of a piston of 30 inches; the number of revolutions per minute being estimated at 80. An ordinary surface condenser is placed between the low pressure cylinders. There are two cylindrical horizontal tubular boilers of ten feet diameter of shell and eleven feet in length, having two furnaces in each 39 inches in diameter, with an entire grate surface of 189 square feet, and 5,000 square feet of heating surface; the pressure of steam will be about 60 pounds per square inch, and the consumption of fuel about fifteen tons per day, full steaming. The Fowler propelling and steering wheel will have a diameter of about ten feet, the best working area of blades being determined by experiment."