

part of the strong armed mechanics, or the bold and hardy young farmers of the country to come to any drill that was ordered. We believe that it is their pride to become as perfect in their exercise as any Volunteers can be made.

We will for our own part, aid in all ways—a plan is now being matured here, in this our City of the Woods, to prepare photographs of the "positions" in the Bayonet exercise—it is hardly necessary to say that neither Capt. Moore nor the Editor of this paper have any pecuniary interest whatever in such a matter. But of this we will speak more fully in the next number, when the arrangement is made.

The "Bayonet exercise" will be followed by the new Broadsword practice, also after Bushman, the same system that is now practised so successfully by Twoby, formerly in the Artillery, but now drill instructor in the Naval College, when we shall offer a few more observations.

THE RIFLE MUSKET.

Colonel L. Hay, the Commandant of the School of Musketry at Hythe, has forwarded to His Royal Highness, the Commander-in-Chief, the second Annual Report of the instructions and experiments that have been carried out at that institution. From this report we glean some interesting facts. In the part of the Report lettered A we find that "of 57 officers (all of whom practised in every respect as the n.-c.-o. and privates.) 36 or 37 per cent passed into the first class in shooting, 32 into the second class, leaving only 9.10.3 per cent in the third class.

Of the 615 n.-c.-o. and privates whose practice is shown in the class B (which number includes 196 men who offered themselves as candidates for the corps of instructors, of whom only 55 were found qualified and have been re-attested for the said corps, and distributed among the several Regiments, Camps, &c. at Malta and elsewhere) 203, or 33 per cent, passed into the first class in shooting, 367 into the second class, leaving 45, or 7.1 per cent in the 3d class.

In the "judging distance" practice of the n.-c.-o. and privates, 363 passed into the 1st class, 206 into the 2nd class, leaving only 46 remaining in the 3rd class.

The gallant Colonel goes on to state that the proficiency in good shooting continually increases, and that it may be taken, as the result of the practice hitherto, that the mass of the soldiers of the British army may be taught to shoot well as far as 600 yards, which we need not say, is good for all practical purposes in warfare, as applied to the bulk of an army.

Of the 615 men who were instructed, 220 never fired from a rifled musket before they went to Hythe; 22 per cent of them passed into the first class, and 137 into the second.

The following is the result of the practice at a soft target at 300 and 400 yards, without using the "back sight." At 300 yards, of 1714 rounds, 1090, or 64.06 per cent hit the target.

At 400 yards, of 1790 rounds, 822, or 45.92 per cent took effect.

A party of very young soldiers of the 33th Regiment, (average service 43 months) in marching order with fixed bayonets, after one course of drill, obtained 90.62 per cent of hits at 100 yards, and 53.12 per cent at 200 yards.

To contrast the difference in effect between the firing from the percussion musket (pattern 1812) and the Rifle musket (pattern 1853)—the old arm was tried by the best shot then at Hythe, firing from a rest, at 500 yards, and a target 18 feet square was not struck once in 20 shots; at 200 yards the firing was very little better. At 200 and 100 yards the target is hardly ever missed by the Percussion musket. Colonel Hay reports that with the new arm the target has been struck 50 times out of 100 successive shots at 800 and 1000 yards, without cleaning the barrel.

In order to show the effect of the fire of the Rifled musket as opposed to Artillery, Colonel Hay ordered a firing party of 39 men to be detailed. These men were all young soldiers who have only just concluded a single course of instruction at this establishment, 23 of them had never fired a rifle before they went to Hythe. To use Colonel Hay's own words.—

A group representing a field piece coming into action, the time to fire at 1000 yards, the firing was arranged, the price (5000) and the figures of the men and horses were of the ordinary size, the color of the horses was dark, and did not differ from the actual point to which it was directed. The horses of the ammunition wagon, which was at 300 yards, the firing party of the gun, and in the continuation of the time of the firing, were represented by set iron targets 6 feet by 2 feet placed in line at 1000 yards, at intervals of 500 yards, thus showing a front of only 1000 yards, the firing party of 39 men, each of 15 guns, which occupied the vertical section of two horses, the figure of the horse, the chest and legs, was painted on these sections and no shot was counted that did not strike within these limits, no men were represented, no ordnance, the ammunition wagon, with its horses, presented it but a small object than in reality it would have done. The wind during the trial was strong across the range. The party was arranged in skirmish order at 600 yards from the group, at the bugle sound to commence firing, the whole party dropped on the knee and proceeded to fire in the order observed by skirmishers; the firing was stopped precisely at two minutes from the time the bugle sounded "to commence" when it was found that each man had fired two rounds. On a careful examination the effect produced on the men and horses was ascertained to be exactly as described in diagram A. Had both ranks fired together instead of one rank waiting for the completion of the loading of the other, the same extent of effect would have been done in half the time—viz: one minute. The same order was observed in firing at 515 yards, except that the time occupied in firing was extended to three minutes, at the expiration of which it was found that the front rank had expended 3 rounds, the rear rank 2. On examining the group, the shots which took effect were precisely as shown in diagram B. Had the one rank not waited for the other in firing, the same extent of effect would have been done in one and a-half minutes instead of three. It will be seen on reference to diagram A, recording the practice made at 410 yards, that seven men and six horses were disabled, or hit; and at 515 yards (diagram B), 18 horses, the practice) six men and five horses; at both distances the shot horses were disabled. This does not include the damage done to the horses of the ammunition wagon of which in the practice of 410 yards four were hit, and at 515 yards five. When the moderate amount of proficiency and short training of the men who fired in this case, and the novelty of the mark intended are considered, this trial will convey a tolerably accurate idea of what may be effected by large numbers of carefully selected mark-men, used on to put down the fire of Artillery at 800 and 1000 yards, more particularly when it may be expected that some slight improvement in the manufacture of the arms and ammunition will be made. A Brigade composed of three Batts. would be able to turn out at least 300 qualified marksmen. No account was taken of the shot—very many of which struck the limbs and gun-barrel; some shots penetrated the ammunition boxes. It becomes a question whether the use of some small rifled rifle from the rifle musket might not be effective in such exceptional cases. An experiment to prove this shall be tried.

From all this our readers will come to the same conclusion at which we arrived when we first heard of the power of the rifled musket, that to continue the use of the six-pounder guns, is a simple absurdity, leading only to failure and mortification, a frightful loss of life, and waste of material. If thirty men at distances of 610, and 815 yards, can disable six men, five horses of the guns, and five horses of the wagons, it is perfectly clear that no six pounder can venture to unlimber for "action" at those distances, and from what we know of the power of the Rifled musket, it would not be safe to do

so at 1500 yards. Now the range of a six pounder at four degrees of elevation is only 1200 yards, and it may be safely said that at that range against riflemen in skirmishing order, its fire would be innocuous. A six-pounder with the same elevation has a range of but two hundred yards more, so that it may be easily seen what advantage scattered riflemen must have with so large a mark to fire at, and in what a helpless position the gunners must be placed. The adoption of the rifled musket must cause very great changes in the organization of Artillery. In the Mexican War, the United States used one Battery, at least, of 18 pounders. The Russians brought guns of still heavier calibre into action at Inkermann. On that day two 18-pounders belonging to the siege train were brought up and used by the Royal Artillery with admirable effect, and afterwards two field Batteries of the same calibre were organized. It does not appear difficult to construct 18-pounder guns, and carriages, adopting the block, instead of the bracket trail, so that they can be brought into action without the delay occasioned by shifting the gun from the "travelling" to the "firing" trunnion holes, and vice versa.

A book has been issued to each of the Rifle Companies in Canada, containing the rules laid down in Her Majesty's service for instruction in Rifle practice. It is to be hoped that the Captains of those Companies will not neglect the ball practice, without which the beautiful arms issued to their men will be of little more use than so many of the old fashioned fire locks.

GENERAL ORDERS.—All the general orders that have been issued from time to time from the Head Quarters of the Militia, will be republished in this journal, as fast as room can be made for them. Published in the Quarto form the "Canada Military Gazette" can be very conveniently bound up, and will form a work of reference on such points to the officers of the Force.

The "Army list" of the Active Force had hardly been put in type when the *Gazette* announced some changes. The most remarkable of these is the retirement from the command of the Artillery Battalion of Montreal of Lt.-Colonel Maitland. The Colonel was an old officer of the line, who had seen service, though in a Dragoon Regiment, if we recollect rightly the XIIIth, and commanded a Volunteer Battalion in this country during untoward times, with much credit to himself, and benefit to the country. His Excellency the Governor General, in the General Orders of the 31st of December thanks him for "his long and meritorious service." In private life a thoroughly kind, amiable, and christian gentleman, and as a soldier, a man who knew his duty, Colonel Maitland's retirement is a loss to the Militia Service.

We are indebted to the Adjutant of the Montreal Artillery Battalion for the information which we required and which we shall shortly use. If all officers were so prompt they would most materially facilitate our operations. The Montreal Light Infantry Battalion must not blame us for the want of the dates of their respective commissions. The list of the Artillery Battalion just as it appears, was sent to us.—