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# The Volunteer Review

## AND MILITARY AND NAVAL GAZETTE.

A Journal Devoted to the Interests of the Military and Naval Forces of the Dominion of Canada

VOL. V.

OTTAWA, CANADA, MONDAY, OCTOBER 2, 1871.

No. 40.

### FRENCH NAVAL TACTICS.—NO VI.

*From the United States Army and Navy Journal.*

#### FORMATIONS.

When an order of steaming (or sailing) is signalled without further directions, the regulator at the hauling down of the signal hoists the rectification flag; the other ships hoist theirs at half mast.

The regulator stops, slows down, or increases speed as circumstances require, in order to facilitate the formation.

The other ships repair to their stations, by getting on the proper bearing and distance from the regulator. As they gain their stations, they masthead their rectification flag.

If hastening to their respective stations any two ships risk fouling, they must conform strictly to the rules for the prevention of collisions.

If their courses cross at short distances, the one which sees the other to starboard gives way.

Passing a ship on the same course, care must be observed not to crowd her.

If the flag-ship be regulator, it may favor the formation by a temporary change of course. In this case, after hoisting the rectification flag, it must be half-masted and kept so until the given course is resumed.

The rectification flag is hauled down on board all the ships when the flag ships, hauling down hers, indicates that the new order is established, and that the fleet is to pursue its course.

#### EVOLUTIONS.

The different movements of a vessel under steam may be expressed as follows: 1st diminish speed; 2nd increase speed; 3rd Stop; 4th, Go ahead; 5th, Change course.

Evolution result from a combination of these movements.

Every evolution supposes the previous rectification of the last order.

When the fleet is required to increase or diminish speed to stop or to go ahead, the movements is executed simultaneously when in the line abreast, or in a line of bearing, and in succession—but in as rapid succession as possible—when in line ahead. Increase of speed in line ahead commences with the leading ship—diminution of speed by the sternmost ship of the line.

Change of course is made either simultaneously or in succession.

When the line ahead changes of course are made in succession, and executed at the place occupied by the leading ship, it constitutes a countermarch.

When a simultaneous change of course produces a change of order, it is called a simultaneous movement.

Simultaneous changes of direction take the name of conversions, when all the ships combine their movements of turning in such a manner that they all come on the new course without changing the order.

To execute a countermarch the leader should be prompt in the use of her helm, and right it in time to steady the ships on her new course.

The ships which follow continue their course until they reach the point where the leader had commenced her movement. They then describe—having due regard to the coefficient of helm,—the same circle as the leader.

Simultaneous movements should be executed by all the vessels at the same time and with the utmost exactitude. The amount of helm required to describe equal curves should be used promptly the instant the signal is hauled down.

A simultaneous movement by a squadron or division commences by signal from its commanding officer.

Conversions may be determinate or indeterminate.

Conversions are determinate when it is known beforehand the point of compass at which the movement will terminate.

The determinate conversions is made by hoisting the compass signal by itself.

Indeterminate conversions result from a change of course, the compass signal showing at what point the movement is to terminate, not being shown beforehand.

The determinate conversion is executed as follows: At the moment of hauling down the compass signal, the pivot vessel places herself in the new course, regulating her speed and quantity of helm agreeably to the standing orders of the admiral.

Each ship according to the position she occupies in the line, regulates her speed and the angle of her helm so as to describe around the pivot vessel and without approaching her an enveloping curve.

As soon as the evolution is completed, the flag-ship again becomes regulator, if it had not been the pivot ship. The order is rectified and the fleet resumes its normal speed as soon as the rectification flag is hauled down.

The indeterminate conversion is executed as follows: At the moment of hauling down the signal of conversion the pivot ship regulates her speed and helm according to the standing orders of the fleet. Should a numerical signal be shown, it will indicate the number of degrees of helm the pivot vessel is to use.

The other ships manoeuvre as prescribed in the preceding article.

When the admiral judges that the pivot

vessel has nearly arrived on the new course he wishes to head, he signals that course to check the movement. The pivot ship then steers that course. The other vessels manoeuvre as before described, the flag-ship again becomes regulator, the other is rectified, and the fleet resumes its normal speed on the hauling down of the rectification flag.

When the signal of conversion is accompanied by a compass signal the conversion is accomplished in "two times." The signal of conversion is hauled down while the compass signal is kept flying. Immediately the fleet come to starboard or to port together, and describe half the required angle, the ships toward the extremity of the lines making all the speed their greater area require. When the admiral judges the ships properly aligned, he causes the new ships to come to the new course together, by hauling down the compass signal.

In compound orders the conversion is executed by the leading ships, the other vessels in the respective lines following by a countermarch.

### LESSONS OF THE DECADE APPLIED.— NO. X.

*(From the Army and Navy Journal.)*

**DISMOUNTED SKIRMISH DRILL.**—The squad being in line, the instructor commands, *From the right count—Fours.* At the word "Fours," the men, beginning at the right repeat audibly and clearly their numbers 1, 2, 3, 4, 1, 2, 3, 4, till the whole line is counted. The instructor then tells them: "Men you are now supposed to be mounted. A set of fours on horseback is used the same as a single man on foot. Instead of right or left face, we now say fours or left, as the case may be. About face becomes fours about. This is because one horse is about as long as four horses are broad. In dismounted fighting, Nos. 1, 2, and 3 go on the line. No. 4 holds the horses. Remember that."

He then commands, *Fours—Right.* At the word "Right," each set of fours wheels smartly to the right and halts at right angle to the line. The instructor sees that the pivots are in a perfectly straight line, and so directs them from the head of the column of fours. He then commands, *Prepare to fight on foot.* Nos. 1, 2, and 3 run out on the side of the instructor, and form a line facing him about ten feet from the flank of the column. Nos. 4 then, at their pleas, being supposed to be horse holders. The instructor puts the dismounted men in file, and leads them to the ground to be skirmished

on. He then commands, *Deploy as skirmishers*—MARCH, waving his sword to indicate the flank to which to extend.

At the word "March," the file leader halts and the rest of the men execute the same movement as in forming squad, except that instead of coming up touching elbows, they spread to a distance of about ten feet apart forming a skirmish line. This line is manœuvred exactly the same as the squad in line, viz. forward backward, and to either flank. The commands are given by the bugle entirely, and all bugle calls on skirmish line apply to individuals, never to heads of files.

If the direction is to be changed, it will be done by a wheel, not by filing, and the wheeling signals used. Distance drill will be combined with skirmish drill daily, and broken and woody ground chosen to exercise upon. At the close of the drill the rally will be sounded in long notes.

At this signal the men will form in file in rear of the skirmish line, marched up to the number fours, and ordered to fall in. Each man resumes his place; the instructor commands, *Fours*—LEFF. At the word "Left," the sections wheel into line, and the drill is closed in the usual manner.

**TROOP DRILL.**—The essentials of troop drill have been already taught in squad and skirmish drills. The troop is manœuvred in exactly the same way, with the exception that sections of four are substituted for individuals, and fours right or left supplant the facings.

A troop can break from line into column in just six directions: 1, Right; 2, Left; 3 and 4 Forward from either flank; 5 and 6, To the rear from either flank. In breaking to the front and rear, much speaking will be saved by a wave of the sword indicating the flank from which to break. A troop can from column to line in six ways also, corresponding to the breakages.

A troop wheels bodily to either side. All troop drill will be executed mounted and armed. The sabre will be carried on the left side, in the frog; the pistol on the right hip, in the holster; the carbine in a holster or bucket, on the right side of the saddle, behind the leg. In fighting on foot, change the sabre for the carbine and place the former in the carbine holster.

To break to the front from either flank, the captain commands, *By fours*—MARCH, with a wave of the sabre as necessary. To break to the rear in like manner, he commands, *To the rear by fours*—MARCH. To break to a flank, he commands, *To the right or left*—MARCH. All of which are executed as already explained in squad drill, etc.

Bring in column of fours, to form troop to the front on either hands, the captain commands waving his sabre, *Form troop*—MARCH. To form to either flank he commands, *Fours*—RIGHT or *Fours*—LEFT. To form to the rear on either flank, he commands, *Fours*—ABOUT; *form troop*—MARCH. All of which are executed as already explained.

Columns en route will be narrowed "by twos," and "files" at the trot as before explained in "horsemanship." They will be turned to hand, as files are in squad drill. Fours will always be formed before forming troop.

*Troop right wheel (or left wheel)*—MARCH, is merely an extension of squad wheels, on the same principles. The wheels must be often practised, as also the advance in line, at a walk, canter, and charge.

The charge will always be made with the pistol and sabre, only one shot being fired before closing with the sabre. The other five shots must be reserved for the pursuit.

The advance in line is the most difficult thing in troop drill. The guide will always be centre, and the men will rather spread out than crowd up. The movement should be practiced at each pace till perfect, but the full gallop ought not to be indulged in it exhausts the horses too soon.

To break cuirassiers or heavy cavalry, the captain commands successively, *Prepare to charge in open order*—MARCH. No. 1 of each rides forward and 2, 3, and 4 file in behind him.

**FORWARD! TROT! GALLOP! CHARGE!**—When at the gallop, the four concentrate on the enemy's line, and burst through in a *clump*, four feet deep, the outside men firing a volley at one point. The enemy's line broken they spread out in the rear, and attack with the sabre; on the last rear if possible. This manœuvre must be frequently practised.

Fighting on foot is also well drilled. No. 4 will in all cases hold the horses.

If all men are needed on foot, order the horses to be hobbled. Each man will pass his halter strap around the pasterns of the forelegs of his horse, after dismounting, taking the end of the strap around the hock of the hind leg, in a knot; or else, hobble the fore-legs only, and tie each horse to his neighbor by the link and strap issued with the bridle.

## CORRESPONDENCE.

*The Editor does not hold himself responsible for individual expressions of opinion in communications addressed to the VOLUNTEER REVIEW.]*

### FROM MONTREAL.

BY OUR OWN CORRESPONDENT.

I had occasion to pay Joliette a visit last week and was agreeably surprised at meeting several of my old comrades of Laprairie camp. The rifle matches of the Berthier, Rawdon and Joliette Companies were going on under the supervision of Col. Hanson.

I found that the old military spirit was by no means dead yet and many spoke confidently of the next camp in '72, when they would enter upon their duties with more confidence after the training and experience of last camp.

The citizens of Joliette gave the Volunteers a ball at the conclusion of the matches at which were also displayed the prizes won. The shooting was very much above the average. One man making his debut as a marksman out of six shots at 500 yards made five bull's eyes and one centre; not so bad for a commencement.

Lieut. G. W. Hatton, Adjutant Victoria Rifles, was presented by the officers and men of his corps with a gold watch as a token of respect and appreciation of his services previous to leaving for the States. Lieut. Hatton left on Wednesday night being played down to the depot by the band of the Vics and accompanied there by his many friends and brother officers.

The Putnam Phalanx, of Hartford, Conn., arrived here on Tuesday in the midst of drenching rain. They are one of the oldest Volunteer organizations in the United States. They were received by the Brigade Major and a guard of honor consisting of two

companies of the G. T. Artillery, under Capt. Huddell.

On the platform, awaiting the arrival of the train, were a number of volunteer officers. Amongst whom we noticed Lt.-Col. Smith, D. A. G.; Lt.-Col. Bacon; Lt.-Col. Bethune, V. R.; Capt. Muir, No. 2 Cavalry, Capt. Battersby; Capt. Atkinson, G. T. R.; Major LaBrancho, M. R. R.; Lieut. Chagnon, M. R. R.; Maj. Handyside, V. R.; Lieut. Hutton, V. R.; Adj. Benjamine, P. W. R.; Capt. McCormack, P. W. R.; and others.

The guard of honor was drawn up on the outer platform, and on the arrival of the train the Putnam Phalanx was formed in front of them and the usual military courtesies exchanged.

Lieut.-Colonel Smith in the name of the Minister of Militia, welcomed Major Kennedy and his command, and offered to them the use of the Drill Shed. The Phalanx number about 100 men. They are fine looking, athletic men and their curious old fashioned continental uniforms gave them a singular appearance. The men being drawn up in line, his Worship, Mayor Coursol, briefly addressed them, welcoming them, &c.

Major Kennedy, in command, thanked his Worship and introduced Governor Hawley.

### GOV. HAWLEY'S SPEECH.

Mr. Mayor.—In the name of Putnam Phalanx, I beg very gratefully to return thanks to the Gov. General, the Minister of Militia, yourself, and, indeed, all whom we have had occasion to meet in Canada, either officially or socially, for the uniform kindness and consideration with which we have been treated and met. We do not come amongst you as strangers, but feel quite at home as old friends. And why should we not feel at home here; we are all one people, sprung from a common stock, speaking the English language, and as the English speaking nations of the earth spreading over the world as the champions of constitutional Government, guaranteeing the liberties of the citizen, and carrying with us everywhere the church and school house. And how ever much we in America may feel that we are nearly allied to England we are still closer bound to Canada, for are we not near neighbors bound to each other by the ties of commerce and every friendly and social relation, and I assure you gentlemen, we should only be too happy to see and welcome you in old Connecticut, for we of Connecticut are, of all the States in the Union, the least likely to forget that it is to England we owe the laws and institutions under which we live; and that forty years after Independence we lived under those same laws and institutions with scarce a change made in them since the days when they were granted to us by the charter from Royal Charles.

England and America have lately given a spectacle to the world, the grandest the world ever saw; the settlement of their difficulties by a just and equitable treaty; I trust the time when an appeal to the sword was always necessary to settle national disputes has passed; and that henceforward England and America hand in hand and side by side will fight with the weapons of intellect to perform the great work of civilization and Progress which is before them. I assure you that there is not one person whom we

of the United States more highly respect or more greatly esteem for her womanly virtues and graces than Her Gracious Majesty the Queen of England.

The speeches being over the Phalanx marched out of the depot headed by the band of the Grand Trunk Brigade and their own fife and drum band. They marched to the Drill Shed where they piled arms and then returned to the St. Lawrence Hall where they broke off.

On Wednesday they assembled at the St. Lawrence Hall, where they dined having as their guests, His Worship the Mayor, Lieut.-Colonel Steveson, Colonel Dyde, Hon. L. S. Huntingdon, &c.

At the conclusion of the repast, Major Kennedy rose and in a few appropriate words, proposed the health of the Mayor and Corporation.

His Worship responding said, on behalf of the citizens that we were delighted to welcome the members of the Putnam Phalanx to Montreal and spoke briefly of the growth and prosperity of the city. He hoped that the excursion would not be the last the Phalanx would make to Montreal, and assured them that whenever they returned they would be cordially welcome. He hoped also that in a few years Montreal would be able to show them a city almost double its present size, and a population of over 300,000 inhabitants. The Americans were proud of their cities and their country generally, and he believed the people of Montreal were also. He thanked them for their visit and hoped to see them again shortly. In conclusion he gave the health of the "Putnam Phalanx."

Ex-Governor Hawley, said they were an exploring party. They had heard of Montreal before they came here, and they had heard particularly of the live man they had for Mayor. He went on to speak of the country. He also alluded to the largeness of the territories of both Canada and the United States, and said that in the latter as in the former there was room for an intelligent and prosperous people. Under these circumstances it certainly became us to be friends and neighbors and not enemies. Here on this continent we knew no difference of caste or sect. We all sat down to the same table together—Catholics and Episcopalians and Unitarians. At the same time, little as we know of each other, it was possible that we in Canada were not entirely acquainted with the greatness of our own country and resources. He spoke of a journey he himself had taken through the Winnipeg and Red River country, and said of it that it was a fit home for millions of people. There was a fine country for hundreds of miles north of the American boundary. The agricultural qualities of the land were as good and the climate as favorable as that in the more Southern States. The best witness of this was the buffalo who went away north for the winter for hundreds of miles. He spoke of the classes of peo-

ple who were up there making a commencement in that country. He also spoke of the great water communication between it and the outside world. He concluded by thanking the Mayor for his good wishes.

The Hon. L. S. Huntingdon next spoke, referring in high terms to the American people, who were, he said, still young. When compared with European States, when compared with the age of England, the 100 years of the United States seemed as nothing. He afterwards spoke in very eloquent terms of what Canada was doing, and said that the foremost men who were working for constitutional liberty were to be found in Canada. He himself had been considered a little Yankeeified among his own people, but he did not think that was anything to be ashamed of. He concluded by speaking of the ties which bound us together, and said that we ought to grow together as two nationalities not politically but commercially annexed.

Speeches were also made by Judge Advocate Merrill and Mrs. Webster, wife of the Chaplain of the Phalanx. Mrs. Webster spoke for some time in a very eloquent and impressive manner, and concluded by reading a poem suitable to the occasion.

The "Health of the Queen" was proposed by Major Kennedy, and loudly responded to.

The Putnam Phalanx left early on Thursday morning for Burlington, they were escorted down to the depot by a large number of citizens. They all expressed themselves highly pleased at the courtesies extended to them and the reception they got. As the train emerged from the station three hearty cheers were given by the spectators, and as heartily responded to by the gallant members of the Phalanx, whose short visit among us will be long remembered.

The prizes offered for competition by the officers of No. 1 Battery, Grand Trunk Artillery, were competed for on Saturday afternoon. The distances were 200, 400 and 600 yards, three shots at each range, two sighting shots being allowed. A strong wind blew across the ground during the contest, and the scores were, therefore, not large. The first prize of \$20 was won by Sergeant Roche with a total of 27 points; Gunner Peters gained the second prize, \$10, with a score of 24 points; and to Corporal Morcom was awarded the third honor in the shape of \$6.00.

It is with great regret I have to announce the death of Colonel Alfred Booker, which sad event took place on Wednesday. The Colonel had been ailing for some time though no fatal result was anticipated till a very short time before his demise. Colonel Booker had from almost boyhood identified himself with the Volunteer force of this Province; he led the Volunteers at Ridgeway, and although his conduct on that occasion was the subject of a Court of Enquiry, he came out of the ordeal of a strict

investigation without a stain upon his character or a doubt about his bravery. The Colonel during the time he has been in Montreal has gained many warm and attached friends. Colonel Booker had the polish of a true gentleman, kind-hearted and charitable, affable and of that genial and open-hearted disposition so well calculated to gain friends and admirers. He leaves a widow, son, and two daughters to mourn his loss. His funeral will doubtless take place with military honors. B.

In England on October 4th. new postal rates go into effect, by which a letter weighing one ounce will go for a penny.

It is said at Montreal that a company of Canadian capitalists, with Sir Hugh Allan at their head, are reported as ready to undertake the construction of the Canadian Pacific Railway.

The largest rope in the world was lately made in Birmingham, England. It is about six miles long, five and a quarter inches in circumference and weighs over sixty tons.

MANITOBA.—News to St. Paul from Winnipeg is to the 15th Sept. Building is going on briskly at Winnipeg. The imports for August were \$150,616, and the duty \$46,751. Prairie fires were destructive along the Assiniboine.

The Director of the Northern Colonization Railway are; Sir Hugh Allan, Hon. G. Oimety, Hon. J. J. C. Abbott, Hon. Louis Archambault, Messrs Louis Beaubien, M. P. P., P. J. Murphy, E. Atwater, C. A. LeBlanc, H. Mulbolland, E. G. Penny, and T. B. Beudry.

ARTILLERY PRACTICE.—The Ottawa Field Battery was out for bad practice several times last week. The target consisted of a barrel anchored out in the St. Lawrence 1,000 yards distant. The fire was directed up stream. On the occasion of the first practice the target was hit at the second shot and sunk. The firing all through was good. *Perrott Telegraph.*

NEW GUN.—Thos. Henestiss, keeper of Sea Cow Light House, P. E. I., has invented a gun surpassing the French Mitrailleuse in destructiveness. It loads and unloads by the movement of a lever, and with 20 barrels could discharge 1,200 balls per minute. The inventor intends exhibiting before the War Department, London.

A Kidderminster volunteer on Saturday wagered to fire 100 shots consecutively at 500 yards' range and to average centres for every shot, to which he would have to make 300 points. He made 45 bull's eyes, 43 centres, 8 outers, and the other four shots were accounted for by one miss and three ricochets. His scores thus amounted to 325.

It may be interesting to our readers to know what it costs the British people to support the royal family every year, and we therefore append the following facts: The Queen gets £385,000 a year; the Duchess of Cambridge, widow of the Queen's cousin, £6,000; the Princess Augusta, daughter of the same cousin, £3,000; the Duke of Cambridge, son of the same, £12,000; the Princess Teck, another daughter of the same, £5,000; the Princess Alice, £6,000; the Princess Louise, £6,000; the Princess Helena, £6,000; the Prince of Wales, £40,000; Princess of Wales, £40,000; Prince Alfred, £15,000 amounting in all to nearly two and a half millions of dollars a year for the support of the Royal family.

## OUR NEW PACIFIC PROVINCE—WHAT IT IS.

(From the *Monetary Times*.)

On the 20th July the Province of British Columbia was formally proclaimed a part of the Dominion, on the terms and conditions laid down in the Act of last Session. It is quite expedient, in receiving this new and important member into the family of Provinces which make up our confederation, that we should become more intimately acquainted—that we should know better its wants, capabilities and resources.

British Columbia, with Vancouver's Island, has been incorporated, comprises the territory between the Rocky Mountains and the Pacific Ocean, from East to West, and extending from the frontier of the United States on the South to the Simpson and Findley river on the North. The length of coast line is stated at 450 miles, and the total area 220,000 square miles, which is larger than Ontario, with New Brunswick and Nova Scotia added to it. Salubrity of climate, with great mineral wealth, immense agricultural resources and splendid harbors, together with an enviable position on the coast of the Pacific, are characteristics which mark out this Province as the future home of a powerful and prosperous people.

It would be inconsistent with the object and scope of this article to refer at length to the general features of the country. Our remarks will have reference solely to its wants and opportunities, in so far as they directly interest business men.

The circulating medium of the Province consists of American coin, and the notes of the Bank of British North America and of the Bank of British Columbia. English money with the exception of sovereigns and shillings, is rarely seen. In 1869 the British Bank had notes to the amount of \$110,560 in circulation, and the British Columbia Bank \$105,831 together \$221,891. The united deposits of the two institutions were \$383,645. The Bank of British Columbia has a capital stock of \$1,490,000; in 1869 it declared a dividend of only 2½ per cent per annum. This exhausted \$18,066 of its earnings, leaving only \$3,853 as "reserve profits"—showing that it was not then what we would call a strong institution. It is a singular circumstance that the items of bills discounted, which assumes so prominent a place in your banking returns, does not appear in their bank statement at all; the reason being the Victoria bankers do not trust their money out in this way to any important extent. Their business consists largely of transactions in exchange. Drafts on Portland, Oregon, on San Francisco, and on London, are sold to a considerable extent, also government and navy bills. These are paid for in coin. Besides these two banks there are two firms which buy gold dust and bars, and draw exchange, Wells, Fargo, & Co., being the principal one. The exports of gold from the Province amount to two million dollars annually, besides what is carried away by private hands. The total amount obtained in Caribo and the copper country in 1860 was estimated at one million sterling. The gold assayed in Victoria and run into bars is sent into California, and generally sold at a discount of 2 and 3 per cent on the stamp on bar. This discount is owing to the scarcity of coin.

The sovereign has acquired the same fictitious value there, at which it has so long passed current in Nova Scotia, viz. \$5. This has led to the introduction of depreciated sovereigns, about 30 per cent of those in circulation being under legal weight. Cap-

ital commands a high rate of interest; some time ago 18 to 45 per cent per annum could be obtained on the best securities. We presume, however, that these extravagant rates could not now be realized. The government even on one occasion paid as high as 2 per cent a month, for a four months loan. Public sentiment is strongly in favor of a decimal currency and all accounts are kept in dollars and cents.

We shall conclude this article by making some reference to the coal deposits. These, after all, form the chief mineral wealth of the Province. Excellent coal, both bituminous and anthracite, is found in plenty, and is the only good coal on the Pacific coast—a fact which greatly enhances the importance of the deposits. The mine at Nanaimo, in Vancouver's Island, was formerly worked by the Hudson Bay Company, but is now operated most successfully by the "Vancouver Coal Company." It has an area of 90,000 square yards; three pits are opened and the seams are found about four feet in thickness. The shares of this company are at a premium of over 20 per cent. The coal commands a ready sale at 24 shillings per ton, at the mouth of the pit. The yield of coal at Nanaimo, in 1869, was 40,833 tons, or enough to supply the city of Toronto: of this 17,700 were exported to foreign ports. The coal possesses excellent burning qualities, having 66 per cent of carbon. About 70 miles north of Nanaimo there is an extensive coal area, on which several companies have taken up claims. Anthracite coal has been discovered on Queen Charlotte's Island and is being raised by a company. It readily sells at \$10 at the mouth of the pit, or \$16 delivered at San Francisco.

A country situated as that Province is and with such supplies of coal will necessarily become a manufacturing centre. Endowed with such resources, all that is needed is lines of communication—facilities for travel and cheap land and water carriage. Under the provisions of the Act incorporating British Columbia with the Dominion this great want is likely to be fully met, and at the earliest day possible, in view of the serious obstacles that have to be surmounted. With a line of communication from the Atlantic to the Pacific on Canadian territory, we should be in a position to present inducements to the immigrant, whether he be agriculturist, manufacturer or miner, such as can be offered by no other country on the face of the globe.

### THE USES OF GUN COTTON.

The *London Times* says:—

"The important points in connection with the gun cotton of the present day be thus briefly summed up. The material in the first instance, is neither wool nor yarn previous to conversion, but simply a good quality of cotton waste, which after proper treatment in acid, is reduced to paper pulp, and in this finely divided state washed and cleansed by water. The pulped mass is then pressed into any desired figure or shape, and the cakes thus produced not only present the explosive in a highly compressed condition, but also in a remarkable handy form. As the cotton is pressed while in a wet and, consequently harmless state, no danger can accrue in the whole of the manufacture from first to last, if we except possible accident from tampering with the acids—an event of but slight importance even when it might occur—and in this respect therefore, gun-cotton is much safer than gunpowder. The dry gun-cotton cakes, however may be

be ignited in two ways, either by simple inflammation or by detonation. If a few cakes of gun-cotton, or wooden cases containing the same are set on fire, they will simply blaze away, furiously and violently, it is true but at any rate without an absolute explosion, and it is only when the material is strongly confined, or heated to an exceedingly high temperature, that its full force developed.

"If, however, instead of being set on fire by spark or flame, it is ignited by means of a charge of fulminate of mercury, one of the most violently detonating compounds known to chemists, then gun-cotton becomes another thing altogether, and explodes with the terrible force of a charge of fulminate of mercury itself. This is an important property of gun cotton, which was discovered about three years ago by Mr. C. Brown, of the Chemical Establishment at Woolwich, where indeed all the experimental investigations have been carried on, adds greatly to the value of the explosive which under ordinary circumstances comparatively inert and harmless upon brought into contact with fulminate powder. The difference between burning a detonating gun-cotton will at once be understood when we say that a half pound cake may actually be held in a plate at arm length during inflammation, while the act of the same amount fired with a fulminate charge would be to fracture a one-inch slab of iron upon which it rests.

"For the past five years several tons of the material have been manufactured for the British Government, and employed to great advantage in mining and blasting operations, and especially for the demolition of marine rocks and sunken wrecks, whose removal could certainly not have been so efficiently and completely effected in any other manner. For many military engineering purposes, as also for torpedoes, and its value has been found unequalled; and when we say that all these years no mishap has occurred in its manipulation, it must be admitted that there is something to be urged against hastily dismissing it in a panic as a material too dangerous for practical use."

### PETRIFICATION.

W. P. Bain, M.D., writes as follows to *Lancet*, on the subject of Dr. Marini's preparations of the human body:—

"Having handled some of his preparations in Florence last autumn, I am able to say, that he is the inventor of a method of turning the human body or any part of it into stone, in any attitude that may be desired. I enclose the photograph of a Senator of the Italian Parliament, taken 18 months after his decease, in which he is presented seated in his chair with his clothes on, just as when alive, his eyes retaining in an astonishing degree the vivacity of life. I also enclose the photograph of a table, the slab of which is formed of plaster of Paris, and which is covered with the human body—brain, muscles, & all turned into stone, and which, when struck by me, sounded as a marble table. I also inspected a lady's foot, likewise petrified, and which had every appearance of being alive, until, upon close inspection, the texture of the skin was apparent. Dr. Marini also showed me some specimens of the human body in a moist and perfect condition, served for years. He assured me also that the week before he had dined of a dish which had been killed months previously. The foot of a mummy was in his apartment at the time of my visit, in which the

assumed that of life, and the toes were perfectly flexible.

"I am perfectly certain that these inventions are genuine and of high value."

MISCELLANEOUS ITEMS.

**PROPOSED CANAL BETWEEN THE NORTH SEA AND THE BALTO**—This being the age of inter-oceanic canals, it is surprising to learn that the proposed canal between the North Sea and the Baltic is likely to be soon commenced. In comparison with the Suez Canal, or that projected across the Isthmus of Darien, it is of little account as a mercantile enterprise; but as the Germans have a special interest in obtaining a short cut to navigable waters, there is a strong probability that before many years the canal will be accomplished. It will cross the duchy of Holstein but precisely by what route has not yet been determined, as many conflicting local interests are involved. If, however, the experience gained by the late war is of any value, it is almost certain that the port of Kie will be chosen for one end of the canal, and the mouth of the Elbe for the other. By this route it would be about seventy miles in length, or about five miles longer than the shortest proposed line, and about ten miles less than the longest. The breadth of the canal at the surface of the water is to be two hundred and twenty-six feet, and the depth thirty one feet, which would afford ample space for large vessels to pass each other. The cost has been estimated at a little less than twenty millions of dollars, but may reach twenty-five millions.

**PREPARATIONS FOR DEFENCE**.—The ship *Lincoln* which arrived a few days since from Woolwich via London is now discharging at the Ordnance wharf twelve nine inch rifled, muzzle-loading, twelve and a half ton guns, to be mounted at Fort Clarence, Fort Charlotte, and Fort Ogilvie. She also brought out thirteen shields for the casements in the above forts. These shields are each to be backed with three "shield plates." Each of these "shield-plates" consists of six one-inch plates welded together. The *Lincoln* also brought out 4000 projectiles—shot and shell—to supply these guns. The *Forest King*, now daily expected from England, will bring out six eighteen-ton guns, with ammunition for them, which are to be mounted in the forts in this harbor. It is believed that when these guns and shields are mounted, this harbor will be impregnable to hostile attack. With guns already received, were wrought iron carriages weighing 46 cwt. each, and platform slides for them to stand upon, weighing 60 cwt. each.

The bed of the River Tiber is to be thoroughly excavated. An Italian association has been formed for this purpose, at the head of which is Signor Alessandro Castellani, and in co-operation with him will be many artists, antiquaries and other learned men of Europe and America. The project delights the Italians, who have an almost boundless idea of the treasures buried under the yellow mud of the river. For 3,000 years, they say, every revolution has added its tribute to the hidden mass. The statues, diadems, and armor of unpopular Emperors were flung into the Tiber. When the enemies of Rome were at its gates, the despairing inhabitants cast their treasures into the stream to baffle the invaders' cupidity. Fires, inundations, the wrecking of precious-freighted galleys, and the spoils of ruined temples and palaces have helped to accumulate this store of wealth. All these relics buried for ages will be brought to light by modern energy.

A Stock Company is to build a new hotel in Montreal on the site of the present St. Lawrence Hall, the popular proprietor of which is one of the prime movers in the scheme. It is to be capable of accommodating from 1,200 to 1,500 guests and fitted in a style equal to any on the continent.

RIFLE MATCHES.

AT ASHBURNHAM.

In accordance with previous announcement, the annual Match of the Peterborough Rifle Association came off at the range in Ashburnham on Wednesday last. The weather was all that could be desired, with the exception of the wind, which, although not very high, yet being irregular and blowing across the range, interfered with the shooting. Notwithstanding this drawback, however, the scores made were remarkably good and will be found on comparison to compare very favourably indeed with those made at matches of a more pretentious character. For instance, while in the Association match of the Dominion meeting, recently closed in Nova Scotia, the winner of the first prize there, only made a score of 33, whereas, Sergt. Brown at this match scored 36 out of a possible 40. Coming nearer home, we find that at the Hastings Matches the other day, where the members of two Battalions competed, the highest score in the same match was but 31. And lastly, at a match recently held in Nova Scotia between the picked men of five companies of the 63rd Rifles, the highest individual score made was 35. But what must prove the most satisfactory result of this match, is the general character of the scores made. For even in the "Consolation Match" confined to those who had not won prizes, amounting to \$4 in the previous matches) the winner made a score of 28, (the whole match being fired at the 400 yards range), while the seventh score was 19, or nearly an average of outers. As a comparison we may mention that at the Hastings match already alluded to the highest score made at their consolation match—it being three shots at 200 yards—was 7 points, and the fourth was only 6. The following are the scores made by the winners in each match:—

ASSOCIATION MATCH.

	200	400	Yds	Tl.	Prize
Sérgt. Brown, No. 3.	18	18	36		\$10.00
W. C. Allan, Queen's Own.	17	17	34		8.00
G. Allan, 46th Batt.	15	16	31		6.00
Bugler Denny, No. 3.	11	18	29		4.00
Private May, No. 1.	12	17	29		3.00
Private S. English, No. 1.	12	15	27		2.00
Ensign Johnston, No. 1.	14	13	27		2.00
Sérgt. McIntyre, No. 2.	10	16	26		1.00
Color-Sérgt. Leslie, No. 4.	12	13	25		1.00
Sérgt. English, No. 1.	13	12	25		1.00

Ranges—200 and 400 yards, 5 shots at each range.

VOLUNTEER MATCH.

	400	600	Yds	Tl.	Prize
Sérgt. English, No. 1.	12	16	28		\$10.00
Sérgt. Brown, No. 3.	17	9	26		8.00
Sérgt. McIntyre, No. 2.	14	11	25		6.00
Color-Sérgt. Leslie, No. 4.	15	7	22		4.00
Ensign Johnston, No. 1.	17	5	22		2.00
Private English, No. 1.	16	5	21		2.00
Corporal May, No. 1.	13	6	19		2.00
W. C. Allan, Queen's Own.	13	2	15		1.00
Sérgt. Irwin, No. 1.	7	7	14		1.00
Private Hilton, No. 1.	10	4	14		1.00

Ranges—400 and 600 yards, 5 shots at each range.

CONSOLATION MATCH.

	400 yds	Prize.
Capt. Rogers, No. 3.	28	\$4.00
Lieut. Kennedy, No. 2.	28	3.00
Sérgt. Wilson, No. 1.	25	2.00
Sérgt. Irwin, No. 1.	24	1.00
Private Charman, No. 1.	24	0.75
Capt. Green, No. 1.	21	0.75
Private Hilton, No. 1.	10	0.50

Range—400 yards, 10 shots.

THE NEW YORK MEDAL.

Awarded to the member of companies Nos. 1, 2, 3 and 4, making the highest aggregate score in the first and second matches.

Won by Sgt. Brown—score 62 out of a possible 80.

The prizes were presented in the evening in the Drill Shed by the President of the Association (Mr. Carnegie.) Mayor Scott and Lieut.-Col. Poole.—*Peterborough Review 22nd Sept.*

PROVINCIAL RIFLE COMPETITION.

The New Brunswick Provincial Rifle Association Competition took place at the Sussex Rifle Range, commencing Wednesday Sept. 13. There was a good attendance of our best marksmen, and the whole affair passed off pleasantly and satisfactorily.

In the first Competition, prize the Gold Medal of the Association, Bomb. Johnstone of Chatham was the winner, 46 points.—Fraser, Chatham, Miner and Bixby, Saint Stephen, Hay Chatham, Alexander, Frederickton, Langstroth of Hammond River, Pinder, Lipsett and E. Morris at Frederickton also won prizes in this competition.

In the 2nd Competition, Ladies' cup, Capt. Gillispie, Chatham, was the winner. Hay of Chatham, Mason of Filton, Surgeon Vail of Sussex, Miner of St. Stephen, Col. Beer, Sussex, Perkins of Frederickton, and McAlary, Kings also won prizes.

In the 3rd Competition, National Rifle Association of England Medal, Bombardier Johnston was the winner.

In the 5th Competition, Prince of Wales Challenge Cup Private Blacktin was the winner. This is twice in succession Private Blacktin has won the Cup. Ensign Johnston and Hartt, Capt. Alexander, Corporal Lipsett and Private Nason, all of York Co., won money prizes in this competition.

In the 5th Competition, Provincial Association Challenge Cup, private Perkins of Fredrickton was the winner.

In the 6th Competition, Governor General's Cup, Major Stickney, Charlotte, was the winner. Ensign Johnston, Sérgt. Alexander, Capt. Alexander, and Sérgt. Pinder, York, were also prize winners.

In the 7th Competition, Silver Cup presented by Col. Maunsell and Major Jago, Private Blacktin, Charlotte, was the winner. Ensign Johnston won Col. Thurgar's medal and \$15. Major Morris and Sérgt. Pinder also won money prizes.

Time Match, a Double Barrelled Gun, and prizes amounting to \$50,—1st prize by Blacktin, 2nd prize by Langstroth. Ensign Johnston and Sérgt. Pinder were winners in this competition also.

In the Consolation Match H. Arnold was the winner of 1st prize, \$25. 2nd prize, Capt. E. Arnold, \$15.

The Highest Aggregate Score, prize a handsome Martini-Henry Rifle, was won by Capt. Bixby, St. Stephen, beating Sergeant Pinder by just one point. The latter receives a prize of \$10.

The presentation took place on Saturday morning, and was no doubt the most agreeable part of the performance.—*N. B. Reporter.*

MILITARY DISTRICT NO. 6.

The 3rd annual meeting of the 5th Brigade Division Rifle Association was held in the town of Joliette on Monday, Tuesday and Wednesday, the 13th, 19th and 20th instant. The ground presented quite a gay appearance from the number of persons present on the occasion. The range was a very good one, the property of a Mr. Cotté, who had kindly placed it at the disposal of Lieut. Colonel Hanson, Brigade Major of the Division:

THE JOLIETTE MATCH.

Open to all M. C. officers and men of the Division; range, 200 yards; No. of rounds, 7; entrance free; Snider rifle.

	pts.
Sergt. W. Sharp, Rawdon Co. . . . .	\$8.00 22
Corp Morgan, do . . . . .	6.00 20
Sergt. Jones, do . . . . .	4.00 19
Pte. M. Champagne, St. Elizabeth Co. . . . .	3.00 19
Pte. O. Lavoie, St. Melaine Co. . . . .	2.00 18
Sergt. Lafreiere, St. Elizabeth Co. . . . .	1.00 18

ASSOCIATION MATCH.

Open to all members of the Association; ranges, 200, 400 and 600 yards; 5 rounds at each; entrance, 25c; Snider rifle.

	pts.
Pte. George Copping, Rawdon Co., prize, a Smith & Weston Revolver. . . . .	42
Sergt. Lafreiere, St. Elizabeth Co. . . . .	8.00 39
Capt. Sharpe, Rawdon Co. . . . .	7.00 37
Lieut. Sheppard, Joliette Co. . . . .	6.00 36
Sergt. Caron, Riviere du Loup Co. . . . .	5.00 34
Corp. Coutu, Berthier Co. . . . .	4.00 34
Pte. Grignon, Rawdon Co. . . . .	3.00 33
Capt. Bouvier, St. Gabriel Co. . . . .	2.00 33

THE BERTHIER MATCH.

Open to all non commissioned officers and men of the Division. Range 400 yards; No. of rounds, 7; entrance free; Snider rifle.

	pts.
Sergt. W. Sharp, Rawdon Co. . . . .	8.00 27
Sergt. Lafreiere, St. Elizabeth . . . . .	5.00 27
Private Pelland, St. Elizabeth. . . . .	4.00 22
Corp. Coutu, Berthier. . . . .	3.00 22
Pte. Lavoie, St. Melaine. . . . .	2.00 22
Sergt. Corneillier, St. Melaine. . . . .	1.00 21

COMPANY MATCH.

Open to five officers, non-commissioned officers and men of each Company. Ranges, 500 and 600 yards; number of rounds, 7; entrance, \$1.00 per company; Snider rifle.

	pts.
Berthier Infantry Co., silver cup, value. . . . .	40.00 160
Rawdon Co. (Capt. Sharp's). . . . .	8.00 137
Highest individual score in above:	
Ensign Lévesque, Berthier Co. . . . .	5.00 47
Capt. Gagnon, Berthier Co. . . . .	3.00 40

LADIES MATCH.

Open to all members of the Association. Ranges, 400 and 600 yards; number of rounds, 5; entrance, 25 cents; Snider rifle.

	pts.
Captain Bouvier, St. Gabriel, gold chain by the ladies of Joliette value. . . . .	20.00 25
Capt. Pichette, Riviere du Loup Co . . . . .	8.00 24
Sergt. M. Sharp, Rawdon Co. . . . .	6.00 24
Corp. Coutu, Berthier Co. . . . .	5.00 23
Sergt. Lafreiere, Berthier. . . . .	4.00 23
Sergt. Lafreiere, St. Elizabeth. . . . .	3.00 23
Pt. R. Lafreiere, Berthier. . . . .	2.00 23
Corp. Coutu Berthier. . . . .	1.00 21

OFFICERS MATCH.

Open to all officers of the Division. Ranges

500 and 600 yards, No. of rounds 5, entrance 25 cents; Snider rifle:

	pts.
Ensign Lévesque, silver watch by the ladies of St Melaine. value . . . . .	30.00 22
Captain Bouvier . . . . .	8.00 22
Captain Sharp . . . . .	6.00 21
Captain Gagnon . . . . .	5.00 20
Lieut. Mason . . . . .	4.00 17
Major Shephard. . . . .	3.00 14

ALL COMERS MATCH

Open to all comers. Range 500 yards No. of rounds 5, entrance fee 25 cents; Snider rifle:

	pts.
Captain Gagnon . . . . .	6.00 17
Sergt. Caron . . . . .	5.00 17
Ens. Lévesque. . . . .	4.00 16
Sergt. Lafreiere . . . . .	3.00 15
Pte. R. Lafreiere. . . . .	2.00 14
Ens. Lavoie. . . . .	1.00 13

CONSOLATION MATCH.

Open to all members of the Association unsuccessful at the present meeting. Ranges 200 and 500 yards, No. of rounds 5; Snider rifle:

	pts.
Sergt. Copping. . . . .	\$4.00 26
Sergt. Martel . . . . .	3.50 24
Sergt. Legris. . . . .	3.00 22
Capt. Chas. Guilbault. . . . .	2.50 20
P. Magnan, Esq., N. P. . . . .	2.00 19
Capt. McConville. . . . .	1.00 17
Pt. Gravel. . . . .	1.00 17
Ens. Smily. . . . .	0.50 15

THE HIGHEST SCORE IN MATCHES NOS. 1, 2, 3 5 AND 7.

	pts.
Sergt. Lafreiere, St. Elizabeth Co \$6.00	116
Sergt. W. Sharp, Rawdon Co. . . . .	4.00 115

—Montreal Gazette.

FRONTIER RIFLE ASSOCIATION.

The ninth annual matches of this Association took place at Havelock, County of Huntingdon, on the 19th September and following days. A goodly number of competitors from the Border corps were present; the 51st "Hemmingford Rangers" being better represented than any of the other Battalions. The marksmen of the 50th Huntingdon Borderers, although few in number, succeeded in taking some good prizes. The Eccles' Hill men were represented by Sergeant Vaughan, of the 60th; and last, but not least, Manitoba put in an appearance in the person of Capt. Fletcher, late of the 2nd Battalion Quebec Rifles. The weather was cold with high wind, not at all favorable to good shooting; but notwithstanding, as will be seen by the scores, good average firing was made. Under the able management of the Executive and Range Committees, the matches were carried through successfully. The annual dinner was given on the evening of the 20th at the Havelock Hotel, Lieutenant-Colonel Fletcher presiding in the chair, Lieut.-Colonel Reid and Lieut.-Colonel Rogers vice-chairmen. There were present: —Julius Scriver, Esq., M. P.; Capt. Saunders, M. P. P.; Lieut. Col. McEachern, C. M. G. Secretary; Rev. Mr. Masson, Rev. Mr. Patterson, Mr. Burke; Lieut. Col. Stewart, Mr. Richardson of the Grand Trunk Railway, and a number of the officers of the 50th and 51st Battalions, and gentlemen of the county. The dinner was a very good one, reflecting great credit on the host and hostess, Mr. and Mrs. Thompson. After dinner the usual loyal toasts were drank and responded to with spirit, some excellent and appropriate speeches were made, particularly those by

Mr. Scrivner, member for the County, and the Rev. Mr. Masson. Volunteer toasts and songs filled up the remainder of the evening and the company broke up at a seasonable hour, well pleased with the entertainment.

The prizes were presented at the close of the match on the 21st in the Town Hall. The hall was filled with ladies and spectators, each prize was presented by a different lady, the scene was quite an interesting one to witness; some of the youthful competitors showed no small amount of bashfulness as they stepped to the front to receive their prizes. The presence of so many at the presentation shows clearly that the ladies of Havelock, Hemmingford, and adjacent townships, fully appreciate the services of the gallant volunteers, and augurs well for the continued prosperity of the Frontier Rifle Association.

The following are the names of winners and amount of prizes won:

1st—TIME MATCH.

Range 200 yards 5 shots; Snider rifle. Ten prizes:

	pts.
Ens. Wright, 50th Batt. . . . .	\$10.00 16
Pte. Gordon, 51st Batt. . . . .	9.00 16
Ens. McKay, 51st Batt. . . . .	8.00 15
Capt. Fletcher, 21st Batt. . . . .	6.00 15
R. Straker. . . . .	5.00 15
Sergt. Stewart, 51st Batt. . . . .	4.00 15
Corporal Morrison, 50th Batt. . . . .	3.00 15
Pte. Bush, 51st Batt. . . . .	2.00 15
Pte. House, 50th Batt. . . . .	2.00 15
Capt. Sanders, 51st Batt. . . . .	1.00 14

2nd—FRONTIER MATCH.

Ranges 300, 400 and 600 yards, 3 shots at each; Snider rifle. Fifteen prizes:

	pts.
Capt. Sanders, 51st Batt. . . . .	\$15.00 27
Sergt. Rowe, 51st Batt. . . . .	12.00 26
Corporal Perse, 50th Batt. . . . .	10.00 25
Pte. Bush, 51st Batt. . . . .	8.00 24
Pte. Nichols, 51st Batt. . . . .	6.00 24
Ens. Wright, 50th Batt. . . . .	4.00 24
Capt. MacLaren, 50th Batt. . . . .	3.00 24
Sergt. Bush, 51st Batt. . . . .	3.00 24
Corp. Clayland, 51st Batt. . . . .	3.00 23
Sergt. Orr, 51st Batt. . . . .	2.00 23
Private Oney, 51st Batt. . . . .	2.00 22
Sergt. Vaughan, 60th Batt. . . . .	2.00 22
Private Spence, 51st Batt. . . . .	1.00 22
Sergt. Anthony, 51st Batt. . . . .	1.00 21
Sergt. Cottingham, 51st Batt. . . . .	1.00 21

3rd—ASSOCIATION MATCH.

Snider rifle; ranges, 400, 500 and 600 yards, three shots at each; fifteen cash prizes. To the officers in the 50th and 51st Battalions making the highest score, a set of gold numerals for forage cap, presented by Miss Fletcher, of St. Johns.

	pts.
Ensign McKay, 51st Batt . . . . .	\$15.00 30
Private Stewart, 51st Batt. . . . .	12.00 29
Captain Lucas, 51st Batt. . . . .	10.00 28
Sergeant Orr, 51st Batt. . . . .	8.00 27
Private Gordon, 51st Batt. . . . .	6.00 27
Private Campbell, 50th Batt. . . . .	4.00 25
Sergeant Allan, 51st Batt. . . . .	3.00 25
Sergeant Sloan, 50th Batt. . . . .	3.00 24
Corporal Clayland, 51st Batt. . . . .	3.00 24
Private Spence, 51st Batt. . . . .	2.00 24
Private Mantach, 51st Batt. . . . .	2.00 23
Private Oney, 51st Batt. . . . .	2.00 23
Qr.-Master Saunders, 51st Batt. . . . .	1.00 23
Corporal Rowe, 51st Batt. . . . .	1.00 23
Sergeant Henderson, 50th Batt. . . . .	1.00 23

Winners of the cap badges:

- Ensign Wright, 50th Batt.
- Ensign McKay, 51st Batt.

4th—COMPANY MATCH.

Volley firing. Six men from each Com-

pany; five volleys each, in two ranks; second class target; 400 yards; five prizes.

	pts.
No. 2 Company, 51st Batt.....	\$20.00 52
No. 3 Company, 51st Batt.....	15.00 50
No. 1 Company, 50th Batt.....	12.00 44
No. 6 Company, 50th Batt.....	8.00 41
No. 4 Company, 50th Batt.....	6.00 40

\*No. 6 Company, 60th Battalion, fired with 5 men only.

No. 4 Company, 50th Battalion, fired with 3 men only.

5TH—SWEEPSTAKES MATCH.

Open to all comers; Snider rifle; ranges, 500 and 600 yards; 5 shots at each; ten dollars added by the Association.

	pts.
Pte. Campbell, 50th Batt.....	\$10.00 31
Pte. Onez, 51st Batt.....	7.60 31
Sergt. Miller, 51st Batt.....	5.00 28
Capt. Lucas, 51st Batt.....	3.75 27
R. Strakes.....	3.75 36

AGGREGATE PRIZE.

For the best aggregate score, made in the first, second, third and fifth matches a silver cup, presented by Messrs. Savage & Lyman, value \$20.

Capt. Sanders, 51st Batt.....	88	} tie.
Private Onez, 51st Batt.....	88	

In firing off, Captain Sanders was the winner.

6TH—PISTOL MATCH—SWEEPSTAKES.

Ranges, 30 and 40 yards; five shots at each; five dollars added by the Association; five prizes.

	pts.
Capt. Sanders, 51st Batt.....	\$5.00 24
Capt. Fletcher, 21st Batt.....	3.75 23
Pte. Campbell, 50th Batt.....	2.50 22
Capt. Cantwell, 51st Batt.....	1.87 21
Capt. Lucas, 51st Batt.....	1.87 20

—Montreal Gazette.

DEATH IN THE SASKATCHEWAN DISTRICT FROM SMALL-POX—1870-'71.

UPPER SASKATCHEWAN.

Piegans.....	1,080	of all ages
Blood Indians.....	630	"
Blackfeet.....	676	"
Circoes.....	200	"
Assiniboines.....	100	"
	2,686	

St. Albert—Fr'h Half-breeds.....	320	"
Lac St. Anne.....	40	"
Edmonton House Indians.....	30	"
	390	

LOWER SASKATCHEWAN.

Victoria—Crees.....	55	"
Whitefish Lake.....	50	"
Lac La Biche—Half-breeds.....	13	"
St. Paul—Crees.....	150	"
Fort Pit.....	100	"
Carlton House.....	100	"
	468	

Grand Total.....3,544

[Correct revised statistics from missions and Hudson's Bay Company's officers.]

W. J. CHRISTIE.

Chief Factor,  
Chairman Sask'n Board of Health.

A manifesto from the Count de Paris will shortly appear adopting the programme of the Count de Chambord. The Duke d'Aumale opposes this movement of his nephew.

AN EAST INDIAN KNIGHT.

(From the London Times Correspondence.)

The event of the week in Calcutta has been the investiture of the Maharajah of Puttiala as Knight Grand Commander, and of Prince Gholam Mahomed and Sir William Grey as Knights Commanders of the Star of India. The Maharajah of Puttiala is said to be only about 18 years of age, but I am not surprised that every one out of official circles thinks there must have been some mistake in the birth register, for he looks at least 30. The ceremony began at 5 o'clock, but the Marble Hall was well filled by 3, and long before the time of the investiture it had a very gay appearance. Poor old Prince Gholam Mahomed and Sir William Grey entered among the lookers-on. The Maharajah of Puttiala was received with all the prescribed ceremony, and was conducted to the front of the dais where the Grand Master, the Viceroy, was seated. Lady Mayo was seated behind the dais. The Maharajah of Vizianagram (bespangled with jewels) and Sir Richard Temple conducted the Maharajah of Puttiala (whose turban has been talked of as of unusual magnificence) to the dais where the Secretary of the Order, Mr. Aitchison, read the usual formula, and then assisted to robe the intended Knight Grand Commander, the Maharajah of Vizianagram affixing the Star. When the Viceroy came to the principal duty of investiture with the Collar an unexpected difficulty arose. The Maharajah's turban was too large for the Collar to pass conveniently over it. For a moment or two it seemed that something serious was impending, but a little time and patience smoothed away the difficulty, and the collar was fitted to its place without the turban being in the least disarranged. The Maharajah was a little nervous as he made his way up the centre of the room, ladies on right of him, ladies on left of him; taking such notes as only ladies can. The Maharajah of Jeypore, a little, modest, thoughtful-looking man, seemed quite willing to sit unobserved, if people would allow him, though he was the only Knight Grand Commander present. His visit this year to Calcutta has unusual significance coming so soon after the Viceroy's tour to which the Maharajah contributed so much both of pleasure and interest. He is one of the very best of the Rajpoot chiefs, and of the noblest Rajpoot blood. His school at Jeypore, a real School of Arts, is of the highest order, and his Nobles' School is believed to be the model of the Viceroy's proposed college at Ajmere. There is scarcely one feature of social progress in which the Maharajah has not taken a warm interest. The Maharajah of Vizianagram is a very dashing chief, and looked every inch a ruler of men. But I thought that the principal figure in all that group was Prince Gholam Mahomed, tottering one may say, on the brink of the grave. I have met with him in less dignified but not less honourable places—at orphan asylums and schools—and spectators could not help thinking that on this very day 42 years ago his father, Tippoo Sultan, was defeated in the battle of Malavelly, which threw open the road to Seringapatam. Seventy-two very remarkable, though not eventful, years they have been to Prince Gholam Mahomed. It became a question, as is well known, after the fall of Seringapatam, whether the family of Hyder Ali, the heir of Tippoo, should possess the Throne, or it should be restored to the Hindoo-line, from which the Mahomedans had wrested it. The old line carried the day; a little child of from three to five years old, became Nawab, and the sons of

Tippoo were provided for elsewhere—first in Vellore, and then in Calcutta. Nobody seemed to believe in England that the son of Tippoo Sultan, the grandson of Hyder Ali, ever could be quiet and peaceable. At any rate, this very excellent old man, who seems to have sympathies wide enough for all mankind, is noted as a man of peace and active benevolence, and he is the last of the sons of Tippoo Sultan. If Lord Macaulay had been living, and here, he would have pointed an enduring moral from the investiture of Monday last; Puttiala beginning his life, Sir William Grey closing a long thirty-years of his Indian service, Prince Gholam Mahomed virtually putting the last lines to a great historical drama, the previous act of which was played out 72 years ago.

A GOOD REJOINDER.—Shortly after the accession of James I., when Scottish Gentlemen were beginning to feel at home in London, Lord Harewood gave a dinner party, to which were invited a large number of courtiers and officers both civil and military. After the bottle had circulated a few times, and the spirits of the assembly began to rise, General S—, an English trooper of fame, and reckless *bon vivant* arose and said "Gentlemen, when I am in my cups, and the generous wine begins to warm my blood, I have an absurd custom of railing against the Scotch. Knowing my weakness, I hope no gentleman in the company will take it amiss. He sat down, and a Highland chief, Sir Robert Blaikie of Blair Athol, presenting a front like an old battle worn tower, quietly arose in his place, and with the utmost simplicity and good nature remarked, "Gentlemen, I when I am in my cups, and the generous wine begins to warm my blood if I hear a man rail against the Scotch I have an absurd custom of kicking him at once out of the company. Knowing my weakness I hope no gentleman will take it amiss. General S—, did not on that occasion suffer himself to follow his usual custom.

TO THE SUFFERING.

The Rev. William H. Norton, while residing in Brazil as a Missionary, discovered in that land of medicines a remedy for CONSUMPTION, SCROFULA, SORE THROAT, COUGHS, COLDS, ASTHMA, AND NERVOUS WEAKNESS. This remedy has cured myself after all other medicines had failed.

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THE  
VOLUNTEER REVIEW  
And Military and Naval Gazette.

VOLUME V.  
1871.

THE VOLUNTEER REVIEW enters on the fifth year of its existence. When it was first projected fears were entertained for its ultimate success, as two efforts of a similar kind had been made and failed for want of support; but we are happy to say those fears were groundless, and that the VOLUNTEER REVIEW may now be said to be firmly established, thanks to the support it has met with from the hands of the Volunteer Force of the Dominion. It now circulates largely through Ontario, Quebec, New Brunswick, Nova Scotia, and even the now Province of Manitoba has extended its generous support. Nor is it confined to these Provinces only, but in the Mother Country, and even the United States it has subscribers and supporters. No other Journal in the Dominion has so wide and extended a circulation as the VOLUNTEER REVIEW, and therefore it offers unparalleled facilities to general advertisers. Our terms for advertising will be found liberal on application, either personally, or by letter *post paid*.

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All Communications regarding the Militia or Volunteer movement, or for the Editorial Department, should be addressed to the Editor of THE VOLUNTEER REVIEW, Ottawa.

Communications intended for insertion should be written on one side of the paper only.

We cannot undertake to return rejected communications. Correspondents must invariably send us confidentially their name and address.

All letters must be Post-paid, or they will not be taken out of the Post Office.

Adjutants and Officers of Corps throughout the Provinces are particularly requested to favor us regularly with weekly information concerning the movements and doings of their respective Corps, including the fixtures for drill, marching out, rifle practice &c.

We shall feel obliged to such to forward all information of this kind as early as possible, so that it may reach us in time for publication.

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The Volunteer Review,  
AND MILITARY AND NAVAL GAZETTE.

"Unbribed, unbought, our swords we draw,  
To guard the Monarch, fence the law."

OTTAWA, MONDAY, OCTOBER 2, 1871.

The autumnal campaign in England has abundantly proved what had been persistently asserted by military men and writers, that the British army was the most costly in the world. This deplorable condition is to be traced to direct *lay* interference in its affairs, and to the assumption that they could be controlled or directed by civilians, men who had not made military science or jurisprudence a special subject of study, and who, in fact, knew nothing whatever about the matter, except what they might glean from the pages of a newspaper or review, in many cases written by others who were very little more enlightened than themselves. It would seem as if the lessons of history, with its varied experience, were lost on Englishmen of the present day, and the precedents left by their immediate neighbors swallowed up in the desire to ape Prussian tactics without the first requisite for acquiring Prussian discipline, forgetting that both depend on and are the products of an iron despotism, which no Englishman will bear for a moment. The example left by the ruin of Austria as a military power by her Aulic Council, and of Holland, by her field deputies, are passed over, the glare of Prussian success and the collapse of the French military system, on which their own was modell-

ed, seems to have driven English ministers out of their wits, and to have so far alarmed what is the controlling power in the state—the commercial class—as to compel immediate action and that in the direction of the last example, without in the slightest degree considering whether it was applicable to social and political circumstances or not; hence the miserable farce that has been playing with the military force of Great Britain and the failure of all the measures for its re-organization.

As this subject is of surpassing importance to the people of Canada we shall endeavour to lay before our readers what was the real cause of Prussian success during the late contest, as well as that of French failure.

Without recapitulating the approximate incidents which led to the declaration of war, it is sufficient to state that early in the present century Prussia was conquered and overrun by the French under the first Napoleon; her defeat was more thorough and her humiliation more complete than anything she has been enabled to inflict on France. With her frontiers open on all sides, easy of access and almost incapable of successful defence, it is not much to be wondered at that she has produced the greatest and most remarkable tacticians of modern days, or that her generals have more than once recast the art of war in so far as its tactical aspects were concerned. The very existence of such a country demanded a strong government, in fact a popular military despotism, and the princes of the house of Hohenzollern were precisely the men to appreciate the social and political necessity. It was evident that while burgher parliaments were wrangling over the estimates an active foe would have swept the state out of existence, and, therefore, it became necessary to constitute it on a purely military basis; this was done by making military service imperative on every man physically equal thereto, with few and rare exceptions, and in its social aspect the country has become a vast camp of trained soldiers. The outcries of the commercial and manufacturing classes were unheeded in the anxiety to ensure the public safety, and they were compelled to be content with less profits. The stringency of the military law of the kingdom, that no coercion of its provisions can be attempted, and in case of need it would enable the monarch to place every able bodied man under arms, and to move any portion thereof out of the country without reference to any controlling power whatever. The Prussian Parliament know little and would be allowed to talk less about the affairs of the Prussian War Office, it was simply their business to provide the money for its use and the mode of doing so alone admitted of discussion; there was no Prussian Cardwell or Trevelyan to debate on strategy, tactics, or military administration, and it would not be amiss if the English people in copying the Prussian system in

military matters, imported its parliamentary practice also.

In France all this was managed in a different way, every Frenchman was liable to serve but was not trained and only run the risk of being drawn as a conscript. The government, although nominally despotic, was altogether too liberal, and controlled by the commercial and manufacturing classes to a fatal degree. Expenditure was kept down and every movement had to be calculated to meet the approval of the moneyed class; as a consequence a mere fraction of the people were trained to the use of arms, and that fraction was rendered useless at the moment of action by the total failure of its commissariat (*Intendance*) system, on which Sir Henry Storks and Mr. Cardwell have framed *Control*. In Prussia stern military law compelled every man not only to learn the use of arms, but to spend a portion of each year in the active duties of campaign life. In France the influence of the commercial class confined this energy to standing camps, where nothing but parade movements were learned, and an exemption from service could be purchased, a looseness of discipline was encouraged which proved disastrous and fatal when the time of trial came. What follows from all this is the demonstrated fact that the requirements of the state must be elevated above all class interests; traders and manufacturers are all very well but they do not constitute the great mass of the people, and in order to make either pay it is necessary that the safety of the whole shall be ensured. Prussia is a poor state but its people are independent and it is now the first military power in the world. France is and was a wealthy state, but its condition is such as to make it an object of pity. Its government, controlled solely by its trading class, when the day of trial came it could not put half the number of men in the field that its antagonist did, and herein alone lies the secret of Prussian success. Its army had not as efficient weapons nor better soldiers, nor more intelligent generals than the French, it possessed more vital executive powers, could use them without any popular trammels and did so by placing double the number of men in the field that the French could muster, and this circumstance alone decided the contest. That the great Prussian strategists made most lamentable mistakes and failures is beyond doubt, that the French gained more than one victory is indisputable, but that the Prussians were like a swarm of locusts and their antagonists weak in force are the simple conditions on which the success of the former and the failure of the latter depended, is one of the clearest facts of history. From all this then there appears to be little instruction to be gained beyond the illustration of two facts. It has been well said that victory rested with the heaviest battalions—that has been amply proved; the other is that a

whole population armed can be made a more effective machine for offence or defence than any mere portion thereof. This latter clause involves the question of the means to effect that end and English army organizers have missed the real issue by losing sight of it. In Canada it has been satisfactorily solved by adapting our military organization to the social condition of the people and not hampering that question with copies of the usages or traditions of people whose whole political economy is essentially different from our own. In France the stationary camps of instruction failed to make soldiers or generals, in Prussia, mock campaign life, with all its hardships, made both. This is the lesson we have got to study and it is one worthy our serious attention. Aldershot makes parade soldiers and Manchester is satisfied with the counterfeit, but if England is ever to have an army the shopkeepers must be put in their proper place.

THE emigration question is that which promises to be the most prominent of our future local political party cries: its value has been thoroughly recognised, and its importance to the future of Canada established. In this respect the colonies have not been governed by purely selfish motives. The evils affecting the body politic in Great Britain are a plethora of capital and a plethora of unemployed labor; our conditions require all the surplus labor, while our provinces furnish the best sites for the investment of capital, and, therefore, are the points to which a well devised system of emigration should be directed. We hold that it is the highest effort of statesmanship to preserve the balances of the state, in other words, to prevent any class obtaining undue advantage at the expense of others, and the balances are destroyed when labor and capital are at war. This is the case at present in Great Britain. The men who administer her affairs are incompetent because they have not tried to restore the balance between the contending portions; it follows, therefore, that it is the duty of the Government to prevent overstocking of the labor market, because it is the duty of government to prevent monopolies, and when a market is overstocked, or supply exceeds demand, capital at once creates a monopoly. It follows, therefore, that any measure devised by the Canadian Government to encourage emigration benefits the mother country in an infinitely greater degree, and, therefore, it is the duty of her government to bear a part of the charge which will restore this balance.

It has become the fashion to copy Mr. Galdstone's idea that emigration should be left to private enterprise; it is evident in doing so the government of the country abdicates its proper functions, and this his party has done in the interest of the manufacturing class. But it does not by any

means follow that his political aberrations should be copied in Canada; the country needs an influx of capital and population, the former depending on the latter and it is the duty of the Dominion Government to meet that want. It will not do to leave it to the legislatures or governments of the various Provinces; Quebec is not specially interested in the influx of population to Ontario, she has had good and substantial reasons to feel otherwise; Ontario cares nothing about Nova Scotia or New Brunswick, altho' she seems to imagine that Manitoba is a colony of her own and not a Province of the Dominion; the government of the latter is bound to protect the interests of the whole, and it can do that in no way as effectually as by a judicious system of emigration, by which the classes suited to each Province shall find their way under the most favorable circumstances to their destination. We have too high an opinion of the ability of our statesmen to suppose for one moment that such a duty would be neglected, and, therefore, we look with confidence for an emigration policy at the opening of next session which will leave nothing to be desired. *The fact must not be lost sight of that it must be essentially a government measure.*

WHILE Cromwell-Mirabeau-Cardwell, with the aid of that *caval de fortune*, Sir Henry Storks is signaling Whig Radical rule by the laughable attempts to *Prussianize* the unlucky British army, the great *Cotton Admiral* Goschen is equally fortunate in demonstrating his ability for high command by disorganizing, or perhaps it is only *Prussianizing* the British navy. The civilized world had hardly got over the shock of the loss of the *Captain* before another iron clad the *Agincourt*, was run ashore on a shoal as well known as any in the Medway; the ink had hardly been dry on my Lords minute, which, on the Byng principle, shifted the blame from their own shoulders to that of the unlucky seamen whose evil stars doomed them to serve under incompetent cotton-spinners, when it was known that the *Repulse* had grounded near the Nore, the *Racer* was run ashore at the Isle of Wight, the *Caledonia* grounded on a shoal at Santorin, and a model on a large scale of that great ship the *Devastation*, being tested at Spithead, with all its weights nicely calculated, got into the trough of the sea and at once turned bottom up, showing at once the great utility of having a cotton spinner or a foundry man at the admiralty; he will be sure to provide plenty of employment for skilled labour by taking care that none of John Bull's costly ships last too long. Mr. Goschen has already signaled his course by providing in the most artistic and clever way for the loss of the *Megeera*, and why should he not have the satisfaction as well as his predecessor, Calico-Admiral Childers, of losing an iron-clad; it is true it was only

the model went, but that gave a fair promise as to what would happen the original. The people of England are copying the example of the worthy Dutch republicans a hundred and seventy years ago. The administration of their army and navy was first placed under *lay* control and then they went one step further by sending field deputies to control the officers in command, those deputies being ignorant tradesmen; history records the results. Throughout this naval controversy arising out of the accident to the *Agincourt*, the Navigating Lieutenants, as a class, are badly used. It has been asserted, by journals who ought to know better, that they were of no possible utility and that they only rendered a knowledge of seamanship by other officers difficult if not impossible. It has also been asserted that the office of Master in the British navy was created during the reign of Charles II, in consequence of the chief offices in the navy being filled by military men, ignorant of seamanship; this is not the truth. Blake, one of England's greatest admirals, was a cavalry officer and was over fifty years of age before he took command of the fleet, and the practice of sending capable military officers out in high naval commands obtained long before the time of the Commonwealth; such a practice necessarily involved the employment of a skillful navigator, hence the Master, whose position was that he manoeuvred the vessel during an action, under the orders of the captain, who fought the ship, and the Master had to attend to the arduous duty of knotting, splicing and the general repairs of sails and rigging during the fight. Even with the advantage of having the motive power under control, as is the case at present, the same individual will not be able to fight and navigate his vessel, one of those duties must be confided to a separate officer and his standing should be what it was when England had a navy, under the first Lieutenant, above all the rest, and every Midshipman should serve a term as Master's Mate previous to obtaining his Lieutenancy.

The so-called naval reform that brought in its train the distinction of Navigating Lieutenant, was a folly of the worst class, but it enabled the Whig-Radicals to provide for their needy relations without effort, a course of Engineering at a college was the preparatory step towards a naval Lieutenancy, and lads that never saw blue water till they were seventeen were not likely to make able seamen.

On Tuesday, 26th September, a distinguished party, consisting of His Excellency Lord Lisgar, the Governor General, attended by his Military Secretary, Lieut.-Colonel MacNeil, V.C., C.M.G., Captain Ponsouby, A.D.C., Sir G. E. Cartier, Bart., Minister of Militia, Hon. C. Dunkin, Hon. Mr. Aikins, Judge Armstrong, His Lordship the Bishop of Ottawa, Rev. Dr. O'Connor, Mesdames

Robertson-Ross, Chamberlin, Dunkin, Fox, and Miss Coffin; Alonzo Wright, M.P., J. M. Currier, M.P., E. B. Eddy, M.P.P., His Worship the Mayor of Ottawa, W. Kingsford, Esq., C.E., — Haley, Esq., Lieut. Col. MacPherson, D.A.G., Lieut. Colonel Wily, Lieut.-Colonel Chamberlin, Lieut.-Colonel Brunel, Lieut.-Colonel Aumont, Captain G. H. Perry, Carroll Ryan, Esq., of the *Citizen*, Mr. Nagle of the *Times*, W. Luthell, Esq., Railway Superintendent, left the terminus of the Ottawa and St. Lawrence Railway in a special train for the Brigade Camp at Prescott. The morning was overcast and driving rain from the south east made matters generally unpleasant. Prescott was reached a little after eleven o'clock His Excellency being received at the station by the Adjutant-General and a guard of honor of 100 men of the 56th Battalion, commanded by Lieut.-Colonel Jessup, headed by the splendid band of that corps. The distinguished visitor was escorted through the camp, which was pitched on the garrison reserve, north of Fort Wellington, and although the rain made everything look gloomy, the tents appeared to be comfortable and were tastefully decorated with boughs of pine and branches of maple, &c. Owing to the rain the various corps on the ground did not look as smartly as they would otherwise have done; great coats as a general thing do not improve the appearance of troops, but the soldierly bearing and the facility with which the battalion movements were made satisfied the military connoisseur that he stood in the presence of a thoroughly effective military force. The corps on the ground were the Ottawa Field Battery, the 18th, 41st, 42nd, 43rd, 56th and 59th battalions, numbering 2100 officers and men. The troops were formed in line with demi-batteries on each flank and marched passed in quarter column; the ground was very rough, the artillery afterwards marched past at the trot. The troops were now formed in square and the battalion prizes distributed as follows:—

#### 18th BATTALION.

Sgt. Miller, Battalion prize badge and \$10.  
No. 1 Company, Sergt. McKeichner, badge and \$5.  
No. 2 Company, Sergt. Lightall, badge and \$5.  
No. 3 Company, Sergt. W. Hamilton, badge and \$5.  
No. 4 Company, Sergt. W. Mooney, badge and \$5.  
No. 5 Company, Private J. Gordon, badge and \$5.

#### 41st. BATTALION.

Sergt. W. McIntyre, Battalion prize badge and \$10.  
Sergt. W. McIntyre, District prize \$15.  
No. 1 Company Corporal Fitzsimmons, badge and \$5.  
No. 2 Company, Corporal Wilkinson, badge and \$5.  
No. 3 Company, Corporal Gardner, badge and \$5.  
No. 5 Company, Corporal Wilson, badge and \$5.  
No. 6 Company, Corporal Barnes, badge and \$5.

#### OTTAWA RIFLES.

Sergt. Pearson, badge and \$5.

#### 42ND BATTALION.

No. 2 Company, Sergt. Lanskiel, Battalion Prize Badge and \$10, also Company badge and \$5.  
No. 1 Company, Sergt. Lockhart, badge and \$5.  
No. 3 Company, Sgt. Macleod, badge and \$5.  
No. 4 Company, Private J. Young, badge and \$5.  
No. 5 Company, Corporal Dixon, badge and \$5.  
No. 6 Company, Corporal Donaldson, badge and \$5.  
No. 7 Company, Corporal Macleod, badge and \$5.

#### 43RD BATTALION.

No. 5 Company, Private H. Hamilton, Battalion prize badge and \$10, also Company badge and \$5.  
No. 1 Company, Private R. Griffin, badge and \$5.  
No. 2 Company, Sgt. Boyd, badge and \$5.  
No. 3 Company, Private Heron, badge and \$5.  
No. 4 Company, Private Featherston, badge and \$5.  
No. 7 Company, Private E. Collins, badge and \$5.

#### 56TH BATTALION.

No. 6 Company, Sergt. Checkers, badge and \$5.  
No. 1 Company, Bandsman Gallagher, badge and \$5.  
No. 3 Company, Sergt. Young, badge and \$5.  
No. 4 Company, Private Laing, badge and \$5.  
No. 5 Company, Private Hartnell, badge and \$5, and Battalion prize badge and \$10.

#### 59TH BATTALION.

No. 1 Company, Private W. Skaith, badge and \$5.  
No. 3 Company, Corporal Bernard, badge and \$5.  
No. 7 Company, Sergt. Douglas, badge and \$5, and Battalion prize badge and \$10.

The line being reformed an attack on the north face of Fort Wellington, including north east and north west bastions and caponiere covering the gate commenced; the garrison was composed of the 56th under Lieut.-Colonel Jessup, the approaches were made by the remainder of the force, the 41st being the covering party. The artillery was massed on both flanks of the first parallel representing two enfilading batteries, that on the north west of the parallel having its fire directed against and flanking the North-East Bastion, the fire from the other battery was similarly directed against the North-West Bastion. In fact, if it had been possible to construct the necessary trenches the attack and defence would have fulfilled all the conditions of war.

The covering party after the fire from the bastions had been partially silenced established themselves at the foot of the palisades and a hot musketry fire was kept up by the defenders over the crest of the parapet; this was gradually dominated by the weight of the fire of the 41st and of the batteries, when the attacking force, consisting of the 18th Battalion, were well led against the southern re-entrant angle of the North-

West Bastion, rapidly crossed the glacis and established themselves on the counter scarp. After clearing the ditch of the defenders and by the weight of fire preventing any resistance, they passed the palisades, escalated the bastion, driving its defenders into the body of the place and spreading themselves along the crest of the ramparts almost to the North-Eastern Bastion; but at this point they were checked; the fire from the block-house was too heavy to be withstood, the artillery in the captured bastion useless for want of ammunition, and finally, after a gallant struggle, they were again driven into the ditch and were finally retired under a tremendous fire from the covering party, reserves and batteries. The attack had failed, but it was well planned, ably executed, and the defence reflects great credit on Colonel Jessup and the 56th. It was an imposing and exciting scene, well calculated to give the actors an idea of real warfare, and needed only the trenches to make the resemblance complete. We hope before next season that every camp will be supplied with entrenching tools, so the soldier may have an idea of what the reality of the actual attack and defence of a fortified place may be. Three hours labour of each man engaged would have covered the whole force on the Garrison Reserve. A trench nine feet wide and three feet deep would give ample space for all purposes, the earth making a mound of the same height so that it would afford sufficient shelter. The troops having again formed line the officers commanding battalions drew up in front of the saluting base, and were addressed as follows by His Excellency the Governor General:

GENTLEMEN.—It is with very great pleasure I meet you to-day, and am happy to congratulate you on the creditable military display made on this occasion. It affords me sincere satisfaction to be able to tell you that your organization has had the most beneficial effects on the interests of your country—the alacrity with which your commands have turned out to acquire a knowledge of their duty speaks highly for your patriotism, and is an evidence of your loyalty to your Sovereign, as well as an assurance for the future of the great country to which you belong. You will please convey to the officers and men under your command, my expression of entire satisfaction with their zeal and the proficiency they have acquired in their military duties. I thank yourselves on behalf of the country for your exertion and for the attentions showed to me. You will now return to your several battalions and close this day's proceedings by three cheers for the Queen." The words of command followed rapidly, the troops being in column; the Adjutant General acting as Brigadier, gave the time, and *three hearty cheers* and a *tiger*, such as Canadians know how to give, testified to our neighbors across the line that monarchy did exist on the North American continent. The troops

were marched off the ground. His Excellency and suite were conducted to a large tent, where a splendid collation was provided by the officers of the District Staff. After luncheon His Excellency held a levee at which the officers of the various battalions were presented by the Adjutant-General, and again addressed them as follows:

"Colonel Robertson-Ross and Officers of the 11th Military District.—It affords me great pleasure to meet you to-day under such very interesting circumstances. It would be impossible to witness the efficiency of the force to which you belong without feeling respect for the patriotism and zeal which animates you in sacrificing so much of your time for the public good. The organization under which you serve has attracted a large share of interest amongst military men, and I have received very flattering letters, indeed, in connection therewith. Those camps of instruction have been a great success, and the zeal which animates you is deserving of all praise. Your profession, involving as it does a simple defensive movement, is most praiseworthy, and in this connection I may say that the question of mere defence is not that alone which is involved, as it covers every bit of territory even to the smallest rock, on every right over which your flag waves, and it becomes a sacred duty to preserve the one from violation and the other from insult. Thank God no immediate danger threatens Canada, but it is just as necessary to guard against its occurrence as if it was imminent, therefore, your exertions should be directed to make yourselves thoroughly acquainted with your duty and to be able at all times to support the honor and dignity of the great empire to which you belong. I am well pleased to have made your acquaintance and hope in future to be able to see more of you."

At the close of this speech, which was loudly applauded throughout, three cheers were called for the Governor General and right heartily responded to.

An immediate call was made for Sir G. E. Cartier, most of the officers present being anxious to see the Statesman to whom Canada owes her army. The Minister of Militia stepped to the front and said:—"Your Excellency, Colonel Robertson-Ross, Officers of the District staff and Gentlemen:—I am well pleased to meet you here to day: a mere private in the Canadian Militia I can claim no rank amongst you, except being the political head of an organization of which any country might well be proud. The parallel between your case and mine is just this, whereas you have to spend a portion of your time in acquiring a knowledge of your duty as soldiers in order to meet the enemies of your country if it should be necessary, I have to spend the whole of my time in preparing to meet the political enemies, who would make your organization useless. You may think that mine is far the easier task, but those gentlemen who have hold of the purse strings, and are determined to draw them tight are a particularly hard hearted race to deal with. The great success which has attended those camps of instruction, owing to your zeal and eagerness to acquire military know-

ledge will give me encouragement to apply to the House of Commons for further grants, and a decisive argument on which to found such application. It is no illiberality on my part that has cramped or withheld from you any proper requisites, but economists in Parliament compel the Minister of Militia to reduce his estimates, and, as a consequence, the interests of the Volunteers suffer. Leaving this subject, however, as an incident to the position, I have to congratulate you on the great proficiency you have attained to in drill and discipline. I have attended all the camps and you are inferior to none. It is hardly necessary to speak of the zeal and patriotism which brings you out at this season of the year with all its discomforts to put in your sixteen day's drill under canvass, and it reflects great credit on your organization to find that there has been no failure in a single particular. In England the military authorities would not allow their troops to go under canvas for fear of the equinoctial gales—you have encountered those gales and don't seem to be particularly the worse therefor; to be sure your tents are a trifle leaky, but you are not the men to shrink from the discharge of your duty on that account; Canadian soldiers before now have fought through glorious campaigns and never allowed any consideration to interfere with the discharge of their duty to the country. You, the soldiers of the present day, are their worthy successors, and those charged with the administration of the political affairs of Canada have no reason to fear for its future while they have such soldiers to answer their call. I am happy to meet you and have to thank the officers of the District Staff and yourselves for the magnificent display you have afforded us." Sir George was loudly applauded. This may be said to have closed the day's proceedings. Cheers were given for the Adjutant General, Lieut.-Col. Jackson, the Brigade Major and the Ladies. His Excellency and suite left for Kingston, the remainder of the company returned to Ottawa by the evening train.

Those who were honored as part of His Excellency's suite have reason to thank the courtesy and attention of Lieut.-Colonel Macpherson, D.A.G., and Lieut.-Col. Jackson, and Capt. D. A. K. Macdonald of the District Staff, for the hospitality extended to them. The whole proceedings were most interesting and the display made most creditable to all concerned, the only drawback being the disagreeable weather in the early part of the day, the afternoon being very fine.

The various corps were commanded by the following officers:—

Ottawa Field Battery.....	Capt. Forsythe.
18th Battalion.....	Major Shields.
41st ".....	Lt.-Col. Cole.
42nd ".....	" Buell.
43rd ".....	" Bearman.
56th ".....	" Jessup.
59th ".....	" Bergin.

## THE FOURFOLD ASPECT.

The lovers stood in the deep recess

Of the old ancestral hall,  
Where the storied panes their gold and red  
Flung o'er the grace of her bending head,  
As he whispered "Nothing on earth is bliss  
Like a silent hour, such as this,  
With the soft hush over all."

The children played on the flowery lawn,  
Darting from glade to walk;  
"And see," they said, as they glanced above,  
"To the two, in their glorious trance of love,  
"How Maud and Charlie waste the day,  
Though night is coming to stop our play,  
And they do not even talk!"

With her weary eyes and her sable robes,  
The lonely lady passed;  
A sudden cloud her pale face crossed,  
The anguish of one who had loved and lost;  
Then, from laughing babes and dreaming pair,  
She turned, with the tearful gentle prayer,  
"God, long may their sunshine last!"

The old men glanced from the lighted hearth,  
Where they sat over cards and wine,  
To the two, unconscious of aught the while,  
But love and each other—then shrug and smile,  
As one, draining his glass, said—"As they choose,  
But you blaze is better than chill night dews:  
Your trick, and the deal is mine."

The twilight deepened into night,  
The stars through the dusk air shone,  
Aged and infants calmly slept,  
O'er a bright-eyed portrait the mourner wept,  
And the lovers still murmured, "Not yet, not yet,  
And why should such hours in parting set?"  
And so the world rolls on.

—All the Year Round.

## A FEW THOUGHTS ON THE ARTILLERY

## ITS CONDITIONS AND REQUIREMENTS

BY AN ARTILLERY OFFICER.

## WHAT WE HAVE TO LEARN.

*Powder.*—It is not so widely appreciated as it ought to be, that the improvements inaugurated in the manufacture of powder promise more good to the artillery than those even for the manufacture of cannon. We say *inaugurated*, for the prismatic powder invented by General Rodman has received less attention here than abroad. We believe that in the future General Rodman's name will be spoken of more in connection with his improvements in powder, than for anything else he has done. All the experiments of the Ordnance Department on cannon powder, so far as we are aware, of late have been confined to getting a suitable powder for the 15-inch gun. The manufacturers, the Messrs. Du Pont, have obtained some remarkable results; but with this exception, the subject of the proper powder for our heavy guns seems to have been utterly ignored. It is not proposed to go into details here; we content ourselves by saying that the kinds of powder and charges prescribed for our heavy guns, from the 10-inch Rodman down to the  $\frac{1}{4}$ -inch Rifle, are entirely inappropriate; they rest on no system of experiments and comparisons, the whole thing being a piece of patchwork.

*Chronoscopes* are known to our artillery officers, except through the imperfect and unsatisfactory knowledge gained by the yearly detail at the Artillery School, where they may witness the occasional operation of the Schultz instrument by the Ordnance Department. This machine is perhaps too costly for general use, but neither Le Boulanger's nor Benton's is open to this objection. Now that Colonel Benton seems to have succeeded in still further simplifying his machine by holding the pendulum in suspension by threads, the cost must be materially reduced. Indeed, it is difficult to see why one might not be constructed at almost any post by an intelligent mechanic. At all our larger posts, as Forts Adams, Mc Henry, Hamilton, Jefferson, and at San

Francisco, artillery officers should become practically familiar with some of these machines.

*Instruments for taking times of flight of projectiles* with accuracy are unknown in our service, if we except the one stop watch at the Artillery School. When "guessing" is introduced into scientific artillery practice, either as to charges, elevations, times of flight, or in any other particular, the results are useless.

*Range-finders.*—Devices, under this name for determining distances with accuracy and rapidity, have attracted much attention among artillerists abroad. The importance of being able to tell at any instant the exact distance of an object at which our fire is to be directed, cannot be over-estimated. While ships under steam move much faster than of old, guns fire much slower, owing to the labor required in loading and training. The defence is secured by a small number of well directed shots, and not by rapidity of fire. Still with us the old system of "guessing" satisfies all our desires.

As long ago as in 1864, a plan was in use by which the exact distance of a ship, entering the harbor of Copenhagen, from each of the works constituting the defences, could be announced as often as once in thirty seconds. The works were connected by the electric telegraph, but a very good substitute for telegraphic communication exists in our system of signals. The method in use in Copenhagen was simply that of triangulating the position of the vessel by means of theodolites, the details being ingeniously arranged.

Numerous, and some apparently successful, attempts have been made to construct portable instruments for nearly instantaneous measurements. Among these may be mentioned the telemetric telescope, invented by Captain Gautier, of the French Imperial Artillery; and the range-finder, invented by Captain Nolan, of the English service. The former is a telescope of only five inches in length, yet for distances of from three to six kilometres, with a base of thirty metres, has a maximum error of only one-fourth of one per cent., and with hardly an appreciable error for distances under one kilometre. A full description of this instrument is given by Prof. Barnard in his report of the Paris Exposition of 1867.

The range-finder consists of a pair of telescopes, one for either flank of the battery. The front of the battery being taken as a base line, the angles subtended at either flank by the object to be fired at and the opposite telescope are measured, and the distance read off from a calculating roller accompanying the machine. Though perhaps not possessing all the advantages claimed for it, extensive experiments show that its use greatly increases the accuracy of fire, and that the telescopes are little liable to get out of order by long and rapid movements of the battery. We have by no means exhausted the list of improvements agitated or accomplished, but have said enough perhaps to show that there is a wide field for experiment and investigation not yet even entered upon by us.

## IMPERFECT USE OF OUR PRESENT MATERIALS.

But, dropping this subject, how through and complete a use do we make of the materials put in our hands. Take for illustration the semi-annual practice firing at our permanent works. An order is given to the ordnance sergeant to make up a certain number of cartridges; the projectiles are taken at random from the nearest shot pile; the elevation given with a tangent scale, possibly made for a gun of some other cali-

bre; the distance of the target guessed at; the time of flight not taken or incorrectly observed; the deviation entered as "almost a hundred yards to the right," "short," "over," etc.; and no description of the powder entered upon the record. We do not charge that all our experimental firing is thus loosely conducted; but there is no hazard in the assertion that the whole batch of firing records at the different posts, including the different artillery schools, are worthless for reference. These imperfect, and so far as we can see useless reports are finally sent to the Chief of Ordnance, by whom they are consigned to the oblivion they justly merit.

What are the records of experimental firing at the artillery schools of France, for it is from these we draw our illustrations chiefly in discussing the theory of fire?

First, we have a complete description of the powder; its density, size of grain, and general condition; and the initial velocity imparted by it to the projectile when fired from the gun in question.

The angle of departure, or angle at which the projectile leaves the muzzle, as distinguished from the angle of elevation, is accurately determined by experiment if not already known. [In the French guns, model of 1864-'66 this angle has a value of 13 min., due to the pressure of the breech on the carriage at the moment of discharge. With our own guns, without preponderance, Benton admits a variation of 4 or 5 minutes due to balloting. Easy as it is to determine this angle practically for each class of guns, it is doubtful if it has ever been attempted in our service.]

The charges are weighed with the nicest accuracy, and the several dimensions of the cartridge taken.

The projectiles are weighed, and brought to a uniform standard when practicable.

The exact calibre is recorded, and the eccentricity noted. [Given a powder of uniform quality, and the accuracy of fire, particularly of mortar fire depends upon these three points chiefly, viz: weight, windage, and eccentricity. The variations from the standard are scores of error that can be readily eliminated by greater care in the manufacture. Spherical projectiles are here referred to.]

The state of the barometer, thermometer, and hygrometer, and the force and direction of the wind are registered.

The elevation is given by the spirit level, a method not always exact, however.

The times of flight are observed by a stop-watch especially constructed for the purpose and arranged to time even the ricochets.

The ranges are measured by plane-tables. Three should be used for this purpose, one serving as a check on the other two. [How widely is this simple and indispensable instrument used in our service? at how many of our artillery stations it is supplied and used? The answer is not flattering to our intelligence.]

When firing at a target the deviation is taken from the centre of impact.

It is true that in the experimental firing conducted by the Ordnance Department, most of the points referred to are taken into account, but not in a way to materially assist the artillerist. Their experiments are directed generally to special points alone. A long series will be found recorded to test the pressure and initial velocity due to a certain grade of powder; another to determine the extent of recoil; another to show the comparative accuracy of certain projectiles but seldom if ever will be found grouped together the facts essential for solving any of the problems in scientific gunnery.

It will be said by some that such minuteness and accuracy are not attainable in our service; that the necessary facilities do not exist, and cannot be procured; that were it practicable it is not desirable for officers not belonging to a scientific corps to go into such details. It would be remarkable in deed, if at any post where practice firing is carried on for the benefit of officers, the simple and inexpensive apparatus required could not be procured. A Benton velocimeter would cost much less than the powder and shot thrown away in "getting the range." One 15-inch shot would perhaps pay for a densimeter, another for an eccentrometer, and so on. Parsimony in this case is not economy. One shot, with every material circumstance attending the firing, accurately recorded, is of more value than a thousand with the meagre record too generally given. And if it should happen that some one or more of the machines required cannot be procured in any instance, this is no good reason for not making the record as complete as may be in other respects.

If there are any artillery officers who contend that this kind of work is out of our sphere, it seems to the writer that they are only adding new evidence of our present professional paralysis.

#### TACTICS NOT ARTILLERY.

But the science of gunnery is only an item in the education of the artillery officer. He should be practiced in the estimation and measurement of distances, including the use at least of the simpler surveying instruments. He should be able to improvise temporary obstructions, including torpedoes, for roadways and channels. He should know the speed, armor and draught of representative foreign vessels of war, the vulnerable points of ironclads, etc. He should be able to manufacture powder, fuses, incendiary composition, etc. He should know the proper composition of batteries for seacoast defence. He should know also the proper composition of siege trains; how to embark and disembark material; how to construct magazines for his ammunition, and bomb-proofs for his men. He should have an intimate personal knowledge of all the approaches to a work by sea and by land, within such limits as may possibly come within the theatre of operations, and understand the relations of the ground within those limits to the defence of the work. He should be well practiced in surveying and mapping out such grounds correctly. He should study the means requisite to oppose a landing. It is only by a full and accurate knowledge of the country adjacent to a work that any good scheme of defence can be founded. This problem of defence under every possible condition that may arise should be the constant study of artillery officers, and a clear understanding had of the actual utility of existing works, since the introduction of guns of great range and power has so changed the conditions of the problem. It may often fall within the duty of the artillery officer to propose and execute lines of defence under these new conditions, or to make the necessary additions to or alterations in existing works to prepare them for the strongest defence. He may have to determine the best location for obstructions and torpedoes, and should have, not only a general knowledge of their construction, but a practical knowledge of the application of electricity to the torpedo service. It is also important that he should comprehend the best mode of signaling that can be applied to the locality.

It is not asserted that the artillerist will be required to originate, execute and put in

action all those important parts of a sound defence, but it cannot be questioned that he may find use for all the knowledge referred to and much more. No officer who lacks it can fulfil all the demands that may be made upon him. In case of war many of the senior officers of engineers and artillery will doubtless be called away from their usual duties to higher commands, and their responsibilities would necessarily fall upon the lower grades even of military officers who should then be found competent to perform all herein suggested and more.

The specifications might be extended indefinitely, but we close them by an extract from a general order published by Major General T. W. Sherman, while commanding the Third Artillery. It is the first public and authoritative declaration from one in his position "that to know one's tactics" is not to know artillery. It is to be hoped General Sherman may see good fruits from his order, though not able himself to put it into execution:—

The requisites for every separate command within the regiment are, that every officer and man shall be thoroughly familiarized with the use and practice of every species of ordnance at the station; and in addition to this shall understand and be able to explain every principle connected not only therewith but with all ordnance in existence.

This covers a great deal of ground and involves laborious study and research. The non-commissioned officers should be made to understand the results, as well as a general idea of the process by which they are arrived at, without, however, entering into any scientific computations beyond their reach.

The artillery and ordnance of an army, or of a nation, are getting too numerous in kind and varied in application to even think of fully teaching their more extended application and effects by the mere drill and practice of a few batteries.

In order that this instruction can come more under the control and supervision of the regimental commander than heretofore, it is ordered that while the practical instruction at each post during the quarter ending December 31, 1870, will go on as heretofore, and involve the ready handling and practice of every species of artillery at the post, the theoretical instruction will be confined to the following subjects, viz:—The manufacture of the powder of war—all its characteristics—all the principles of its ignition and combustion—the general laws which control its action and effects in combustion, particularly in guns—its action and effects upon guns as well as projectiles—the mode of casting guns—theory of strains upon guns, both rifled and smooth-bore—general principles that govern the weight of charges in smooth-bore and rifle guns—application of those principles to all classes of guns now in use.

The course for the next quarter will be announced in due time with more particularity, but it may be considered that as a corollary to the preceding, it will embrace the effects of the atmosphere upon the flight and action of projectiles under all circumstances—the calculation of this effect or of the resistance of the air upon projectiles of different form—and its practical application in the calculation of initial velocities, ranges, remaining velocities, etc.

We copy from manuscript, and may have mistaken the phraseology in some instances.

The order is a bold and manly effort to stand the artillery on its feet, a task only to be accomplished however by united effort. Our past condition has been lifeless, our present is far from flattering. What officer of the heavy artillery acquired special distinction in his own arm of the service during the war? Where is the report that can be pointed to with just pride? Even the officers distinguished in the light artillery who have material of great value collected, and ability to present it in a shape to make it of permanent value have as yet made no sign.

The siege train at Petersburg was commanded by an engineer officer, colonel of a volunteer regiment, and his report is almost the only one to which an artillery officer can refer to-day for such information as would be of use in fitting out and managing a siege train. The report next in value perhaps, that of the siege of Pulaski, was made by an ordnance officer. Of all that is new or useful, and there is much, in the published ac-

count of the siege operations in front of Charleston; the artillery can claim but a meagre share. There are reasons for this which will be referred to hereafter, but it is primarily due to the fact that we have persistently been educated to the belief that thinking and collecting information is not our province; that to us belongs only the drudgery of our profession—the hewing of wood and the drawing of water; while to the so-called scientific corps belong the collection and classification of results; in short, all the deductions that are made by subsequent thought, and study, and comparison of records.

Everything pertaining to our profession but the actual service of the piece is now taught at the Military Academy by an ordnance officer; and so easy is the gradation that it would not be a very great surprise to see the Artillery School pass under the control of the Ordnance Department—not that the officers of that corps have any inclination in that direction, but when the principle is firmly established that we draw our mental sustenance from another corps, the application follows as a matter of course. When we attempt some higher instruction than the drills and mechanical manoeuvres, we are "teaching ordnance."

(To be continued.)

#### THE FRENCH DEFEAT.

Colonel Bustow, formerly in the Prussian service, has just printed a new book, called *The War for the Rhine frontier* which will cause much comment. The view taken of French discomfiture differs much from the view usually accepted. Col. Rustow, while admitting the superior discipline and handling of the Prussians, declares that numerical discrepancy had more to do with the result than has been supposed. At the outset, on this authority, Germany mustered in field troops five hundred and eighteen thousand men, with 1,506 guns, while France had but two hundred and eighty-five thousand men, with 984 guns. Germany had 161,000 reserves, as against the 91,000 of France. As garrison troops, again Germany had 187,000 men, for which France had no equivalent, as the Garde Mobile was not organized. At Wissembourg, says Col. Rustow, the Germans had twenty thousand men engaged, while Douay's opposing division was only eight thousand strong; and the French who completely surprised fought three hours, and only lost one gun. At Woerth, McMahon had only thirty-five thousand men engaged, while, "the German troops who really came into action were seventy-five thousand infantry and cavalry." The numbers at Thionville were nearly equal, and the battle was "drawn," since both parties bivouacked on the field. At Gravelotte, the Germans had "at least two hundred thousand," against half that number of their opponents.

A new side drum has been introduced in England, one of them having been offered as a prize at a recent volunteer encampment. It is of entirely new construction, having only one head, which, instead of being of parchment or vellum, is made of thin steel, and is beaten by sticks with india-rubber tops. The advantages are that the head is practically unaffected by damp or changes of temperature, is practically indestructible, and can be turned more simply than the ordinary drum.

The armies and navies of Europe are said to contain at present 5,165,300 men; 512,394 horses, 10,224 field guns and 800 mitrailleurs.

## DOMINION OF CANADA.



## MILITIA GENERAL ORDERS.

## HEAD QUARTERS,

Ottawa, 20th September, 1871.

GENERAL ORDERS, (21.)

## ACTIVE MILITIA.

No. 1.

## PROVINCE OF ONTARIO.

56th "Grenville" Battalion of Rifles.

At the special request of Lieutenant Colonel Jessupp, the Officers and men of the 56th Battalion, His Excellency the Governor General is pleased to approve of this corps bearing the designation, of "the Lisgar Rifles."

59th "Stormont and Glengarry" Battalion of Infantry.

No. 1 Company, Cornwall.

To be Captain provisionally:

Michael Callaghan, Esquire, vice Daniel McCourt, whose resignation is hereby accepted.

To be Lieutenant:

Sergeant James Castle Blyth, M. S., vice B. Davey, left limits.

No. 3 Company, Cornwall.

To be Lieutenant, provisionally:

William Douglas Adams, Gentleman, vice J. J. Brown, resigned.

No. 7 Company, Dunvegan.

To be Ensign provisionally:

Alexander Stewart, Gentleman, vice John J. McCunig, whose resignation is hereby accepted.

## BREVET.

To be Lieutenant-Colonel:

Major William Henry Norris, V. B., 12th Battalion, from 14th September, 1871.

## LEAVE OF ABSENCE.

Advertising to General Order (16) 28th June last, leave of absence in extension to 12th October next, is hereby granted to Lieutenant Colonel Jarvis, Deputy Adjutant General, Military District, No. 3, for the purpose of enabling him to witness the military manoeuvres of the Regular Army now taking place in the camps of instruction in England.

Advertising to General Order (15) 6th June last, leave of absence in extension for two months is hereby granted to Lieutenant Colonel J. A. Skinner, 13th Battalion.

## CONFIRMATION OF RANK

ERRATUM.—In G. O. (20) 13th instant, read "32nd Battalion" instead of "33rd Battalion, after the name of Ensign John Douglas; "and read "23th Battalion" instead of "20th Battalion, after the name of Ensign Hugh Nicholl."

## PROVINCE OF QUEBEC.

Cookshire Troop of Cavalry.

To be Cornet, provisionally:

Sergeant Major Henry Chaddock, vice French promoted.

60th "Missisquoi," Battalion of Infantry.

To be Adjutant:

Lieutenant John A. Hawley, V. B., from No. 2 Company, vice Captain G. L. Kemp left limits.

61st "Montmagny and L'Isle" Battalion of Infantry.

No. 4 Company, St. Jean Port Joli.

To be Lieutenant:

Herminegilde Vaillancourt, Gentleman, M. S., vice Honore Giasson, incapacitated.

## LEAVE OF ABSENCE.

Leave of absence is hereby granted to the following officers:

Lieutenant Colonel Reeve, 5th Battalion for one month from 20th instant.

Lieutenant and Adjutant Hatton, 3rd Battalion, for six months from 1st October next.

## CONFIRMATION OF RANK.

ERRATUM.—In G. O. (20) 13th instant, read "No. 7 Company, 50th Battalion," instead of "No. 2 Company, 51st Battalion after the name of Lieutenant John Lucas;" and read "Ensign William Latimer" instead of "Lieutenant William Latimer."

## PROVINCE OF NEW BRUNSWICK.

71st "York" Battalion of Infantry.

No. 4 Company, Stanley.

To be Lieutenant from 13th September, 1871.

Ensign William T. Howe, V. B., vice Turnbull resigned.

To be Ensign, provisionally:

Sergeant Andrew Waugh, vice Howe, promoted.

## CONFIRMATION OF RANK.

ERRATUM.—In G. O., (20) 13th instant, read "71st Battalion" instead of "67th Battalion," after the name of Captain Jeremiah Staples. The name of Captain Thos. L. Alexander, No. 6 Company, 71st Battalion, is to be omitted, as that officer had previously obtained a 2nd Class Certificate and his rank was confirmed by G. O. 27th January last.

## CERTIFICATE BOARDS OF EXAMINERS.

No. 2.

ERRATUM.—In G. O. (20) 13th instant under the heading of "at Laprairie Camp, FIRST CLASS CERTIFICATES," add the name of "Ensign Joseph Deslauriers, No. 3 Company, 64th Battalion," and under SECOND CLASS CERTIFICATES, read "Ensign William Latimer" instead of "Lieutenant William Latimer. And under the heading "at Fredericton SECOND CLASS CERTIFICATES," read, Lieutenant Isa McNinch, instead of "Lieutenant H. McNinch."

By command of His Excellency the Governor General.

P. ROBERTSON-ROSS, Colonel,  
Adjutant General of Militia,  
Canada.



## NOTICE TO CONTRACTORS.

SEALED TENDERS addressed to the undersigned, and endorsed "Tenders Welland Canal," will be received at this Office until Noon of Wednesday, the 25th day of October next, for the execution of the following mentioned works on the

## WELLAND CANAL:

1st. Construction of a Mooring Wharf, and Deepening the Harbor of Port Dalhousie.  
2nd. Lightening the East Bank of the "Deep Cut" between Allanburgh and Port Robinson.  
3rd. Deepening and Enlarging the Harbor at Port Colborne.

Plans and Specifications can be seen at this Office, and at the Welland Canal Office, St. Catharines, (where Forms of Tender may also be obtained) on and after Tuesday, the 10th day of October next.

The signatures of two solvent persons, residents of the Dominion, willing to become surety for the due fulfillment of the Contract must be attached to each Tender.

The Department does not, however, bind itself to accept the lowest or any Tender.

By order,

F. BRAUN,  
Secretary.

Department of Public Works,  
Ottawa, 16th Sept., 1871.



SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for a Bridge," will be received at this office until Friday, the 20th day of September inst., at noon, for the construction of two Swing Bridges for the enlarged portion of the Grenville Canal.

Plans and Specifications can be seen on application at this Office, or at the Lachine Canal Office, Montreal, and at the Engineer's Office on the work at Grenville, where printed forms of Tender may also be obtained.

The Department will not be bound to accept the lowest or any tender.

By order,

F. BRAUN,  
Secretary.

Department of Public Works,  
Ottawa, 8th Sept., 1871.

37-3ln.

The time for receiving the above Tenders has been extended to TUESDAY, the 10th day of OCTOBER next, at noon.

F. BRAUN,  
Secretary.

Ottawa, 21st Sept., 1871.

39-3ln.



## CUSTOMS DEPARTMENT

OTTAWA, September 2, 1871.

AUTHORIZED DISCOUNT ON AMERICAN INVOICES until further notice, 20 per cent.

R. S. M. BOUCHETTE,  
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**SEALED TENDERS**, addressed to the undersigned, and endorsed "Tender for Central Tower," will be received at this Office until Wednesday the 27th day of September Inst., at noon, for the carpenter and joiners', galvanized iron, plumbers' and painters' works; also for wrought and cast iron work required for flush to the Central Tower, Parliament Buildings, Ottawa.

Plans and Specifications, and Model, can be seen at this Office, where all necessary information can be obtained.

The Department will not be bound to accept the lowest or any tender.

By order,

F. BRAUN,  
Secretary

Department of Public Works,  
Ottawa, 8th Sept., 1871.

37-31n.



**SEALED TENDERS**, addressed to the undersigned, endorsed "Tender for Lock Gates," will be received at this Office until FRIDAY 9th SEPTEMBER Instant, for the construction and insertion of SIX PAIRS of LOCK GATES for the proposed enlarged Locks Nos. 9, 10 and 11, on the GRENVILLE CANAL.

Plans and Specifications can be seen on application at this Office or at the Lachine Canal Office, Montreal, and at the Engineer's Office, on the Works at Grenville, where printed Forms or Tender may also be obtained.

The Department will not be bound to accept the lowest or any Tender.

By Order,

F. BRAUN,  
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Department of Public Works,  
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37-31n

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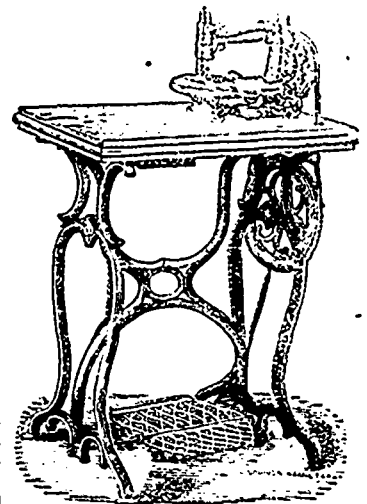
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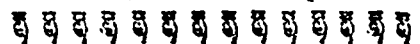
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