

could moreover be enfiladed or taken in reverse by batteries from the opposite side of the River St. Charles, armed with modern guns."

"With reference to the defenceless state of Montreal and its railway bridge, I beg to remind you that the Moncrieff system of defence has been developed, and in some places adopted, in the United Kingdom, since the proposal of the Imperial Government to arm such forts as the Dominion. Government might construct at Montreal. The expense of such fortifications would be reduced to a minimum by digging six sets of double Moncrieff pits, rivitted with forest timber, in lieu of the six forts proposed opposite St. Helen's Island. They could be protected from assault by reverse fire pallisade galleries in the counterscarps of their ditches; the unrevitted scarp, being left to the natural slope of the earth could not be breached. No masonry or skilled labor would be required. The principal part of the expenditure would be the armament promised by the Imperial Government."

ARMAMENT.

"The heaviest guns mounted on the Citadel at Quebec are four 7-inch breech-loading rifle guns, on the salienta. They are not capable of penetrating ironclads."

"As the calibre of guns and the thickness of common plates have increased considerably since the original date of proposed armament, it is probable that some heavier guns might be substituted for those mentioned. It would be convenient and economical to supply 64-pr. converted Palliser guns in lieu of the thirteen 7-inch breech-loading rifle guns and traversing platforms on the work, which would take a 64-pr. converted from a 32-pr. with wood blocks on the axles to check the recoil. This would be a very efficient armament for the Citadel land front, the expense of carriages and platforms being saved. I do not think the old objections to the use of cast iron carriages under fire need be considered, as a blow from a heavy rifled projectile would place beyond any immediate repair any carriage of cast or wrought iron or wood. The durability of the carriages and the simplicity of the guns is also an important consideration. I would recommend the same inexpensive armament for the forts at Point Levis, which do not command the river, and cannot be opposed by heavier guns than such as can be brought overland. But as No. 1 fort, the nearest to the ship canal, is not close enough for penetrative effect, I presume that at least a couple of 12-ton guns, probably in Moncrieff pits, almost a *fleur d'eau*, would be placed at the northern angle of Indian Cove, and two more Moncrieff pits, with guns would be useful to command the railway and the river channel westward.

I concur in the recommendations submitted by Lieutenant Colonel T.B. Strange for increasing the efficiency of Artillery Corps in the Province of Quebec, especially with regard to the mounting of two extra gunners on extra horses in Field Batteries, whereby the services of a sufficient gun detachment are always available with the gun. This proposal had previously been made to me by Lieut. Colonel G. French Inspector of Artillery, who was equally convinced of its propriety, and this latter officer has been for some time engaged in compiling a Manual of Field Artillery Drill, suitable for Canadian Field Batteries, based in a great measure on the above suggestion.

Lieut. Col. Darrel Iago, of the New Brunswick Artillery, reports for my information as follows:

"In accordance with General Orders dat-

ed Ottawa, May 31st, 1872, an artillery camp was formed at St. John, on August 22nd 1872, for eight days, the batteries attending it having previously performed eight days drill at their own headquarters."

"No. 1, 2, 3, and 10 Batteries attended from St. John, and No. 7 sent a strong detachment, with one officer, from Woodstock."

"It is unnecessary for me to remark on this camp, further than to say that without doubt the officers and men derived great benefit from it, and that the continuous drill of never less than five hours per diem did more for the attendants at it than treble the time consumed in a drill room."

"I found the officers fully capable of instructing the men, and men anxious and willing to profit by their instruction, whilst both endeavored to maintain the credit this corps has always enjoyed for good conduct."

"The position you assigned me as Superintendent of drills was, therefore, as easy as it was pleasant; and I had also the satisfaction of superintending some excellent shot practice made by the different batteries, both as regards accuracy and also rapidity of firing, for prizes presented by well wishers to the brigade."

"I inspected No. 5 battery at Woodstock on the 15th July. This battery attended the brigade camp formed at that place as a field battery, they having two (2) six pounder guns in their charge, but having no horses properly enrolled, and really belonging to the brigade of Brunswick Garrison Artillery."

"I saw some creditable shot practice made by them, and the men drilled well at standing gun drill; but I should recommend that this battery be either turned into a field battery and properly armed and horsed (the country around Woodstock offering peculiar advantages for the establishment of a good field battery) or that in future they should perform their annual drill at St. John."

"I inspected the remainder of No. 7 (Major Gillespie's) Battery at Chatham, on September 28, 1872, as I previously stated, the best part of this battery attended the St. John camp; and though the men were fairly drilled, they compared badly with their comrades who had accepted the greater advantages of instruction. There are two twenty four pounder guns at this place, and a slight expenditure of money would lay down platforms, build a side arm shed, and otherwise provide a proper muster place for the battery at the same time adding much to the defence of Miramichi."

"I inspected Captain Call's (Newcastle) Field Battery, at Newcastle, on September 30th, 1872. This battery turned out for 8 days drill in camp this year."

"Captain Call appears to have a good deal of difficulty, from local causes, about re-enrolling his men and horses; but he informed me that he has now determined to adhere to the proper system of enrolling a field battery, and to take no drivers from any but the farming class. I had pleasure in reporting favourably upon this battery last year; and if Captain Call adheres to his rule, and uses the energy I have noticed in him, I have great hopes that he will have a thorough good battery next summer."

"The number of batteries in the Garrison Brigade has been diminished by five, all of which are in Charlotte County. The two batteries at St. George, could be spared, if the men do not desire to re-enrol; but with regard to the battery at St. Andrew's the case is far different. It is not necessary for me to point out to you the importance of St.

Anderw's, commanding as it does the navigation of the St. Croix river; and it is much to be deplored that there is no garrison artillerymen at this place. In my opinion, the loss of the battery at St. Stephen is not of more importance than those at St. George; but I should recommend that the armament at all these places, when the batteries have failed to re-enrol should be returned into store at once, including the two 32 prs. at St. Andrews, if nobody can be willing to raise a battery at that place within a reasonable time."

"There is one point in conclusion to which I should like to call attention, viz.: the want of a Gunnery School for the instruction of officers and men in this District. It is useless to hope to make a really good battery without a certain number of officers and men being competent to impart instruction in the theory and practice of artillery."

"In this Province we have hitherto managed to get on without a school, and both officers and men have acquitted themselves well; but I am in a position to state that it has been done by much extra work by all ranks, and speaking in the interest of the New Brunswick artillery, I shall be glad if they are accorded the same privileges as the artillerymen of Ontario and Quebec.

MILITARY SCHOOLS.

During the past year 339 Certificates of Qualification in Infantry Drill were given by the Commandants of Infantry Schools, of which 47 were first class, and 292 Second Class Certificates.

Two Riding Schools for instruction in Cavalry Drill and Equitation were established for a short period, one at Kingston, and the other at Quebec, and 12 certificates of Qualification, 5 of which were first class, and 7 Second Class Certificates were given.

It is reported that a large proportion of those who attended the Infantry School belonged to the Active Militia, and that the class of Cadets who passed through the Infantry Schools last year was much superior to the class of Cadets attending in previous years.

GUNNERY SCHOOLS.

The results already attained by the Establishment of the Schools of Gunnery at Kingston and Quebec, (A and B batteries) are very satisfactory.

These schools of practical and theoretical Artillery Science were established under the system detailed in General Orders, October, 1871, a copy of which will be found in the Appendix; none are admitted to those schools for duty and instruction except duly gazetted officers or enrolled non-commissioned officers and men belonging to corps of the Active Militia.

The periods of admission to the Gunnery Schools are for three and twelve months, and a limited number of officers and men may be re-admitted for a further period, if it be found necessary to do so, in order to maintain a sufficient staff and nucleus for carrying on the instruction and duties.

Whilst attached to the Schools of Gunnery (A and B batteries) for duty and instruction, all officers and men are under military discipline as prescribed in clause 54 of the Militia Act, and thus Artillery Schools are real as corps of the Royal Artillery itself, have been formed for Garrison duty as well as for theoretical and practical instruction in Artillery Science.

[To be Continued.]