my eyes; and the admiral for ever appearing through the smoke—always smiling—I aimed and fired. The admiral rolled on the deck as though one had pushed him violently from behind. Eagerly I looked over the top to look. What cries! What lamentations on board the English ship! The officers threw themselves on their knees, wringing their hands. One of them, with swollen countenance, turned towards us, and raising his clenched fist, hurled at us these words, which I have often repeated, and which I got explained to me later on, 'Dam your eyes! Dam your hand! (*sic*) You French scoundrels.' He mixed up his language and ours, which he didn't know well. I was quite giddy; it seemed to me that I was dreaming; when a violent blow on the head turned me over insensible.

"I awoke to find myself a prisoner in England.'"

"Several new ironclad gunboats have been built for the Argentine Republic, nearly all of which are commanded by officers belonging to the English Royal navy, who have been granted leave by the admiralty to instruct the crews in seamanship and gunnery. Two of these vessels have recently sailed for Buenos Ayres, named the *Constitution* and the *Republica*, commanded respectively by Captain Frederick W. Hallowes, R.N., and Lieutenant English, R.N. These gunboats are of a most powerful class, draw only 8 feet of water, are fitted with twin screws, and attain a speed of nearly 10 knots. They are of 450 tons, and each carries a 26½-ton 11-in. muzzle loading rifled gun, which is loaded by hydraulic machinery. They expect to arrive at their destination by the end of February, calling at Lisbon, Cape de Verde, and Bahia for coal."

The above class of gunboats would be just what Canada requires for the defence of her Riparian and Lacustrine frontiers. They could pass easily through our principal canals and would, in every respect, be an effective defence against the danger of sudden raids.

The weight of shot one of those guns could throw would be 600 lbs.

For service in shallow water the British admiralty have constructed gunboats known as the *Comet* or "floating gun" carriage class.

These vessels are eighty-five feet long, and twenty-six feet two inches beam—draw five feet nine inches forward, and six feet three inches aft, with a tonnage of 243, and a displacement of 254 tons. The speed is 8.73 knots per hour, the engines of a nominal H. P. of twenty-eight, developing 262 indicated H. P. They are twin screw iron vessels, and the armament is one 10-inch rifle weighing eighteen tons. The formidable nature of a fleet of these war hornets for harassing an enemy appearing on the coast, will be readily appreciated by every intelligent naval seamen, while the economy and usefulness of a similiar class for the defence of our own Southern harbors and coast in the event of war, will not readily be questioned. The guns throw a 400 lb. shot and the vessels could pass through all our canals.

We have to thank T. D. Sullivan, Esq., Libarian to the Royal United Service Institution for copies of "A Key to the Rules of the War Game" (Kreig-Spiel); and of a lecture delivered by T. Brassey, Esq., M.P., before the Institution, on "How best to Improve and keep up the Seamen of the Country."

Notice to Correspondence.—We are obliged to hold over to our next the following correspondence:—"Canadian Volunteer;" "Hussar Vedette;" and "Ex Liner." "Royal Blue" has not sent us his name, and in consequence lies over also.

Literary and Scientific.

Capt. Wicksteed's Lecture on "The Rifle."

(*From the Free Press.*)

On Friday evening 24th ult., Capt. Wicksteed, G. S. & M. S., delivered his lecture on "The Rifle," under the auspices of the Ottawa Literary and Scientific Society. Mr. Thorburn, the President, being in the chair. The lecture was of the most comprehensive and practical description, and evinced close study. The lecturer illustrated the various points in his lecture with scientific diagrams, which he explained in such a manner as to make them most intelligible to his audience. The Captain has taken a very deep interest in his subject, as will be seen from the lecture which we give below:

"The subject of this evening's lecture is given out as "The Rifle." It would have been more correct, though perhaps less attractive, to have stated my text to be "Projectiles of modern warfare." In one of the little Red books issued by the Horse Guards, we find this fitting and dogmatic sentence. "A soldier who cannot shoot is useless, and an encumbrance to the battalion."

I have often addressed men of my company to the following effect:—"Private Blank; what is that which you hold in your hand? Invariable answer, a rifle sir. What is it used for? Invariable answers, to shoot a man sir. In what does it differ from a shot gun? A look of despair, gradually brightening into an idiotic smile, has been the invariable answer.

No idea of the forces acting on the ball or gun, the nature of the rifling or the flight of the ball seemed ever to have entered Private Blank's head, nor did he think it at all necessary that it should,

What is the result? Private Blank. A fair representative of the rank and file of our volunteer militia force, might after an enormous expenditure of time and ammunition become a fair shot at known distances, and on a calm day. Whereas a few short lectures, or a little instruction previous to putting the rifle into his hands would have saved all this waste of time, money and patience. Even in the case of those who are somewhat skilled in the use of the rifle, a little reading on the motions of projectiles, etc., would beget more confidence and certainty in their practice than days of fatiguing toil, without it.

In the case of a wood axe, practice produces more skill than any instruction, written or oral, but the rifle being a delicate mathematical instrument, a man to do it and himself justice must study well the theories and principles on which its construction is based, before proceeding to practice by putting it to his shoulder in front of a target.

The object of the present paper is two fold:

"1st. To show partially the results of my studies in the principle of gunnery in the hope that they may prove of service to riflemen generally.

"2nd. To present an analysis of the various branches of the art of war, and shew the position held with respect to them by the subject with which we are more immediately concerned to-night, viz: Artillery.

Let us now proceed to an analysis of a full course of lectures on war:—1st, on the nature of war. War being an act of violence to compel our opponent to fulfil our will.

2nd. Branches of the art of war:—War in its literal meaning is fighting, for fighting alone is the efficient principle in the manifold activity which, in a wide sense is called war. The necessity of fighting very soon led men to special inventions to turn the advantage in it in their own favor; consequently, the mode of fighting has undergone great alterations; but in whatever way it is conducted its conception remains unaltered, and fighting is that which constitutes war.

The inventions have been, from the first, weapons and equipments for the individual combatants. These have to be provided, and the use of them learned before the war begins. They are made suitable to the nature of the fighting, consequently are ruled by it; but, plainly, the activity engaged in these appliances is a different thing from the fight itself; it is only the preparation for the combat. That arming and equipping are not essential to the conception of fighting is plain, because mere wrestling is also fighting.

Fighting has determined everything appertaining to arms and equipment, and these in turn modify the mode of fighting; there is, therefore, a reciprocity of action between the two. Nevertheless, the fight itself remains still an entirely special activity, more particularly because it moves in an entirely special element, namely, in the element of danger.

It is also noways difficult to separate in idea the one activity from the other, if we look at the combatant forces fully armed and equipped as a given means, the profitable use of which requires nothing more than a knowledge of general results. The art of war is, therefore, in its proper sense, the art of making use of the given means in fighting, and we cannot give it a better name than the "conduct of war."

If we have clearly understood the results of our reflections, then the activities belonging to war divide themselves into two different classes, into such as are only "Preparations for war" and into the "War itself." This divison must therefore also be made in theory.

All activities which have their existence on account of war, therefore the whole creation of troops, that is levying them, arming, equipping and exercising them, belong to the "art of war." But the "theory of war" occupies itself with the use of these prepared means for the object of the war. It needs of the first only the results, that is, the knowledge of the principal properties of the means taken in hand for use. This we call "the art of war" in a limited sense, or "theory of the conduct of war," or "theory of the employment of armed forces," all of them denoting for us the same thing.

To make a sound theory, it is most essential to separate these two activities, for it is easy to see that if every art of war is to begin with the preparation of military forces, and to presuppose forces so organized as a primary condition for conducting war, then the theory will only be applicable in the few cases to which the forces available happen to be exactly suited. If, on the other hand, we wish to have a theory which shall suit most cases, and will not be thoroughly useless in any case, it must be founded on those means which are in most general use, and,