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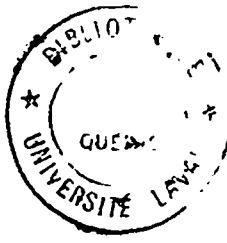
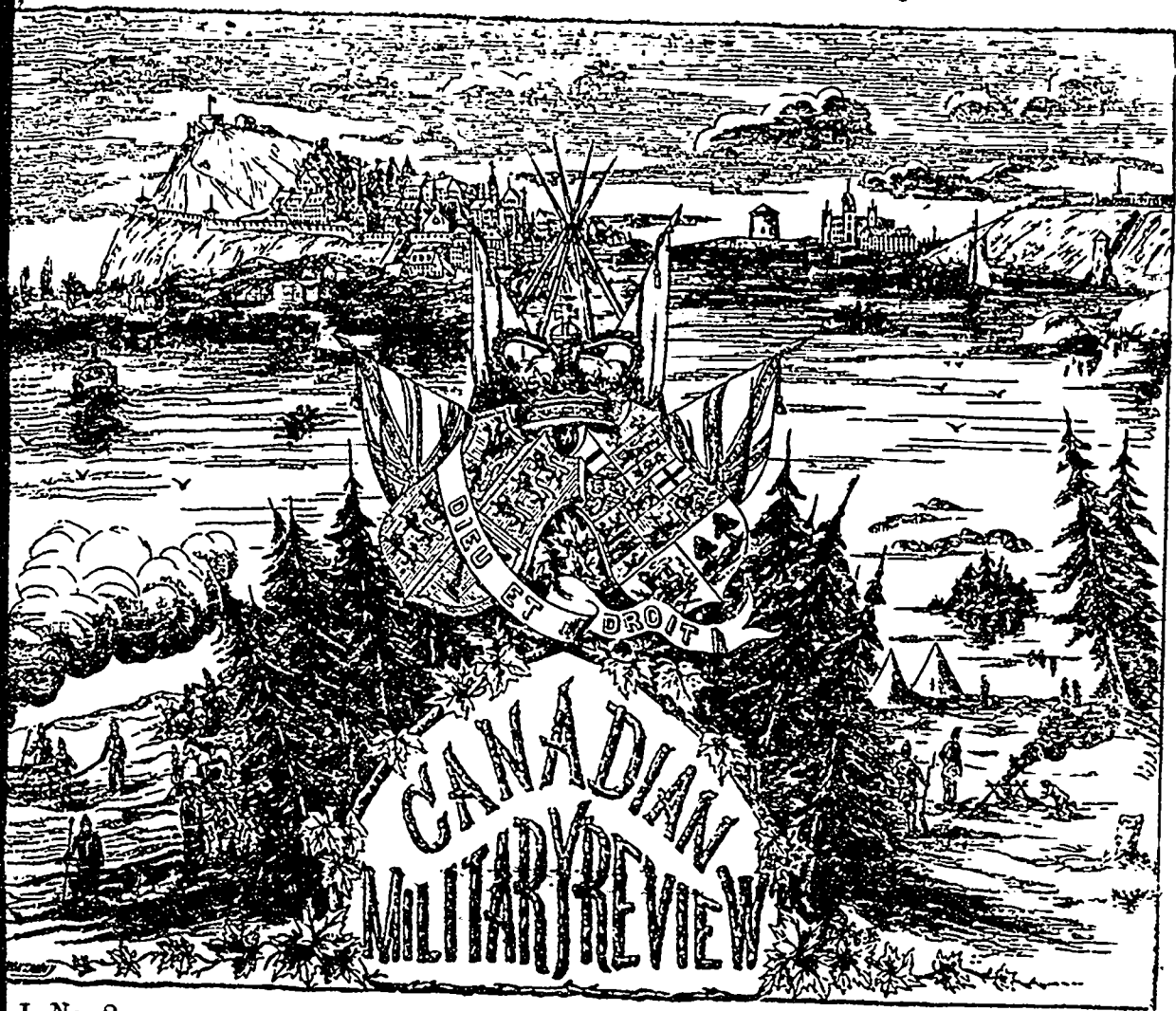
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I. No. 2.

QUEBEC, 1st MARCH, 1880.

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the journal may reach some who have not seen the first, we again insert the preface in the second number in the interest of the paper.

In issuing this the first number of the CANADIAN MILITARY REVIEW, a paper devoted to the interests of the Militia in the Dominion, we hope that every officer and member of the militia will wish it God speed, and extend to it their cordial sympathy and support, without which it cannot fail to meet the wishes of its predecessors.

Being issued in connection with the Dominion Artillery Association, its aim will be identical, viz., the dissemination of professional knowledge; it will, however, embrace all arms of the service, and the utmost endeavors will be made to make it interesting to all—to this end, it is requested that every one who has the interest of the militia at heart, will forward the names of their corps, batteries, etc., regimentally or socially, to the Editor for publication, in order that the force at one end of the country may know what is being done at the other, and that a spirit of emulation excited accordingly.

It is intended that it shall contain articles and clippings from the best military journals, (English and French), thus giving information on technical subjects which could not be obtained without great expense; ample space will be left for those who wish to ventilate their opinions (within the bounds of propriety), on purely professional matters; changes in drill, etc.

It is also intended, if officers commanding corps will be good enough to furnish the necessary information, to give a short history of each corps, showing date of formation, names of officers who took part in its organization, officers who have successively commanded it, extracts from orders, in fact everything that might prove interesting to its members. This would have a tendency to create an *esprit de corps*, and furnish much information for the future historian of the Royal Canadian Militia.

The publishing of a military journal, with the above object, has met with the approval and promised encouragement of the Honourable the Minister of Militia and Defence, and has received the concurrence of the General Officer commanding, it now only requires the support of those in whose interests it is published, to make it an entire success.

It will be issued for this year, monthly, in parts similar to the present. In placing the subscription at *One Dollar* per Annum, it is hoped the REVIEW will be brought within the reach of all—at any rate, within the reach of a sufficient number to warrant its continuation, the cost of printing and a few minor expenses being all that is required.

Intending subscribers will be good enough to forward the enclosed form to the Editor.

Defences of Montreal.

Now that the Government has caused the manufacture and conversion of guns to be commenced at Montreal, it will not be out of place to point out the necessity there exists for the erection of batteries in suitable localities for the defence of that city. It has been said that our Militia has been augmented from time to time by additions to particular arms, more from the whim or fancy of the individual entrusted with its organization than for the suitability of the troop, battery, or company, for the locality in which it was raised. This cannot be said, however, of the brigade of artillery stationed at Montreal, it having been formed when General Sir Patrick Macdougall was Adjutant-General, for the purpose of manning the batteries proposed to be erected for that place, and there is not the slightest doubt as to its being an organization essentially necessary for the defence of Montreal. The brigade of artillery and the two companies of engineers stationed there, are monuments of the neglect of past Governments, as compared with the efforts of individuals, of that dire necessity—the necessity of being prepared in peace for time of war. Jomini says:—"Un Gouvernement qui néglige son armée, sous quelque prétexte, que ce soit, est donc un gouvernement coupable aux yeux de la postérité, puisqu'il prépare des humiliations à ses drapeaux et à son pays."

What better training could the Montreal Engineers have had these many years than that recommended for them by the Inspector of Artillery, their employment during annual drills in the erection of batteries, if only of earth, in positions where they are required? What better training also could the Artillery have had than the manning of these batteries, and instruction in the care and working of the ordnance mounted in them? It is the duty of every artilleryman to make himself acquainted with the distances to conspicuous objects in front of his batteries, in fact to be perfectly instructed in the topography of the country which, in time of war, he would be required to defend. We ask how is it possible for the Artillery of Montreal to educate themselves on this important point,—we say important, because the better a gunner is acquainted with the distance to every knoll, even to every tree in front of his works, the more destructive and effective will his fire be. The neglect of this work—the erection of batteries in front of Montreal, to which St. Helen's Island would be a central key—amounts to indifference as regards the future of the country; an indifference which, in a few years, may cost thousands of valuable lives. This non-preparation cost the French nation millions of francs. If this money had been spent in altering and adapting works, 200 years old, to the exigencies of the present time—in instructing their officers and non-commissioned officers in the topography of the country, etc., they would have had a different tale to tell. It is a well-known fact that the German officers knew much more about France—from the location of her depôts of stores to the smithy where a horse could be quickly shod—than the French did themselves. Every German officer was provided with a reliable map of the country he had to operate in. How many Canadian militia officers have maps of that part of Canada in which their services might be required—how many of them have been taught that such a thing is necessary? The military education of our Militia officers lies too much at the surface. We are afraid that if the Militia had to be divided into many divisions for the defence of different localities, the commanding Generals would have to be "heaven-sent."

There is only one battery near Montreal, a 3 gun battery on the end of St. Helen's Island, used for the annual practice of the Brigade, and this unique battery points in the opposite direction to that in which an enemy might be expected. Should it, however, happen to be attacked by the possibility mentioned in our last issue,—a gun boat with a single heavy gun on board—it would not remain serviceable for over 10 minutes.

There are many reasons why this city should be placed in a state of defence in addition to the fact that the manufacture

and conversion of guns, etc., has been commenced there. This was the only reason; nothing but a desire to reward Messrs. Gilbert for their energy in showing that the work could be done in the country, could, we imagine, influence anyone in having the work carried out in Montreal at its proximity to the frontier being sufficient to condemn the idea of establishing an arsenal there, on however small a scale.

General Hawley, in writing of the considerations for the selection of a theatre of operations, says:—"Many considerations will commonly enter into this question. The convenience and security of the base—the position of the enemy's forces—the facilities, in the shape of good and practicable roads, for reaching the object—the fitness of the topographical character of the theatre to the army destined to operate in it—will all be elements in the problem." We believe there is not a single consideration of those enumerated which would not be found in the neighborhood of Montreal, by an army attacking Canada from the United States. Being in close proximity to the frontier, a base of operations both secure and convenient, one might almost say, already prepared in that country. We allude to the arms manufacturing centres of Springfield and Albany. The facilities afforded for reaching Montreal could hardly be better arranged. What would be the consequence Montreal falling into an enemy's hands? Ottawa would be in his mercy. A very few hours would send the assembled wisdom of our Parliament, if in session, flying to their respective homes. Canada would be divided, the east from the west, and the whole of her foreign trade would be dead. It is unnecessary for us to point out where batteries erected for the defence of Montreal should be situated. The position where they are required have already been pointed out by able pens than ours many years since, without any action having been taken towards carrying out the recommendations then made. We hope for better times. The present Government has shown itself more fully alive to the interests of the Militia service than its predecessors, and it is to be hoped the good work so commenced will be continued.

Cavalry.

A volunteer cavalry organization has long existed in Quebec even as far back as the days of the old French régime, being the only cavalry then in Canada, some few parties connected with the Quebec squadron of that day may prove of interest to our readers.

Lemoine, in his "Quebec, Past and Present," tells us "The Quebec Volunteer Cavalry, numbering 200 men, was commanded by one of Montcalm's *aides-de-camp*, a cavalry officer, Capt. La Roche Beaucourt."

Miles' "History of Canada Under the French Régime" tells us, at page 370, that "Montcalm had a reserve of upward of two thousand colonial troops and Indians, and three hundred and fifty horsemen," whose duty seems to have been incessant under the vigorous enthusiasm of M. de Bougainville, like the ubiquitous Uhlans of modern times, this little band seem to have been everywhere, for we hear of them one "in the rear of Montcalm's centre, on the high ground, in case that the earliest intelligence might be received of the movements of the approaching enemy," and then of their being "detached from the main body at Beauport to watch the movements of the English on the river, above the city." Their headquarters were established at Cap Rouge, and they subsequently assisted materially in helping towards the repulse of two attempts at landing, which were made by Murray's "at Point-aux-Trembles," and several other little affairs at Chambault, Sillery and elsewhere. From Knox's "History of the Campaign in North America," written at the time and published in London, 1769, we learn most about the doings of this corps; and as he makes distinct mention of their

at the battle of Quebec, on the Plains of Abraham,—and also their covering the retreat of a portion of the French army to Point-aux-Trembles—the re-appearance of the cavalry in the following spring, in advance of the army, previous to the battle of St. Foy—and the many important services performed by them, we shall devote this article largely to quotations.

How nearly too we were in not having so reliable a historian to quote from, may best be judged from the description of his first visit to Montmorenci Falls. He says:—"There being no particular commands for me, and as I had some spare time on my hands, I ventured to take a walk to the westward, and view more distinctly the Leap (as the French term it) of Montmorenci and the enemy's entrenchments. * * * I had very high paid very dear for my inquisitiveness; for while I stood upon the eminence with a paper and pencil in my hand, making some observations on this cascade, the advantageous situation of the enemy on the opposite side of it, with the superiority of this ground over the left of theirs in point of height, and the natural strength of the country all around me, I was hastily called to by one of our sentinels, when, throwing my eyes about, I saw a Frenchman creeping under the eastern extremity of their breastwork, next the main river, to fire at me; this obliged me to retire as fast as I could, out of his reach, and making up to the sentry to thank him for his attack. He told me the fellow had snapped his piece twice, and the second time it flashed in the pan, at the instant I turned away from the fall."

It was due to the constant vigilance of the French troops on all sides of Quebec, maintained too at considerable loss, that the last decided General Wolfe "that the enterprise of storming Quebec should be given up as too desperate to hope for success." This was on the 21st August, and it was with the greatest concern that the whole army heard, next day, that their admirable General was ill of a slow fever. The French now reproached their watchfulness, especially as the news of General Amherst's success at Ticonderoga and Crown Point, and the reduction of Niagara, would be likely to have a depressing effect upon their army. The advantage of having a small body of mounted men to follow and harass the English troops, keeping them constantly on the *qui vive* is alluded to at page 34, Vol. 1:—"The enemy have got a squadron of three hundred light cavalry, well accoutred and appointed, to act occasionally, on foot or horse-back, as circumstances may require," showing too that the *subreus* understood the advantage of being able to use their carbines dismounted.

On the 26th August His Excellency General Wolfe was recovering, to the inconceivable joy of the whole English army, and as fine weather had set in, scouting parties were sent in all directions under experienced officers, to lay waste the country and stop the Canadians gathering their harvest. In most of the distant parishes, such as Beaumont, Chateau-Richer, Isle-aux-Coudres, St. Paul's Bay, and Point Levi, success attended the English rangers, but in the immediate neighborhood of Quebec they were not so successful.

On the 7th September, in obedience to orders, "Admiral Colvilles' squadron weighed early this morning; at six o'clock we doubled the mouth of the Chaudière, which is nearly half a mile over, and at eight we came to an anchor off Cape Rouge; there is a spacious cove into which the River St. Michael discharges, and within the mouth of it are the enemy's floating batteries; a large body of the enemy are well entrenched round the cove, (which is of circular form) as if jealous of a descent in those parts: they appear very numerous, and may amount to about one thousand six hundred men, besides their cavalry, who are clothed in blue, and mounted on neat light horses of different colours; they seem very alert, parading and intermarching between the woods on the heights in their rear, and their breast-works, in order to make their numbers shew to our advantage. The lands all round us are high and commanding, which gave the enemy an opportunity of popping at our ships this morning as we tacked in working up. I did not

hear of any damage sustained, though they were a little troublesome. Upon our coming to an anchor they turned out their floats, and ranged them in great order; their cavalry dismounted, formed on the right of the infantry, and their whole detachment ran down the precipice, with a ridiculous shout and manured their works." The troops which had been put into boats rowed up and down without landing, and finally were ordered back to the ships, it having been decided to force a landing next day, but the weather setting in so bad, the orders were countermanded, and on the 10th September, 1,520 men were landed on the south shore at St. Nicholas, upon which a parcel of canoes started from the north shore, with some fifty men, to cross over and watch the movements of the English; but being attacked by the armed boats and floating batteries, who poured grape shot into them, drove them back ashore, where they scrambled up the precipice, and got behind a breast-work of corded fire-wood. "By the time they had gained the summit, and got under cover, they were re-inforced, and discharged several volleys at our boats, who still edged towards the shore, as if intending to land, and it is not improbable but they expected we should make a descent there, for in a short space of time their numbers increased, and we could observe from our ships several officers on horse-back, who seemed to be employed in forming and animating their men."

BATTLE OF QUEBEC.

Thursday, 13th September, 1759.

Before day-break on this ever-memorable day, the English troops made a descent upon the north shore, a little to the eastward of Sillery, and the rapidity of the current fortunately carried the boats with the light troops still further down towards Cape Diamond. By day-light the whole of General Wolfe's army was formed on the top of the hill, and drove in the chain of sentries posted along the summit of the heights, who had continued to fire upon the landing parties up to the last moment, picking off some officers and men. At six o'clock the march towards the town was halted by the appearance of the French on the heights between them and the city, and orders given to form up in battle array, the fight commencing with artillery fire from the French, also a musketry fire from their Indians and other marksmen. Knox says:—"About eight o'clock we had two pieces of short brass six-pounders playing on the enemy, which threw them into some confusion, and obliged them to alter their disposition, and Montcalm formed them into three large columns; about nine the two armies moved a little nearer each other. The light cavalry made a faint attempt upon our parties at the battery of Sillery, but were soon beat off, and Monsieur de Bougainville, with his troops from Cap Rouge, consisting of five companies of grenadiers, cavalry, Canadian volunteers, savages and militia, two thousand and sixty in all, came down to attack the flank of our second line, hoping to penetrate there; but by a masterly disposition of Brigadier Townshend, they were forced to desist, and the third battalion of Royal Americans was then detached to the first ground we had formed on after we gained the heights to preserve the communication with the beach and our boats."

From the diary of a French officer, published at page 98, speaking of the haste to engage the English and the quality of troops which formed the reserve, we take the following: "Our Generals, thinking we could do the business without the aid of M. de Bougainville, who was advancing from Cape Rouge with the flower of the army, ordered us to march up and engage the enemy." Again we learn from an old order published at page 116. "Dispositions générales pour s'opposer à la descente des Anglais depuis la rivière St. Charles jusqu'au Saut de Montmorenci; de même que pour se retirer derrière la dite rivière St. Charles dans le cas que l'on fut forcé dans la descente, pour défendre cette rivière; et ordre de bataille pour combattre et camper, pendant toute la campagne.

To be continued.

Militia Report.

The "Annual Report of the State of the Militia," just laid before Parliament is of extreme interest to the country at large as well as to the force. The Lieut. General Commanding S. R. E. Selby Smyth, K. C. M. G., entering more fully into the subject than in previous years. That officer's report alone, occupies 63 pages of the Blue Book and treats of every branch of the service—Cavalry, Artillery, Engineers, Infantry, Royal Military College, etc. Showing such a thorough knowledge of the Militia and all matters connected with it, as is not easily acquired. It is to be regretted that he is soon to take his departure from among us, and that his valuable services should be lost to Canada.

He commences his report by pointing out the fact that the militia has, during the past few years, been reduced from an effective total of 43,000 men by reductions in the militia vote, until last year only 19,780 men could be called out and these for only 12 days, a period it will be readily admitted is too short for much good result. His remarks on the necessity for elementary instruction are of frequent occurrence which shows how much he feels the great want there exists for this very important matter being attended to. There is no "royal road to learning," drill, discipline and military duty, any more than there is to learning anything else—a military uniform will not make a soldier.

The city corps of Quebec are commended for their services during the riot last year, a subject which calls forth the following remarks:

"I must repeat, I think it unfair, and expecting too much self-sacrifice, to call out militia who are denizens of the same city with those whom they may have to subdue, some perhaps friends, even relations and near of kin, and to require them to enter into the collision, with possibly some loss of life on both sides. The militia respond, and will do so again and again, but when loss of life occurs through their being called upon to act, what must they expect among the roughs of that city when pursuing their vocations in civil life? Therefore, I am sure every thinking person will agree that, besides the two Battery Schools, a stronger force of embodied troops should be at hand in case of a repetition of disturbances in any of the large cities. But it is difficult to keep the necessity for military preparation before the eyes of a free and peaceful population, bent on energetically developing the vast resources that surround them, as it is to preserve them from rust and from the deterioration of prolonged peace the military institutions themselves."

The institution of drill companies in colleges and schools, the conception of which we learn from the report was due to Lt.-Col. the Hon. L. R. Masson, late Minister of Militia, is treated of on a broad stand point, and the beneficial results which must accrue brought to notice. He says:

"There can be no doubt that drill calls into exercise much of the powers of the human being, and hence, when judiciously applied exercises actually promotes the health and physical growth of the frame. The School Board of London has for years past acknowledged its value, and has included it among the duties to be performed by their teachers. It is quite to them that over much of London, and under great difficulties, they have been earnest and persevering in endeavoring to provide for the physical culture of youth. In giving them habits of obedience to command, precision of movement and many, erect carriage of body, they have done that which leads to self-respect, and improves a whole community. Such may be likewise, and probably will be, the result of the system now in its infancy in Canada. When this has been some years in use in all the chief collegiate establishments as a recreative means of promoting sound health and correct deportment, it may, though it never ought to be, deprecated by peaceful disbelievers in all military requirements, because it will surely be conducive to the growth and sustentation of the military spirit of the youth of Canada."

The opening in January of military schools, for instruction of officers in infantry drill, at Toronto, Montreal and St. John, N. B., as also the addition of 9 Sergeants to the Schools of Gunnery, for the purpose of assisting in these schools, (G. O. says, they were appointed for the purpose of drilling the companies organized in educational establishments,) is next taken up—and in this connection the following paragraphs are worthy of the most serious attention, and we hope the suggestions contained in them will not be lost sight of by the Government during the present session of Parliament.

"But it would be a mistake to suppose that a technical education, and much more so, than the foregoing can provide are not required for even the ordinary drill, general management and interior economy of companies and battalions. For cavalry, artillery

and engineers, particularly the two latter, special scientific attainments cannot be dispensed with. I therefore revert to the larger provision for instruction of regimental officers and sergeants of cavalry and infantry after the principle of or engrained upon the two gunnery schools, which provide for artillery and somewhat for engineers. So long as Imperial regiments were in Canada they formed a basis and model providing means for instruction. Since they went the study of books has been the chief instruction; and theory without practice does not provide the root from which the branches must spread and fructify. Schools should therefore be provided for drill and discipline in cavalry and infantry tactics. In interior economy of regiments, and in the management and command of armed men. I have referred to these in some detail in previous reports, and I venture again to repeat the mode upon which these permanent schools can apparently be best put in operation. They would afford an elevated standard of primary military education and practical instruction, with conditions of regularity, precision, discipline and respect for authority which are necessary for those who have to instruct and command obedience from others. They would give strength and solidity to the active force, and would secure confidence in the stability of the institutions of the country, providing a guarantee that the military force is in a condition to maintain law and order.

"Does not the proper organization of a military force, including training for its officers and non-commissioned officers, devolve on a country as much as the means of administering the laws which are carried out under its protection? Should it not, therefore, follow that steps should be taken to provide for the efficiency of the military establishment, by supplying the want which the withdrawal of the regular troops has created? This want, every year, is being more and more felt, and I have often pressed that a remedy might be applied. As yet, some officers who have received instruction in the schools formed in connection with the regular regiments, and non-commissioned officers, who are old soldiers, are still available to instruct recruits in the rudiments of drill. These conditions are, however, rapidly changing. We have now no such schools, and, except the 'A' and 'B' Batteries, there is no body of men with professional training to ensure the advance of discipline and military science, and to profit by trained experience. Without some professionally trained force, the standard of efficiency will gradually become lower, and the form of military service will be maintained, while the spirit, though far from dead, will be crude and uneducated.

"Canada should have men whose business it is to study the art of war as professionals, and not merely as amateurs. The very best irregular troops are only formidable when properly drilled and disciplined, and for this there is great need of the indispensable element of trained and experienced officers and non-commissioned staff. When troops are but partially trained, the only hope is from individual intelligence and strict discipline on the part of the commanders and their subordinates. It is preparation on that ensures success when the unlooked-for day of trial suddenly arrives, and therefore a perfect organization, with skill and efficiency in every branch, with superior discipline, are necessary. But to compass this, permanent bodies of men, even if of small numbers, are indispensable. I have often suggested, as strongly as I could venture, the establishment of three training schools for cavalry and infantry on a similar basis to 'A' and 'B' Batteries, which have proved so useful for artillery. These schools would serve besides, as standards of comparison for the rest of the country, viz.: the Active and Reserve militia. Canadian officers can be found who have been disciplined by 'A' and 'B' Batteries, or some of the officers of those Batteries, fairly qualified to command these schools. The appointments should be for a limited term, with the power of renewal, conditional on the officers keeping themselves acquainted and conversant with the changes and improvements in the art of war, either by visiting Europe or otherwise. There should be a doctor and quartermaster for the three officers of subordinate rank who have evinced good capacity, are willing to embrace the military profession as a career, and would receive commissions to act as cavalry and infantry instructors in the schools. To these schools all gentlemen recommended for commissions in the militia would be required to come, for three months at least on first appointment, when their certificates would depend on the ability they displayed. Before promotion, officers should be required to attend for three months, passing through a course of training, and required to obtain a qualifying certificate. For non-commissioned officers and rank and file, men should be enlisted for three years, with inducement, in case of efficiency to re-engage. From these the non-commissioned staff of pay-sergeants and drill instructors would be selected, but all would learn those duties though serving as private soldiers, and would on discharge be valuable as instructors in the militia generally.

"It is an axiom that in all men it is necessary to learn to obey before being qualified to command, and these schools would fulfil these objects.

"My previous suggestions were to form three separate schools, composed of about one hundred men each, and to station them at Toronto for Western Canada, and because there is a good barrack there; at St. John's, P. Q., because it is an important strategic point in advance of Montreal, and because there is a good barrack there; at Quebec, because that city requires an additional drilled force, and because there is a barrack there.

"The calculation I published last year for only eighty men and three officers per company amounted to the cost annually of about one hundred and thirteen thousand dollars for the three schools. The estimates will be found in detail in last year's report.

"Should it not be convenient to establish these three separate schools immediately, I suggest the perhaps preferable alternative of increasing 'A' and 'B' Batteries at first by three officers and 100 men each for cavalry and infantry, thus constituting them brigade schools for the three arms under the present commandants.

"I suggest that the artillery artificers whom I have already submitted to be absolutely necessary for keeping the fortifications of Quebec and Kingston in repair should be included in the 100 men, say 25 for each battery, leaving a balance of 75 men for each training school, independent of the students for 'short' and 'long' courses.

"It may be surmised that 50 men in each would be sufficient for the latter purpose, and so they would in some measure, and *faud d'ailleurs*; but when we deduct non-commissioned officers and men going on and coming off daily guard with two sentries, always re-

quieting 10 men per diem, besides cooks, orderlies, sick in hospital and their attendants, prisoners and men to attend them, &c.; there would not over be more, and seldom so many of the 75 men daily available for drill and instruction, and squads for the long and short course officers and men.

Moreover, Quebec requires a large disposable force of drilled troops to steady the city militia in case of riots, and to guard the costly and valuable military stores and powder magazines in the arsenal on such occasions, which latterly have been of annual occurrence.

To complete this scheme, there should be an addition to each battery of 12 horses, to train in equitation the cavalry attending the schools, and to horse all four field guns instead of only two, as at present, with eight horses.

The addition of 12 provides for mounting the four Nos. 1 of each gun, without which the battery is not efficient.

At Kingston these horses would likewise serve for the equitation of the cadets of the Royal Military College. They have been frequently applied for by the commandant, and without them the college course is not considered complete.

At Quebec a saving would accrue by employing some of these horses to draw from the lower town forage, military stores for the magazines, &c., &c., which is an annual expense. After their purchase, their daily forage would be an insignificant amount compared with their general utility.

The enlistment of 25 men as artificers is suggested. There can be no doubt of the utility of such a course. It is only necessary to walk round that grand old Citadel of Quebec where "one's eye is arrested at every few paces by dilapidations," to see the necessity there exists for something being done. The amount of money that would be saved annually from that now expended would more than pay twice the number of men proposed. These men would be under military discipline, and would be liable to punishment for idleness. If seen standing idle, or leaning on a shovel for half an hour at a time talking politics, as is very often the case under the present system, a day's working pay stopped would soon cure that complaint. The "stretch in time" principle could be resorted to—the pointing of masonry during autumn would many a time have prevented a whole wall from falling out before the subsequent autumn, and the carting away of the stones by private individuals.

Reference is made to the able essay written by Major J. G. Holmes, "A Battery, Royal School of Gunnery," for the prize offered by the D. A. A., and also to a lecture on the "Military Aspect of Canada," delivered by Lt. Col. Strange, R.A., L. of A., before the Royal United Service Institution, London. The latter is published in appendix No. 7 of the report, as also his report on the defence of British Columbia, and Lt. Col. Scoble, Toronto Engineers, submits a proposal for constructing the fortifications that may be required in British Columbia, by his own company of Volunteer Engineers.

The Royal Military College is mentioned in complimentary terms. This is an institution of which every Canadian ought to be proud. It is, we believe, the foundation of a regular Canadian force. What is expected of the cadets will be seen from the following sentence:—

"Should the nucleus of permanent corps be adopted, these young men will be foremost as disciplinarians and instructors; their high class education will render them valuable in any position of military or civil life; they will present an admirable tone to their surroundings as cultivated examples of order and respect for authority."

We feel satisfied that the career of those gentlemen who enter Her Majesty's regular army will be watched with interest, and when they, following up their motto, "Truth, duty, valor," receive distinction, as they must do, every Canadian will consider it an honor to himself.

The instruction of the cadets and others in the use of the torpedo for sub-marine mining is suggested, in this connection we would refer our readers to an article in our first number.

The old evil of volunteers training in different corps occupies a page of the report. It is to be regretted that the General should feel it necessary to point out that

"It is distinctly the duty of every officer of the militia, whatever may be his rank or degree, to guard against fraud or misappropriation of Government funds, from any cause whatever. I feel sure it only requires this duty to be pointed out in order to enlist the co-operation of all staff and regimental officers in vindicating the laws essential for their guidance in the proper administration of the militia service."

To be continued.

[Hamilton Field Battery.]

It will be remembered that the officers and men of the Battery have looked forward with considerable eagerness for a suitable opportunity to do the annual shell practice on the ice. When the battery was in camp last summer, Capt. McMahon obtained permission from headquarters to leave the shell practice over until all the batteries met in Toronto, at the review held in September. Owing to the limited time the Hamilton Field Battery had in which to march there and return, it was found impossible to perform the shell practice at that time, and, consequently, permission was given the Commanding officer to do the practice on the ice this winter. Unfortunately the weather has been so mild that the ice has never been sufficiently strong so far to admit of the practice being done. At the usual weekly meeting of the Battery, held last night, Captain McMahon announced that further delay in waiting for the fickle weather to congelate the surface of the bay was useless, and that in the course of a week or so arrangements would be made to enable the practice to be performed in the neighborhood of the marsh or at the beach, or some where else. It is almost impossible to find a suitable land range of from 1,400 to 1,800 yards where the firing could be done with safety, owing to the numerous population in the surrounding neighborhood. It would, therefore, have been much better for the artillerymen if the shell practice could have been done on the ice. The range in the marsh is not a very good one, but it is better than none, and, doubtless, the scoring will be as good as usual with the Battery. If the present cold snap continues, it is just possible that there may yet be some ice on the bay. —*Hamilton Spectator, Feb. 20, 1880.*

Colonial Defence.

Broad Arrow, February 7th, 1880.

In a recent issue of the *Broad Arrow* we called attention to the necessity for establishing a naval arsenal and increasing our ironclad fleet in the Pacific. We then pointed out the vast extent of British interests in that part of the world, and showed in what way they are exposed to the attacks of other naval Powers, especially of Russia. With the exception of Esquimalt on the east coast, and Hong Kong together with Singapore on the western boundaries of that vast ocean, we have no coaling station for our fleet, nor have we any place where ships of war can be docked, repaired, and refitted. At Esquimalt there is no dock at all, nor is there, we believe accommodation for a ship of war at Singapore, while at Hong Kong the only dock fit to receive an ironclad is private property. The extent to which our naval and colonial possessions in that part of the world are exposed to the attacks of a Power able to concentrate a superior force to that which we have hitherto maintained in the Pacific is therefore sufficiently obvious, and it is gratifying to find that the Government has become alive to the necessity of fortifying the existing stations and adding to their coaling and repairing capabilities. At the same time we trust that steps will soon be taken to increase our naval force at a quarter where a counter demonstration on would, under certain conditions, be both probable and possible. It has only been of late years that either Singapore, Hong Kong, Point de Galles, St. Helena, the Cape, or the Falkland Islands have been put into anything like a state of defence, and even now the fortifications are not of a substantial and permanent character. The fact is that our Navy has hardly kept pace in numbers with the growth of our colonial possessions and commerce. On the contrary, the tendency of late years has been to build fewer and more powerful ships, so that where we once kept three ships to do a certain service we now have only one. We are, in fact, in the position of people who have coined large pieces of money, but have failed to issue pieces of small value. Although the value in circulation may have actually been increased, there is nevertheless a difficulty experienced in effecting the easier commercial transactions. The money expended yearly in shipbuilding has certainly not diminished since ironclads were introduced, but yet we find ourselves with fewer ships than before, and, practically, with none at all of the size which is necessary for the proper defence of our distant possessions.

We are now brought face to face with facts of a very serious character. Upon several occasions during late years we have pointed out the necessity of providing for the defence of our distant possessions and colonies. Just two years ago we were encouraged to believe that the Indian Office was about to take steps to supplement the protection afforded to the Indian coast by the East India Squadron. Since the abolition of the Indian

Navy, rather more than twenty years ago, the coast defence of that vast possession has been entrusted to about a dozen small vessels of the Imperial Navy. At the present time our East Indian Squadron consists of an old wooden frigate, two corvettes, and eight sloops. With the exception of the two small ironclad turret-ships *Magdala* and *Abyssinia* at Bombay, these are all the vessels we have to defend the shores of India from the Indus to the Ganges. In 1868 the Indian Government made a start in the direction of reconstituting an Indian Navy. They ordered the two turret-ships—already referred to—of two private builders on the Thames, and received them at Bombay early in 1871. Since then nothing further has been done in that direction except laying down torpedoes at different parts of the coast, and instructing a small staff in the details of torpedo warfare. It was at the close of 1877 that the India Office decided upon the torpedoes, and at that time the *Broad Arrow* pointed out that something more than this simple precaution was necessary in order to ensure ample protection to our Indian harbours. It was urged that it is the duty of the Government to continue in the direction which they took in 1868. About ten more such vessels as the *Magdala* and *Abyssinia*, supplemented with an efficient torpedo force on shore, would render the coasts of India safe against the attack of any naval force which would find its way to that part of the world. For defensive purposes, or indeed any other than that of mere ornament, our East Indian Squadron is useless.

Mr. Brassey, who has long since come to the front as a shrewd and far-seeing seaman and legislator, has recently made a speech on the subject of colonial defence. His appointment as one of the Royal Commissioners to report on the means available and required for the defence of the colonies is a sufficient claim for a careful attention being given to whatever proceeds from Mr. Brassey on this important question. As the member for Hastings very truly stated, "England without her colonial and foreign possessions would fall to the second rank in the family of nations." In showing how much our commerce depended upon the extent of our colonies, he mentioned that in the nine years from 1869 to 1878 our colonial trade had grown from 25.3 to 35.4 per cent. of our total commerce, and that, too, while our exports to foreign countries had diminished in value. After showing the extent, value, and rate of our Canadian, Australian, New Zealand, and Tasmanian dependencies, also the advantages we derive both on account of the large consumption of our manufactures, the food supply they yield us in return, and the employment they give to our surplus population, Mr. Brassey wisely remarked that "the noble confederation should not be broken up for the sake of a paltry reduction in the Navy or the Army Estimates."

Nevertheless, Mr. Brassey is not of opinion that the whole or even the greater part of the cost involved in creating an efficient system of colonial defence should be borne by the Imperial Exchequer. Nor does it appear that the colonists generally desire that they should be wholly relieved from the burden of maintaining their local defences. At the same time that the Indian Government were constructing the *Magdala* and *Abyssinia* for the defence of Bombay the Government of Victoria were having a sister ship, the *Cerberus*, built for the defence of Melbourne. Mr. Brassey informs us that at Adelaide, the principal port of South Australia, a turret-ship is spoken of, and that Melbourne has a small navy. He is in error in supposing that Sydney has a turret-ship, but it is possible that, like Melbourne and Adelaide, the port of New South Wales may determine to possess itself of an independent means of defence. But whatever has yet been done in this direction by our antipodean cousins is only a nucleus about which to range future results. Judging by Mr. Brassey's figures these naval developments are not far off. He tells us that it has been decided by the Governments of Victoria and New South Wales to expend each a sum of £350,000, besides an annual outlay of £73,000, in providing a force of ships, guns and torpedoes. This looks like business, and when viewed in connection with the Artillery

Torpedo Corps and Naval Brigade organised at Sydney, the Militia in New Zealand, and the Volunteers in Tasmania, it shows us that the colonists are determined to be, in some measure at least, independent of the mother country so far as local defence is concerned.

Such a spirit of independence is much to be commended; but it is not sufficient to be influenced by a proper spirit in devising an efficient defensive scheme. Sir Julius Vogel—the Agent-General for New Zealand in this country—says "the colonies are sensible of the weakness of isolated action." This, too, is fortunate for it is necessary to recognize a weakness before attempting to remedy it. For each colony to defend itself upon an independent system would be a two-fold mistake. It would render it the more difficult for the mother country to contribute her quota of aid, and at the same time it would interfere with securing an effective combination, besides adding to the collective cost of maintenance. A properly organised system of colonial defence must, so far as our Australasian colonies are concerned, be a collective one. It is much to be regretted that it should be left until this day for such an important question to be considered and decided upon. It is, however, satisfactory to learn, upon so high an authority as Sir Julius Vogel, that the colonists know it to be impossible to obtain a formidable combination under any other supremacy than that of the mother country. But under any circumstances it will be a difficult question to decide upon the relative share of cost to be borne by the different members of the British Confederation. Mr. Barnaby, C.B., the Director of Naval Construction at the Admiralty, proposes that each member of the confederation should contribute towards the national fleet in proportion to the volume of their exports. Whether or not this proposal would prove equitable we are unable to say, but we fully agree with Mr. Brassey in believing that the whole subject must soon be taken into earnest consideration and settled. That the colonists have taken the initiative in the question will materially assist towards its speedy solution—for by so doing they have shown that they realise the dangers of the present situation.

Conversion of Smooth Bore Guns.

Since our last issue a contract has, we believe, been entered into by the Government with Messrs. Gilbert & Sons, Canadian Engine Works, Montreal, for the manufacture of two 7 inch breech-loading rifle guns, on the system invented by Sir William Palliser, and for the conversion of ten 32 pr. smooth bore guns to 64 pr. rifles, also on the Palliser system. The latter guns are to be increased in length by allowing the wrought iron tube to project 13 inches beyond the original muzzle—a suggestion of Lt.-Col. Strange, R.A., Inspector of Artillery. This will be found to be an important improvement on those converted in England. It was shown by the proof last year that a converted gun would admit of a great increase in the quantity of powder laid down at present as the service charge. The lengthening of the bore will admit of the entire ignition of the increased charge, which will, in turn, impart a much higher muzzle velocity to the projectile and overcome, to a great extent, a disadvantage in rifled guns when firing case shot or shrapnel shell. The increased velocity will also secure increased penetration and greater accuracy of fire.

The contract for the conversion of 10 of the smooth bore guns in possession of the Government is a step in the right direction, which we trust will be followed up until all the guns are converted into rifles. It will be a valuable addition to our means of defence, and will also create an esprit in our garrison artillery force, which is now languishing for want of encouragement.

We learn from the Montreal journals that His Excellency the Governor-General devoted a portion of his short stay in Montreal en route from Halifax to the capital, to paying a visit to the foundry of the Messrs. Gilbert, which is to us a strong proof of the interest taken by His Excellency in matters connected with the defence of the country.

We hope the subjoined description of the mode of conversion will prove interesting to our readers.

The operation, which, in a few words, consists in enlarging the interior or bore of a cast-iron gun, and inserting a rifled wrought iron barrel of such dimensions as to admit of its being easily placed in position, and yet, on being fired from, capable of expanding so as to be tightly gripped by the cast-iron casing, is as follows:—

The barrel is formed of three parts, the "A" tube, "B" tube and "cup" for closing the breech end.

The "A" tube extends the whole length of the barrel, and is composed of a number of "coils" of wrought iron welded together,—each coil being made from a bar of wrought-iron, slightly trapezoidal in section. The bar from which the coil is to be made is put into a long furnace and heated sufficiently to admit of its being wound round an iron mandril placed in front of the mouth. The coiling is effected by attaching the end of the bar to the mandril, which is made to revolve on bearings, by this means the bar is gradually drawn from the furnace until the whole is coiled. The shape of the bar neutralises the effect of this process, which is to spread the interior and narrow the exterior. When the bar is coiled, the pin connecting it to the mandril is removed, and the whole (mandril and coil) placed in a vertical position, when the coil is knocked off by a few blows from a sledge hammer. The mandril is slightly tapered to facilitate the operation.

The coil is then re-heated and thoroughly welded under a steam-hammer. After a sufficient number of coils are thus formed, the ends of each are faced smooth, and joints formed, (male and female), the end of one coil being turned down so as to fit into a recess formed in the other. The corresponding ends of coils are then heated by being placed in a furnace constructed so as to give a great heat in a small space; while still in the furnace, a bar is passed through them, and by means of a nut working on a screw they are welded by pressure. The slightly bulges the coils on the exterior, and necessitates them being again placed under the steam hammer to be straightened. Another coil is then welded on in the same manner and the process repeated until the full length of the barrel required is finished.

The tube thus formed is fine bored and turned, and a recess in the breech end cut and tapped for the wrought iron cup, which is forged and stamped into shape under the steam hammer—it is then accurately turned, and a thread chased on the outside to suit that in the breech end of the tube, into which it is screwed tight home. The tube is then ready for the water test, which consists of forcing water into it until a pressure of 120 lbs. to the square inch is attained, which readily searches out any defect existing between the cup and tube. This test being satisfactory, the breech end of the "A" tube is turned over a length of about 35 to 40 inches for the "B" tube, which is formed in the same manner as the "A" tube, only two coils being used,—and a spiral gas channel, 0.05 inch deep and 0.01 inch wide, is cut round its exterior, communicating with star grooves cut in the end of the barrel, and a "gas escape" bored in the cast iron breech.

The "B" tube is shrunk on to the "A" tube with a shrinkage of 0.003 inch in the diameter,—this is done by heating the former until it is sufficiently large, and then lowering it over the "A" tube, which has been placed in a vertical position to receive it. The interior of the "B" tube and the exterior of the "A" tube have to be very accurately turned, being gauged in this operation to 1/1000 of an inch every few inches.

The cast iron gun which is to be converted by having the barrel formed as above, inserted in it, is examined as to condition of metal generally, and, if found suitable, the interior is bored out to the size necessary for the barrel,—which varies with different natures,—the play between tube and casing is not al-

lowed to exceed 0.007 inch for a length of 24 inches from the breech, and 0.015 inch for the remainder of the length. The muzzle is recessed and threaded for a cast iron collar, which is screwed in after the tube has been inserted, and keeps it in position, (prevents it becoming telescopic). A small hole (gas escape previously alluded to) is then drilled in the breech at the right top of the cascable, when the parts are ready for being put together. To insert the barrel in the cast iron gun, the bearing surfaces of each are well oiled,—if the gun is placed at an angle, and the end of the tube inserted, it will be found to move into its place with very slight pressure,—the gas channel allowing the wind in the casing to escape. When the tube is in position, the collar is screwed in the muzzle, and a hole drilled and tapped about half-way between breech and muzzle, into which a screw is placed to prevent the barrel turning round.

The gun is then vented and rifled—the latter can be done before the tube is put in the casing if more convenient—when the gun is ready for proof.

Canadian Armaments.

From the United Service Gazette, February 14.

Amongst the interesting work of Captain Colomb, just issued from the press, entitled "The Defence of Great and Greater Britain," it is extremely satisfactory to observe that the recommendations of Sir Edward Selby Smyth, which he has so persistently urged on the attention of the Canadian Government, are taking effect, and proving the immense advantage to the empire of having officers of high standing and merit in such important commands as those of the militia and defences of Canada.

To those who have good sense sufficient to regard Canada as a most powerfully in case of need, both at sea and on land, it cannot appear otherwise than remarkable that such a command should not be looked on as secondary only to that of India, and treated as such. It should be remembered that we have no longer the power to raise troops in Germany and Italy, as was done during the Crimean war. Those sources of supply are cut off for ever, and we must now depend more and more on the fighting capabilities of the empire itself. All praise, then, to such officers as General Smyth, who, fully appreciating the store of first-class fighting material under the Canadian command, do their best to develop it under even discouraging circumstances—discouraging from the fact that the press and public opinion of England are so absorbed in Eastern squabbles and home politics that small attention is afforded to the grand reserve so capable of development in the Great West. Soldiers, sailors and ships—such ships as would make admirable armed cruisers—are there to be found in abundance as also a large number of well-trained officers and soldiers. Powder also is manufactured in the country, but Canada had no small arms cartridge factory, and she had not the remotest idea how to make a rifled cannon. Both have, however, become *faits accomplis*. When the manufacture of rifled cannon was first mooted, it was pronounced impossible. But General Smyth knew that he had under his command an officer of the highest scientific attainments in Colonel T. B. Strange, R.A., the Inspector of artillery in Canada and to him the matter was referred, with the result that the Canadians have already tested a 64-Por. rifled gun, and with the further result, that twelve rifled cannon have been ordered to be made at Mon' real, together with their carriages (suitable for sea service), and 6,000 rounds of shot and shell, the contract for which has been duly signed. Two of the guns ordered are Palliser 7-inch long breech loaders, and the others 64-Por. converted guns. But the Canadians have also recognized the want of a small arm factory, and General Smyth has inspected desirable buildings at Quebec for this service, whence an officer of the Canadian regular artillery, and a bombardier are to proceed at once to Woolwich to go through a course of instruction for the factory. But Canada again is not stopping here. An excellent military college, under Colonel Howett, R.E., trains young gentlemen for the engineers, artillery, and the line, and two schools of artillery, one under Colonel Strange at Quebec, and one under Colonel Irwin at Kingston, complete the training of artillery officers. This is sound and satisfactory progress, building up from the very foundations the necessary elements of military power.

That Canada could, however, do much unaided by the mother country, we do not believe. She could, of course, defend her harbours, and materially assist the Royal Navy in protecting her merchant fleet. But something more than this might be looked for. What, we ask, would be the position of Canada in the event of a war, after continued self-progress, such as we have pointed out. England were to subsidise her with two millions or three millions of money to enable her to put forth her full strength in case of war, and to take her part in the West, as India does so well in the East? We believe that General Smyth, and the English and Canadian officers under him, could give a very fair estimate of what Canada could do. When it is known that her supply of hardy sailors is almost unlimited; that her armed cruisers would appear in numbers in every sea, if required; and that an army corps complete would be ready to sail for any destination; less will be heard of war rumours, of volunteer fleets, and all such at present rather alarming threats—alarming, because the Western preparations of the British Empire are progressing, and not yet complete.

The Annual Meeting of the Dominion Artillery Association, will be held at Ottawa, on the 4th March.

Correspondence.

SIR,—

I take the liberty of sending you a rough sketch of an idea of mine for carrying a carbine or rifle when mounted. It has, or is about to be adopted in this force. Fifty men are armed with the Winchester carbine, which is, in my opinion, a first-rate arm, but requires particular care. It is too long to be carried in the long bucket, and has been carried by us strapped across the pommel of the saddle, but has been found very inconvenient when drilling, the men often being dismounted by the carbine of their right hand neighbor, and their horses become restive through being poked by the same, and another objection to their being carried in that manner is if a man is thrown and the horse gets away he leaves the man without a rifle, and again a sword cannot be used.

What caused me to take the affair into consideration was the unusual amount of repairs I had to perform, principally blunted fore-sights and broken stocks, the last always occurred when a horse fell.

By taking the ring off the hook (when dismounted), and lifting the butt out of the bucket (when mounted), the carbine becomes entirely free to use without undoing snap.

REFERENCE TO DIAGRAM.

- A. Leather covered D fixed so as to stand upright for muzzle of carbine to go through.
- B. Stiff leather bucket attached to saddle for butt of carbine—about three inches deep.
- 1. D. as shown in A.
- 2. Round leather strap attached to belt by both ends.
- 3. Ring to run on strap.
- 4. Round strap with rings and snap, the rings are to shorten strap when dismounted.
- 5. German snap.
- 6. Ring on carbine for snap.
- 7. Bucket.

T. H. DUNNE,
Armorer,
N.W.M.P.

Fort Walsh, N.W.T., }
January, 9, 1880. }

[The plan is an admirable one, a modification of a method in use by hunters in India and Africa. This, like all other plans, is liable to the objection of injury to the rider in case of the fall of horse or man, or both, but less so than others. A horse falling backwards would, perhaps, be the only really dangerous fall, with the carbine in the position proposed. The inventor deserves great credit.—Ed. C. M. R.]

Regimental News.

"A" and "B" Batteries Schools of Gunnery.—Her Majesty has been pleased to signify her approval of the Schools of Gunnery at Kingston and Quebec, composed of the two permanent Batteries of Artillery at those stations, being in future designated "Royal Schools of Gunnery."

Quebec Field Battery.—Charles Percy Dean Esq., G. S., formerly Lieut. 1st Lanark militia, and Edw'd Burroughs Garneau Esq., have been gazetted 1st and 2nd Lieuts respectively.

No. 10 Battery New Brunswick Bde Gar. Arty.—Wm. Alex. Douglas Steven, Esq., has been appointed 2nd Lieut.

1st Battalion "Prince of Wales," Montreal.—Albon Forgan Clerk, Esq., has been appointed 2nd Lieut.

2nd Regiment, Ontk Rifles.—Lieutenants Kenneth A. Miller, Henry Mill Pollatt and Villiers Sankey have been granted second class certificates.

10th "Prescott" Battalion—Major and Lieut.-Col. Archibald McLean, has been appointed Lieut.-Colonel vice Angus Urquhart, who has been permitted to retire retaining rank.

2nd Battalion "Oxford Rifles."—Lieut. Matthew Day has been gazetted Captain vice Munro, appointed Adjutant.

35th "Ontario" Battalion, Whitby.—Lieutenant C. A. Patterson has obtained a second class certificate at the Ontario School of Military Instruction.

6th Battalion "Voltigeurs de Beauharnois."—André Leduc Esq., has been appointed Lieutenant, and Octave Daoust, Esq., 2nd Lieut. in this Battalion.

5th Battalion "Mount Royal Rifles."—Lieut. Louis Etienne Napoleon Pratte has been gazetted Captain of No. 2 Company, Léon du Plessis, resigned; 2nd Lieut. Henri F. Morin has resigned his commission in No. 3 Company; Lieut. Joseph Oller Chalut has been gazetted Captain of No. 4 Company.

7th Battalion "Voltigeurs de Chateauguay."—Elias Gazelle, gent., has been gazetted Lieutenant in No. 2 Company, Ste. Marie, and Antoine Malotte, gent., Lieutenant in No. 3 Company, Chateauguay.

7th "Sheppard" Battalion.—The undermentioned officers and non-commissioned officers have been granted 2nd class certificates from the School of Military Instruction, viz: Captains John McCreedy, Brown, and Richard Edward Ball, Lieutenants Arthur J. Whitehead and William K. Knowlton, 2nd Lieutenants Sylvester J. Martin, Horatio Nelson Whitecomb and Alvon John Brown, sergeants Henry Lyman Brooks, William J. A. Galbraith and Charles John McGrail.

New Brunswick Militia.

SOME SUGGESTIONS ON THE ARTILLERY ARM.

To the Editor of the CANADIAN MILITARY REVIEW.

SIR,—

Through the atmosphere, breathed in military circles, float significant rumors, that, as soon as Parliament meets, the permanent establishment of those two batteries of artillery, which keep watch over the welfare of our land, will be considerably augmented.

No doubt, this act is a great desideratum, as the large sum spent annually by the Public Works Department, to keep in repair the valuable and important fortifications, garrisoned by our active militia, could be greatly reduced and the work far more effectually carried out by "soldier artificers," on the system adopted by the Royal Engineers at home. However, as long as public money is so expended in improving our militia service there is a point of vital importance to New Brunswick which is worth while considering.

The Schools of Gunnery at Kingston and Quebec were established for the express purpose of affording a technical education to those officers and men of the Canadian militia who were desirous of doing something more than mere soldiers in name, so that should the dark cloud of war ever be visible on the horizon from our shores, then, "in the hour of need," our civilian armory might not be found wanting. The question is, have the advantages offered by these schools been of any great service to our Province? I think not, the distance from St. John precludes the attendance of both officers and men, those in civil occupations not being able to find the time necessary to go through a course of instruction. The Government evidently considered this, when by the general orders (24) of the 20th of October, 1871, paragraph 21, a school of gunnery is provided for in New Brunswick, and the heads of the militia force have more than once recommended its being put in force.

Artillery is the war weapon of the day, and all nations are exerting their utmost efforts to perfect this arm. The introduction of light mobile breech-loading shielded field guns, firing heavy shrapnel shells at velocities and ranges never dreamt of before with their delicate time fuse, and the necessity of an accurate knowledge of the range; the rifled howitzers firing critical shrapnel to search out an enemy ensconced in shelter trenches; the heavy armour-piercing rifle guns with their many projectiles and stores; the moving and fixed torpedo with its electric attachments a weapon to which St. John would largely have a trust for the defence of its harbor, necessitate a large tax on the brain and time of an artillery man of the present day, not to speak of the attention it is necessary to bestow on the numerous laboratory stores, together with the drills and mechanical appliances used in the working and shifting of ordnance, besides fortifications, tactics and strategy, range-finding, military law, and interior economy, etc., etc.; all of which an officer has to be thoroughly conversant with, while the tactics of field artillery, in the late wars, having completely revolutionized the movements and disposition of infantry, require from an officer, of this arm of the service, a closer acquaintance with the branches of artillery and military engineering than heretofore.

Taking the above, then, into consideration, together with the unsettled state of Europe, and the great importance of St. John as the (future) first shipping port in the Dominion, it is only reasonable to ask that the Government provide efficient means for the proper training of her—St. John—militia, more especially the artillery arm, and a small permanent establishment also, for the proper care of her armament. As the shell guns on Partridge Island are about to be converted by Messrs. Gilbert, of Montreal on the Pulliser system, why not establish a small school of gunnery on this natural fort, which covers and commands the harbor where torpedo defence could be practiced and taught? If this were carried out, St. John could be rendered impregnable from an attack by sea.

The importance of this cannot be overstated; too late may the city awaken to a sense of responsibility; too late to protect the lives and property of her citizens. If it be necessary for Canada to have a standing military force, our city is one of the first which should benefit by the same, thus adding materially to the peace, confidence and prosperity of the country at large.

Yours,
A MEMBER OF N. B. B. G. A.

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