

venson finds it expensive and difficult to horse his Battery, which could only turn out for four-days during the present training."

"He informs me that he holds a list of subscribers in Montreal for the purchase of horses for his battery, which he would hand over to Government, provided a Field Battery Branch School of Artillery was established at Montreal, which would train drivers for his battery, and horse it when required to turn out. I beg to submit the proposal for consideration."

"The harness and equipment were in very good order, and Lieut. Col. Stevenson handles his battery with skill and confidence. The drill was steady, but slow. In spite of the intelligence of non-commissioned officers and men, who are mostly mechanics of a superior class, their knowledge of ammunition and its application is defective, as is the case with all the field batteries I have inspected, except that of Captain Amyrauld."

"Sixteen days in the year being insufficient, under ordinary circumstances to acquire or keep up a knowledge of artillery, I recommend thirty-two days—sixteen in camp and sixteen at headquarters—if funds are available to meet this expenditure."

"The field batteries appear mainly to depend upon the energy and skill of their commanding officers, and to a certain extent upon the amount of money they are willing to spend. I need not point out the inadvisability of depending on a system in which there is no chain of instructional responsibility. No officers, non-commissioned officers, or men of the Montreal Field Battery have attended the Gunnery School at Quebec, which the nature of their daily avocations, I am informed, renders it impossible, nevertheless, it is essential that a certain proportion of the officers and men of this battery should go through a short course. If this Battery is to be armed with modern weapons, as I recommend should be done, I think it would be well to utilize the 6 pounder gun sleighs in store at Quebec, which could easily be converted to suit the new 8-pounder muzzle-loading rifle guns at trifling expense, there being a broad bearing for quoin instead of elevating screws."

#### SHEFFORD FIELD BATTERY.

"The Shefford Field Battery has lately been raised by Captain Amyrauld, who obtained a first class certificate in "B" Battery School of Gunnery."

"The whole of his officers, non-commissioned officers and men, on joining, were totally ignorant of artillery; yet he succeeded in imparting foot drill as well as gun drill, and a fair amount of gunnery, as well as good discipline, with the assistance of Capt. Duchesnay and the non-commissioned officers of "B" Battery School of Gunnery detachment. This battery was accommodated in Barracks at St. Helen's Island. I inspected their rooms, and found them clean and in good order. The conduct of the men was very good and their physique is fine."

"They are mostly farmers from the frontier, owning horses, and admirably suited for field artillery. It is hoped they will soon receive an equipment of rifle guns, as it is most important that this and the LaBeauce Battery be made efficient. They are both on the frontier, and composed of admirable material—the latter French speaking—the former an English speaking agricultural class."

[To be Continued.]

#### TACTICS OF FIELD ARTILLERY.

In an article published on this subject in the *Broad Arrow* of the 30th November, 1872, we remarked upon the difficulty connected with obtaining reliable information as to the minute details of the employment of artillery in the field. All information which can be obtained on this important subject cannot fail to be both valuable and interesting, and we are indebted to the celebrated Austrian military publication edited by Colonel Baron von Streffleur, for some excellent articles on "The New Tactics of Field Artillery." These articles were the result of a prize of £50, offered by the proprietors of this review, for the best essay on this subject, and as it is one of such great importance we do not hesitate in presenting our readers with a translation of them.

Since the adoption of rifled artillery, and of the *metériel* appertaining thereto, it has played a part in three different wars, whence a great amount of experience has been derived, which has contributed to elucidate all the questions relating to the tactics of artillery. To speak properly, when the war 1870-71 began, one had no longer to hunt for these tactics; they had become a doctrine which had caused the value of the new artillery to be brought forward in quite a characteristic way. Rifled artillery has become indispensable to modern combats; tactics in general will find future in its employment and indispensable complement, and one which it would have asked for in vain from the smoothbored cannon, or from any other system which is alone capable of firing at short ranges. Since the importance of muzzle-loading small arms has been acknowledged when compared with the Prussian needle gun, every exertion has been made to support infantry in an efficient manner by means of artillery. With this in view, the latter must accompany the former more directly, and strengthen their action by as murderous a fire as possible at the decisive moment of the fight. Further experiments having in view the improvement of sharpshooters or case fire must be made as at present there is no other means of employing the latter, except one makes use of smoothbored cannon. From the day when breechloading small arms were adopted by all the military powers, infantry tactics have been totally altered; case fire had to be given up, and it was immediately understood that the true way to solve the question consisted in taking proper advantages of the eminent qualities of the rifled cannon, viz., its long range and its accuracy of fire.

On the other hand, and as a natural consequence of the fire of rifled guns, the idea was suddenly formed of profiting by their accuracy at great distances, to place the artillery in a zone where it would have no longer anything to fear from the other arms, whilst continuing to take part in the fight.

The principles of the new tactics of artillery have shown the justice of these ideas; they establish the fact that it is as exaggerated for the artillery to accompany infantry into that zone where musketry fire has all its efficacy, as to cause artillery to keep back until it is completely withdrawn from the action of the other arms.

Infantry fighting, as it ought to be at the present day, imposes totally new obligations upon artillery. Formerly, it was the cannon which paved the way for the columns of attack; its intervention was necessary on account of the impotence of the infantry fire. One was satisfied with the short ranges of smoothbored pieces, because the extent

of the battle field was in general much smaller than at present. Besides which, the combatants were assembled in a much more compact manner. It must also be remarked that the most essential thing for smoothbored cannon was ground as little broken as possible, and favourable to the acting of the rolling round shot. Nowadays, when battle fields cover an immense extent of ground, the great essential accuracy of fire; on the other hand, the extensive range of the infantry arm, and its murderous effect, obliges artillery to withdraw itself for the greater part of the time to that distance where it will be safe from the efficacious fire of small arms; at the same time, however, it must not be too far off. If, then, the infantry demands that artillery should serve as its support, it can only ensure under the condition that the efficacy of this arm extends over a much longer space than that of the rifle.

If one examines with attention the progress of the artillery combat during the battles of 1870-71, one perceives that it develops itself with a certain uniformity from the commencement of the action up to that instant when it terminates. One may say that artillery performs its part there during the whole time with an intense and sustained activity.

From the commencement of the action, the attack and the defence push forward considerable forces, with the object either of favouring the tactical deployment, or else of opposing it. At this moment a certain action *en masse* may always be allowed, when the imposing artillery force fires upon a tactical object which has been well decided on.

As the combat continues to develop itself by degrees, it will be allowed, moreover, that the assailant endeavours to push his batteries more and more to the front, whilst the adversary, in order to defend himself, makes every effort to increase the number of his own batteries, consequently the objects to be fired upon change at certain moments. Whilst admitting that the principal action of artillery is this working *en masse*, one cannot help seeing that the French and the Germans also knew how to take advantage of their artillery in an *apropos* manner during certain secondary episodes of the battle, adding, for instance, one or more batteries to bodies of infantry charged to execute some especial task upon a given point. The battles of Metz, those of Woerth and of Spicheren, present numerous examples of this; one sees first of all a grand line of artillery outlining, so to say, the whole front along which the battle is extended, whilst individual batteries follow in their diverse phases the engagements of the infantry. Is the *dénoûment* at hand, all these batteries redouble their activity, as has always been the case; is it a question of pursuing the enemy; the artillery, far from slackening its fire, redoubles its efforts, and sometimes takes the whole onus upon itself, as it did at Sedan. To recapitulate, what characterises the rôle of the artillery during the battle is, that it prepares, by the aid of its fire, the combat for the other arms, or else it accompanies—as well by separate fractions, and while conforming to its movements—the infantry to which it gives by its moral effect, solidity and security.

But the artillery must not refuse to admit that even in the war of 1870, it was never able to obtain decisive results by itself; this then, is a principle, viz., that it ought to do everything for the infantry; it should be constantly preoccupied in endeavouring to second, its efforts.

The tactics of artillery comprise two sub-