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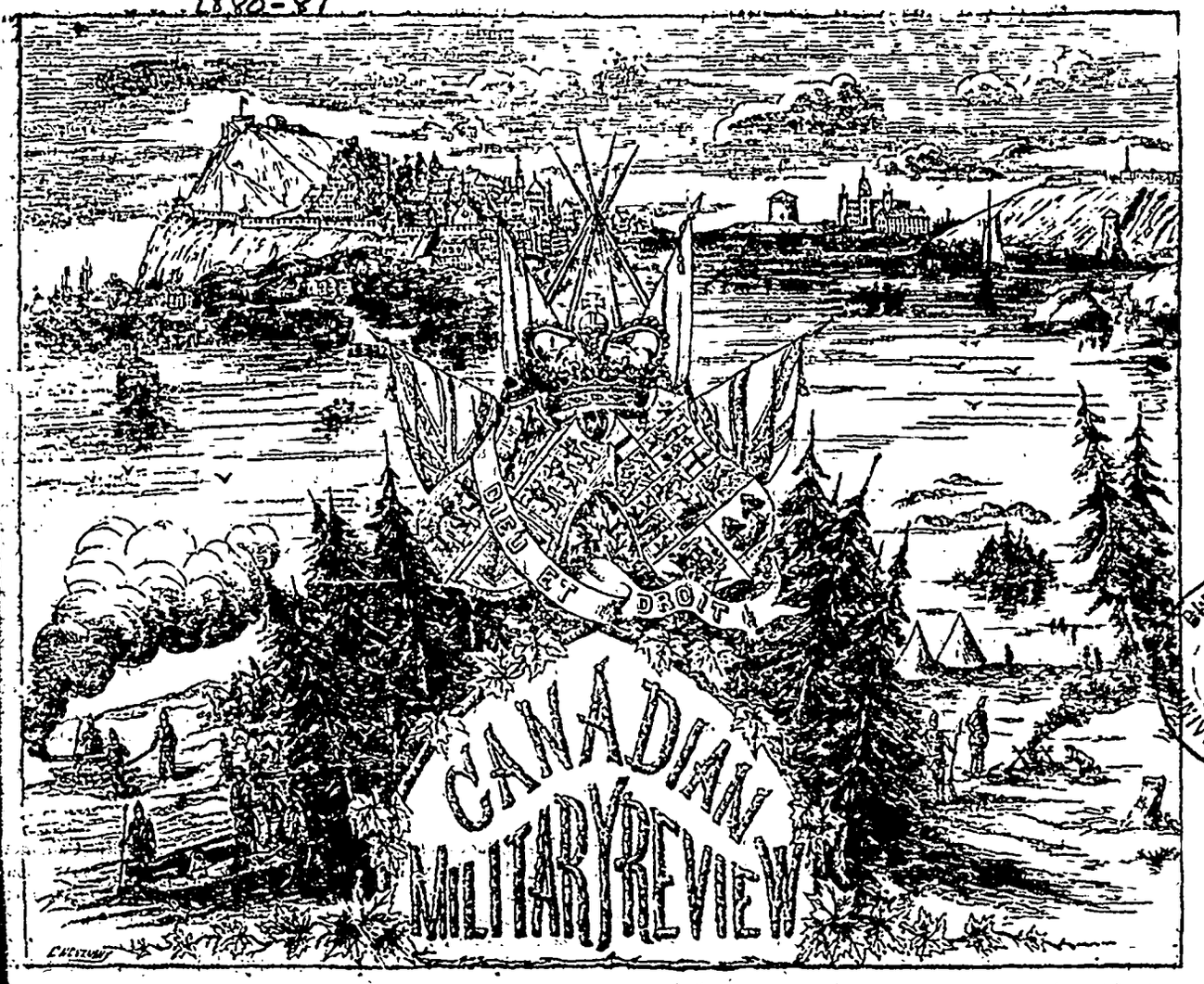

VOL. I.—No. 1. QUEBEC, 1ST FEBRUARY, 1880. Sub. { $1.40 per annum. 10 cts., single copy.

IN issuing this the first number of the CANADIAN MILITARY REVIEW, a paper devoted to the interests of the Militia of the Dominion, we hope that every officer and member of the forces will wish it God speed, and extend to it their cordial sympathy and support, without which it cannot fail to meet the fate 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 doings of their corps, batteries, etc., regimentally or socially, to the editor for publication, in order that the forces at one end of the country may know what is being done at the other, and 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 much information on technical subjects which could not be obtained without great expense; ample space will be left for those who may wish to ventilate their opinions (within the bounds of discipline), on purely professional matters; changes, in drill &c., 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 organisation, 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 Honorable 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.

Will we have an Arsenal.

Among the most important events in connection with the militia, and not only the militia but the whole country, which occurred during the past year, was the successful conversion of a smooth bore gun into a rifled gun on the Palliser system, by Messrs. Gilbert and Sons. Canada Engine Works, Montreal. The gun, a 32 pr. of 56 cwt being furnished by the Government, and the expense of conversion borne by Sir William Palliser. The proof took place in the presence of Lieut.-Col. the Honble L. R. Masson, Minister of Militia, who expressed himself satisfied with the manner in which the gun stood the heavy test to which it was subjected, the last round—of unprecedented severity—being composed of a charge of 24 lbs. Pebble powder and a 64 pr. common shell.

The establishment of the Royal Arsenal at Woolwich, may be said to have been commenced by a similar event, in the latter case, however, it was not quite so successful, as during the process of casting a bronze gun the metal flew and killed 17 of the spectators, besides wounding the first Colonel of the Royal Artillery in four places.

Will the test on St. Helen's Island be followed by the establishment, on however small a scale, of an arsenal in Canada for the manufacture of the supplies needed for the defence of the country.

It has been said that Canada can rely on England for supplies when required, and doubtless the mother country would be in sore need herself when she would turn her back on her oldest daughter, but there are other considerations which might interfere sadly with England's willingness and which are beyond the power of man to control. Relying on Great Britain, means having a base of supplies at a distance of about 2500 miles from our Eastern boundary and about 6000 miles from our Western and least protected coast, the point most liable to be assailed from the sea, and which was seriously threatened when war was probable with Russia. It may be urged that this distance can be traversed in eight or at the most ten days, by the fast steamers now plying between England and Canada, but it must be borne in mind that the sea is, at all times, a very uncertain element and not always to be depended on, the record of wrecks along our coasts is something terrible to contemplate; delays on account of fog are of frequent occurrence; or a fast steaming cruiser might possibly intercept the vessel containing the stores most seriously required; the non-arrival of a steamer, laden with ammunition, might cost the loss of many important positions, possibly the whole country. Canada has hitherto seemed asleep with regard to the necessity of preparing for her defence; there are, unfortunately, too many who say the best defence for Canada is no defence—what would a merchant say if one were to tell him that the best way of keeping thieves out of his warehouse at night, would be to leave the door open—foremost among these are those who when the town is quiet say "the police are sufficient to protect us;" "the money spent on militia purposes annually is worse than thrown away;" etc., but let 40 or 50 angry laborers, out on strike, parade the streets, and they are the first to cry for military protection.

The time has arrived, however, when Canada should look around and prepare at home, the *matériel* necessary for her own defence; the existing store, for even the present obsolete armament, being nearly exhausted. That its manufacture here would prove advantageous to the country is beyond the shadow of a doubt. In the first place, it could be obtained cheaper, the cost of transport, at least, being saved; secondly the money required for its purchase would be kept in the country; thirdly, not the least of the many arguments which might be adduced in its favor, it would afford work to many idle and may-be starving artizers.

A considerable supply of small arm ammunition is required annually, and much more would be expended, on repayment by our volunteers, if it could be purchased at a cheaper rate from the Government; that the quantity expended is not thrown away is shown by the fact that the Canadian team is able to hold its own at Wimbledon. It has been found that the gunpowder can be made in this country, why not try the manufacture of the whole cartridge, a good reason for which, exists in the fact, that our militia is now armed with a weapon which has been withdrawn from the regular army, it having been replaced by the Martini-Henry, which requires a different cartridge; the manufacture of the ammunition for the rifle in our possession (the Snider) will therefore if it has not already, shortly cease in the Royal Arsenal. Again there are at most only from 20 to 25 rifled garrison guns in the Dominion and these are the only ones that could be depended on if necessity arose for their use, the others having been obsolete for years, and utterly unfit to cope with the guns which might be brought against us. It has been proved that these can be converted into good serviceable weapons at a reduced price, compared with their cost in England.

The shot and shell required for them can easily be made in the country.

Our supply of gun carriages cannot last for ever, wooden carriages must deteriorate through use and effects of climate; we have heard of practice having to be discontinued owing to the carriage falling to pieces when the gun was fired—a gun would not be of much service if this occurred in action, and the detachment had to wait until a second carriage was received from England to replace it.

Some one is credited with saying "trust in God but keep your powder dry," it is just as well for Canada to have faith in England, but at the same time to be able to supply herself with the articles required for her defence in time of war; the best way to accomplish this is to cultivate their manufacture in time of peace: that this should be carried out under Government control and under sufficient military protection is self-evident.

Cavalry.

The difficulties with which the cavalry arm of the Canadian Militia has always had to contend, makes it only the more wonderful that a sufficient number of enthusiastic officers have been found, among a people not over famous for horsemanship, to maintain such a really respectable body of irregulars, as is represented by the 40 troops of cavalry, belonging to the active force.

These troops in round numbers amount to some 150 officers and 1800 N. C. officers and men; of whom about two thirds were allowed to perform last year, the annual twelve days drill and the total cost therefore of this portion of the militia may be estimated at $30,000 annually.

Now the very first question that enters the mind of a soldier is: whether this small body of mounted men, should not be made as efficient as possible? and whether it would not be real economy in the long run, to do so? while on the other hand, the first question which presents itself to the mind of the economist is: whether this greater efficiency and more thorough military bearing, does not mean, an enormously increased expenditure which the finances of the country cannot afford, and the remoteness of danger do not warrant.

If then we can show how this respectable little force—equal in number to the British cavalry sent to the Crimea—can be made fairly efficient, and that too, at such a modest sum in comparison to the advantages gained; hesitation to adopt the suggestions, will be difficult.

All that is really necessary at present, in the opinion of many is to open two small cavalry schools of instruction, in connection with "A" and "B" Batteries, with a sufficient number of men to form a squad, under a competent cavalry officer instructor who can lecture upon, and teach the higher branches of cavalry work, as well as riding school drill. Should the number of those attending for a *short course* of six weeks or three months be limited, to say 12 at a time; by the end of each year from 48 to 96 men could pass through each school, and the expense including horses would be less than $7000 per annum, while the

rses of the Kingston school would also be available for the ling drill of the College Cadets.

Another great advantage would be, that competent drill instructors from these schools, could be sent to every corps, during eir annual training; and when it has been considered advisle, to attach drill sergeants to these batteries, to instruct lleges and schools, surely it were worth while to provide oper and uniform instruction for corps of cavalry, which have en twenty years or more in existence.

The events of the Franco-German war showing the advantage possessing well instructed cavalry, should be so familiar to all diers, that it seems unnecessary to allude to them; and we ght to remember that the lessons learnt by the Prussians in 66 were not thrown away. For in a great measure the adrable manner in which the duties of outposts, and reconnoing, were performed, conduced more than any other cause to success of the campaign:—While on the other hand, no one read the history of the French cavalry during that war, thout feeling that ignorance of the modern uses to which valry can now be put, in addition to its old *role*, contributed no small degree to many of the disasters which befel the nch arms, whose Generals received little reliable information the doings, or whereabouts of their enemy; for the important es, of being the eyes, ears, and nerves of the army, were lected by the French cavalry.

For simple bravery in the field, nothing could exceed, and we not but admire, the gallantry and devotion of those magnifit regiments we used to see in Paris; who needlessly and tlessly sacrificed themselves, attempting something approachthe impossible; and like our own light cavalry at Balaclava, entable examples of what brave men will do, but which they uld never be asked to attempt. Can anything exceed the very of Bonneman's Cuirassiers, who charged through the eyards at Wörth; or those Lancers who being kept all day er fire, lost nearly half their officers and men, without even mselves coming into action; or the charging of the Chasseurs Afrique, down the slopes of Sedan.

Let us hope that more attention will be directed by the authoes, to the importance of the cavalry arm; and we cannot do er, than quote from a lecture at the Royal United Service tution, by Major Frank S. Russel, (14th Hussars,) who . "Half drilled men, if their heart is in the right place, valuable when incorporated with drilled and experienced ers of an infantry battalion. But in cavalry it is different. ar from being useful, untrained men and horses are absoy dangerous. They throw everything into disorder, and, like Hake's Hussars at Waterloo, are worse than useless."

THE VICTORIA CROSS.

Not of gold with glitt'ring diamonds
Is the ornament I sing,
But the soldier holds it dearer
Than the jewels of a king.

'Tis a cross of simple pattern,
Worthless in the huckster's eye;
But the soldier gives his life-blood oft,
This *worthless* thing to buy.

No ancient, foreign motto
Decks this cross, whose days are young,
But the trumpet-words "For Valour,"
In the grand old English tongue.

Peer and Private wear it proudly,
For the queenly heart who gave
Confesses all men equal
In the legion of the brave.

Dusky cross! so full of brightness
In the dauntless soldier's sight,
May you ever deck the bosom
Of the champion of the right!

And where'er the might of England
Is seen in war array,
We shall find brave hearts resolving—
"I will win the Cross to-day."

W. Ferguson.

Cartridge Manufacture.

The making of cartridges is not quite so new in Quebec, as some people suppose, for we find in Knox's Journal page 204, the following, on the 13th November, 1759.

Orders.—"Each regiment is to give three men to the artillery to assist in making cartridges; men most accustomed to this work to be chosen, who are not to be sent on any out-guard, that they may be ready, whenever they are wanted."

Thunderer Experiments.

Experiments with the view of ascertaining the cause of the explosion on board H. M. S. *Thunderer* are being carried out by a Committee at the proof butts, Woolwich Arsenal. A 38 ton gun, believed to be similar in every respect to that with which the accident occurred, indeed its sister gun from the *Thunderer's* turret, has been handed over to the war Department by the Admiralty authorities for this purpose.

The following are amongst the theories urged as causing the accident:—

1st. The existence of an air space between the shot and cartridge; this might have been caused either by the projectile not having been rammed home, or through its having slipped forward through the motion of the gun whilst being run up from the loading to the firing position.

2nd. Double loading, *i. e.*, having been loaded a second time without being fired. This was the opinion of the Court of Enquiry immediately after the accident.

3rd. The jamming of the projectile in the bore—either during the process of loading or after being fired.

The Committee evidently inclines to the supposition of an air space, all the experiments, thus far, having been carried out under this condition. Spaces varying from one foot to six feet have been left between the shot and cartridge without any result other than a diminution of the velocity of the projectile as the space was increased.

The most interesting feature of the experiments was the action of the projectile after entering the butt. For ordinary proof, flat-headed projectiles are used, which are easily found; but in this case the gun was loaded with the service shell or shot (pointed). After the first day's experiments two of these were dug out 10 feet below the solid foundation, and on the second day two passed upwards through the sand and cracked a boiler plate on top.

Those who hold the slipping theory ought to be fully satisfied with the experiments already carried out, for it is impossible for any projectile to slip forward 6 feet whilst the carriage is being run up, and even this it has been shown is not sufficient to burst the gun. Those, also, who laid the sin of double loading to the charge of the unfortunate detachment would, one would think, concur with the opinion which must be arrived at after the experiments carried out by Sir Wm. Palliser, as detailed in two articles of this number, headed "Doubly-loaded Guns" and "Experiments at Erith."

The jamming theory is that held by Sir William Palliser who is of opinion that it occurred through the partial withdrawal of the wad, it having caught in the rammer during the process of loading. We believe we are correct in saying that Sir William was supported in this opinion, by a piece of spun yarn being found attached to the rammer head after the accident. The consequence of such an accident, as the above, would be that the projectile meeting with the wad would, owing to its pointed form, override it, and being diverted from its proper course exert the force imparted to it, towards the destruction of the gun. There are very few of our readers, doubtless, who are unacquainted with the effect of a bullet meeting with resistance in the barrel of a rifle—even a loose plug of snow in the muzzle is sufficient to burst it.

Doubly-loaded Guns.

The Times, December 9, 1879.

The conclusions at which the committee of investigation into the cause of the bursting of the 38-ton gun on board Her Majesty's ship Thunderer arrived are well known. Briefly stated, they are that the gun was doubly loaded—the first charge being 110lb. of powder and a Palliser 700lb. shot, and the follower 85lb., of powder and a common shell weighing 590lb. and that, being fired under these conditions, the gun burst, owing to the exceptional pressure exerted by the second, or forward charge, upon a portion of the gun which was not intended to receive, and which consequently was not constructed to resist, such a strain. It is equally well-known that the correctness of these conclusions has been questioned by several, but by none more persistently and consistently than Sir William Palliser. The conclusions at which he arrived after careful investigation and experiment were that there was only one charge in the Thunderer's gun when it burst, and that that charge consisted of 85lb. of powder and the common shell with a papier-mache disc 1in. thick and 12in. in diameter; that when the gun was fired the shell overran the disc, which caused the former to jam and to force open the steel tube, the pressure of the powder gases completing the destruction of the weapon. In order to demonstrate whether or not the committee on the Thunderer explosion were in error in supposing that the front charge in a doubly-loaded gun would exert any exceptional pressure, and, consequently, whether double-loading was or was not the cause of the bursting of the Thunderer's gun, Sir William Palliser organized and last week successfully carried out an interesting series of experiments with a doubly-loaded gun. The trials took place at Messrs. Eastons and Anderson's works at Erith, and attracted a large number of Government officials and others interested in artillery operations. Among the company present were General Younghusband, C.B., R.A., General Crawley, Major Fairfax Ellis, R.A., Major Montagu Lambert, R.E., Captain Morley, R.A., Captain Downes, R.A., Colonel Moncrieff, E.M.A., Captain Edward Palliser, Captain Lowrie, and others representing the military branch of the service, the naval branch being represented by Admiral Hamilton, C.B., Admiral Hoskins, Captain Cyprian Bridge, R.N., and Commander Custance, R.N. There were also present the military and naval representatives of various foreign Governments, including those of France, Germany, and Japan. Sir William Palliser personally conducted the experiments, Mr. Palliser, C.M.G., and Mr. Anderson being also present.

The gun used in the experiments was one on Sir William Palliser's converted system, and was made for him by Sir William Armstrong and Co., about 12 years since. It is one of the two which were then made at the request of the late Ordnance select Committee for the purpose of competing with two wrought-iron guns made in the Royal Gun Factories. One of the two Palliser guns having been the successful competitor, the second has remained the property of Sir William ever since. This weapon is a 64-pounder rifled gun, of 71 cwt., with a 6.3 inch calibre, the bore being 103¼ inches in length. It was mounted on a wooden slide, 6ft. long, and carried on a timber platform with rails 20ft. long and laid with an ascent towards the rear of 1 in 12, or a total rise of 20 inches in the whole length. The recoil was checked by breeching ropes connected with indiarubber buffer springs. The gun thus mounted was placed in a strong timber-built chamber about 30ft. long, 7ft. high, and 7ft. wide, surrounded and well covered with earth, except, of course, at the front. Facing this chamber, and at 15 yards range, was an earth mound or butt, into which the projectiles were fired. The charges consisted of pebble powder and 64lb. solid round-headed proof shot, made of cast-iron, and without studs. The service charge for this gun is 8lb. of this powder and a 64lb. projectile. Five rounds were fired with the gun doubly loaded, the first round consisting of 6lb. of powder and a 64lb. shot, and then another 6lb. of powder and a second 64lb. shot, giving a total of 12lb. of powder and 128lb. of shot in two charges. After the gun had been fired the recoil was found to have been 11ft. The powder charges were increased at each round by 1lb. in each cartridge or 2lb. in the gun, the two shots remaining of the same weight each time, until at the fifth round the double charge was 20lb. of powder—or a total of 12lb. more than the service charge—and 128lb. of shot. The recoil at the second round was 12ft., at the third round 14ft., which was the practicable limit of recoil, springing forward 1ft. 8in. At the fourth round the recoil was again to the full extent and the rebound 2ft. 8in., and it was practically the same at the fifth round. The length of the first double charge was 31in., and this length was increased at each round by 2in., or at the rate of 1in. per lb. of powder, until at the fifth round the front charge reached to within half an inch of the axis of the trunnions of the gun. The gun was examined after each round, but no sign of flaw or damage could be perceived.

In order to combat the theory advanced by some that the bursting of the Thunderer's gun was due to the circumstance of an air space having been left between the powder charge and the base of the projectile, Sir William Palliser next fired a couple of rounds under that condition. In the first round the charge consisted of 10lb. of the same powder as before, and another of the same projectiles placed in the gun with a 2ft. space between its base and the front of the powder charge. On firing the charge the shot was simply driven from the gun into the butt, the gun recoiling 2ft. up the incline. A second round with the same quantity of powder and a similar shot, but with a 5ft. space, which brought the nose of the projectile within 21in. of the muzzle of the gun, was fired with a similar result, except that the recoil this time was but 6in. This terminated the experiments for the day; but Sir William expressed his intention of carrying them still further with studded projectiles on a future occasion.

To artillerists the results of these experiments will speak for themselves; but there are others to whom their practical value will be rendered more apparent by a comparison between some of the conditions under which they were made and those under which the Thunderer's gun is supposed to have burst. Upon the assumption that two charges were fired in the Thunderer's gun, the nose of the front projectile would extend some distance forward beyond the trunnion of the gun. In the Palliser gun the front charge barely reached to the centre of the axis of the trunnion. But then the Thunderer's gun has a light chase and consequently the trunnions are comparatively near the breech; whereas the Palliser gun has a heavy muzzle, and the trunnions have to be placed well forward. The bore of the Thunderer's 38-ton gun was 12in. and the thickness of metal at the centre of burst 15in. or a calibre and a quarter. The calibre of the Palliser gun is 6·3in., and the thickness of metal round the front charge 7¼in., or about 1 1-7 calibre. The weight of the Palliser gun is 3 tons 11cwt., while that of the Thunderer's gun was 38 tons, or about 11 times the weight of the Palliser weapon. The charges alleged to have been in the Thunderer's gun when it burst were 110lb. of powder and 700lb. shot, and 85lb. of powder and a 590lb. shell, the total weight being 195lb. of powder and 1,290lb of projectiles. The last double charge fired from the Palliser gun consisted of 20lb. of powder and 128lb. of shot. It will thus be seen that the total charge here was about 1-10th that of the supposed Thunderer's double charge, while the weight of the Palliser gun is about 1-11th that of the Thunderer's gun. Hence the conclusions to be drawn from the recent experiments would appear to be confirmatory of the correctness of Sir William Palliser's opinions.

EXPERIMENTS AT ERITH.—A 64-pounder Palliser rifled gun was yesterday fired at Messrs. Easton and Anderson's works with double charges of pebble powder, service gas checks being attached to each of the projectiles. The first round was with two charges each of 6lb. of powder, and two projectiles each weighing 64lb. their gas checks, 6lbs. In the second round two 8lbs. charges, and the third two 10lbs. charges were used. The total charge of the third round thus amounted to 20lb. of powder and projectiles weighing 132lb. The gun withstood the trial perfectly, but it was evident that the test was very severe.

he gun used yesterday was much lighter than the one which s fired on a former occasion, the latter having been objected to exceptionally strong. It weighs 3 tons, and is the same as the ns which are used by the Volunteer Artillery—namely, a 32- under cast-iron smooth-bore converted into a 64-pounder rifle by ans of a coiled wrought-iron barrel only 2in. in thickness the previous history of this barrel is very remarkable. It for- rly belonged to another 32-pounder, which it converted into a 64- under rifle, and was tested by firing excessive charges: next a ies of shells filled with gun-powder were purposely burst inside and, finally, it was deliberately tested to destruction by charges increasing severity. Towards the end of the programme it fired e rounds of 30lb. of R. L. G. powder and 100lb. rifled shot. At last wrought-iron barrel bulged to the extent of one quarter of an h and cracked the casing harmlessly through a hole which had n bored into it near the trunnions, the charge being 30lbs. of R. G. powder and a 150lbs. shot. The bulged barrel was then taken t of its casing and the bulged part, 2ft. long, was bored out. A w lining about ¼in. in thickness was inserted, which brought bore back to its original size. The external bulge was next ned off in a lathe, and the barrel was then put into its present t-iron gun. The chief point which Sir William Palliser has had view in these experiments has been to illustrate the extraordin- strength, toughness, and enduring qualities of a coiled wrought- n barrel. It is worthy of attention that two Palliser rifled guns e also been tested to destruction with increasing charges by Spanish Government, and that in each instance the gun ntually became unserviceable by similarly bulging the barrel harmlessly cracking the outside casing. Sir William Palliser intains that upon the principle of *steel non frangi* it is practically possible to explode a gun lined with a coiled iron barrel by any r means. The firing of this gun will be continued on a future asion, when charges of R. L. G. powder and projectiles fitted h studs and gas-checks will be used.—*The Times 14th December*,

Torpedo Warfare.

Broad Arrow, 1st *November*, 1879.

WHATEVER difference of opinion there may be respecting which side was victorious in the recent mimic torpedo contest at Portsmouth, there can be only one opinion regarding the benefit which both Army and Navy derive from well-conceived sham encounters. It is in the highest degree desirable that our governing authorities should recognise important part which torpedoes will play in future naval fare. In order to clearly realise the advantages of torpedo ence or the dangers of meeting torpedo attack, it is necessary that the various descriptions of that weapon should be fully studied and their capabilities tested. To discover all it is possible to know about the torpedo, it is not sufficient ascertain what can be done with it; our information is not plete until we know in what way it can be successfully met. all other human instruments, there are limitations to its bilities, and, like most mundane monsters, there are joints eak places in its armor. The recent mimic contest was arranged with a view to the attainment of both these double objects. For the protection of the harbour the torpedo employed in every way which our present acquaintance the weapon enables us to do, without having recourse to s or war vessels. These operations were confided solely to military authorities, chief among whom were necessarily d the Royal Engineers and Artillery. The attack was n into the hand of the Navy, and was conducted by the *dhound* gunboat, the *Vesuvius* torpedo vessel, and six second-class torpedo-launches of the *Vernon* torpedo-school and *Hecla* torpedo-depot. There was thus arrayed on the one , all the advantages of prearranged and concealed defence, e on the other hand the darkness of night lent its aid to attacking party which had for its object the destruction of obstacles laid down by the defenders. The obstacles were wo kinds—a boom and submerged torpedoes fired from the e. To protect these obstacles was the duty of the artillery chment stationed in Fort Monckton, together with a com- of the 24th Regiment and another of the Royal Marines, ddition to the sixteen guns of the fort and the rifles of the ntry, the attacking party were further exposed to the an- nce of two electric lights placed one at each extremity of fort. These lights were of course used in order to discover movements of the attacking party, and thus deprive them such as possible of the advantage sought for in making the k by night. The skill with which these electric lights used constituted a very important element in the defence. e same way, the extent to which those in the torpedo-boats managed to elude the glare of the light was also a considerable factor in the offensive force brought to bear on the obstacles laid down. All these conditions were well provided for in the scheme prepared for the guidance of the umpires, so that the decision arrived at by that body of officers necessarily afforded a very fair criterion of the manner in which each party availed themselves of the circumstances and forces under their command. We also believe that, with abilities so fairly balanced as was the case between the attackers and the attacked on this occasion, we may fairly judge by the results not only which party was successful in this particular instance, but also which arm would probably have the advantage under the circumstances in a real combat. In short, we are of opinion that the relative advantages of the torpedo for attack and defence were clearly exemplified in the recent mimic encounter.

In taking this experiment as a basis upon which to estimate the value of the torpedo for offensive and defensive purposes, it is necessary to remember that only the fixed sunk form of that weapon was employed on this occasion by either party. It will, therefore, be at once evident, at what an advantage the defenders of a port start in having these mines laid down precisely in those channel ways which a vessel must take to reach the place to be attacked. There is no limit to the number of torpedoes which may be sunk and placed under the entire control of the defenders, except that fixed by their financial capabilities. But so inexpensive is the weapon when in this form that even that limitation may be removed. Hence the work imposed upon an attacking party may be rendered so considerable and difficult of attainment as to make it practically hopeless. No admiral would send a hundred boats to drag for and destroy the mines laid down by the defenders of a port, when he knew well that the feat, even if successful, must cost him at least fifty of that number with their crews. Yet such must inevitably be the case in a well-devised system of torpedo defence. No attack, however bold, could succeed if the defenders became aware of its approach, and had previously provided themselves with the electric light to discover the enemy's movements, together with artillery and rifle fire to co-operate with the mines in destroying his gun and torpedo boats.

The correspondent of one of our contemporaries reported that "the enemy exploded the mines, the defenders submitted "to a landing being effected, and it now only remains for the "umpires to decide that the Navy were victorious." Considering that the *Bloodhound* was ruled as being blown up, that the *Lightning's* propellor was disabled, that four of the torpedo-launches were destroyed by artillery fire, another blown up while the last was disabled, and that all this was the price paid for breaking the electric contact of six out of thirty-two mines laid down, it is difficult to learn upon what information our contemporary's correspondent based his communication. So far from the victory being with the Navy, the result showed that the attack was completely repulsed, and that the defences of the port received thereby no more injury than could be made good in a few hours.

Such a result is in the highest degree satisfactory to an insular nation like ourselves. It establishes the fact that an impregnable coast defence is at our command. It shows us that even with our first line of defence withdrawn on distant service, it is still possible for us to lay down such obstacles to an invading enemy's approach as would present to him an impenetrable barrier. It may perhaps be said that the advantage to ourselves is questionable, seeing that we have to share it with others. We do not question for a moment that what we find so useful for our defences will be fully utilized by other Powers. In fact the experience of the Russo-Turkish war shows that the hindrance to the navigation of rivers and narrow channels offered by torpedoes and sunken mines has already been realised by our European neighbours. But it is not of much moment to the Power which maintains the mastery of the seas what may be the local defences of a port, so long as an effective blockade can be maintained. It is our pre-eminence on the

seas which enables us to look with satisfaction upon the defensive powers of the torpedo. With a sufficiently numerous Navy to maintain a complete blockade of an enemy's ports, we have no need to enter them, and with sufficient ships to prevent any of our own ports being blockaded for more than a few days, we may, by the help of such defensive means as were recently adopted at Portsmouth, prevent an enemy from landing at any part of our coasts.

We have already mentioned that only one form of the torpedo, and that the simplest, was employed in the recent sham fight. It was within the power of the defenders of Fort Monckton *to despatch Whitehead torpedoes among the enemy's* boats had there been any advantage found in so doing. But the attacking party had no weapon at their disposal except a torpedo for forcing the boom across the harbour, and countermines for destroying those of the enemy. They had to rake about in the darkness for the cables attached to the defender's mines, thankful if they were not found out by the electric light to be shot at by the Artillery or blown up by the Royal Engineers. So heavily hand capped were the Navy in this action that, with only the most moderate skill on the part of those on shore in the use of the appliances at their hands, the destruction of the attacking party was certain from the commencement. * * * *

The subject of torpedo defence is one which must prove interesting to the majority of our readers, no matter to which branch of the service they may belong, as in the event of hostilities, it would form an important particular in the defence of all the forts in the Maritime provinces, those on the river St. Lawrence, on the Lakes and those in British Columbia. If a hostile cruiser escaped the vigilance of the fleet, (as suggested by the General Officer Commanding the militia, in one of his able reports,) stationed in the vicinity of the Gulf of St. Lawrence, nothing in the present armament of Quebec would prevent her laying that city in ruins, and it would be possible for her to pass on to Montreal and reduce that city to a similar state. It is true that the crew might suffer afterwards for their temerity, but hundreds of commanders would only be too glad to run the risk were it open to them tomorrow. What defence has Montreal? St. Helen's island in an enemy's possession and it has no artillery but a Field battery to depend on. The garrison artillery being practically without guns. What is there on St. Helen's Island to prevent its being taken? A light cruiser with one heavy rifled gun on board, having descended by the Richelieu, could lie off beyond the effective range of the guns mounted there and dismount them one at a time. This would not be possible if there was a chain of torpedoes arranged at particular points with sufficient guns to form an adequate defence. There are many such places on the St. Lawrence which could be named as affording special advantages for their arrangement.

Their necessity in British Columbia has been pointed out by General Sir. E. Selby Smyth, Commanding the Militia, in his report for 1877, page XX. "Booms and Torpedoes would of course be an additional protection, * * * because in the absence of a man-of-war from the anchorage in Esquimalt harbor, which sometimes happens, there is no kind of protection for the valuable naval stores in the dockyard, nor for the city of Victoria," etc., etc.

Range Finding for Field Guns.

By Lieut. G. F. Cole, N. B. B. G. A., Quebec School of Gunnery.

One of the practical lessons, taught by the retrospect of the late wars and which has been taken to heart by the home authorities, impresses us with the powerful effect of modern infantry rifle fire, over that of our present imperfect system of field artillery, for, while the killing capacity of the former weapon has been developed, in the last few years, to an enormous extent and practically, as far as our present knowledge of military appliances extend, reached a maximum of perfection, rifled guns for field purposes have on the other hand lagged far behind the race of progress. But a few years ago, the power of smooth bore case fire was far greater in comparison, than that of the Brown-Bess, (the effective range of which was about 300 yards) and decided the fate of many a great battle, by its deadly result, when hurled against infantry in close formation, (as was then the rule), at a little over the above distance. The scale has however been turned and the balance of power now rests with the Henry-Martini, the rapidity, ease and range, (1) of fire from this rifle, enabling it to hold field artillery in check, at *such distances as to render shrapnel shells almost ineffective*, the low muzzle velocities and high trajectories of the pieces belonging to existing batteries, necessitating close quarters for the satisfactory development of this particular description of projectile. the modern, "long range case shot." The Germans in their late war were well aware of this weakness, (low muzzle velocity which causes a large cone of dispersion in shell firing) and invariably pressed their artillery forward to short ranges, (using large masses of guns and men, caring little for the often wholesale sacrifice of their gunners, so long as they effected the purpose.

(3) The problem then being worked out, is to produce field guns of about the same weight and calibre as the existing ones which firing heavier shells at high muzzle velocities and with flat trajectories, shall once more place artillery foremost on the field of battle.

There being, then, little doubt, that long range infantry fire will not only exercise a considerable influence on future artillery tactics, but also on future artillery manufacture, it becomes a matter of the greatest and most vital importance that a simple accurate and rapid method of ascertaining the actual range of an enemy, should be introduced and practiced by field batteries without the aid of which, the best artillery that could be possibly, placed in the field, would be worse than useless, as its apparent power would only tend to mislead and in decisive moments might be found wanting.

The various plans, which have from time to time been introduced, for effecting this purpose, all suffer more or less from one main defect, viz. delicacy, both of manufacture and of manipulation, rendering the appliances useless, where rapid changes, exposed positions and uneven ground, places anything like scientific surveying out of the question. A range finder, to meet the requirement of the service, should combine the following points:

1st. The base should be as short as possible, never more than the length of a battery at full intervals, say 100 yards.

2nd. No instrument of any delicacy should be used.

3rd. Any N. C. officer or gunner should be able to use it without special training.

The base should be as short as possible, as it is almost certainty, that smoke, dust, passing of troops, irregularities of ground, or the intervention of trees, one or all, would prevent the base points from seeing each other if the distance between them be very great.

No instrument of any delicacy should be used, for apart from the liability of derangement the steady and careful hand and fine manipulation, would hardly be found in the heat of action.

Any N. C. officer or gunner should be able to use it, as each gun should be furnished with a separate arrangement, and the mean range of the whole taken, men specially trained in surveying, would no doubt be employed when permanent occupation of position was decided upon.

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(1) *At Plevena, the Russians began to suffer loss at 1400 yards* Turks being armed with rifles similar to our own.—Major Peabody.

(2) The Germans however only fired a common shell which somewhat like our segment.

(3) The new 12 pr. gun of 8 cwt. which has just been made at Woolwich, fires a common shell of about 12 lbs. with a muzzle velocity of 1553 F. S.

Sir W. Armstrong has also just constructed a breech-loader of 9 calibre, which fires a 7 lbs. shell, at a m. v. of 2000 F. S.

The French likewise have a breech-loader, The Lahitolle, firing 13 lbs. shell at a m. v. of 1553 F. S.

Taking these desiderata into consideration thewriter submitted some little time ago, to the Militia Department, a proposal in which he endeavoured to embody the foregoing principles, and had the honor of a favourable report upon same, being forwarded by the Inspector of Artillery to the General Commanding who was pleased to desire experiments to be made in the forthcoming practice season to test its merits. The following is a description of the proposed plan.

In a reel are coiled on a separated spindle two steel wires, one, say 30 yards long, which forms the base of measurement, and the other (56·05) which forms a triangle in rear and on which the required distance is measured, the extremities of both the ends of the cords being joined together.

When a range is required to be found, the gun is laid upon the object, a man A then takes the reel in his hand, and inserting into the vent of the gun a small spike which is attached to the extremities of one end of the wires, doubles out at right angles to the gun, to the full extent of the base wire, viz: 30 yards. Another man, B then taking hold of a small sliding handle which is attached to the other wire, doubles back, until the same becomes tight, and lines himself as near as possible in prolongation of a line through A, and the object laid upon over the sights of the gun The man A now holds the reel firmly in his hand, (keeping the base cord stretched tight,) on the top of which is fixed a fine projection acting as a foresight. B then brings his handle, the top of which also acts as a hindsight, into line with A sight, and the object aimed at over the gun, he also keeping his cord tight.

On this part of the cord, over which the handle B slides freely is a graduation in yards, corresponding to the required range, i. e., the tangent to the angle at A, of a right angle triangle, having a base of 30 yards. All then that B has to do is to line his sight, and at once read off the required distance. With a base of 30 yards, the angle moved through at A, from a range of 500 to 4000 yards, equals 3 degrees, this with a radius arm of 20 yards, distance from A to B, gives the total space moved over the cord by handle B as 3 feet, or a difference of about half an inch for every 50 yards of range.

The method of ensuring that A takes up a position exacly at right angles to the gun, is as follows:—

When A after inserting into the vent, the spike, which connects the ends of the wires, and is doubling out to his position, B takes hold of his wire, and doubles back to the rear of the gun, to a distance of 20 yards, at that length along the wire is fixed a mark, (a link,) which is brought by B into a line prolonged through the sights of the gun. Then wires, A, gun and B form a right angle triangle, with a base of 20 yards, distance from gun to B, the right angle being at the gun, and the hypothenuse being the wire from B to A, 36·05 yards, distance from gun to A being 30 yards, therefore A is at right angles to the gun.

As soon as A has fixed himself in this position, B now doubles towards the rear of A, and drawing the wire tight, (one end of which is connected to the gun at the vent, and the other to the reel which is held by A,) brings his sighting handle on the wire into line with object and A, reel as explained before.

This process just reverses the triangle, the base being now from A to B, and the hypothenuse from B to the gun. At long distances a field glass can be used by B simply fixing the sighting handle between the glasses.

The appliance would be carried in a case attached to every gun.

In these days when many are proposing that the practice of carrying colors by the various regiments should be abolished, and that they (the colors) should be relegated to the lumber-room as useless trash, such addresses as the following are worth preserving. Those of our compatriots who were born in the island of Jersey will no doubt feel interested in the circumstances. What his gun is to a gunner his colors are to an infantryman—the centre round which he is "to do or die." We are amongst those who believe, that as at Inkerman three artillerymen found means to change a broken wheel in order to fight their gun, so while there are even two cavalry or infantry men left on the field, they will hold the colors between them and fight to the death. The men who write advocating that colors should be abolished, may have served in the army, but they were never soldiers. A christian might as well advocate the abolishment of the cross as a symbol of his faith.

1ST OR WEST REGIMENT, ROYAL JERSEY.—Lieut.-Colonel Brayn's resignation of the command of this regiment is announced, after fifty years' service, twenty years of which has been in the capacity of adjutant and musketry-instructor. This resignation deprives the Militia of the services of a most efficient officer, whose example and industry in the performance of his duties have been of incalculable benefit to the insular force. It was on the nomination of the late Colonel J. K. Pipon, lieutenant-colonel commanding the South West Regiment—Inspector-general of Militia at the War Office—that Colonel Brayn obtained his adjutancy, some twenty-five years ago—New colours have been presented to the corps with the ceremony usual on such occasions. The ground was kept by a detachment of the 68th and 6ith, and the colours were handed to Lieutenants G. Hocquard and T. E. Le Marquand, who knelt to receive them, by Mrs. Marett She then addressed the regiment as follows:—"Colonel Brayn, officers and men of the West Regiment—I need not tell you how honoured and gratified I feel at having been selected to perform the agreeable duty which is the object of the present meeting. Not only does the fact that the family I belong to has for a long period been established in this part of the island lend me to take a more than ordinary interest in the proceedings of this day, but I cannot but remember that my late father served for many years in what I may be allowed to call the South Western Division of your regiment, and regard the compliment you have been pleased to pay to his daughter as one offered to his memory. In the name of our gracious Queen and of our country, I present you these colours. It is a century this very year since on the shores of the noble bay which spreads itself before you yes, your forefathers assisted in repelling an enemy from the Island, and I, a Jerseywoman, know and feel that if a like occasion were ever to present itself you would emulate their example, and promptly and fearlessly rally round these colours in our country's cause, and with the determination to do or die. I pray God that you may never be called upon to do so, and that He will be pleased to bestow for many a long year on this favoured island the blessings of peace, but should it ever be otherwise, and you be called to fight under these banners, your hearts will glow remembering that it will not be in aggressive warfare, for rapine or for conquest, but in a cause which the laws of God and man alike regard as the best and holiest, for the defence of your Sovereign, of your country, of your families, of your liberty, and when you can raise the battlecry of your Norman ancestors in the pleasing hope that it will be responded to—'Dieu Aide!' (Dex aie)." The regiment then went through several manœuvres, after which Colonel Brayn thanked Mrs. Marett in the name of all ranks of the regiment for the honour and kindness she had bestowed upon them by taking so active a part in the ceremony They were all the more gratified as a portion of them had served under the late Colonel Marett, her respected father. A luncheon followed, which was given in St. Peter's Parish Hall.

While Victoria, Queen of England and Empress of Hindostan, was laying her *immortelles* upon her Consort's tomb at Windsor, Eugénie, Empress of the French, widowed, childless, orphaned, was saying a prayer for the father and for the chivalrous son who sleep the eternal sleep in the exile's grave. For that poor Lady at Chislehurst we all have the verriest compassion, and we may be sure that her Christmas, dark and heavy as it is, will be cheered by tender messages from Osborne and Sandringham; for it is the happy fortune of the Queen and the Queen's children, to be dowered with the most kindly hearts and the most sympathising souls. "Blessed are the dead, for they rest from their labours." It is this knowledge that will send a glimmer of sunshine radiating through the two Imperial homes when the Christmas peal shakes the belfry and when multitudes of happy children cluster round the glittering Tree.—*Whitehall Review.*

The following paragraph from the *Broad Arrow* of the 30th Sept. 1879, may be interesting as showing how the heros of what one might call a by gone age still remain among us, and doubtless in reading the exploits of our army of the present, fight again the battles of the past.

The two last survivors of Copenhagen were Commander Charles Jefferis, who died in July, 1875, aged eighty-six, and Commander James Fitzmaurice, whose death in his ninety-second year is just announced. The last of the Nile, Cape St. Vincent, and Camperdown heros have all passed away some time since—Commander Robert Trotter, R.N., who died early in 1875, being the last of the Camperdown heroes, while Commander Masters Newman, who died in 1876, was the sole surviving naval representative of the expedition to Egypt in 1801. The "Army List," however, still contains the name of one solitary survivor of Abercromby's expedition to Egypt, viz., Lieutenant David Scott, on the retired full-pay list, who served in Egypt in 1801 as a private soldier, and subsequently won a commission in the Peninsula. Were it not for the fact that this veteran officer still draws retired pay from the War Office, we should imagine that he had long since breathed his last. He is probably a centenarian. Lieutenant Francis Glanville, on the half-pay list, is the last survivor of Aboukir. The Trafalgar veterans are now only six in number, viz: Admiral of the Fleet Sir George Rose Sartorius, K.C.B.; Admirals Robert Pelton and W. W. P. Johnson; Commanders Francis Harris and William Vicary, and Lieutenant-Colonel James Fynmore, Royal Marines.

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

At the moment of going to press we learn that Lt Col. the Hon. L. R. Masson has resigned the Portfolio of Minister of Militia and Defence and is to be replaced by the Hon. Sir A. Campbell. Lt.-Col. Masson deserves well of the Militia. Having made himself acquainted with the short comings of the Force previous to coming into Office, he has, we believe, done more to advance its interests, during the short time he has governed it than any of his predecessors.

We hope the Hon. gentleman will see his efforts on behalf of the Militia, and for the defence of the country, fully realised.

Regimental News.

6th Provisional Regiment of Cavalry, P. of Q.—A. Lapthorne Smith Esq. M. D., has been appointed Surgeon of this Regiment.

"B" Battery S. G. Quebec.—The strength of this Battery has been increased by one Lieutenant; Major J. E. M. Taschereau has been appointed to the vacancy caused by augmentation. We believe Capt. O. Prevost is under orders to proceed to England to study the manufacture of S. A. Cartridges.

Hamilton Field Battery.—Lieut. H. P. Van Wagner, has been granted a first class and Gunner F. G. Cooper, a fourth class S. G. certificate.

Ontario Field Battery.—Sergt. W. McGibbon has been granted a third class and Corpl. J. M. Ferguson and Bomb. C. J. Davies fourth class certificates.

Toronto Garrison Artillery.—Gunners Hunter and Leith have been granted fourth class certificates.

Trenton Garrison Artillery.—Corpl. J. Woods has been granted a third and Gunner Arnott a fourth class certificate.

Levis Garrison Battery.—Major C. L. Hamel has been granted a first class certificate.

1st. Battalion, "Prince of Wales Regiment" Montreal.—Wm. J. Turpin, Gent. has been appointed Quarter-Master vice Nott appointed Captain.

2nd. Battalion, "Queen's Own Rifles" Toronto.—2nd Lieuts. F. F. Manly, R. Wilkinson and M. McS. Kertland have been appointed Lieutenants, and Corpl. V. Sankey 2nd. Lieut. provisionally; the resignations of 2nd. Lieut. G. P. Elliot and asst. Surgeon Norman Bethune have been accepted.

6th. Battalion "Fusileers" Montreal.—Lieut. W. H. Cushing has been appointed Captain and 2nd. Lieut. F. E. Nelson, Lieutenant.

7th. Battalion "London Light Infantry." Lieutenants A. M. Smith and J. A. Mahon have been appointed Captains.

13th. Battalion, "Royal Regiment," Toronto.—Captains Anderson and Bailey have been permitted to fire retaining rank. Capt. Hills resignation having been incorrectly gazetted, it has been corrected in G. O.

19th "Lincoln" Battalion.—Color Sergt. F. B. Rogers has been appointed 2nd. Lieut. provisionally.

29th. "Elgin" Battalion.—Lieut. and Adjt. W. Faulds has been appointed Major. Sergt. J. R. Burwell has been appointed Lieutenant provisionally and Bdgt. Major D. Pinnco 2nd. Lieutenant, provisionally.

34th "Brant" Battalion "Dufferin Rifles."—Edwd. Digby Hemwood, gent., has been appointed 2nd Lieutenant, provisionally.

39th "Norfolk" Battalion.—Paymaster W. W. Livingstone has been granted the Hony. rank of Captain.

45th West Durham Battalion.—Pte. A. Codd has been appointed Lieutenant provisionally.

53rd "Sherbrooke" Battalion.—2nd. Lieut. W. H. Embury has been appointed Captain, Sergt. A. E. Phelan Lieutenant provisionally and Sergt. E. Donegan 2nd. Lieutenant provisionally.

57th "Peterborough" Battalion.—No. 4 Company's headquarters has been transferred to Keene. Captain E. B. Edwards and Lieuts. J. W. Miller and N. DuBois Beck have been confirmed in their appointments.

65th. "Montmagny and L'Islet" Battalion.—2nd. Lieut. E. A. H. Talbot has been appointed Lieutenant and H. H. Robertson, gent., 2nd. Lieutenant provisionally.

80th. "Nicolet" Battalion.—H. Trudel, gent., has been appointed 2nd Lieutenant provisionally.

81st "Portneuf" Battalion.—Asst. Surgeon A. G. Eusèbe Beaudry M. D., has been appointed Surgeon and A. de Isacheverolière Esq. M. D., Asst. Surgeon.

84th. "St. Hyacinthe" Battalion.—This Battalion has been gazetted as a full Battalion instead of provisional. Major J. Doherty has been appointed Lieut.-Colonel. L. Tellier, Esquire (provisionally) and B. F. Campbell Esq. Majors.

Halifax in the Olden Times.

"THE HALIFAX FIELD BATTERY."

In place of our usual instalment of "Halifax in the Olden Time," we place on record this evening a few particulars regarding the Halifax Field Battery, which now—under the command of Major *J. R. Graham—is a relic of many generations, and our sole reliance* whenever any salute of a local character is wanted.

The Battery takes its source in 1778. But there is no record of its progress, save as is afforded in the list of officers in old almanacs and periodicals. In Anthony Henry salmanac for 1791, we find the following officers of the "Halifax Artillery Company":

Captain—Jonathan Tremain.
Capt. Lieutenant—Andrew Liddell.
Lieutenants—John Brenner, Wm. Smith.
2nd Lieutenant—Thomas Moody.

From an old record is also taken the following. It will be observed that it was the fashion in those days to wear queue:

At a meeting of the officers and a committee of the Halifax Volunteer Artillery Company, on Monday, 21st May, 1804, respecting the choice of a uniform: the following was agreed upon to be submitted to the Company for their approbation: A short Coatee, viz., to be made of blue cloth, a blue cape edged with red round the cape and coat, the skirt to be turned up with white, to have blue faced lappels, small yellow buttons placed two and two, to have a gold loop on the cape, to be worn buttoned.

A white Waistcoat. Blue Pantaloons, edged with red. Half Boots. Black Silk Stock. Round Hat and Cockade.

The Company to appear without queus; those who have long hair to turn it in under their hats.

It is agree that the Company should meet at the Jerusalem Tavern on Wednesday evening at 8 o'clock.

It was agreed that the Company should appear with a cutlass slung by a broad black belt instead of the Musquet and side arms usually worn, agreed to.

JOHN BREMNER,
Captain Halifax Artillery.

The Company met on the 23rd May, 1804, when the following was agreed to:

That the coatee agreed to by the Committee should be the uniform—

Jacket. A white waistcoat. Blue pantaloons edged with red. Half boots. Black stock tied before. Round hat Cockade, with a gilt button sewed in the centre.

The cockade to be chosen by the officers.

Company to appear in short hair.

Moved that the Compuhy turn out three days in the week, viz: Monday, Wednesday and Friday, to exercise, each member to go out at least three times in one week; agreed to.

The Company to meet Capt. Bremner in uniform on the 1st July at 12 o'clock at the Free Mason's Hall.

Officers appointed by the Company—Alex. Smith, paymastor; David Thomson.

A militia general order, issued on the 2nd June, 1812, orders the "1st Volunteer Company of Militia Artillery, 4 field pieces," to be present on the exercising ground on the anniversary of His Majesty's (George III.) Birth-day.

The following is a copy of the list, under Capt. Tremain's own signature, of the composition of the Company sixty-seven years ago:

Return of First Company of Halifax Volunteer Artillery, under command of Captain Richard Tremain, 0 July 1812:

Sergt.-Major:	John Henry,	Thos. Muirhead,
Peter Robb,	Wm. Smith,	Alex. Fiddis,
Sergeants:	Martin G. Black,	Hewin Cameron,
John Brown,	Leslie Moffatt,	Thos. Simmers,
William Forsyth,	John Phillips,	Wm. H. Barry.
Thos. Fenerty,	Fredk. Russell,	John Hussey,
John Rogers,	Francis Muncey,	Thos. Richie,
Corporals:	Robt. Grinton,	John McPherson,
Charles Dunbrack,	Geo. O'Brien,	Fredk. John Knight.
Thomas Nelson,	Morgan Doyle,	John Cobb,
John D. Scott,	Danl. Fraser,	Thos. Smith, Jr.
Wm. Rudolf.	John Forrest,	Daniel Fergusson,
Bombardiers:	John F. Salter,	Chas. W. Hill,
David Muirhead,	John Tullis,	Wm. Murray,
Wm. Story, Jr.,	Richd. Scott,	Thos. Ott Beamish,
Martin Pinzza,	Wm. Strachan, Jr.,	Nicholas Vass,
John Tremain,	John Simpson,	Alex. Clark,
Gunners:	Robt. Fraser,	Joseph Lordley,
Fredk. Major,	Alex. May,	Henry Boyer,
Wm. Gore Lamb,	Thos. Gentles,	John Bonnett,
James Mc...ren,	John Pendergast,	Henry Warner,
John Miller,	Wm. Stairs,	David Hutton,
Wm. Bond,	John N. Ford,	Ralph Turnbull,
John Peeples,	Nicholas Wright,	Donald Fraser,
Wm. O'Brien,	Azor Stevens,	John Wilson,
Alex. Smith,	Samuel Black,	Jos. Cogswell,
Geo. Morin,	Henry Monson,	John Buchan,
Francis Story,	Dennis Connor,	Wyndham Madder,
Geo. Nock,	Paul Cermanatti,	Jas. Leishman,
Saml. Lidiard,	Henry Wright,	Hugh Gall,
Benj. Muirhall,	Abner Stowell,	Ale... Smith,
Benj. Krigton,	Wm. Schwartz,	Joshua Lee,
Peter Hay,	Peter McNab,	Robt. Field.
Fredk. Kringle,		

Halifax, July 6, 1812.

RICHARD TREMAIN,
Capt. H. V. A.

A good many other similar *data* might be given, but they would be of the same tenor. In an unbroken line, the Company has come down to the present, and is now more than a hundred years old, and is at the same time an ancient and modern institution. In the list of names given above will be found the founders of families in our midst, several generations of whom have since passed away.—*Halifax Recorder.*

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