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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. VIII.

OTTAWA, (CANADA,) TUESDAY, JULY 21, 1874.

No. 29.

### NEWS OF THE WEEK.

It is certainly appalling the number of disastrous fires that has occurred within the past week. In our last we chronicled the news of two destructive fire in Ottawa; this week the news has reached us of another fire in Chicago, which though not so extensive as the one of 1871, is still nevertheless of a very calamitous nature, as the parties burned out are chiefly of the poorer class. The area burned over covers fifteen squares. Taking half blocks here and there, and lumping them together, the whole extent of ground burnt over would be about one half mile long and a little less in width. The loss is variously estimated at from four to six millions of dollars. Fortunately the Chairman of the Fire Relief Committee of 1871 has still in his hands over a million of dollars. This will afford immediate relief to the poor unfortunate thousands that have lost their all, but further assistance will be needed.

Another fire broke out about 4:30 p.m. in the north western part of the city in the vicinity of the junction of Milwaukee and Chicago avenues. Fifteen or twenty buildings were burned in a short time, the flames being fanned by a brisk north west breeze and fed by inflammable material. The Fire Department was promptly on the ground and by most vigorous efforts succeeded in checking the progress of the fire before it did further damage than already stated. The fire originated in Dugan's smoke house in rear of his packing store. Nearly an entire block was burned, but the buildings were mostly of an inferior sort. Loss about \$60,000. During the progress of this fire, two attempts at incendiarism in the same neighbourhood were discovered and frustrated. In one case kerosine was used. Another alarm sounded from the corner of Wabash avenue and Madison street about six o'clock p.m., but the fire there was soon subdued. The first election under the new Dominion Election Law will take place on the 25th instant in the following constituencies: Napierville and Vercheres; Province of Quebec; East Elgin Ontario; and Provencher, Manitoba. No announcement is made regarding Marquette. It is stated that Riel does not intend to contest Provencher again, but whether the statement is correct or otherwise we are unable to say.

It is feared the yacht *Foam* which left Toronto on Saturday afternoon 11th inst has been lost, with all on board—seven persons. Search has been made all along the shore at the west end of the lake, but so far nothing has been found to indicate the fate of boat or crew. P.S.—The *Foam* has been discovered sunk two miles from Niagara.

At a meeting of Chaudiere mill owners held at Capt. Young's office on the 17th, it was decided to issue circulars to all the leading lumbermen of Ontario and Quebec, inviting them to attend a convention to be held at this city on the 30th instant, for the purpose of adopting measures to prevent over production of lumber and square timber, and considering other matters important to the trade.

Paper flour barrels are being made in Iowa. They are said to be air tight and water proof, to weigh much less than the ordinary wooden barrels, and to be able to stand more rough usage. One of the manufacturers predicts that in five years every barrel of Western flour will be sent east in barrels made from the straw the wheat grew on.

A package was shipped from Cherokee Station, Ia., a few days ago, addressed to her Majesty. It contained a head dress of elaborate design.

The Government of Austria and Prussia have agreed to open negotiations with the Sublime Porte, looking to the recognition of the independence of Roumania by Turkey.

Prince Bismark has had the honour, seldom enjoyed by any but crowned heads, of having had two attempts made on his life. Young Blind gave him the benefit of four pistol balls, only one of which slightly wounded the statesman, in May, 1866, and now a Madgeburg cooper has failed at Kissengen in a somewhat less determined attempt on his life.

The *Times*' special from Berlin says that Kullman, who attempted Bismark's life, is considered a mere tool. He confesses he was acting in concert with others. Hanthaler, the priest arrested for connection with the plot, belongs to the Village of Walchza, in Austrian Tyrol. He checked Bismark's horses at the critical moment.

Immediately on hearing of the affair, the King of Bavaria sent congratulations to Prince Bismark on his fortunate escape.

The Berlin press declare that the attempted assassination proves the necessity of repressing Ultramontane teachings.

Annie Cuthbert of Cobourg has won the Champion flag and \$100 at Put-in-Bay on Saturday the 11th inst. The course was 30 miles in length, and the wind most of the time blowing a gale. The race on the 29th had been declared off, hence the trial on Saturday.

The city of Halifax, in the person of its Mayor, has been summoned to appear before the supreme Court on the first day of October sittings to answer to the expenditure in violation of established law, of the

sum of one thousand dollars towards defraying the expenses of the anniversary celebration of the 21st ult.

The appeal to England against the New Brunswick School Law has been dismissed with costs, respondents' counsel not being heard.

Dr. Sangster it would seem has carried the nomination at the Convention of Teachers at Toronto, on Friday last. The vote stood as between him and Goldwin Smith, 27 to 25.

A complete official list of the insurance of New York and New England Companies on property destroyed in the late Chicago fire, places the amount at \$2,727,290. Insurance in foreign companies makes the total sum a little over three millions of dollars. The total salvage is \$492,320; net loss \$2,244,970.

Scotland won the Elcho Shield at the Wimbledon meeting; England, second; and Ireland, third.

Various accounts agree that Bismark's escape was miraculous. His hand was touching his hat when wounded. His coachman fearing a second shot struck the would be assassin across the face.

A number of police have been sent to Kissengen to protect Bismark from a repetition of the attack. Evidence has been discovered betokening the conspiracy.

Madrid July 15.—General Mariones reports that Bilbao is in no immediate danger. In case General Zaballa resigns General Mariones will probably be appointed his successor in command of the army of the North.

Madrid, July 16.—The Carlists have ordered one Republican to be shot for every shell fired by the fleet of Bilbao.

London, July 16.—The ex-King of Rangoon is dangerously ill at Vienna.

Kissengen, July 16.—One of the wounds received by Bismark in the wrist has healed, and another caused by the burning wads of the assassin's pistol, which scorched the flesh, is still painful, the inflammation is slowly subsiding.

Kullman has been removed from Kissengen to Wursburg.

London, July 14.—Despatches from Spain report that General Zabala has removed his headquarters from Tafalla to Logrono. Gen Moriones is also retiring toward the river Ebro. Sickness is prevalent among the national troops. It is anticipated that active operations will be postponed three weeks.

Madrid, July 14.—The Carlists have opened attack on Cuenca, 84 miles southeast of this city. The garrison is making a vigorous defence. Reinforcements have been forwarded hence by rail.

ANNUAL REPORT ON THE STATE OF THE MILITIA FOR 1873.

APPENDIX No. I

(Continued from Page. 327)

(A)

Submitted with Report on 8th Regiment of Cavalry—Geo Maunsell, Lieut.-Colonel.

CAMP, APOHAQUI, July 15th, 1873.

To Lieut. Col. SAUNDERS, Commanding Officer of 8th Regiment, Y. C.

"I have examined the horses in camp, and finding the majority of them fit for service; only a few are in a state unfit for service, from disease contracted in camps and from injuries from the saddles. There are a great many saddles totally unfit for use, and are the cause of keeping many horses parade.

"A medicine chest is indispensable, and should contain the following quantities of medicines:—

Pu Aloe Bhd. ....	lbj.
" Gentian or Rad. ....	lbss.
" Zingib. ....	lbss.
" Capsici. ....	lbss.
Tr. Opii P. B. ....	lbj.
" Aconiti Flemings ....	lbss.
" Arnica Mont. ....	lbj.
Spt. Æth Nit. ....	lbj.
" Ammon Arom. ....	lbss.
Chloroform. ....	zvj.
Ol. Terebinth. ....	lbj.
Lig. Ammon, Fort 800. ....	℥j.
Lig. Plumbi Subacet P. U. S. ....	℥iv.
Plumbi Acet. ....	lbss.
Pu. Digitatis. ....	lbss.
" Ipecacuhana. ....	lbss.
" Potass. Nit. ....	lbj.
" Ferri Sulph. ....	℥j.
Hydrarg. Chlor. ....	ziv.
Linseed Oil, cold drawn. ....	congj.
Oli. Olivæ. ....	oij.
Tow. ....	lbss.
Cotton bondages. ....	Four Sets.
Wollen do. ....	"
Antimo. Tart. ....	lbss.
Ac. Nitro. Hydrochlor. P. B. ....	℥j.
Æth Sulph. ....	lbss.
Ac. Nitric. ....	lbss.
Adeps. ....	lbj.
Sapo Mollia, P. B. ....	lbss.
Pu Resinae Flava. ....	lbij.
Spatulos. ....	2.
Mortar and pestle. ....	1, No. 7.
Grain scales and weights. ....	
I ziv. Granulated measure. ....	

"It is necessary to have the above quantities, as the horses are very liable to accident and disease, from their being exposed to the open air at nights, and congregated in such numbers.

(Signed) "M. P. GREENE,  
"Veterinary Surgeon.

Forwarded for the favorable consideration of the Minister of Militia.

J. SAUNDERS Lt. Colonel,  
8th Regiment of Cavalry.

(B)

SAINT JOHN, N. B., Nov. 3, 1873.

Sir,—I have the honor to forward to you, for transmission to the Adjutant General my Annual Inspection Report of the New Brunswick Artillery.

The five batteries in Saint John this year performed their drill at days and hours chosen by themselves, on the guns mounted in position at this place. The result has been in every way satisfactory, and the shooting made by each Battery, in its own practice, and at the annual competition on the day of gun inspection, has never been excelled. I append the Practice Reports of the different Batteries, and also those for the days of the Competition, and I should wish particularly, to draw your attention to the shooting made by the winning Battery, (Major Currier's) in the first Competition, when 5 rounds were fired in 6 min. 30 sec. from 32 prs. on sea service carriages, at a range of 1500 yds., with the most excellent effect.

Though the principle of doing without continuous drill, in camp or barracks has done well in St. John, this year, I would not have you infer that I agree with it entirely, and I looked upon its success here simply as a proof of the great interest taken in the Force by the officers and other well wishers of the Brigade, and also of the esprit de corps, and great interest felt by the men, in the annual competition, which, in my opinion, has done more for the good of the Artillery Service in New Brunswick than can be imagined by persons living at a distance.

Though I am willing to admit that during this year the Artillerymen in St. John have in no wise deteriorated, (though there were many recruits among them,) from last year, I have already given reasons why I consider this to be a special case, and that the system of head-quarter drill of each battery, when extended to our station batteries is productive of harm, and will in time, lead to inefficiency. I should therefore propose that all the Garrison Batteries in this Province should perform, during the coming year, 8 days drill, at their own head quarters, and 8 days either in camp or barracks in St. John. With the out station batteries, I think this proposition would be received favorably, and with the St. John Batteries, if timely notice was given that the drill would be performed in this manner, I believe that it would be received in an equally favorable spirit.

In company with you, I inspected No. 7 (Major Gillespie's) Battery, at Chatham, on August 28th, 1873. Owing to an unfortunate detention arising from a destructive storm, the ammunition for the battery did not arrive till after our inspection so that I had no opportunity this year of seeing them at shot practice. The Battery showed a marked improvement in marching drill and their standing gun drill was fair. I cannot but regret that my recommendation of last year, as to platforms being laid at a point on the river bank, where the guns mounted might really assist at the defence of Miramichi, has not been carried out, as not only would a permanent advantage have been obtained by doing so, but also the Battery would have been able to make much better use of their hours of drill. Major Gillespie is a most efficient and zealous officer, and would, I am convinced, join heartily in the idea of sending a strong detachment annually, to St. John, the effect of which on his Battery could not but be beneficial.

The Newcastle Field Battery, (Capt. Call) was inspected on Aug. 29, 1873. This Battery appears to be still in a transition state, the great difficulty being to provide horses and drivers. Capt. Call is an officer who has spared neither time, money, nor trouble in trying to remedy these defects, but I

regret to say, that he has not hitherto met with success. The shot and shell practice made by this Battery was good, and the ammuniory stores, &c., were in good order. The Battery, however, certainly wants the power of mobility, but as it is only armed with the 9 pr. S. B. gun, I question greatly whether the country would be much the gainer if it had it.

Taking this question into consideration, and also the large amount of money necessarily expended on a Field Battery, and also the peculiarity of the country in this Province where it is hard to find a range of open country of any extent that it is not bordered with thick woods, I would suggest that the Gatling gun should be served out to Field Batteries, in the proportion of two to a Battery.

The size of the Battery might thus be greatly decreased, and with it the expense of maintaining it, whilst my idea is, that as nearly all the fighting done here must be skirmishing work, the possession of one or two of these Mitrailleuses would often be as useful to a Commanding Officer as a Battalion of Infantry.

I am unacquainted with these guns myself, but I think that the question might with propriety be referred to the Dominion Inspector of Artillery.

No. 5 Battery at Woodstock, was inspected on Sept. 9, 1873. The Commanding Officer, Lieut. Donnel, appears to be active and energetic, and he has got a large number of men on his roll, whilst many others are anxious to join. I saw some shot practice made from one of the two 6 pr. guns with which this Battery is armed. The carriage of the other gun is so worn out that it is impossible to fire it, and I should recommend that the gun used at this inspection, for shot practice, should not be used again except in a case of urgent necessity.

I trust that before another year's drill takes place, that this Battery will be turned into a Field Battery. I can only repeat what I stated last year, that the country about Woodstock is more suited to a Field Battery than any other part of the Province, that the facilities for obtaining horses are good, and that the officers and men are willing and anxious to serve. The Battery as at present constituted and armed, is of advantage neither to the country nor itself.

On the 8th March, 1873, I forwarded a letter to you informing you of the formation of the New Brunswick Artillery Association, and applying for a grant of ammunition and money for the same. I also reported the formation to the two Dominion Inspectors of Artillery, who were good enough to accept the position of Vice-Presidents of the Association.

Being President myself, I feel diffident in speaking of it officially, but I cannot help regretting at finding from your letters that the Government cannot aid it either in ammunition or money, and I trust that another year a grant may be given it in both, that will enable it to do good work among the Artillerymen in this Province.

Whilst on this subject I may mention that the loss of the small Annual Prize for the best shot in each Battery this year, has been a great disappointment to both officers and men.

In conclusion, I may state that I consider the Artillery Force in New Brunswick is steadily advancing in excellence and efficiency, and the greatest credit should be given to Lieut. Colonel Foster, Commanding the Brigade, and all the Officers of the Artillery in New Brunswick, whilst thank

and credit must also be given to N. C. officers and men, who by their hard work and cheerful sacrifice of their time, for small remuneration, make the force in New Brunswick one it is a pleasure to inspect.

I have the honor to be,

Sir

Your obedient Servant,

DARRELL R. JAGO,

Lieut. Colonel.

Lieut. Col. G. Maunsell,  
Deputy Adjt. General.

(To be Continued)

CAMP TILLEY.

St. Andrews, July 7, 1874.

The Editor finds that during his absence "for the country's good," the motto of the Reporter so thoroughly Saxon in word and character, has been converted into the historical "*veni vidi vici*," which great Cæsar might have employed when compelling his conquered foes to pass *sub iugo*, on the occasion of some magnificent triumph. But if we fail to see the application in regard to the Reporter, we can apply a portion, at least to this "Camp Tilley" of ours at St. Andrews, having already *venied*, and *vidied*, so that it only remains to *vici* in order to render the application complete. The camp is delightfully situated on a gently rising ground about a mile from the ancient town of Saint Andrews, overlooking Passamaquoddy Bay, and affording one of the most magnificent prospects, with its alternations of land and water, to be found in New Brunswick. The forces consist of the 67th and 71st Battalions, Lieut. Colonels Upton and Marsh, respectively, with one isolated Company from St. George and one from St. Stephen, making a total of fourteen Companies, which marched full strength into Camp, greatly to the satisfaction, and no less to the praise, of the Brigade Major of the District, Lieut. Colonel Inches. As the water supply is abundant and convenient, the rations plentiful and of excellent quality, the health of the men is extremely good, very few being named in the Sick Reports of the Medical Officers. When off duty they enjoy themselves amazingly, those of them who have never before seen the salt water, watching the ebb and flow of the tides—gathering shells on the shore—digging among the clam beds—or catching lobsters among the rocks after the tide has receded. It is amusing to witness them lugging their captured prisoners into Camp, carefully bearing their claws downwards, for the "natives" bite viciously, as some of the "Seventy firsters" have already discovered to their sorrow. The clams are gathered by the bushel, roasted or chowdered according to the tastes of our soldier epicures, who are becoming connoisseurs in all matters pertaining to the bivalves or the "natives" aforesaid. Those who prefer an hour of deep sea fishing, have but to charter a small boat, set off with bait and line, and if at all fortunate, return laden with finny spoil in the shape of cod or haddock, which makes a most delicious first course to the soldier's table. The result of these excursions is a wonderful saving in the beef and mutton large quantities remaining unconsumed, to be given away to every applicant, or exchanged for milk, butter, eggs, and other groceries not down in the regular rations. Thus it will be seen the men are sumptuously every day, and are almost universally happy and contented.

The regular duties of the day commence at 5 A. M., when the gun fires and the men town out at the sound of the reveille, to clean up tents and prepare themselves for the receiving of rations which are issued to the respective Quartermasters by the Supply Officers, after being inspected by the Board. These are in turn handed over to the several companies by the Battalion Quartermasters and constitute the issue for the day. From 6 to 7 o'clock the men are at Squad or Company drill under their respective Captains. At 8 o'clock, breakfast, after which the men are at leisure—except those on duty—until 10, when they parade for Battalion drill under their Battalion Commanders. Dismissed at 12, when the men amuse themselves ball playing, fishing &c., until the dinner hour, 1 P. M. From 1 to 3.30 P. M. the men are again at leisure, when they turn out for Brigade parade, and are put through a number of Brigade movements by the Commandant of the Camp, Lt. Col. Maunsell, D. A. G., which are generally performed in a most creditable manner, considering that some of the men have never before attended a Camp of Instruction. His steadiness in the ranks and precision in the various movements are largely the result of the teaching at the Military School, as we find a number of the Cadets taking the posts of officers, non commissioned officers, and sometimes privates in the ranks, showing the excellent effect of even one well disciplined man in a company. At 5.30 o'clock the parade is dismissed and the ordinary duties of the day are at an end, except the Piquet, which parades at Retreat 7.30 P. M., and is marched to town to look after occasional stragglers and absentees. Tea at 6 P. M. Tattoo at 9.30, when the rolls are called and all men are supposed to be present. At 10 P. M. lights out, when the Camp is supposed to assume a perfect quiet.

Target practice under the Musketry Instructor commenced on Saturday last. The Range is situated on the shore of the Bay about 2½ miles from Camp, and although not equal to the Range at Fredericton, gives a pretty fair line of fire at the respective distances of 200, 400 and 600 yards. Four Companies proceed daily to the Range, a Medical Officer being always on the ground. Fifteen rounds are fired daily by each man, the Register being kept by Captains of Companies. The firing up to the present date gives a fair average, comparing favorably with all previous Camps held in this District.

So much for Camp duties.

The town of St. Andrews, however pleasantly situated, is to all appearances lacking in that business enterprise and ceaseless industry which alone secures prosperity to any community. It has a sort of Rip Van Winkle aspect everywhere, and the air of a place in which every citizen having determined the exact amount necessary for his temporal wants during the year, neither asks nor expects any thing further. With the exception of a single establishment for canning Lobsters, of which a Mr. Hart—a native of Fredericton—is the proprietor there is not, we believe, a single manufactory of any description. We are told, however, that the place has quite a respectable foreign trade, and that the people depend more upon their shipping returns and coast line fishing, than upon the trade or manufactures of the city proper. It once, however, did a thriving business, prior to the alterations in the West India trade, and boasted a fine Market and Market House.

The latter is now unused and going to decay, the swallows building their nests confidently under its spreading eaves. There are quite a number of stores, which are not always open, and it is no uncommon remark to hear, when applying for different articles, that you can find them at Mr. So-and-S's "if lies open to day." Their grand Hotel, which was to make St. Andrews a second Saratoga, stands out bleakly on the hillside, unfinished and desolate, its Doric architecture and pretentious proportions bemoaning in solitary grandeur its blasted hopes and once fondly cherished ambitions. They say it never will be completed.

His Honor the Lieut. Governor and family arrived on Thursday last, and was received at the depot by a Guard of Honor from the 71st Battalion under charge of Capt. Staples, the Guard presenting a very creditable appearance. On Saturday morning His Honor accompanied by Mrs. Tilley, visited the Camp, which they inspected in company with the Commandant and Brigade Major admiring very much its orderly aspect and picturesque appearance. His Honor holds a Leave at 3 o'clock to day (Tuesday), and at the same hour to-morrow has invited the Brigade Staff and Regimental Officers to luncheon. A ball by the Officers of the Camp is on the tapis, but is not yet fully determined upon. The duties of Camp have afforded but slight opportunity for proving or accepting the hospitalities of the citizens of Saint Andrews, but we find our friend Robinson, M. P. for the noble County of York, a host in himself. His attentions to his York County friends, and in fact to all the officers, have been unremitting, and we have partaken to the full of his generous hospitality. He has already had two parties out fishing in his beautiful yacht *Bella*, and has given a number of the officer a pleasure excursion which they can never enjoy at their inland homes. Of course we keep mum about the "sea-sickness" and all that sort of thing, which is never mentioned outside "Camp Tilley."

On Saturday last we were surprised by the arrival of three "distinguished strangers,—the Hon. Provincial Secretary," the High Sheriff of York, and Julius L. Inches, Esq., who drove into Camp on the arrival of the train, and enabled us to enjoy a very pleasant hour with our friends from Fredericton. The Secretary and Mr. Inches are the guests of Mr. Robinson, the Sheriff and his family are at a private boarding house in the town.

Thus far there has been but on drawback to the Camp, and that, of course, is beyond human control. It has been raining, raining, raining almost incessantly up to yesterday, interfering with the drill and exercise of the men, and rendering Camp life anything but agreeable while the windows of Heaven are unstopped. The men, however, bear it most patiently, and there is not a word of murmuring or complaint.

What we have said already on similar occasions in regard to the Commandant Lieut. Col. Maunsell, may be repeated in regard to his command at Camp Tilley. Possessing the *suaviter in modo, cum fortiter in re*, he secures at once the respect and obedience of his men; always ready to yield any reasonable indulgence, but never allowing duty or discipline to be neglected or forgotten. Thus everything goes well, and the success of the Camp is already ensured.

The Camp breaks up on Saturday morning next.—N.B. Reporter,

RIFLE COMPETITION.

CAMP NOTES.

Friday Evening, July 6.

After the march through the city yesterday, Colonel Campbell, the Commandant, addressed the officers and men, complimenting them upon the manner in which they attend to their duties, and upon the general good conduct which had prevailed since the formation of the camp.

There was no drill yesterday afternoon, but an inspection of arms took place.

The orders issued from brigade office for the breaking up of the camp were to the following effect:—

An inspection of blankets at 6.30 this morning.

The 14th, 15th, 49th and No. 3 company of the 48th battalions were to march out at nine o'clock this morning; the cavalry, the 47th, and the remainder of the 48th at ten o'clock. The guard of the 14th was to remain on duty until relieved.

The Commanding Officers of "A" Battery kindly volunteered the use of the band to play the brigade out of camp, which offer was accepted.

Considering that last night was the final one in camp, there were no noisy demonstrations on the part of the men. Placing men in blankets and pitching them into the air was the principal amusement of yesterday evening. The 49th band played in front of the Colonel's tent.

The bugle band of the 14th played at "last post."

We published yesterday the result of the average individual shooting in each Battalion. The following is the score of the best shots in each company.

14TH BATTALION.

Companies.	Points.
No. 1 Private R. Coleman.....	24
No. 2 " S. Hyland.....	27
No. 3 Bugler Gilmore.....	28
No. 4 Not in camp.	
No. 5 Private W. J. Hume.....	42
No. 6 Sergt. Rawson.....	43

15TH BATTALION.

Companies.	Points.
No. 1 Sergt. J. Cockburn.....	33
No. 2 Private Walsh.....	31
No. 3 " J. Simmins.....	26
No. 4 " H. Lindsay.....	24
No. 5 " W. Brown.....	23
No. 6 " C. John.....	27

47TH BATTALION.

Companies.	Points.
No. 1 Sergt. King.....	31
No. 2 Private Snook.....	38
No. 3 " Day.....	28
No. 4 " Appleton.....	30
No. 5 Sergt. Major Strachan.....	39
No. 6 Private Nelshie.....	32
No. 7 " Border.....	26

48TH BATTALION,

Companies.	Points.
No. 1 Sergeant Loyst.....	44
No. 2 Pte. Aldred.....	37
No. 3 Sergt. Sanderson.....	35
No. 4 Private Glenn.....	32
No. 5 " Gaylard.....	35
No. 6 " Davison.....	30

49TH BATTALION.

Companies.	Points.
No. 1 Private Hobson.....	39
No. 2 " Liberty.....	34
No. 3 " Patterson.....	32
No. 4 " Parker.....	29
No. 5 " Post.....	26

According to the above figures it will be seen that Sergt. Rawson and Private Hume, of the 14th, who made 43 and 42 points respectively, are the second and third best shots in the brigade, Sergeant Loyst, of the 48th, who made 44 points, being the best. There were no prizes given for shooting this year, as was customary under the late Government.

The representatives of the Press are indebted to the courtesy and attention shown them by Colonel Campbell, Commandant of the camp, and Colonel Philips, Brigade Major, who afforded them every facility for obtaining information, and who were always at the post of duty early and late.—*Chronicle and News.*

THE KINGSTON CAMP.

Target practice in the Brigade camp at Kingston having been completed, I take the liberty of sending you the result of the Hastings "warriors" now in camp, and am much pleased to say that the 49th Battalion has carried off the palm in making the highest average scores, and No. 2 Company of Stirling has made the highest average of any Company in the Battalion. The 49th also has the reputation of having the best band in the Brigade. Said band played last evening in the city park much to the delight of the citizens of the limestone city.

The health of the camp has been excellent, and the conduct of the men, with very few exceptions, extremely good.

I have just obtained the following information respecting Target practice, from the Instructor of musketry:

AVERAGE SCORE OF BATTALIONS.

49th.....	17.33
48th.....	16.54 5-6
47th.....	12.83 4-7
14th.....	9.68 3 5
15th.....	7.06 2 3

BEST SHOT IN THE BRIGADE.

Sergeant Loyst, 48th Battalion, 44 points.

AVERAGE OF COMPANIES IN THE 49TH.

No. 1 Company.....	19.02
" 2 " Stirling.....	21.31 highest av'ge
" 3 " Sidney.....	18.13
" 4 " Madoc.....	13.07
" 5 " Tyendi'ga.....	14.50

BEST THREE SHOTS IN EACH COMPANY OF THE 49TH.

No. 1 Company.

	Points.
1st, Private Hobson.....	39
2nd, Corporal Hilton.....	37
3rd, Sergeant Burke.....	37

No. 2 Company.

1st, Private Liberty.....	34
2nd, Private Tanner.....	32
3rd, Private Reid.....	31

No. 3 Company.

1st, Private Paul Patterson.....	32
2nd, Serheant Saylor.....	32
3rd, Private Charles Wilson.....	31

No. 4 Company.

1st, Private Parker.....	29
2nd, Private Moran.....	26
3rd, Corporal Embury.....	26

No. 5 Company.

1st, Private Wm. Post.....	26
2nd, Private D. Geo.....	26
3rd, Private S. Tripp.....	23

A number of the officers of the 49th have chartered the pleasure steam yacht "Eva," and leave this evening with a few invited friends for a trip among the islands, returning late in the evening. Yours, &c.,

A VOICE FROM THE CAMP.

—Belleville Intelligencer.

TARGET PRACTICE IN CAMP NIAGARA.

The following is a synopsis of the best scores made by the several corps:

13th Battalion.

	Points.
1—Corporal Kerby.....	51
2—Private James Omand.....	44
3—Private W. Morphy.....	32
4—Color Sergeant McRoberts.....	36
5—Color Sergeant Leitch.....	42
6—Color-Sergeant Street.....	49

19th Battalion.

1—Corporal Hullohan.....	31
2—Sergeant Rogers.....	35
3—Sergeant Herbert.....	28
4—Private N. Terryberry.....	46
5—Sergeant Ness.....	25
6—Sergeant John Cushman.....	40

20th Battalion of Rifles.

1—Private Wood.....	57
2—Sergeant Fee.....	49
3—Sergeant Major McKay.....	54
4—Sergeant Batchelor.....	50
5—Quartermaster-Sergeant Speirs.....	57
6—Private David Sheltis.....	48
7—Corporal Joseph O'Keefe.....	53

38th Battalion of Rifles.

5—Sergeant Padfield.....	58
6—Sergeant J. Cockburn.....	57

44th Battalion.

1—Sergeant Bradley.....	30
3—Corporal W. J. Greenwood.....	33
4—Corporal Robert Brooks.....	29
7—Sergeant H. Suez.....	27
8—Private H. Hendershot.....	39

77th Battalion.

1—Private Thomas Adams.....	52
2—Private David Stock.....	60
3—Private Chas. Salmon.....	41
4—Corporal Richard Morgan.....	34
5—Private John Stall.....	46
6—Robert Nosworthy.....	40

2nd Regiment of Cavalry.

1—St. Catharines Troop, Private Oscar Lutz.....	47
2—Grimsby Troop—Private W. Martindale.....	58
3—Burford Troop, Private Abbott.....	36
4—Queenston Troop, J. Sandham.....	42
5—Welland Troop, John Hurst.....	45

S. R. A. ANNUAL MATCH.

The annual Match of the Sherbrooke Rifle Association, was held on Monday Tuesday and Wednesday last at the rifle range in East Sherbrooke. The attendance was said to be larger than any previous match since the first year of its organization, and the prizes, thanks to the liberal subscriptions of our citizens, were well worth winning. The shooting throughout was also very good, a change in the targets having necessitated much finer sighting than formerly. Below we append the names of the winners in each match with their scores and the ranges at which fired:—

MATCH No. 1—200 and 400 yards, 5 shots at each range.

	Points.
1st Capt. Boyd.....	38
2nd R. P. Doyle.....	33
3rd R. Arkley.....	38
4th S. T. Westlake.....	37
5th Lieut. Morkill.....	36
6th Capt. Armstrong.....	36

**MATCH No. 2, 300 and 500 yards, 31 entries.**

	Points.
1st Lieut. Morkill.....	41
2nd R. P. Doyle.....	36
3rd J. Fisette.....	35
4th Lieut. Loomis.....	34
5th Capt. Rolf.....	33
6th E. Stacey.....	33
7th Sergt. Squires.....	32

**MATCH No. 3.—All Comers'. 400 and 600 yards, 38 entries.**

	Points
1st Capt. Thomas, 54th Batt.....	41
2nd B. Rolf, 53rd Batt.....	38
3rd P.P. Cleveland, 54th Batt.....	36
4th Sergt. Whitely, 53rd Batt.....	33
5th S. T. Westlake, 53rd Batt.....	33
6th Sergt. Shaw, 54th Batt.....	32
7th Lieut. Grindrod, 53rd Batt.....	32
8th L. Heath, ".....	32
9th H. Winslow, ".....	31
10th L. A. Stacey, ".....	30

**MATCH No. 4, 400 and 600 yards, 29 entries.**

	Points.
1st N. Rolf, 53rd.....	37
2nd G. C. Ives, S. R. A.....	37
3rd Capt. Rolf, 53rd.....	36
4th L. Heath, ".....	32
5th B. Rolf, ".....	32
6th Sergt. Moulton, 53rd Batt.....	30
7th Lieut. Loomis, ".....	29

**MATCH No. 5, All Comers, 24 entries. The first prize in this match, \$20 cash, was presented by R. W. Heneker, Esq. 300 and 500 yards.**

	Points
1st Lieut. Loomis, 53rd Batt.....	41
2nd Captain Thomas, 54th Batt.....	37
3rd S. T. Westlake, 53rd Batt.....	37
4th Sergt. Shaw, 54th Batt.....	35
5th G. C. Ives, S. R. A.....	33
6th E. Stacey, 53rd Batt.....	32

**CONSOLATION. 200 and 400 yards, 17 entries.**

	Points.
1st S. T. Westlake, 53rd Batt.....	27
2nd L. Heath, ".....	23
3rd Captain Rolf, ".....	23
4th L. A. Stacey, ".....	23
5th Sergt. Shaw, 54th Batt.....	21
6th E. Stacey, 53rd Batt.....	20
7th J. Fisette, ".....	20
8th F. G. Stacey, ".....	20

Although the weather was very warm quite a number of visitors found their way to the grounds and seemed much interested in the firing, among whom were the President, E. T. Brooks, Esq., M. P., Lieut.-Col. King, B. M., Dr. White, Captain Woodward, Major Willis, and others. The presentation of prizes takes place this evening at the Town Hall, at which the band will be present.—*Sherbrook Gazette*.

**THE CAMP AT GUELPH.**

GUELPH, 11th July.

The ordinary routine of camp life has been followed throughout this week. On Sunday morning church parade took place at 9 o'clock when the men were assembled in the Exhibition building on the camp ground. The beautiful litany service of the Church of England was read by Rev. Mr. Cooper, Chaplain of the 32nd Battalion, after which Rev. W. S. Ball, Chaplain of the 30th, preached an excellent discourse, taking for his subject the life of Cornelius, the Christian soldier, as found in the 10th chapter of the Acts of the Apostles. He showed that a soldier's duties were not inconsistent with those of a Christian, and instanced the cases of Havelock, Vicars, and others, who were renowned both for their patriotism and piety. He impressed upon his hearers the importance of becoming

good soldiers of Christ. The musical part of the service was led by the bands of the 28th and 30th and by a cabinet organ. In the afternoon a bible class was conducted by one of the officers of the battery, and afterwards a service of song. In the evening Mr. Cooper preached in the lines of the 32nd. Many of the officers and men attended service in the town churches morning and evening.

On Tuesday afternoon a heavy shower came on as the men were returning from brigade drill and they got pretty well wet. The rain, however, laid the dust, which was getting to be a nuisance.

On Wednesday target practice was completed. The average of the shooting was rather low, which is not to be wondered at since many of the men never had a rifle in their hands before. Col. Clarke of the 30th gave a handsome ice pitcher to the best shot in his battalion, Private Graham of Arthur, who made a score of 50 in 15 rounds at 200, 300 and 400 yards. Col. Clarke has also given \$5 to each company to be awarded to the best shot.

On Thursday the official inspection by Col. Taylor, D. A. G., took place, and in the afternoon there was a grand field day and review on the race course, which was witnessed by a large concourse of spectators. The men went through the various evolutions very creditably and showed a marked improvement as the result of their short sojourn in camp.

A cricket match was played on Wednesday between the town and an eleven from the brigade. The latter not being not accustomed to work together got badly beaten, the score at the close of the first innings being 26 to 90. A second innings was commenced in which the military were running up a good score, but darkness drew on and the stumps had to be drawn.

On Wednesday evening the officers of the 30th and the Brigade staff entertained the Town Council and some other friends to dinner, the gathering being a very sociable one. The same evening a promenade concert in aid of the Young Men's Christian Association was held in the Exhibition building, the music being furnished by the bands which was largely attended.

On Thursday evening the Town Council entertained the whole brigade to a strawberry festival in the same place. It was proposed to give the officers a dinner, but at the suggestion of the latter the form of entertainment was changed so that the men could also participate in the hospitality of the town. The affair was a great success; and the troops will leave favorably impressed with the liberality and hospitality of the Guelph people.

The Guelph Council have voted \$75 to the battery, and 25 cents a day to each man of the Guelph Rifle Company. The County Council of Wellington have voted a like sum to each man of the 30th Battalion.

This morning the camp was astir at an early hour making preparations for going home. Operations were somewhat delayed by a heavy rain which set in at an early hour, but it now shows signs of clearing up so that the men soon move off the ground, and the camp, which has been a very successful one, become a thing of the past.

Col. Taylor, D. A. G., and Col. Clarke, Commandant, have both expressed themselves highly pleased with the manner in which the officers and men have performed their duties and conducted themselves. The former stated that he would make a most favorable report to headquarters.—*Huron Signal*.

**A REMARKABLE ROYAL SPEECH.**

At a recent meeting of the British and Foreign Bible Society, His Highness the Maharajah Dhuleep Singh (heir to the throne of the Punjab) delivered the following remarkable speech:—

"I was a king, but my possessions were taken from me by your Government. In early life, when I was but a little boy, the son of a Brahmin, himself a priest, was my tutor. In the course of his instruction I inquired of him what was the religion of the English? In answer to my inquiry he produced a Bible, and said, "I will show you." He then read Genesis i. and Matthew xxvii. I was but a child, and I cried at the recital of the crucifixion. The impression then made upon my heart was, I believe, from the Spirit of God. I now stand before you as a Christian. In my case the truth of the scripture has been confirmed, that "one shall be taken, and the other left," for my tutor is still a heathen. I fear that many of you I see around me are neglecting that Bible you are seeking to send to others; but I hope that in future you will read it yourselves."

A special to the London Times says:—"M. Pages Dupont has given notice of an amendment to the bill reported from the committee of thirty by M. Ventavon, providing that the Senate shall consist of one hundred members nominated by MacMahon, and one hundred and thirty members of the Assembly to be selected from Deputies of separate departments, and that the Cardinals, Marshals and Admirals shall be Senators, ex-officio, and that the first Senate shall sit three years; next, six or more, according to the decision of the Assembly. The President of the Senate to become Provisional President of the Republic in the event of any vacancy between the adjournment of the present Assembly and the meeting of the next. The President of the Republic to be empowered to dissolve the Assembly with the approval of the Senate.

When the English gunboat *Growler* reached Hong Kong lately, she had to undergo a thorough over haul. She was all but entirely dismantled, her foremast having been taken down, she will have to get new boilers before she is of any use for service, as she came out to relieve the *Teazer*. Instead of sending out a new, or recently repaired, vessel, the *Growler* was re-commissioned at Malta for the China station, and the result is that she will be useless for several months. So much for parsimony in England.

London, July 14.—The Times special correspondent at Berlin, telegraphs that the Bishop of Paderborn has received another sentence of 18,000 thalers fine, and three months detention in a fortress for persistent violation of the ecclesiastical laws.

London, July 17.—A despatch from Lausanne, Switzerland, announces the death in that city of the Rev. Mr. Goodrich, grandson of Noah Webster.

The Carlist Staff, with the main body of the army, have entered Biscay, and threaten to stop navigation of the River Nervion.

There is intense excitement in Berlin over the attempt on Bismarck's life.

CONSTANTINOPLE, July 17.—The fire in Galatia yesterday was brought under controul after raging six hours. Two hundred houses have been destroyed.

The benchers of Gray's Inn have decided to limit the Kenealy inquiry to the fact whether or not he is editor of the "English man."

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## The Volunteer Review,

AND

### MILITARY AND NAVAL GAZETTE.

"Unbribed, untaught, our swords we draw,  
To guard the Monarch, fence the Law."

OTTAWA, TUESDAY, JULY 21, 1874.

**TO CORRESPONDENTS.**—Letters addressed to either the Editor or Publisher, as well as communications intended for publication, must, invariably, be *pre-paid*. Correspondents will also bear in mind that one end of the envelope should be left open, and at the corner the words "Printer's copy" written and a two or five cent stamp (according to the weight of the communication) placed thereon will pay the postage.

**LIEUT. J. B. VINTER**, of Victoria, is our authorised Agent for Vancouver Island, British Columbia. As is also Captain H. V. EDMONDS for New Westminster and adjacent country.

The author of the following ingenious scheme for propelling ships furnishes another illustration of mechanical ingenuity and mathematical knowledge being led astray by want of practical knowledge of the agents (or one of them) proposed to be employed in demonstrating the correctness of the formulated propositions. Water is not a solid, therefore the wedge principle cannot be applied to its horizontal surface, supposing that to be always in a state of quiescence, which is not its normal condition by any means. As the resistance increases with the square of the velocity, it would be a curious problem to find out what combination of iron and wood or iron alone could stand the strain of a speed of sixty miles per hour, the greatest at present

attainable is any sixteen—the square of which is 256—and this requires engines of nominally 3,000 horse power working up to full speed, the square of sixty is 3,600 or nearly fifteen times that of present practical speed without taking into account resistance by motion of air or any other matter known to professional seamen, it is evident that the mechanical difficulties in the way are insuperable.

Taking the *Devastation* as a specimen of the strongest marine structure ever set afloat and her weight as 5,000, her speed 16 miles per hour; her displacement 3,000 tons; her resistance would be equal to 46,000 tons, and following out the comparison if she was driven at a rate of 60 miles per hour her resistance would be 698,000 tons; in the first case allowing her midship section to be 3,000 square feet it would give a pressure of 15½ tons to the foot; in the second it would be equal 23½ tons, taking a horse power at 22 tons it would require in the first case something over 2,000 horse power to overcome inertia; in the second nearly 31,800 horse power inclined planes however applied will not alter the case; the vessel however built must have the necessary immersion as well as power of floatation; the first necessary for her stability, the second such as to enable her to ride a lift over the inequalities of the *lower side of the wedge* which that surface is supposed to represent in this case; and in fact the inception looks to *driving up an inclined plane* instead of over and through a yielding and undulating surface. Modern mechanics has done very little ship building, this last is however the most extraordinary of all.

"Mr. James White writes as follows to the *Brighton Daily News*:—"Mr. C. M. Ramus, M.A., has just published a pamphlet on a question of importance nationally, how best to increase the speed of our steamships. Inferiority of speed in a time of war, it is needless to say, would be fatal to our naval supremacy. This pamphlet is entitled, 'The Polysphenic Ship, or the Possibility of a greatly Increased Speed at Sea proved by new Experiments.' The writer claims the discovery of a new form of steamship, which wherever high speed is required and great power can be applied, must eventually supersede the form now in use. Mr. Ramus truly writes that 'It is perfectly well known and acknowledged that the latest armored ships that have been built have proved that no increased relative amount of steam power can be applied to vessels of the ordinary shape. The big rolling wave that some of them carry at their bows shows that a limit has been reached. If for instance, the power applied to the *Devastation* were much augmented, she would be submerged even in a calm sea, and it is generally admitted that with her present power she would dive if she were driven against the waves of an Atlantic storm.' This invention of Mr. Ramus may be described as a practical application of the inclined plane principle to steam navigation—*that is to say*, it is a ship having a bottom composed of two or more parallel, consecutive inclines—the slopes being from 1 in 17 to 1 in 25. Such a form of ship, the author

avers, had never been subjected to mathematical investigation before 1872, when he submitted his plans to the Admiralty, and he adds that it had never before been demonstrated that 'the lift of vessel on water depended on the well known mechanical advantage belonging to the inclined plane in all mechanical arrangements.' This new form he alleges to be the only yet discovered that can render a vessel capable—under an unusual amount of propelling power—of steadily traversing the water with great velocity. He calculates that steam-vessels constructed on this principle will not require more than three times the amount of power now used to be propelled and maintained at a speed of sixty miles an hour, and without the slightest derangement of their proper position on the water. Mr. Froude, by the direction of the Admiralty, made some experiments on this new form of steamship at Torquay in the summer of 1872. Mr. Froude's report was laid upon the table of the House of Commons at the end of that session, but it has not yet been printed. It would seem that Mr. Froude's report was unfavorable, as Mr. Ramus contests his decision and declares Mr. Froude's allegation that an exorbitant amount of power would be required for his new form of construction was not warranted by the results of tests and experiment. Mr. Ramus asks his readers—and I think on good grounds—to test his experiments, which are detailed, and by their verification aid 'him in overcoming those countless difficulties which every inventor has to encounter when the invention that he offers is one that tends to change the foundations of wealth and runs counter to the prejudice and self-interest of large and important bodies of men.' Mr. Ramus, with his model, obtained a speed at the rate of sixty-three knots per hour, and he points out 'that the downward pressure of any vessel is always a force limited to its actual weight, whereas the contrary force acting upwards increases with great rapidity—in fact, as the cube of the vessel's velocity—and is therefore practically unlimited. He instances the 'upward force that drives a cannon shot off the water, when in its flight it touches it, and causes it to ricochet continually with gradually diminishing bounds until by the loss of its speed its downward weight has become a force greater than the upward force due to the velocity, and then, of course, it sinks beneath the water.' Mr. Ramus proposes, during the present summer, to make further experiments and on a larger scale than before, and I trust that they will demonstrate the practical value of the discovery. If so, who can estimate the vast international and social advantages which must accrue from the adoption of such accelerated rates of steam navigation? It may not, however, be forgotten that theory and practice are sometimes at variance. If Mr. Ramus may have mathematically convinced himself that the 'horizontal pressure of the irremovable water under his vessel will be used as a support or fulcrum of infinite lubricity, over which it will glide with comparatively small and scarcely increasing resistance,' still he may discover—as Smeaton did—how discordant theory and practice sometimes are. A somewhat similar mechanical problem, with regard to the proper angle for the sails of windmills, was solved by Smeaton only after repeated experiments, when he eventually and conclusively ascertained that the angle which had been proved theoretically the best, was that which of all others gave the worst results."

We have to thank the Secretary of the Province of Quebec Rifle Association for a copy of the report for 1873, by which it appears the affairs of the Institution are in a flourishing condition. At a meeting held in the Mechanics Institute, Montreal on 7th May last, the following officers were elected and business transacted:—

Minutes of the fifth annual meeting of the Province of Quebec Rifle Association, held in Montreal, on the 7th May 1874.

Present—Lieutenant Colonels McEachern, McKay, Bacon, Hanson, Rogers, DeBellefeuille, King, Miller, Bethune, Fletcher, Worsley, and Martin; Dr. Coates; Major Aylmer, Sinton, Fraser and Amyrauld; Captains Johnson, Wall and Andrews.

In the absence of the President, Lieut. Colonel McEachern, C.M.G., Vice President took the Chair.

1. The Secretary read his Report, which was by motion adopted, and ordered to be printed.

2. The Treasurer read his statement, which had been audited and reported correct by the Auditors. The statement was received and ordered to be printed with the report.

3. The election of office bearers then took place. The following were elected:

To be Patron—Hon. René Elouard Caron, Lieutenant Governor.

To be President—Lieutenant Colonel C. J. Brydges, re-elected.

Vice Presidents—Andrew Allan, Esq., Lieutenant Colonel McEachern, C.M.G., Lieutenant Colonel Grant, Lieutenant Col. McKay, Lieutenant Colonel King Lieut. Col. Hickson, Lieutenant Colonel Strange, Lieut. Colonel Alley, Robert Hamilton, Esq., Allan Gilmour, Esq., Captain Esdaile, F. Becket, Esq.

Secretary—Lieutenant Colonel Fletcher, re-elected.

Treasurer—Major D. Torrance Fraser, re-elected.

Auditors—Lieutenant Colonel McEachern, Lieutenant Colonel Bacon, Lieutenant Col. Hanson.

Executive Officers Lieut. Col Worsley, Major Hon. M. Aylmer.

Executive Committee—The President, Secretary, Treasurer and Executive officers ex-officio, Lieutenant Colonels McKay, Bacon, Rogers, Bethune, D'Orsonnens, Lamontagne, Hickson, Bond, Hanson and Miller; Captains Esdaile, Morgan, Johnson and Thomas.

Surgeon—Dr. Coates, 51st Batt.

COMMITTEE TO COLLECT SUBSCRIPTIONS FOR THE NEXT PRIZE LIST.

Lieutenant Colonel McKay, Lieutenant Colonel Bacon, Lieutenant Colonel Bond, J. Wm. Molson, Esq., Captain Esdaile, F. Beckett, Esquire, with the Treasurer and Executive Officers.

4. It was resolved that the Annual Matches be held on the 11th August and following days, and that the targets be the same as those used at Wimbledon this year.

5. A circular letter from the Secretary of the Dominion Rifle Association was read, to the effect, that the selection of marksman for the Team for Wimbledon was to be made by the Presidents of the Provincial Associations, who were to send a list of 18 names each, with the scores made in 1873, the distances, dates and places of matches where the scores were made, also the rank, occupation and status of each competitor. This list is to be sent to the Secretary of the

D.O.R.A., not later than the 24th May. After some discussion, a motion was made and carried unanimously.

"The system of last year be adopted for the selection of Competitors for the Province of Quebec—viz, by a competition for that purpose, as the proposition of the Dominion Rifle Association for the selection of competitors for this year is considered impracticable; and that the Secretary of the D.C.R.A., be notified that such a competition will be held if a week's delay is given, say to the 30th May."

6. Moved by Lieutenant Colonel McKay, and second by Captain Johnson,

"That the sum of one hundred dollars be given to the Secretary for his services for the past year."—carried.

7. Votes of thanks were passed to the officers of the past year, and to Lieutenant Colonel McEachern for his able performance of the duties of Chairman.

The meeting then adjourned.

JOHN FLETCHER, Lieut.-Col.,  
Secretary, P. Q. R. A.

FIFTH ANNUAL REPORT OF THE PROVINCE OF QUEBEC RIFLE ASSOCIATION.

A statement of the proceedings of the past year show that the work for which the Association was formed, was carried out efficiently and successfully. A competition was held at Point St. Charles for the selection of marksmen for the Team for Wimbledon, and the credit of the Province was fully maintained at Wimbledon by the men so selected.

Our Annual Prize meeting was held at Point St. Charles on the 12th August and following days. The total number of competitors was 1410, showing a decrease of 93 from 1872; but taking into account that there was one match less, the decrease does not show any real falling off in the actual number present at the meeting. The matches were all contested, and the firing better than at any former meeting. Thirteen Battalions entered for the Battalion Match, being one over the number in 1872. The first prize was won by the 1st Batt. G. T. Rifles, with a score of 197, being 21 over the score of the previous year. The Brydges Challenge Cup was won by Lieutenant Whitman of the 60th Batt. His Excellency the Governor General, Lord Dufferin offered two silver medals, which will be presented when received, to the highest aggregate scores made by the Snider and Small Bore Rifles. The winners are Sergeant Wynne, M.G.A., Snider, and Major Cotton, A Battery, small bore. Our Association having affiliated with the National Rifle Association, we have received their valuable silver medal, which will be competed for this year at our annual matches.

The following letter on the equipment of Field Artillery is of importance to our readers of that arm of the service, it has been copied from *Broad Arrow* of 25th June, and in connection with a lecture on breech loading and muzzle loading guns is the best practical essay we have seen on artillery for some time.

Sir.—The object of my previous letters has been to show the propriety of adopting for our light field batteries a system of drill, in which manœuvring with wagons shall be entirely omitted. It has incidentally been shown that at present the strength of de-

tachments to work these guns varies from six to nine men, and that no one method of carrying them is adhered to. When the wagon accompanies the gun, with the full detachment of nine men, six of them mount on the wagon and its limber; but the "Manual of Artillery Exercises," published last year, directs that "when the gun is not accompanied by its wagon," two men are carried on the axle tree seats, and three on the limber, making, with the sergeant, who is on horseback, a total of six. Nothing is laid down in this case as to how the rest of the detachment are to proceed. A quotation from the latest "Manual of Field Artillery Exercises," viz, that of 1861, shows an admission by authority that four men are sufficient to work the 12pounder Armstrong in action. But even supposing this to be intended for temporary occasion, we have since then introduced a still lighter gun, the muzzle loading rifled 9pounder, which is rapidly superseding the Armstrong, 35batteries being armed with the former, while eleven only remain armed with the latter gun. If we compare the weight of trail in the newer guns with that of the old smooth bore guns they replace, it will perhaps be allowed that it is necessary to keep up detachments of nine men for the service of each in action, as this number was originally fixed for much heavier guns, and that six men being quite as many as are required to work the gun, while any above that number seriously interfere with its mobility, it would be better to parade all above that number as a reserve.

I shall briefly compare the weights of trail and of guns on their carriages, as it is in lifting the former when "limbering up" and "unlimbering," and in dragging the latter forward or backward into suitable positions that the severest strain is put upon the gunners' strength, three men being the number to lift the trail, and two more added to man the wheels when the gun has to be run forward or back. The weight of the trail of old smooth bore 24-pounder howitzer is 3081bs.; old smooth bore 9pounder gun, 2591bs.; 12 pounder Armstrong, 2151bs.; 9pounder rifled muzzle-loader, 1401bs. Here we have in the new gun less than half the weight to lift that there is in the old howitzer, and each of the 17 smooth bore batteries still in India has two such howitzers.

The respective weights of the old and new guns, including their carriages, are—24pdr. howitzer, 27 cwt.; 9pounder smooth bore gun, 25½ cwt.; 12pounder Armstrong, 20 cwt.; 9pounder rifled gun, 19 cwt. The above speaks for itself.

When the gun is not accompanied by its wagon and the strength of detachments does not exceed five or six, two different modes of carrying the men, each of which has its advantages, appear to be contemplated by the authorities, for the off-centre and off-front horses have for some years been provided with saddles instead of harness pads, as if the intention were to mount two of the gunners on those horses. This arrangement seems now likely to be superseded by that of the axle tree seats. It seems, however, questionable whether a man on the off-centre horse, with two on gun limber, would not be almost better than three men crowded on the latter, and if he were chosen from among the drivers, it would obviate the necessity of putting any gunners through the riding school, which leads to complication in clothing accounts, &c., and is in other respects also inconvenient in a field battery. The duty of No. 6 in serving the gun in action is such as any driver could perform. At present the drivers' valises are, on the



march, carried on the off horses, and the gunners on the gun limbers and wagons; in time it will, perhaps, be seen that such baggage could be better disposed in light baggage carts. As a matter of fact the present arrangement could not be carried out in India (where we have 43 out of our 63 light field batteries) without destroying the men's kits. The gunners' pack, exclusive of greatcoat, weighs about 15lbs, the drivers' about 16lbs.; from this it would be easy to calculate how many light baggage carts would be required to keep up with the battery on service.

The ammunition wagons used to be made available for the carriage of tents, cooking utensils, &c. The tents are now otherwise disposed of, but the wagons are still constructed with limber attachment, a form quite unnecessary to their efficiency as wagons and the heaviest in draft that could be devised. Now that the ammunition boxes are not really wanted to seat gunners upon them, would it not be better to build the wagons solely with a view to conveyance of ammunition and the speedy replenishing of exhausted gun limbers under fire? And with this in view would not some form of cart requiring only one, or at the most two horses and one driver, be safer and better than the present wagon and limber with, on service, six horses and three drivers? The wagons, as now arranged, carry not quite three times as much ammunition as the gun and its limber contain, and if we take for comparison only the new 9pounder wagon, we find its weight with limber to be rather more than thirty three cwt., that is very nearly as much as the gun and limber, it can hardly be doubted that the old style of ammunition wagon might be improved, so as to better suit altered circumstances. We cannot now expose men and horses with the same impunity as formerly, and yet it is more than ever necessary to keep up a constant supply of ammunition from a comparatively safe distance. The changes here hinted at would appear to admit of a somewhat smaller establishment of both men and horses in time of peace, but though nominally the present organization admits of nine men to a detachment, yet the men are, at least on home service, so frittered away on all sorts of other duty, endless "fatigues" and orderly work, &c., &c., that even in the Horse Artillery for ordinary parades three or four men are as many as can be mustered in detachments. In India all batteries should be kept up to full strength. What appears to be wanted now more than ever is a simple code of drill and manoeuvre, drawn up with a view entirely to its applicability in the field. This is all the more necessary since short enlistments seem more and more likely to be adopted.

June 17, 1874.

C.

The following letter respecting the difference between the pay of soldiers in the service of the United States and those in the service of Great Britain will be read with considerable interest, as it suggests the only real solution of the problem of recruiting in the British Army, which has exercised the ingenuity of political economists, civil and military in England, to such a fearful extent. The letter is copied from *Broad Arrow* of 13th June.

Sir—I see by your valuable journal (or rather an extract therefrom) that effort is

being made to place the soldier upon a more equitable footing. The pay of 1s. per diem—less, I believe 4d. deducted for groceries—is ridiculously small in comparison with what the soldier of the United States receives. The American soldier enlists for five years, and, as privates in the Line, receives \$13 per month for the first two years; \$14 for the third; \$15 for the fourth; and \$16 for the fifth year—all above \$13 being retained to his credit until his discharge. Should he re-enlist, he receives \$18 per month. In addition to this, he receives during an enlistment (five years) \$305 76c. as allowance for clothing, the whole of which will be paid him in cash, on his final statements, if he shall not have drawn clothing therefor. The corporal for the Line is paid \$15 per month; the duty sergeant \$17; and the first sergeant of a company, \$20 per month—each receiving the \$1 additional per month for the third, fourth and fifth years of enlistment, and \$2 per month for re-enlistment.

In the Engineer and Signal Corps, a second class private is paid \$13; first class private \$17; corporal, \$20; sergeant, \$34—and \$1 per month additional for the third, fourth, and fifth years. The clothing allowance is a trifle more than that afore mentioned for non-commissioned officers and the Staff Corps. The ration and quarters are very fair, and furnished free of charge to the enlisted man.

Thus it will be plainly seen, as far as remuneration goes the English soldier is a long way behind.

I was born in old England, and know that I speak but the sentiments of nearly every Englishman in "Uncle Sam's" Service when I say that if the pay and allowances were at all approximate to what they are here, I would be better satisfied to serve under the grand old "Cross of St. George."

If the War authorities of England really desire to secure intelligent, sober, and earnest men, let them act with justice and give the soldier a pay out of which he may save a few shillings for the day when he shall no longer be able to carry a musket; or hold out the certainty that, his behaviour being good, he shall receive a living pension, and not be driven out to act as "commission air" (another name for errand boy), after long and faithful service in the field, and in guarding the rich, though sickly, possessions of the nation.

Apologising for taking so much space, I am, very respectfully yours,

AN EX-BRITISH VOLUNTEER AND AT  
PRESENT UNITED STATES SOLDIER.

Willetts Point, New York Harbour,  
May 24, 1874.

We have been advocates of the "Mon-teith system of Fortification"—Gun pits—as opposed to the bastion, or what may be called the architectural system of raised forts, as best adapted to the use, safety and efficient working of Modern Artillery. The following from *Broad Arrow* of 2nd May goes far to prove the correctness of our views.

"At Gibraltar, on the morning of April 16, the commanding Royal Engineer and the officer commanding the Royal Artillery, with the view of testing the stability of the Gibraltar shield, made some experiments with the 10 inch 18 ton gun, M.L.R., mounted in the "Engineer Battery." This

is a new work and has just been completed by the Engineers. It is fitted up with the strengthened shield, which is fixed into blocks of granite and covered over with a concrete bomb-proof. The first shot was fired with a blank charge, with the gun direct and horizontal. This had no effect upon the shield. The second discharge was fired with Palliser shot, the gun being in the same position as before. The result of this was that the wooden plates between the iron ones were burnt up by the flame of the gas from the powder. At the third shot the gun was laid at the extreme right trail, and with the maximum elevation of 8 deg. 20 min. The effect of this upon the shield was startling. The whole iron mass was displaced 2½ sec. or 3 sec. and the outer bolts forced out a couple of inches. A few more shots at that elevation, and with the same trail, and the shield would have become perfectly useless. Two more shots were fired, which resulted in forcing the bolts still further, and in charring the wooden plates still more. The reason assigned for this collapse of the Gibraltar shield is that the gun is too short, the muzzle being a few inches inside the porthole. The gas escaping from the muzzle burns up the wooden plates, and causes the iron ones to get loose. It must also be borne in mind that at least a quarter of the 70lb. is consumed in the gun, and no doubt expends itself on the plates. The remedies suggested are—1, to line the porthole with iron sheathing so as to prevent the gas coming in contact with the wood between the iron plates; 2, to advance the front racer, which would enable the muzzle of the gun to project beyond the porthole. This latter remedy would, however, be effected at the sacrifice of lateral range.

We copy the following from the *Nation* of 2nd July, inasmuch as it is an instance of *indiscipline* which should be carefully avoided. Soldiers in uniform should consort with their officers. Although there was nothing in the case cited to prevent the *guard of honor* from retiring exchanging their uniforms and enjoying their captain's social hospitality as civilians.

It is absolutely necessary to draw a broad line of demarcation between both classes; the neglect of it was the ruin of the discipline and subordination of the French army and the degradation of their country as well as the fearful losses it sustained. "Familiarity breeds contempt," is an old proverb and a wise one—which it is to be hoped our soldier will recognize—with the most elastic and best system of organization in the world we must be sure to enforce discipline and subordination. It is easy to attend to propriety, and no good will ensue from outraging it.

"There are certain qualities which, to a certain extent, disqualify an officer trained in the exact discipline and accustomed to the inelastic rules of a regular army for satisfactorily managing a force like a Colonial Militia—a force that requires a delicate handling, that, with tact may be led anywhere, but that, without tact, cannot be driven at all. The manners and habits of the country have to be considered, the probable social equality of officers and men has to be taken into account, and consequently a considerable latitude of action

has to be allowed in unessentials. That which to a martinet seems intolerable license has to be tolerated; and usually no harm comes of it. Still there are things which, after making all allowances, are not properly permissible; and frequent among them may be placed the donning of a uniform on unauthorized occasion. It is obvious that if individual members of a corps are at liberty to appear as soldiers and march about the streets together, a facility is afforded for making demonstrations of which, when the occasions arrives, advantage may be awkwardly taken. Now we do not in the least wish to inculcate celibacy in our local forces, nor do we think it otherwise than laudable as well as natural that, when a popular officer returns from his wedding tour, the men of his company should manifest their sympathy in the happiness of the bridegroom; but it must be confessed that when we find it recorded in the pages of a contemporary that, "a guard of honor consisting of a detachment of the — Regiment, met and escorted Captain — to the Beehive where supper was eaten and some time spent in social intercourse," doubts do arise whether discipline has not been subordinated to joviality, and whether military etiquette has not been a little sacrificed to good fellowship. By all means let social suppers be eaten, by those whose stomachs will stand them; let slippers be thrown after bride; and let the people "celebrate" weddings as they please; but we venture to think that a military turnout, even on the momentous occasion of the return of a newly married officer to the headquarters of his regiment, had better be dispensed with, unless authorized by an order from headquarters."

The people of New Westminster have taken issue with the people of Victoria on the Railway question, and condemn their action in trying to coerce the Canadian Government into at once commencing the construction of the Pacific Railway to suit the views of the Islanders, irrespective of the wishes of the Mainlanders. A meeting for the purpose of petitioning the Canadian Government in reference to the matter was held at New Westminster on the 20th of June, at which resolutions were passed, and a committee appointed to draft an address to His Excellency the Governor General which is as follows:—

"That in view of the action taken by the Association calling itself the Terms of Union Preservation League, meeting in the city of Victoria, on Vancouver Island, in petitioning Her Most Gracious Majesty the Queen, relative to the non-fulfilment of one of the conditions of the Terms of Union and affirming in said petition that Esquimalt on Vancouver Island had been decided to be the Terminus of the Canadian Pacific Railway, and that a portion of the line had been located between the harbor of Esquimalt and Seymour Narrows, and praying that Her Majesty act as Arbitrator, and see that justice be done to British Columbia, we the undersigned respectfully submit as follows:

"That, in our opinion the order of the Privy Council of Canada, of 7th June, 1873, is in no way binding upon Your Excellency's present Government, and that a line of Railway along the seaboard of Vancouver Island to Esquimalt, is in no part of the Terms of Union.

"That in any arrangement which may be entered into for an extension of time for the commencement or completion of the Railway, any consideration granted by the Dominion of Canada to the Province of British Columbia, should be such as would be generally advantageous to the whole Province, and not of a merely local nature benefiting only a section thereof.

"That the League referred to, acting under the impression that further surveys may detract from the favorable opinion now entertained by the Engineers of the Bute and Inlet route, are desirous of forcing Your Excellency's Government into immediate selection.

"That we consider it would be unwise, impolitic, and unjust, to select any line for the Railway, until time be given to make a thorough survey of the different routes on the Mainland, believing as we do that such survey must result in the selection of the Fraser Valley route, which is the only one that connects the fertile districts of the interior with the seaboard.

"That as it is evident that the Surveys are not yet sufficiently advanced to allow of an intelligent decision on the question of route being arrived at, we consider a vigorous and immediate prosecution of the Surveys by Your Excellency's Government to be followed in 1875, by the commencement of construction on the Mainland, will be a faithful carrying out of the spirit of the Terms of Union."

We paid a visit to the Armoury Storehouse on Saturday to see the new Guns just arrived for the Ottawa Field Battery, commanded by Capt. JOHN STEWART. They are beautiful pieces of ordnance, being 9 pounder muzzle loading steel rifled guns, the same we believe as those now in possession of "A" and "B" Batteries Schools of Gunnery at Kingston and Quebec, and also by the Royal Horse Artillery. The elevating screw is worked by an improved method and enables the Gunner to elevate or depress his Gun to a given point with accuracy. A handy table of ranges and degrees of elevation is engraved on a brass plate on the limber and enables the Gunner laying the gun to see correctly at a glance the degrees of elevation required. They are sighted for 6 degrees and will throw shells a distance of 3,500 yds. the charge of powder being 1lb. 12oz. They are lighter than the old Guns (8cwt. 1q. 7lbs.) and will therefore be much more easily worked by men and horses.

It is a pity that two guns more had not been added, and make it a six Gun Battery. Surely Ottawa, the Capital of the Dominion, is entitled to it. The additional expense would have been very trifling indeed, and we are sure Captain STEWART could easily procure the few additional men and horses required to man and work them.

We direct attention to the Advertisement of the Province of Quebec Rifle Association, the Matches of which are to come off on Tuesday, 11th August, and following days, at the Point St. Charles Ranges. The liberal policy pursued by the gentlemen composing the managing Directory of this Association,

has emphatically made these matches the Wimbledon of Canada. One match only is reserved for Quebec volunteers; the others are open to anybody who wishes to compete. The prize list we see is enlarged, and the regulations improved by the experience of former seasons. The executive committee are evidently well versed in rifle practice, and we shall be glad of their success in the encouragement of this most useful exercise.

MACMAHON'S MESSAGE.

VERSAILLES, July 9.—In the Assembly today, the message of President MacMahon, of which notice was given yesterday, was presented and read by General DeCissey, Minister of War:—"When you, by the law of November 20th last, delivered executive power into my hands for seven years, you intended to afford to the public interests that stability which precarious institutions are powerless to give; that vote conferred upon me grave duties for the fulfilment of which I am accountable to France, and from which I can in no case be permitted to withdraw. It also conferred rights which I shall never exercise except for the good of the country. Your confidence rendered my powers irrevocable for a fixed term. In forestalling the votes on constitutional bills, in according them yourselves, you enshined your sovereignty. I shall employ the means with which I am armed by the laws to defend my power. This course I am convinced, is in accordance with the expectations and will of the Assembly which, when it placed me at the head of the Government, intended to create a strong, stable and respected power. But the law of Nov. 20th must be completed. The Assembly cannot meditate tearing up its engagements. Permit me to press on your minds the claims of the fulfilment of that engagement. The country demands the organization of public powers, and the questions which were reserved, must be settled. Further delay will depress trade, and hamper the prosperity of the country. I hope the Assembly will not fail to fulfil its obligations. I adjure it in the name of the highest interests of the country to deliberate without delay upon the questions which must no longer remain in suspense. The Assembly and Government are directly responsible. I am desirous of accomplishing all my duties, and my most imperative duty is to afford to the country defined institutions, security and calm. I have instructed the Minister to inform the constitutional committee concerning the points upon which I believe it to exist."

M. Raoul Duval argued that the Assembly was powerless to constitute a definitive Government, and moved that it dissolve after having voted upon the financial bills, the bill on military organization, and one for a general election on October 25th; he demanded that his motion be declared urgent. The demand for urgency was supported by the Left and the Bonapartists, but was rejected by a large majority. The Left Centre voted with the majority, thinking that MacMahon's message increased the chances of Cassimir Periers bill. The motion was afterwards referred to the Committee on Parliamentary Initiative, in which the Left predominated. A favorable and speedy report upon it is, therefore, certain. The Committee of Thirty has approved the bill favoring the personal septennate, and the debate upon it will probably occur within a few days.

## THE ENGINEER.

It was a grave and quiet youth—  
A chain-man true was he  
Until he linked his fate with those  
Who engineers would be.

For, as he was an honest man,  
It gave him bitter pain  
That, like a convict, he should be  
Compelled to drag a chain.

He ne'er aspired to wealth or fame,  
And I have heard him say  
No monarch would he wish to be  
Of all he did survey.

A cunning engineer was he,  
Yet naught with him went right,  
Nor could he his ill luck foresee  
In spite of his "foresight."

'Twas all in vain this engineer  
Would work with mule and might;  
His work was incorrect, because  
His angles were all right.

All day his level he would run,  
But all he gained by that  
Was just to know that he him-self,  
And not the ground, was "flat."

To make a map he never tried  
But what he cursed did make;  
Not his the darts and wily arts,  
And so he could not "plot."

As he laid out the land one day,  
Like any other elf,  
The fever came and very soon  
He was "laid out" himself.

Twelve men upon his body sat,  
And this verdict did make;  
"We find he died, just as he lived,  
A martyr to the stake."

And so at twenty years of age  
He quit this mortal strife,  
And ended here for ever more  
His transitory life.

The moral of this mournful tale  
To blockheads all is clear—  
Don't let your heads get engine turned  
To be an engineer.

—Harper's Magazine.

## ARMY ORGANIZATION.

(By General George B. McClellan.)

(Continued from page 315.)

## THE COMPOSITION OF ARMIES.

Armies are made up —

I. Of the *combatants*, who do the fighting.

II. Of the *non-combatants*, whose duty it is to provide the fighting portion with weapons, ammunition, food, clothing, equipments, medical attendance, transportation, forage, etc., at the proper time and place, so that the combatants may never lack the supplies necessary to enable them to do the work expected of them.

The chief purpose of a good army organization is to make the combatants as numerous and efficient as possible, and to reduce the non-combatants, with their indispensable but embarrassing impediments, to a strict minimum. Any organization which does not accomplish these purposes must be regarded as radically defective.

## I. THE COMBATANTS.

These consist of the *infantry*, who march and fight on foot; the *cavalry*, who move and fight on horseback; the *artillery*; and the *engineers*.

Each of these natural and general subdivisions of the combatants forms "an arm of service"—e. g., the infantry arm, the artillery arm, etc. To these are added in some armies certain special organizations, such as mounted infantry, who are provided with horses in order to secure celerity of movement, but who fight on foot, and *dragoons* (properly so called), who move on horseback, but who fight either on foot or mounted, as circumstances may require. So also

some companies of engineer troops, who habitually march and act on foot, are in some armies mounted, in order to enable them to accompany the cavalry in their movements. But these are exceptional cases only, and do not necessitate an extension of the subdivision given above.

## THE INFANTRY.

This arm of service constitutes, both in respect of numbers and importance, the main body of an army, so that the others are, in fact, accessories to it, although often indispensable in covering its movements, facilitating its attack or defence, and following up the results it has gained. A somewhat detailed explanation of the organization of the infantry arm will enable us to pass more rapidly over that of the other arms of service, to which the same principles apply, modified, of course, by the peculiar circumstances of each case. A good organization must provide for the inculcation and maintenance of discipline under all circumstances; thorough instruction in all points of the drill—that the soldier may be able to use his weapons to the best advantage, and take his part understandingly in all tactical movements—also in the various phases of guard, outpost, and patrol duties; it must make due provision for the interior administration, that is to say, for the proper accountability for and care of all weapons, ammunition, equipments, clothing, and food issued directly to the men, or in the hands of the regimental and company officers, ready for supplying current needs, so as to prevent waste and secure a proper supply at all times; it must provide for the very necessary supervision over the comfort and health of the men in the way of proper cooking, hygienic precautions in regard to their dress, habits, etc. lastly, and not least in importance, there must be such a supply of officers and non-commissioned officers, and such a distribution of the force into large and small bodies or units, that the march of large numbers of troops may be conducted with celerity and good order and that the movements in battle may be made with rapidity, decision, and unity, and be under the entire control of the commanders.

To secure these results the first condition is that the different fractions of the army should be commanded and directed by officers whose rank, character, and experience, as well as theoretical and practical knowledge of their duties, are commensurate with the importance and extent of their spheres of action. Between the officers and the private soldiers come the non-commissioned officers selected from among the latter for their good character, good soldierly qualities, education, and intelligence. Another principle of first importance is that the number of fractions composing each unit of force (i. e., the battalion, the regiment, the brigade, etc.) should not exceed two or six, since experience has shown that no commander of a unit can safely undertake to communicate orders efficiently to more than that number of subordinates. It will be necessary to recur to this principle when explaining the organization of the different units.

The lowest or smallest unit of organization for tactical and administrative purposes is the *company*, commanded by a captain, who is assisted in the performance of his duties by lieutenants (commissioned officers), and by sergeants and corporals (non-commissioned officers). As will hereafter be explained, the strength of the company varies much in different services, both on

the war and peace footing; for war the company varies from about 100 to 270 officers and men in different armies.

The *battalion* is the next higher tactical unit, and consists of from four to ten companies, depending upon the strength of the company; it is commanded by a major, provided with a proper staff.

The *regiment* is the next tactical and administrative unit; it consists of from one to five, and sometimes of even six battalions, including the reserve and depot battalions, and is commanded by a colonel, who also is furnished with a suitable staff.

The next tactical unit is the *brigade*, composed of two or more regiments, and commanded by a general of brigade.

The next higher tactical and administrative unit is the *division*, made up of two or more brigades, and commanded by a general of division.

Usually the division is the lowest unit composed of two or more arms of service. To the infantry division a certain amount of cavalry, artillery, engineer troops, and of the train detachments, are usually permanently assigned, and form a part of the command of its general, so that the division may be said to be the lowest unit capable of independent action. To a cavalry division it is usual to attach permanently a suitable proportion of mounted engineer troops, but no infantry. In some services the division does not exist, but the brigade is organized on a similar independent footing. In others, although the division is retained, the brigade is made an administrative unit.

In large armies the next administrative and tactical unit is the *army corps*, which is made up of two or more divisions of infantry, with a brigade or division of cavalry, and a reserve of artillery, and is, in fact, a small and complete army within itself. It is commanded by a lieutenant general, a general, or a marshal. Two or more army corps form an *army*. In the large masses brought to bear in modern times it is usual to divide the entire forces acting toward a common point, with a common object, into two or three separate armies, each with its independent commander, but all acting under the direct orders of the sovereign or a generalissimo.

Whenever the occasion arises in the course of these articles to designate the different grades of the military hierarchy, the names used in our own or the French service will be habitually employed, but, to avoid repetition and explanation hereafter, it may be well at this point to mention the titles made use of in some of the principal armies of Europe. In our own, as well as in the French, Italian, and English services, the commanders of companies of all arms of service are entitled captains; their assistants are first lieutenants and second or sub lieutenants. All of these are called "company officers," because their duties are confined solely to the particular companies to which they are attached. In Germany the captain of cavalry is entitled "Rittmeister," while the designation of a captain in any other arm of service is "Hauptmann," i. e., chief or leader. In the four armies first named the commander of a regiment is known as a colonel, while his assistants in the command of the battalions, etc., are known as lieutenant colonels and majors, except in the French army, where the majors of cavalry and artillery are designated "chiefs of squadrons" and the majors commanding infantry battalions are known as "chiefs of battalions." In Germany the commander of a regiment is designated

"Oberste," meaning highest or supreme, and his assistants are called "Oberstlieutenant" and Major. All of these officers are known as "regimental officers" or "battalion officers," because their duties are general in the regiment or battalion, and have nothing to do with the details of service in any particular company. They are also sometimes designated as "field officers." The "general officers" are those above the grade of colonel, and, beginning with the lowest, are, in our own and the English services, brigadier general, or general of brigade; major general, lieutenant general, and in the English army, field marshal. In the French army there are generals of brigade, generals of division, and marshals. In the German army the brigade is habitually commanded by a major general, the division by a lieutenant general, the corps by a general of infantry, cavalry, etc., while the proper command of a field marshal is an army. In Austria the term lieutenant general is replaced by that of "Lieutenant Feldmarschall," and that of general by "Feldzeugmeister."

But whatever may be the particular terms employed, there is in every well organized European army a grade of general officer for the special command of each great unit, viz, the brigade, division, corps, and army. Of course it happens not unfrequently that a general officer exercises a command higher than that to which his grade entitles him, and it often happens in war that brigades are commanded by colonels.

We may now revert to the considerations which should regulate the strength and composition of the various component parts of an army. As already stated, the company of infantry is the lowest organized unit of that arm of service. In other words, it is never broken up, never removed from the immediate supervision of its commander, unless for a strictly temporary purpose; as, for example, when a guard, an escort, patrol, or similar detachment is required for a few hours or days of less force than a company. Not only is the company the smallest organized unit, but it is also the most important; for it is here that the young soldier receives his whole military education, and passes from the raw recruit into the thoroughly disciplined and instructed veteran. The company is the soldier's family and home, and as the company is, so will the soldier, the regiment, and the army be. The army, after all, is only an aggregation of companies, and the intermediate units are simply subordinate aggregations of companies made for convenience, but in which the companies are never merged, and never lose their identity and individuality. There is no point in the organization of armies more important than that of securing the best possible company officers and non commissioned officers; with them a good army can always be made; without them it is impossible. The company commander is in immediate contact with all his men, and is directly responsible for their health, comfort, good order, discipline, and efficiency; he conducts them personally in battle, and directs their individual movements—all this with the assistance of his lieutenants and non commissioned officers, but with the direct responsibility always resting on his own shoulders. It is impossible to overrate the importance of the captain's duties, and the absolute necessity of the post being held by competent and fully instructed gentlemen. It follows from all this that the strength of a company should reach and not exceed the

limit up to which a good officer can properly exercise this personal supervision. Just here occurs one of the broadest and most important distinctions between the Germans and Russians on the one hand, and the French, English, and ourselves on the other—a distinction which widely affects the entire army system. It is the question of large versus small companies. The German companies on the war footing consist of 250 non commissioned officers and privates, while with the English, and French, and ourselves the maximum number is about 100, although the French in some cases increase the number somewhat. The full number of company officers in the German army is five, while with the small companies it is three, so that for every 1000 men the Germans provide twenty company officers, while the French have thirty. The German arrangement results in a great economy in expense and material if the smaller number is sufficient, which the experience of recent wars seems only to prove. In fact, in consequence of the then recent increase in the strength of their army, the Germans seldom had the full number of officers with their companies during their late wars. It is true that they experienced considerable inconvenience from the short supply, but it is clear that the full number would have been ample. The Germans have in each company twenty non commissioned officers, in addition to twenty four lance corporals and re-enlisted men serving in the ranks, but available to replace at once any disabled non commissioned officers. The French have fourteen non commissioned officers per company, while we have only ten.

Experience seems to have demonstrated that 250 men are quite within the control and personal supervision of a captain, aided by good lieutenants and non commissioned officers, both with regard to the purposes of administration, discipline, and instruction, and to their proper employment in battle. A company of this strength forms a compact mass which is very effective in battle, and is found to be far more readily handled and controlled than the French battalion, while a company of 100 men is too weak to effect any important purpose by itself. The wars of 1806 and of 1870-71 afford many instances in which single companies, properly supported, effected important results, and clearly established the value of these strong companies, which are really the effective units of battle as well as of instruction and administration. It may be remarked, in passing, that in the German service the captains of infantry are mounted. The sound conclusion with reference to the strength of the company, based upon ample experience, would seem to be that, in a well organized army, with intelligent and well disciplined soldiers and competent and well instructed officers and non commissioned officers, the German system of large companies is in every respect the most efficient and economical, and that it permits most readily a rapid expansion on the outbreak of war. In the contrary case it may be preferable to employ the weak companies, especially when the battalion commanders are fully competent, and can partly supply the deficiencies of the company officers; but in such cases it would probably be found advisable to reduce the number of companies in a battalion below ten.

Both in England and France this question in regard to the proper strength of the company of infantry is a subject of great

interest and much discussion among the most intelligent officers, but no official action has yet been taken in either of these armies to modify the old company organization, and it can not be said that there is any probability of immediate action in this direction by either. But it is probable that ultimately there will be considerable increase in the strength of the companies.

(To be continued.)

#### FRENCH RIFLE TARGETS.

The shooting-ranges at Havre, where a party of our Volunteers are trying their skill against French marksmen, are peculiar in their arrangement. There are ten ranges, enclosed between brick walls, and the shooting is entirely under cover. The person shooting stands at a species of window, and he shoots through a series of small oblong squares, at the end of each being the target. The bull's eye is of oblong formation also, instead of round, like those of the English targets. The distances, of course, are measured by metres which very nearly assimilate to our English yards, being a fraction over 39 inches in length. The first or shortest range of the Tir is 65 metres for small weapons. The target is composed of a small piece of white cardboard, about 4 metres square, with a number of concentric circles round the bull's eye, which is about an inch in length and a quarter of an inch in width, the bull's eye being black. The bull's eye count 5, the next circle 4, and so on outwards to 1. This is the principle upon which the whole of the targets are constructed. The ranges run at 170 metres, 225 metres, and 300 metres, which is the greatest distance, and which means in English exactly 327 yards. There is also a range for pistols, or *pistolets de tir*, at 20 metres, with a bull's eye of 4 centimetres, and a range for the Carbine Hobert, used for teaching boys the dimensions of the carton, being 10 centimetres, on the model of that used at the Societe Centrale of Paris. The novelty of the arrangements evidently affected the shooting of the English competitors on the first day, when the best of them came in third.

The first torpedo vessel of the British navy has been launched at Pembroke Dockyard. She is called the *Vesurius*. The *Broad Arrow* describes her as a handsome little vessel, which when fully equipped will have her hull only some three feet above the water, and the screw below. Her principal dimensions are—length between perpendiculars, 90ft.; breadth extreme, 22ft.; depth in hold 11ft. 4in.; displacement in tons, 341. She is propelled by twin screws driven by engines on the surface condenser principle, of 360 indicated horsepower, with boilers bearing a pressure of 70lbs. to the square inch. She will not produce any smoke—coke only being used, and the funnel is a horizontal one, lying along the deck, which is semiroval. The crew will be stationed below, and ventilation will be provided by a draught of air produced in furnaces by hand, until steam is got up, afterwards generated by means of a donkey engine, which drives a fan in addition to her large engines used for various purposes. She was designed by the chief naval architect at the Admiralty.

## THE AUSTRIAN CAVALRY IN 1874.

In a review of the recently-published work of Dr. Jurnitschek, the *Revue Militaire* gives an interesting, and we have reason to suppose, a reliable account of the late army reforms in Austria, to which we are indebted for the annexed details of cavalry matters there.

The cavalry of the Austro-Hungarian Army now consists of forty-one regiments, *à s.*, fourteen of Dragoons, eleven of Uhlans (Lancers), and sixteen of Hussars. The distinction of title and dress thus retained, are merely concessions of time honored regimental traditions, and to the local Associations of particular portions of the Empire Kingdom, with which the regiments are linked individually. The size of the men and horses is the same in all, and all are equally eligible for *bona-fide* light cavalry duties.

Every cavalry regiment is divided into six field squadrons and a depot. Each squadron has one captain, two sub lieutenants, one probation officer, one quartermaster, four sergeants, eight corporals, one trumpeter, and 30 troopers, all mounted, besides one pay sergeant, two clerks, one farrier, one saddler, and thirteen troopers, dismounted. The strength of each squadron on a peace footing is thus, five officers, 166 non commissioned officers and troopers, and 149 horses. In time of war an extra horse is added to each, to mount the squadron pay sergeant, and two reserve squadrons of equal strength, are formed out of the reserve officers and men belonging to the regiment, who are mounted on horses liable to military service under the Horse Conscription law, which has been in force since the 16th of April last year. These numbers are exclusive of regimental field officer, and of the regimental commissioned and non commissioned staff. In addition to the above, each regiment in peace time has a depot of two officers, five non commissioned officers, twelve troopers, and four horses, which, in the event of war, is expanded into a depot squadron of any desired strength. Every Austrian cavalry regiment may therefore be taken to represent, in round numbers, a force of 1000 officers and men, exclusive of its reserves.

Should there be any recruits or recruit-horses present with the regiment when ordered to take the field, they are made over to the depot, and their places filled up from the reserve squadrons which are then formed.

In the event of a mobilization, each of the forty-one regiments is therefore competent to take the field with six full squadrons, of trained men and horses, having besides, in rear, two reserve squadrons, which can be employed in garrison and *clappen* duties, and in filling up vacancies in front, and also a depot squadron, which receives all the reserve officers and men, whose services are not needed in the field reserve squadrons. The reserve squadrons may be regimented by twos or fours, for garrison, etc., duties.

Cavalry as well as infantry regiments in the Austrian Service are required to find each a certain number of field gendarmes for staff duties. These men are always taken from the reserve. They are taken for the year, in the proportion of two or three non commissioned officers and men to each regiment, and at the autumnal manoeuvres are formed into detachments to receive special instruction in the particular duties assigned to them.

The number of men to be employed in the

field is fixed, by the Austrian regulations, as below:—

To each division of cavalry or infantry, 3 non commissioned officers and men.

To each *corps d'armée* 1 subaltern, 1 non-commissioned officer and 7 men.

With the army headquarters, 1 captain, 2 subalterns, 4 quartermasters, 10 non commissioned officers, and 33 men.

The colossal stature formerly characteristic of certain corps has given place to one uniform rule.—“a strong, active frame, and a figure suited to work on horseback.” The limits of height for the men in all cavalry regiments are 61 and 68 Vienna inches. As the Vienna inch is one tenth longer than the English, this will be 4ft. 10in. to 5ft. 5in. English measure.

Two fifths of the horses must be about 15 hands 2in., or 15 hands 3in., and the remaining three fifths between 14 hands 3in. and 15 hands 1in. The hands are here reckoned in the Austrian inches. Remounts to the number of 22 per cent. of the effective strength are purchased every year. All remounts, excepting a small reserve for casualties, must be taken on by 1st October. The training of men and horses is supposed to be complete in spring, when each squadron should have its full strength of perfectly broken horses. In the event of war, each regiment will by up its annual contingent of remounts without waiting for the mobilization of the troops.

In this way, and with the aid of the horse conscription, it is assumed that each one of the forty one regiments should be in a position to send into the field at any moment, six squadrons, each containing at least 120 perfectly trained horses. This would provide a first line of 29,250 trained cavalry, besides an ample horse reserve.

Great attention is paid to the training of the men to act dismounted; and in order to render the cavalry more efficient in the performance of their duties, a mounted pioneer sub division has been formed in the sixth squadron of each regiment, and five men in each of the other five squadrons are also trained to act as mounted pioneers. All these men undergo a special course of instruction in field engineering, and are supplied with saws, axes, augers, gun spikes, blasting charges of dynamite, &c. distributed amongst them, so as to increase the load carried by their horses as little as possible.

Every regiment of Austrian cavalry, as well as infantry, is linked for recruiting purposes with some particular province, or with one or more particular districts, within which its reserve men and men holding standing furloughs are bound to reside unless they receive permission to do otherwise.

—*Broad Arrow.*

INSPECTION.—The volunteers who have been camping here for the past twelve days were inspected on Thursday by Lieut. Colonel Jarvis and Brigade Major Smith. Their appearance was satisfactory, and their behaviour warranted the words of encomium which they received from their officers. The inspection lasted about three hours. Yesterday the camp broke up and the men were dismissed. The Bowmanville and western companies left by the mixed at 1 o'clock; the eastern companies went down on a special, and the Peterborough battalion went via Harwood. All expressed themselves satisfied with their treatment while in camp.—*Cobourg Sentinel.*

## DR. BROUSE, M. P. AND THE VETERANS OF 1812.

To the Editor of the TELEGRAPH.

Sir.—During the last Session of the House of Commons, I brought under the notice of the Government the Royal Warrant issued from “Chelsea Hospital,” granting pensions to soldiers who had fought for the defence of the British Flag, previous to 1815, and asked the action of the Premier to ascertain if such notice would not include the “Canadian Veterans” who had fought side by side with the regular soldiers? The Government promptly replied that they would. I now understand the Hon. the Minister of Militia has submitted one or more applications to ascertain if the Warrant will apply to our surviving “incorporated Militia of 1812,” and if they will be entitled to claim the division under the Chelsea Warrant. In a few weeks a definite reply may be expected.

I submit the above statement for the information of those interested, as it is quite impossible for me to send replies to all the letters received and making inquiries respecting the anticipated pensions.

It is really extraordinary the number of veterans of 1812 who are still living in the Province of Ontario. A company of over fifty can be mustered along the River St. Lawrence in this “Territorial Division,” and what is still more pleasing arises from the fact that they are active and appear to take a deep interest in the future of our Dominion.

Yours &c.,

W. H. BROUSE.

Prescott, June 1874.

Gunner Cameron, of the artillery here, was struck by lightning last Thursday night and instantly killed. From what we can learn, it would appear that the unfortunate man, accompanied by a corporal, also named Cameron, left the barracks when the storm came on with the kind intention of bringing the family of a fellow soldier from a neighbouring tent into the barracks, deeming the latter a safer place. They had just reached the tent, and deceased was standing with his hand on the pole, his companion in the doorway, when the bolt struck the pole, the fluid running through Gunner Cameron's system and killing him almost instantly. The corporal was very severely shocked, but will recover. None others were hurt. Deceased was about 23 years old, a member of the Good Templars lodge, and was a general favorite with his comrades. He was buried on Saturday with military honors. It is said that the force of the shock was so great as to rip both heels off his boots.—*The Nor. Wester.*

Berlin July 17.—French Ambassador here has sent a congratulation to Prince Bismark on his escape from assassination.

The Admiralty Court has awarded the owners of the steamer *Spray*, 77,000 dollars; E. T. Barry, 70,000 dollars and Auburn, 2,500 dollars salvage for towing into port the abandoned French steamship *Amerique*.

Private dispatches say the French Government have dismissed from service Capt Lemore, late commander of S.S. “Europe” and Capt. Rousan, late of the S.S. “Amerique,” for abandoning their ships as reported some weeks ago.