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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 14, 1874.

No. 28.

### NEWS OF THE WEEK.

Ottawa has again been visited during the past week by two disastrous fires, and property to the amount of about \$25,000 destroyed. The first occurred on Thursday at one o'clock, in the Carriage Factory of Messrs. Stockdale, on St. Paul Street, destroying the entire building with all its contents; toy's Carding Mill; Skinner's Ornamental iron shop; Mrs. McNamara's adjoining the Carding Mill; Mr. W. M. Somerville's cottage, and Coleman's Livery Stables. The fire is supposed to have originated in the boiler room, which was used in connection with the three manufacturing establishments. The other fire occurred on Saturday morning about six o'clock, in a stable in rear of the residence of G. P. Baker, Esq., on O'Connor St. Fortunately the fire was confined to the stable and to the dwelling house of Mr. Baker. The origin of the fire is supposed to have been from a lighted match thrown in amongst the hay by a smoker. Mr. Baker's furniture was saved, but in a damaged state.

The glorious Fourth of July was celebrated by our Yankee Cousins in the usual style, but with a greater increase loss of life and property attending it.

The list of minor accidents, affrays, and fires on the Fourth, in New York and Brooklyn, makes nearly two columns of four line paragraphs in the morning papers.

At Paterson N. Y., a boy named Johnson, killed himself with a pistol. Another named Willie Anderson, aged 13, was fatally shot by some companions while firing salutes promiscuously. One of the latter became frightened at the casualty, and ran away, hid into the woods. He has not since been seen.

Another boy had the right hand blown off, and still another was seriously burned by having a bunch of fire crackers ignite in his pocket.

At Toledo, Ohio, five or six residences were burned. Loss \$20,000 to 25,000. The fire was caused by fire crackers.

At Cincinnati, a young girl named Ada House was burned to death by her clothes taking fire from fire crackers.

At Philadelphia, a large number of minor casualties are reported from the same cause.

Chicago, Ill., July, 5.—At Pontiac, Ill., yesterday, a fire caused by fire crackers entirely destroyed the Phoenix Hotel, Court House, with all the records of the County, and the Union Block, the finest in the town, containing seven large stores. Total loss, \$200,000.

In this city yesterday, several serious accidents occurred from the use of pistols in firing salutes.

Four persons are reported fatally wounded.

One person was killed and six others seriously wounded by the explosion of a bottle of gunpowder.

New York, July 6.—The casualties of the 4th of July celebration in this city and Brooklyn, as summed up by the morning papers are as follows:—One riot, six brutal affrays, thirty five fires, forty children seriously wounded, at least three persons killed, outright, and one child burned to death.

Alleghany City, Pa., July 4—A very destructive fire occurred in this city this p. m. A square of buildings, principally dwellings, on the west side of Federal street, between Sampson and Marquette streets, back to Arch street, and three or four buildings on the east side of federal street, were totally destroyed.

At one time it was thought that the whole upper part of the city would be destroyed, as the supply of water was limited and a very high wind prevailed, carrying sparks in all directions, and setting fire to houses two or three squares away, but with the united efforts of the Pittsburgh and City Fire Departments the flames were got under control about seven o'clock this evening.

Over one hundred houses in all were destroyed, leaving many families homeless.

The loss cannot be estimated, but it is thought that it will reach \$300,000.

The fire originated in the carpenters shop of Crosswell & Burgern, it is supposed, from firecrackers being thrown in by boys at play in the neighbourhood.

A Washington special says that thirty-seven houses were unroofed on Pennsylvania avenue in Washington by the hurricane there on the Fourth; 16 were unroofed on S street four on K street, and over 50 in other parts of the city.

The excitement at one time was nearly a panic, and it was feared the whole city would be swept away.

The velocity of the wind for fifteen minutes was 60 miles an hour.

The loss is estimated at over a million dollars.

The five mile single scull race for \$400 a side in gold, came off at Springfield Mass. July the 8th between George Brown of Halifax, N S, and Wm Scharff of Pittsburg, resulting in a splendid victory for Brown who won by three lengths. The Canadians must have won \$30,000. Brown sold on the pools at \$100 to \$80. J. A. Chambers, the principal backer of Scharff, loses at least \$5000. Brown's victory was received with tremendous cheering.

The Canadian Volunteers now at Wimbledon competing for the prizes have presented an address to Sir Garnet Wolseley congratulating him upon his achievements in Ashantee.

Mr. C C Roe, of Hamilton, has invented a steam walking machine, and has named it Adam Ironside. It walks upright like a man, and steps more gracefully than many who pass for gentlemen.

The new comet discovered by Coggia was very distinct in the north west heavens last night, and attracted a good number of star gazers; with a telescope of moderate power or even an opera glass the tail of the comet can be seen for about five degrees.

The Government is about to issue, in pamphlet form, the new law for the conduct of elections, and also such portions of the old laws as were not repealed by the recent act, for the information of Returning Officers throughout the country. Models of ballot boxes, for the reception of voting tickets, are also being examined.

A Company has been formed in Liverpool, Eng., under the title "The Canadian Meat and Produce Company," (limited) to import from Canada prime joints of animals, for utilizing the tallow &c Capital £200,000, one half of which will be at first issued.

Despatches from Topoka, Kansas, says there is no longer a doubt that large bodies of Indians are on the war path. A raid has been commenced by the Kiowas, and now comprises war parties from that tribe and Cheyennes and Aripahoes. Three men were killed and scalped near Mozen's ranche in Indian territory, Monday, and one Patrick Hennessey, was tied to a waggon burned alive. A panic still prevails along the border, and settlers are leaving their homes and hurrying into the towns and railroad depots.

By a special from St. Paul, Minn., we learn that Mr. Cunningham of Marquette, died at that city a few days ago.

On Sunday last the Souix massacred five Metis at St. Joseph Village, Manitoba, within half a mile of the Frontier.

ANNUAL REPORT ON THE STATE OF  
THE MILITIA FOR 1873.

APPENDIX No. I

(Continued from Page, 316)

MILITARY DISTRICT NO. 8.

74th Battalion of Infantry.—Lt.-Col. Beer.

Lieut. Colonel Otty, B. M., inspected the Head-Quarters Company at Sussex, on the 30th October, 1873, and he reports as follows: "That this Company is now composed of a large number of recruits, consequently neither company or skirmishing drill was as well performed as on former inspections."

Accompanied by the Lieut.-Colonel, I inspected the three Companies in Westmoreland County, 3rd Brigade Division, on the following dates: Sackville, Captain Baird, 15th July; Baie Verte, Captain Harper, 18th July; Murray Road, Captain Murray, 18th July.

The physical appearance of this half Battalion drew forth high praise from our late Adjutant General, at Camp Ross, 1871, and in that respect it is still second to none in my District, and as regards proficiency, while it appears invidious to make any distinction, I consider the Sackville and Murray Road Companies deserve special mention—the latter Company had assembled for continuous drill, at a picturesque spot on the sea coast, near Shemogue, and they had evidently made good use of the time at their disposal.

I hope soon to be in a position to recommend the acceptance of two new Companies in this Battalion instead of two Companies become non-effective.

3RD BRIGADE DIVISION—Lieutenant.-Colonel McCulley, Brigade Major.

In addition to the troop of 8th Regiment of Cavalry, No. 7, and the half Battalion, 74th Battalion already referred to, 2nd Brigade Division, I inspected the following corps:—

Newcastle Field Battery.—Captain Call.

Lieut.-Colonel Jago and I inspected this Battery, at Newcastle, on August 29th, and that officer reports, "that this battery appears to be still in a transition state, the great difficulty being to provide horses and drivers. Captain Call is an officer who has spared neither time, money, nor trouble in trying to remedy this defect, 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 saddlery, stores, &c., were in good order. The Battery, however, certainly wants the power of mobility, but as it is only armed with the 9 pounder S. B. gun, I question greatly whether the country would be much the gainer if it had it."

While the difficulty about horses and drivers has not yet been overcome, it is, I think, satisfactory to note that Captain Call has lately had a valuable addition to his list of gunners in the transfer of some efficient members of the late No. 1 Company, 73rd Battalion, whom I hope may ere long become trained artillerymen.

At the end of the continuous drill, Capt. Call reported that "that the men returned to their homes delighted with their drill. Not one had a single fault to find."

No. 7 Battery Garrison Artillery.—Brevet Major Gillespie.

Lieut. Colonel Jago and I inspected this Battery at Chatham on the 28th August. That officer reports that "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 on a point at the river bank, where the guns mounted might really assist at the defence of the 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."

Lieut.-Colonel Jago adds: "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."

73rd Battalion.—Lieut. Colonel Ferguson.

Accompanied by the Brigade Major and the Lieut.-Colonel, I inspected the different companies of this Battalion (except Buctouche Company lately accepted) on the dates below named:

Black Brook, Captain Blake, 23rd July.  
Black River, Captain Templeton, 24th July.  
Chatham, Captain Fenton, 24th July.  
Bay du Vin, Captain Cameron, 24th July.

When last inspected, one company had become non-effective, one company was nearly so, and the Battalion was in consequence below its authorized strength. This want, I am glad to state, has since been supplied, and I was entirely satisfied at the proficiency attained, more particularly in the Black River, Bay du Vin, and Black Rock Companies.

By a somewhat long march on the part of the last named company, I was enabled to witness some battalion drill at Bay du Vin, which, considering the many recruits in the ranks, was well executed.

Lieut. Colonel Ferguson may justly feel satisfied at the successful result of his efforts to re-organize the Battalion.

Dalhousie Infantry Company.—Captain Barberie.

I inspected this company at Dalhousie on the 26th July, and as it was inspected by the Brigade Major last year, and there was some error in the printing of that officer's report, I had formed an incorrect idea of the Company's efficiency. I found at this inspection, however, that besides being composed of as a fine a body of men as any in the Province, a very fair degree of efficiency had been attained, and it only requires the attendance of the Captain, who is a very intelligent officer, and his subalterns at the military school to raise the corps to a most efficient state.

VISIT OF H. E. THE GOVERNOR GENERAL.

In the month of August last, during my temporary absence from Fredericton, being out of reach of telegraph communication, His Excellency the Governor General unexpectedly visited New Brunswick. Lieut.-Colonel Otty, backed by Lieut. Col. Inchos, at once assumed command of the Militia, and ordered the assembly of the necessary guards of honor; and while I take this op-

portunity of thanking the officers for their energetic actions in the matter, I must record the promptitude and alacrity with which guards of honor were formed at the following places by the corps named:

St. John, Brigade of Artillery and 62nd Battalion.  
Fredericton, Battery of Artillery, and 71st Battalion.  
Woodstock Battery of Artillery, 67th Battalion.  
Chatham, Battery of Artillery, 73rd Battalion.  
Grand Falls, Captain Bosse's Company.  
Dalhousie, Barberie's Company.

I regret extremely to have to report that a fatal accident occurred at Chatham, while the salute in honor of the Governor General was being fired, by which two gunners (J. Murray and R. Steel) were killed.

I lost no time in convening a court of enquiry to investigate the cause of this accident. The proceedings have been transmitted to head-quarters.

Lieut. Colonel Jago's remarks on the proceedings of the court he states "that it appears to him that the premature discharge of the gun was an unavoidable accident, such as will sometimes occur. All human precautions to avert accidents seem to have been taken. The detachment was complete in number, and perfectly sober," &c.

VOLUNTEERS FOR MANITOBA.

On the 21st May last, I received orders to enrol fifty (50) men for service in the North West. I at once called for a quota from the Active Militia Force in each Brigade Division. The men assembled at Fredericton, were medically examined and attested, and on the 10th June they proceeded in charge of Lieut. Colonel Otty to Manitoba, and it is due to that officer to say that he performed this somewhat onerous duty in the most satisfactory manner.

Subsequently, on the September, 25 mounted police, also for service in the North West, were enrolled in this Province, and proceeded in charge of Captain Carrell.

OFFER OF SERVICES.—ASHANTEE EXPEDITION.

On the return from Manitoba of Lieut. Colonel Otty, both he and Lieut.-Colonel Saunders offered their services to join Sir Garnet Wolseley's staff in the British expedition to the Gold Coast of Africa against the Ashantees. Although I should deeply regret the loss to my district of these two officers of much experience in the organization of our local forces, I fully expected that their services would have been accepted, on the ground that the active militia—the "Advance Guard" of the Dominion—is now an important part of the auxiliary forces of Great Britain, and that Sir Garnet Wolseley, knowing well by experience the many valuable qualities of the Canadian soldiery, would desire to have our force represented on his staff. There is, however, no immediate prospect of their being so employed.

RIFLE ASSOCIATIONS.

New Brunswickers may well be gratified at the selection made in placing Lieut.-Colonel B. L. Peters in command of the team sent to Wimbledon this year to represent the Dominion.

On retiring from the Presidency of our Provincial Rifle Association, and on appointment as one of its patrons, the mantle of Lt.-Colonel Peters has fallen on a worthy

representative of the Active Militia Force, Lt. Colonel E. Beer, and not only has the Provincial Competition been conducted in the most satisfactory manner, but the Rifle Association generally, including its branches.—County Rifle Associations,—appears to be in a very flourishing condition; increased interest taken in the matches, and local aid more liberally granted. The only drawback to the success of this year's Provincial Match was a sad accident that occurred at Sussex, a marker in the butt having been severely wounded in the neck by a bullet. I am glad to say the bullet has since been extracted and the man is steadily recovering.

This the first accident that has occurred at our Rifle Matches, and I consider this was caused partly by a slight defect in the construction of the butt, and partly by the man not sitting in the proper position of a marker in the butt, through his zeal to mark correctly.

It has shown that every precaution should be taken at target practice, to secure the safety of the markers as well as those engaged in the practice.

In arranging for future Matches I hope that steps may be taken to ensure the attendance of a larger number of competitors than heretofore, as comparatively few "2nd Class shots" think it worth their while competing. It is almost desirable that the Government grant to County Rifle Associations be issued annually at a sufficiently early day to allow their Matches being held preparatory to the Provincial Match.

The following Associations held competitions this year:

1. New Brunswick Artillery Association - formed 1872.
2. New Brunswick Provisional Rifle Association.
3. Charlotte County Rifle Association.
4. St. John "
5. Carleton "
6. King's County "
7. York "
8. Northumberland "
9. 62nd Battalion Rifle Club
10. King's County "
11. 71st Battalion "
12. N. B. Engineers "

*New Brunswick Artillery Association.*

With respect to the formation of the "New Brunswick Artillery Association," Lieut. Colonel Jago states, that "on the 5th March, 1873, he forwarded a letter to me" (mentioned in my last Report), which I transmitted to head quarters, "informing me of the formation of this Association, and applying for a grant of ammunition and money for the same, he 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 himself, he feels diffident in speaking of its efficiency, but he cannot help regretting, at finding from my letters that the Government cannot aid it either in ammunition or money, and Col. Jago trusts," in which I join most earnestly, "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."

In his report (B) hereto appended, Lieut. Colonel Jago offered some suggestions as to the desirableness of serving out the Gatling gun to Field Batteries, in the proportion of

two to a Battery, all of which I beg to submit for favorable consideration.

TARGET PRACTICE.

In submitting the accompanying Return showing "Figure of Merit" and names of best shots or corps in my District, so far as the Annual Drill has as yet been completed, I must express regret that the Battalion and Company money prizes have not been granted this year; the amounts though small, \$10 and \$5, respectively, had been granted two years in succession, except in the case of the Artillery, who received money prizes for shot and shell practice for many years past, and the prizes were closely contested, and when won were much valued, accompanied as they were with badges.

Lieut. Colonel Jago, speaking on this subject, states, "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."

KRIGSPERIL DRILL.

Competitions in company drill have been held during the past year—in the 62nd Battalion, for the first time systematically carried out in this district. This to my mind, is another important step in the right direction, if the competitive drill be carried out in the same good spirit that pervaded in the 62nd Battalion, it must be productive of the best results, as, besides taking into consideration the intelligence and ability of the officers and non-commissioned officers, the umpire gives credit for steadiness in the ranks, and general efficiency on the part of the men.

SCHOOL OF MILITARY INSTRUCTION.

The attendance at the Military School at Fredericton during the past half-year has been very good, sixty two cadets having obtained "2nd class certificates."

Having recently had occasion to submit this subject for your consideration, I need but repeat that which I stated in my letter of the 16th September last, viz., "that, although I have done all in my power to ensure a large attendance of officers of the active militia at the Military School under my command, but a small proportion of them have joined, as they prefer to pass an examination before a Board of Examiners (vide my report for 1872), which examination must necessarily be unsatisfactory. Moreover, however, careful the Board of Officers for Examination of Candidates for admission may be in testing the competence of such candidates for the position of commissioned officers of the militia, it has been too frequently found that many cadets join the school and receive gratuity, whose services are not subsequently available either as officers or non-commissioned officers of the active force, although I am of opinion that as large, if not a larger, proportion of past cadets of the Fredericton School are useful members of the force, as in any Military School in the Dominion.

In view of the above statement, I respectfully suggested that the rules for the Board of Examiners for admission be amended; that the new rules be more stringent; that none but officers of the active militia, and such candidates as may be specially recommended by officers commanding corps—intelligent young men, who may be required to replace officers of the force on their retiring—be admitted.

Lieut. Colonel Otty, B. M., has discharged the duties of Adjutant for two years in succession; Captain McKinzie those of 1st

Instructor; and Lieutenant Howe, 71st Battalion, a passed cadet of the previous year, noted last year as 2nd Instructor. I take this opportunity to offer my best thanks to those officers for their efficient services.

DRILL IN COMMON SCHOOLS.

It is needless for me to adduce argument in support of the question of extending drill to the common schools of the country. It is one which has frequently been brought forward, and is deserving of the most serious consideration, more particularly at the present time when much thought is given to the intellectual and physical training of the young, when the thing to be desired is to persevere the "sound mind in the sound body," and not to develope the intellect at the expence of the body.

It is true that drill associations have been formed in connection with the colleges and schools, but something more, I think, is required to give general effect to that plan, and I respectfully suggested that a joint arrangement be made between the Dominion and Provincial Governments, the better to carry it out. That licensed school of military instruction, and on obtaining the necessary certificates of fitness, and on carrying out to the satisfaction of the Deputy Adjutant General, a prescribed course of drill in each school, that a small Government grant be made the schoolmaster.

I have the honor to be, Sir,

Your most obedient Servant,

GEO. J. MAUNSELL, Lt.-Col.,

Deputy Adjutant General,  
Commanding Military District No. 8.

(To be Continued)

NIAGARA CAMP.

NIAGARA, June 22.

It is now two years since the volunteers went under canvas by orders from the Militia Department, the various corps having last year performed their annual drill at their respective headquarters, an innovation which was introduced partly to satisfy the cry of a Grit Opposition for economy, and partly as an experiment. It has yet to be seen how the result has affected the drill and discipline of the force, but it is not too early to say that the opinion of Canadian military men is generally in favour of the troops going into camp for their annual instruction.

In 1872 the force assembled on the common at Niagara was much larger than that which is to muster to-morrow, being numerous enough to form three brigades. The chief command devolved upon Lieut. Col. Durie, Deputy Adjutant-General of No. 4 District, and the several brigades were under the direction of Lieut.-Colonel Gilmor, of the Queen's Own Rifles, Lieut.-Col. Pollard, 31st Battalion. On that occasion the troops were on service for sixteen days, being fourteen clear days, or rather nights, under canvas. This year the whole number will probably not exceed 2,500 men, and it is called out for only twelve days, which, deducting two days for the double journey to camp and home again, leaves only ten days for instruction in drill. Seeing that it takes at the very least a week to settle into disciplined habits, and for imperfectly trained men to be qualified to fall into the ranks, this will allow just three days for battalion and brigade manoeuvres, and our volunteers

must be wonderful men indeed if they can learn much in that time. Practically the limited period allowed for training means that all the immense labour devolving upon the officers of drilling their soldiers in squad and company drill, will just end there. The officers themselves, whose education is practically of the more importance, will have very little chance of learning anything, or even of refreshing their memories. Supposing—which we know is not the case—the rank and file were thoroughly up in preliminary knowledge, a good deal might be learned by every one concerned in the course of ten days' exercise in the field. The majority of the men, however, are in fact not thoroughly grounded; hence the weeks' preliminary squad and setting up drill is indispensable.

It is understood that the present camp will comprise six battalions of Infantry and Rifles, about five troops of Cavalry, and the Hamilton and Welland Field Batteries, a very compact little army, if well trained and disciplined. It is to be feared, however, that just when it has got fairly into working order, and the time has arrived for the officers to relinquish their arduous labour as drill instructors, and to look forward to picking up some practical knowledge themselves, the force will be disbanded, and thus the chief object of the formation be defeated.

The troops are to arrive to-morrow from their various local head quarters, and will at once proceed to the common, erect their tents, and, as sailors say, "make all snug." The weather is glorious, and the frequent rains of late have caused the herbage to be delightfully fresh and verdant. The orchards and gardens of the pretty little town of Niagara never looked more lovely than they do just now. It only wants the life infused into it that the presence of the soldiers in variously gives.

The tents and other camp equipage for the use of the force were sent over from Toronto last week by the steamer City of Toronto and the same boat conveyed this morning the required number of targets under the charge of Staff Sergt. Dunford of the Old Fort, Toronto.

Several *avants couriers* of the corps designated to form the camp have already arrived. Sergeant W. Cole, of the 13th (Hamilton) Battalion of Infantry, a Crimean hero, who will have charge of the canteen, is already on hand. This corps will leave Hamilton to-morrow by train at 11 a.m. Sergeant Major MacKay and two other non-commissioned officers of the 20th (Halton) Battalions of Rifles, arrived this afternoon by the City of Toronto. Their Battalion will parade at 9 a.m. to-morrow at Georgetown, proceed by train to Toronto, and thence by steamer City of Toronto, on her afternoon trip to Niagara.

Lieut. Colonel Durie, D. A. G., will be in command of the camp, and Lieut.-Col. Vilers will be Brigade Major, Lieut.-Colonel R. B. Denison will also be present on the staff. Sergeant Major Cantlin, the efficient instructor of the Toronto Military School, will be here as Brigade Sergeant Major. Sergeant Dumford, will act as Brigade Musketry Instructor, while Sergeant Crush, of A Battery, Dominion Artillery, has been detailed as Brigade Quartermaster Sergeant. The latter will have charge of the ammunition.

The 19th Battalion of Infantry, which includes the two Niagara companies, will be the first to go into camp to-morrow.

When the boat came in this afternoon, there was not a single cab to convey passen-

gers from the wharf, and the Royal Hotel omnibus driver did not trouble himself about several ladies being left on the wharf. A few hacks from Toronto might drive a roaring trade in the next few days.—*Toronto Mail.*

### KINGSTON CAMP.

KINGSTON, 22nd June, 1874.

For some time past the volunteers of this city and those in its vicinity have been on the *qui vive* in anticipation of going into camp for the performance of their annual drill for 1874-75. The camp ground is situated in what is known as the old Dock yard, adjacent to Point Frederick, and certainly a more convenient and healthy location could not have been chosen. Close by there is water in abundance for both men and beast, the convenience of which is daily appreciated by those in authority. The composition of the camp will be as follows:—

Cavalry.—Frontenac Troop, Napanee Troop.

Artillery.—Kingston Field Battery.

Infantry.—14th "Princess of Wales' Own" Rifles, 15th Argyle Light Infantry, 47th Frontenac Battalion, 48th Lennox and Ad-dington Battalion, 49th Hastings' Rifles.

The 16th Prince Edward Battalion does not come into camp this year. The camp staff is as follows:—

Commandant, Lieut.-Col. Cambell, 15th "Argyle Light Infantry."

Brigade Major and second in command, Lieut. Col. Phillips.

Supply Officer Captain Gordon, 14th P. W. O. Rifles.

Camp Quartermaster, Lieut. Ross, 48th Battalion.

Musketry Inspector, Captain Byrne, 47th Battalion.

Principal Medical Officer, Dr. Bristol, Napanee Troop Cavalry.

Provost Sergeant, Colour Sergt. Rawson, 14th P. W. O. Rifles.

Brigade Orderly Room and Clerk, Sergt. Gibson, 47th Battalion.

I have not yet heard the name of the orderly officer to the commanding officer, but will inform you of it in my next.

### DETIRES IN CAMP.

A district order, dated June 17th, announces the following detail of duties for the troops while in camp:

Monday, June 22nd (to-day).—Arrival in camp; medical inspection; preparation of nominal rolls and ration returns for following morning; selection of camp police and the telling off of guards and picquets.

Tuesday, 23rd, from 6 to 8 a.m.—The commencement of target practice, by companies, senior corps commencing five rounds to each man, 200, 400 and 600 yards. Troops not at target practice or ration fatigue, or on guard, to perform squad drill. From 10 to 12.—Battalion parade at 10, and break up for squad drill. From 2 to 4 p.m.—Squad and company drill, superintended by field officers. No officers are to be permitted to leave the parade ground while the men remain at drill.

Wednesday, 24th.—Duties same as on Tuesday.

Thursday, 25th.—Duties same as on Wednesday.

Friday, 26th, 6 to 8 a.m.—Company drill superintended by Field Officers of wings. 10 to 12.—Battalion parade and company drill 2 to 4 p.m.—Battalion drill by Commanding Officers.

Saturday, 27th, 6 to 8 a.m.—Company drill, superintended by field officers of wings. 10 to 12.—Battalion Drill, by commanding officers. 2 to 4 p.m.—Private parade and cleaning up for Sunday.

Sunday, 28th.—Divine Service as may be arranged.

Monday, 29th, 6 to 8 a.m.—Company drill and firing exercises. 10 to 12.—Brigade parade under Brigadier. 2 to 4.—Battalion drill by commanding officers.

Tuesday, 30th, 6 to 8 a.m.—Company drill and firing exercises, superintended by field officers of wings. 10 to 12.—Brigade parade and rehearsal for 1st July, Dominion Day. 2 to 4 p.m.—Battalion drill by commanding officers.

Wednesday, 1st July, 6 to 8 a.m.—Battalion parade for inspection by commanding officers, after which blank ammunition will be served out. 10 to 12.—Brigade parade, and the firing of a *sue de joie* for Dominion Day, after which the Brigade will be inspected by the Deputy Adjutant General. 2 to 4.—*Muster by battalions.*

Thursday, 2nd July, 6 to 8 a.m.—Battalion drill—all officers present. 10 to 12.—Brigade march out 2 to 4 p.m.—Preparation to hand over camp equipage, &c.

Friday, 3rd July.—Break up of camp and go home.

These orders also apply to the camp at Cobourg, with these exceptions:—

Wednesday, 1st July, (at Cobourg,) from 2 to 4 p.m.—The brigade will march out.

Thursday, 2nd July, from 10 to 12, (at Cobourg.)—*Muster and inspection by the Deputy Adjutant General.*

As the *Mail* will have a large circulation in the two camps, officers and men by cutting and posting the above orders will have a complete programme before them of each day's duties.

### TARGET PRACTICE.

The different troop and companies will continue daily, weather permitting, to fire their allowance at target practice, under supervision of Captain Byrne, the Musketry Instructor, relieving each other throughout the day. Officers of companies will be required to attend the ranges during practice and assist the Instructor to keep the score; and the Major of the wing (if I mistake not this word should be half battalion.) to which the companies belong will frequently visit the ranges during practice. The scoring papers are to be collected by the Musketry Instructor before companies leave the ranges. He will send them under cover to Brigade Major, who will retain them till each battalion has concluded its firing, when they will be enclosed to the Deputy Adjutant General of the district.

### SUPPLIES.

In connection with the camp there is to be a Board of Officers, composed of the field Officers of the day, the Medical Officers of the day, and the Captains and Subalterns of the day from each battalion, and all the Battalion Quartermasters, which will assemble at the Supply Officers Store every morning at such hour as may be named for the issuing of rations; and, with the exception of the Quartermasters will remain there until all the corps have received their supplies for the day. If complaints are made regarding the quality or weight of rations, the same are to be reported upon immediately by the three senior officers present, whose condemnation in writing will be sufficient authority for the Supply Officers to provide elsewhere, and to charge the cost

demned articles against the contractor who furnishes them.

THE CAVALRY.

The Cavalry in camp are to be under the orders of the Senior Officers of this branch of the service in camp. When the Brigade assembles, however, they will be under the command of the Brigadier.

THE ARTILLERY.

The field Battery of Artillery will be under command of its own Commanding Officers, but will attend all Brigade parades under the Brigadier, unless otherwise ordered.

THE CAMP AT GUELPH.

GUELPH, 4th July 1873.

A Camp of Military Instruction for No. 2 Brigade Division in No. 1 Military Division was organized here last Monday, to continue for twelve days. The following corps are included in the division,—28th Perth, 29th Waterloo, 30th Wellington, 32 Bruce and 33 Huron Battalions and the Wellington Field Battery of Artillery. All these corps are in camp except the 33 Huron which will probably put in its drill at Goderich in the fall the same as last year. Its absence is very much regretted. The Camp is on the Agricultural Show grounds adjoining the town. They comprise about 40 acres and are admirably adapted for the purpose, being furnished with and abundant supply of pure and wholesome water while the stables and sheds are available for the officers' horses and those of the Battery. The camp is under the command of Lt. Col. Clarke of the 30th Battalion and associated with him on the staff are Major, McMillan, Brigade Major, Captain Harvey, Supply Officers, Capt. Smyth of London Camp, Quartermaster, Capt. Thomson of Goderich Musketry Instructor and Capt. Bell of Goderich, Orderly Officer. The usual routine of camp life is followed out—Company drill in the morning Battalion drill in the forenoon and Brigade drill in the afternoon. The brigade parades are held on the race course about a mile from the camps. It is admirably adapted for manœuvring a large body of men.

On Dominion Day the Brigade was marched to the Market Square where the battery fired a salute of 21 guns and the infantry and rifles a *feu de joie*. Though many had never had handled a rifle before and had not practiced that peculiar manner of firing, till that morning was well executed, in fact, better than is often done by men who have had longer practice. There were a large number of people in town that day to witness the military display as well as to see the games, fireworks and other amusements. The fact Guelph has not seen such a crowd since the visit of the Prince of Wales.

Since the out set everything has been working smoothly. The contractors for the supplies are doing their duty, while the supply officers and quarter masters are not behind in theirs. There is an almost entire absence of grumbling among the men, and seldom in volunteer camps have things worked so smoothly and regularly.

A little incident worth mentioning occurred a couple of days ago. Through the neglect of the officer commanding the main guard, Private Lindeerman of No. 7 Company, 32nd Battalion, was allowed to remain on sentry duty from 7 o'clock at night till 9

o'clock next morning, 14 hours in all! He stuck to his post like a man and never made a complaint. Lieut. Col. Sprout, his commanding officer, on hearing of it had him furnished with a good [square] meal at the officers' mess and made him a corporal.

The total number in camp is about 100 all told. The 30th Rifle muster the strongest. The Wellington Field Battery is very efficient and is well up in drill and discipline. It was inspected yesterday by Major Irwin of the Dominion Artillery, Kingston, who expressed himself well pleased with its appearance. Lieut. Col. Taylor, D. A. G., will inspect the troops on Thursday next on which occasion there will be a grand field day review. The camp will break up on Friday.

The weather has been delightful so far the only drawback being the dust which was very bad on Dominion Day. A shower that evening and a thunder shower last night have effectually laid it for the present.

The spiritual welfare of the men is well attended to. Chaplains Ball and Cooper are most indefatigable in the discharge of their duties. The Young Men's Christian Association have established a free reading room for the men in a wing of the exhibition building, where there is also writing material for the use of officers and men. Prayer meetings are regularly held and well attended. *Huron Signal*.

ANNUAL SHOT AND SHELL PRACTICE.

The Halifax Field Battery, under the command of Capt. Graham, proceeded to Point Pleasant with their battery of 9 pounder Armstrong Field Guns, on Monday, for their annual Shot and Shell practice. The target consisted of a fish barrel with a part of a flour barrel on top and a red flag about eighteen inches square above all, this, set on a raft made of three or four pieces of old plank and moored at 1500 yards distance, the whole thing making an object to fire at about three feet eight inches in length by eighteen inches in breadth and this not even whitened, in fact, excepting the flag, scarcely discernible by the naked eye. There were many complaints by the members of the Battery on account of the size of the target and justly so, for the regulation target for rifle shooting at Wimbledon, where perhaps are assembled the best riflemen of the world is nearly twice the size for 200 yards range, and for 1000 is a square target 12 feet wide by 6 feet high. The day was cloudy with a strong east wind which interfered somewhat with the accuracy of the shooting. From the practice return we find that 21 shots fell to the right of the target, at an average distance of 10.95 yards; 13 to the left, 16.92 yards; 24 beyond it, 11.83 yards; and 42 fell short, 14.93 yards; one shot struck the barrel in the centre. Of the shell three exploded beyond the target at an average distance of 17.03 yards; and 22 exploded 12.72 yards in front of it.

The best shot on this occasion was Gunner J. Knizes, who wins Dr. Almon's silver medal; and the second best shot Gunner J. Preston, who also receives a silver medal, we believe, for the second time. After the firing of shot from the Arms'rong's was over, the Company and their guests took possession of Woolnough's Battery, "commence firing" was sounded, and although none of the shots from the latter Battery pierced either a five gallon keg or an oyster keg, still there were champagne

bottles, ale bottles and soda water bottles in general pierced much oftener than they would have been from the shot of the Field Battery. It then came to be a very nice point to decide whether the members of the Battery or their guests were making the best shots. Captain J. R. Graham presided on this occasion and was ably assisted in the Vice chair by Dr. T. R. Almon. The Capt. was supported on his right by the favorite among the volunteers, the Deputy Adjutant General, Colonel Laurie, and on his left by His Worship the Mayor.

The Chairman proposed as the first toast, "the Queen," and immediately afterwards gave "the Mayor and Corporation," which was responded to by the Mayor and one Alderman representing each Ward.

The next toast was "the Governor General," which was drunk with enthusiasm.

Capt. Graham then proposed the health of the Hon. Mr. Ross, Minister of Militia, who he stated, was invited to be present, but he supposed unavoidable circumstances prevented his attendance.

Colonel Laurie responded for the Minister of Militia, who, he said, instructed him to state that pressing engagements alone prevented him from accepting the invitation of the Field Battery.

The health of the "Deputy Adj. General of Militia, Colonel Laurie," was then given from the chair, and in doing so Capt. Graham spoke in glowing terms of the courteous and handsome manner in which Colonel Laurie always received him on official business, and as he believed the manner in which he received every volunteer. The toast was drunk with rounds of applause from the members of the Field Battery.

Colonel Laurie, in responding, paid a high compliment to Capt. Graham, as well as to the other officers and men of the Field Battery, and said he was glad to find them first in the field, as they always are, commencing their annual training.

Several other toasts were then proposed and responded to in capital style, and some good jokes were cracked at the expense of one or another of the company, but if we were to enumerate them it might be considered "sharp practice" by the members of the Field Battery; suffice it to say that the whole proceedings of the day were terminated in a manner creditable alike to every individual member of the Battery, as well as to the gentleman who commands them.—*Halifax paper*.

THE CANADIAN WIMBLEDON TEAM.—We learn by cable telegram that the shooting for the first stage of the Queen's Prize at Wimbledon has been completed, and that among the first sixty who are qualified to participate in the second stage are the following members of the Canadian Team:—Lieut. Whitman, 60th Battalion, Que.; Private T. Mitchell, 13th Battalion, Ont.; Capt. J. P. Macpherson, Governor General's Foot Guards, Ont.; Colour Sergeant Baillie, 47th Battalion, Ont.; Major Gibson, 12th Battalion, Ont.; and—Hancock. All of the above are entitled to a prize of £12 and to wear the National Rifle Association's Badge. Sergeant Veil was the only Canadian who got into the second stage last year. In the contest for the Alexandra Prize the following have been returned winners; Captain Layton, 7th Battalion, N. S.; Captain Macpherson; Lieut. MacNaughton, Cobourg Artillery, Ont.; Private Disber, 19th Battalion, Ont.; and Captain Morgan, 8th Battalion, Que. Canada has reason to be proud of so successful a commencement to the great rifle tourney.—*Mail*.

## CONTENTS OF No. 27, VOL. VIII.

POETRY.—	
A Sailor's Song.....	324
EDITORIAL:—	
Hydraulics of Great Rivers.....	318
The West Point Academy.....	319
The Foreign Policy of England.....	319
Domestic Day in Ottawa.....	320
The News of the Week.....	313
TITLE COMPETITION:—	
"A" Battery Canadian Artillery.....	317
Rifle Shooting at Creedmoor.....	317
SELECTIONS:—	
Some Untold Stories of the late War.....	314
Annual Report on the State of the Militia for 1873.....	315
Buzaline in Captivity.....	316
The Veterans of 1812.....	321
Western Surveys.....	322
Foreign Policy.....	323
The Czar and the Army.....	323
REVIEWS.....	321
MILITIA GENERAL ORDERS.....	321



## The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

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

OTTAWA, TUESDAY, JULY 14, 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.

WHATEVER experiments may have done towards the settlement of the place the *torpedoes* should hold as a weapon of warfare; it has not yet decided from actual experience whether the machine is really of any particular practical value.

In a late issue we published the speeches of some professors of "The Art of Torpedo Warfare" before the London Society of Telegraphic Engineers, and the prominence claimed for the system in the late contest in South America. The following letter addressed to the United States *Army and Navy Journal*, which appears in its issue of 23rd May, will not much surprise those who have given the subject much study; but it is only another phase of that Charlatanism which always surrounds new inventions and re-

tards instead of accelerating their development.

To the Editor of the *Army and Navy Journal*.

Sir: I saw in a late number of your Journal an article entitled "Electrical Warfare," which concluded with a report of some remarks by Herr von Treunfeld, in regard to a torpedo war, which, according to his declaration, was of longer duration than the war of the United States in 1861, and of perhaps equal importance. The war to which he referred was the Paraguayan, in which he says a Brazilian fleet of fifteen ironclads and fifty or sixty men-of-war was detained for four years by the management of torpedoes, which were sometimes under his direction.

I cannot pass by in silence this historical misstatement, which Herr von Treunfeld, wishing to give importance to his work, and to attribute to himself merit which he did not reveal in that service, makes before the Society of the Telegraphic Engineers of London.

The torpedoes employed in the Paraguayan war against Brazil, besides being rude in construction and of no relative effect, were only actively used from the tunnel of Phaya, above the mouth of the Atajo (Paraguay River) to Humayta, for a period of thirteen months more or less, counting from the 16th of June, 1866, when the first torpedo thrown on the fleet was picked up.

The fleet remained in this region for a long time not because this arm detained it, but the only fortification of the enemy being there (Curucu, Curupayti and Humayta), its movements on these points were in combination of the army.

Notwithstanding that the fleet was divided into columns one below Curucu, the others between Curucu and Curupayti, between Curupayti and Humayta, and one above Humayta, positions secured by main force at different dates, when it suited the interests of the campaign and the movements of the army, (which was composed of fifty thousand men, the maximum in its best condition, and not of seventy or one hundred thousand, as Treunfeld says), yet Paraguay was never able to render useless or to paralyze the movements of any of these columns with her torpedoes. The four years' duration of the war, counting from the entry of the allied army into the Paraguayan territory (not the six years as he says), was due to varied causes, and especially to the bad local conditions of a marshy country.

Before the 20th of May, 1866, the wooden fleet numbered 11 vessels operated for 1 year in the river Parana with out their finding a single torpedo. In High Parana, where division the fleet beat Itaperu and Passo da Patria, and afterwards made several movements, for more than one year, also there never was encountered a single torpedo or any other obstacle, except the natural difficulties of the river.

Four different kinds of torpedoes were caught by the fleet, which numbered in its totality six ironclads above Humayta; ten ironclads and later on two wooden corvettes between Curupayti and Humayta, 8 wooden vessels below Curupayti, and a force of six small gunboats in High Parana, to prevent the communication of the enemy with the opposite shore. In all, for a distance of more than one hundred leagues in two rivers, there were thirty-two men-of-war, including sixteen ironclads.

The cubic and cylindrical torpedoes with mechanical apparatus and pressure levers were badly constructed; thirteen taken by the fleet had the powder wet. The cubic

torpedoes with locks like those of muskets, exploded, to the number of fourteen, among the very parties who directed them; one of the kind exploded on a boat of the fleet which was trying to keep it away from the vessels, causing the death of an officer and seven sailors. This system, the safest of all that were used, consisted of a wooden box, which sometimes contained 600 to 900 lbs. of powder, fixed in such a way that it could keep the top part on the surface of the water; on this part there were common fulminating caps which burst with the shock of the locks pulled by a line which the enemy kept tied in a canoe out of sight of the watch-boats. The torpedo moved with the current of the water.

The wedge-shaped torpedoes, placed with the others in the canals of Curucu, Curupayti, and Humayta, had an explosive apparatus in the base that with the current of the water returned to the vessels which ascended the river. These never produced any worthy result, and eight were caught which had been displaced by the force of the waters.

The movable torpedoes, small cylinders with a wooden train, which moving with the current presented the top to the shock of the vessels, contained twenty-five pounds of powder each, and would lead one to suppose that they had been constructed to deceive the country that Herr von Treunfeld served, and not in the expectation that any serious result would come from them. Of these eleven were taken up and rendered useless.

The six ironclads above Humayta went to Assumpcao, operated in Tebiquiry, sunk Paraguayan vessels between Tinbo and Humayta, and never met with torpedoes. Later on the small monitors entered the Manduvira, where a single torpedo would be sufficient to hold the canal, and met with none.

Where, then, is the power of Treunfeld's torpedo? That the mechanical torpedo well prepared and well applied, would have caused us great harm, there is no doubt; but as it was managed, instead of being a ground of praise, it is one for shame to the author.

There were besides nine more torpedoes caught, which the waters threw on the shores at several points, but all of these were rendered useless. It must, however, be stated that on the occasion of the Curucu attack, on September 2, 1866, when a division of ironclads after beating a point, was moving on Curupayti, the monitor *hio de Janeiro* touched with a screw a torpedo placed between the vessels which had been sunk to shut the canal, and exploding it caused the vessel to sink. Of the great number of torpedoes to which the author refers, this is the only one that produced the desired result, and it should be taken into consideration that the waters where the fleets was, were daily frequented by numberless and large transports, which always came out safe.

I think, Mr. Editor, that this brief reminiscence will be enough to keep Herr von Treunfeld from again depreciating contemporaneous facts, in order to aggrandize his own name in detriment of the truth.

I am, etc.,

A. J. DE MELLO TANBORIM,  
Brazilian Navy.  
Washington, D C., May 8, 1874.

The development of the *ironclad* navy hitherto attempted to keep pace with the rapidly increasing power of heavy guns; the

latest novelty in the direction of armored vessels is the *Inflexible* now in process of construction. The following facts from *Engineering* relative to her size and other qualities is interesting:—

"She is of 11,095 tons displacement, and 8,000 intended indicated horse power, and is to be driven at 14 knots speed by twin screws. The length between perpendiculars is 320 ft. (the same as the *Fury's*) the draught is 23 ft. forward and 25 feet aft (the *Fury* is now 26½ ft. forward and 27 ft. aft); and the extreme breadth 75ft., against 63 10 in. in the *Fury*. The proportion of length to beam is consequently but little over 4½ to 1, indeed, we believe the beam of the *Inflexible* has not been approached in any vessel except the *Great Eastern*. The armament can scarcely yet be considered as settled; but it is understood that the present intention is to give the *Inflexible*, which carries two turrets, four guns of the enormous weight of 81 tons each, throwing shot of about 1600 lbs. The manufacture of the first of these weapons has just commenced at Woolwich. With a most necessary foresight, never so far as we recollect, exhibited before, the turrets are designed to receive much larger guns—say, up to 150 tons—when they can be made. What in preceding ships would be called the upper deck, but what we suppose will now be called the turret deck or gun deck is 10 ft. above water, from stem to stern, and fairly corresponds with the upper deck of the *Devastation*, though the latter is but 8½ feet out of the water at the bow, and 4 feet aft. Practically there is no doubt this deck will be swept by the sea, notwithstanding its greater height forward, in much the same way as the *Devastation's* and it need scarcely be said that it will have no bulwarks, and that it is not intended for use by the crew in heavy weather. No warship yet designed, not even the "unshipshape" *Devastation*, herself has departed so widely from the pre-existing types, and in none has so enormous a stride been made in offensive and defensive power. A few years since a great deal was thought, and rightly, of the advance from the 6 in. armor of the *Bellerophon* to the 9 inches of the *Hercules*, and when the public realized the fact that 12 inches had been reached in the *Clifton* and *Devastation* its interest in the latter knew no bounds. Now, at one jump, Mr. Barnaby carries us from 12 inches to 24 inches—or from 14 to 24, if we take the *Fury* as modified for the basis of comparison. Comparing the *Inflexible* with the original *Fury* (not with the *Devastation*, because the displacement of the latter is admittedly too small to give fair play to the peculiarities of the type, or even to allow of a speed suitable for comparison) we find that with an increased displacement of less than 8 per cent. the thickness of plating has been doubled; the weight of armament more than doubled; the high speed of 14 knots retained; the draught reduced over 2 ft.; a certain amount of sail power added; and the sailors, let us hope, conciliated by an upper deck—not a flying deck—20 feet above water. On the other hand, the means of obtaining end-on-fire are completely altered, as well as the mode of securing flotation in action. The naval officer directly responsible for her design is Rear-Admiral Houston Stewart, C.B. the Controller of the Navy, whose preference for ship like ships is well known (we believe he was one of the minority of the Committee on Designs, who supported the type of large masted ironclad. The Board of

Admiralty which sanctioned her construction, included, with other distinguished naval officers, Sir Alexander Milne, so that she goes forth to the world with sanction as high as any sailor can desire. It need scarcely be said that the deck houses or superstructures will afford splendid accommodation for both officers and crew.

The London *Lancet* is given to understand that the following may be taken to represent the losses by death from wounds and disease among the military who took part in the Ashantee expedition:—Of officers 6 died from the effects of wounds and eight from disease. The total number of admissions on board the *Victor Emmanuel* up to the date of her departure from the Coast was, we are told, of officers 55, seven being for wounds; and of men 555, of whom fifty one were for gunshot wounds. Looking to the nature of climate of the Gold Coast, and the character of the diseases contracted there, we think the nation may be congratulated on the low rate of mortality that has to be recorded.

The following drill for the *Gatling Gun* is copied from the United States *Army and Navy Journal* of 6th June. Although we do not propose to have any faith whatever in the weapon, yet the tactical formulae by which it can be worked may be of advantage, and as it is best not to despise knowledge of any kind we republish the details:—

At the present time when the *Gatling Gun* is in such general use among the troops of the National Guard, we have thought it well to publish, as a matter of interest, the authorized drill for the size using ordinary musket ammunition. It is taken from Circular No. 3, of the Artillery School U. S. Army, at Fortress Monroe.

SERVICE OF THE 15-100 INCH GATLING GUN  
MANUAL OF THE PIECE.

The following modifications in the details of the authorized Light Artillery Tactics, and in those of the 45 inch *Gatling gun*, are prescribed in the service of this piece.

1. Five men, including the gunner, are necessary for the service of this piece. With a greater number of cannoniers and exceptionally rapid and continuous fire can be sustained by assigning more men to exchanging the empty for full feed cases, and to bringing up ammunition; but it is advisable not to expose too many men around the guns to the enemy's fire. Nos. 2 and 3 wear the haversacks from the left shoulder to the right side.

POST OF THE CANNONEERS—PIECE UNLIMBERED.

2 The gunner is at the end of trail hand spike, and on his left; Nos. 1 and 2 are about two feet outside of the wheels and in line with the knob of the cascable, No. 1 on the right and No. 2 on the left; No. 3 is five yards in rear of the lumber. All face to the front.

LOADING, POINTING, AND FIRING.

3 The commands of the instructor are 1st load. 2nd commence firing, 3rd cease firing.

4. The duties of the gunner are similar to those prescribed in the F. A. T., except that he sits upon the stock-seat in aiming and does not give command *ready*, a signal to No. 3 being sufficient. He removes disabled locks and manipulates the oscillating apparatus. To throw the oscillating apparatus out of gear, the arrow upon the locking block must coincide with the point upon the

locking bolt case and then the handle of the oscillating fork is forced down in its slot and turned to the right.

5. At the command *load*, No. 1 rapidly assumes his position at the crank facing to the front; breaks to the rear with the left foot; releases the crank from the catch; seizes the handle with his right hand and, if there has been no preceding firing, turns the crank until the locks strikes twice, so that firing may commence immediately upon the command being given. No. 1 may under orders from the gunner, occasionally face to the left while turning the crank.

6. At the command *commence firing*, No. 1 turns the crank with a moderate uniform motion, avoiding all sudden movements or lateral wrenching. He watches the hopper to see that the cartridges are feeding properly. At the command *cease firing* he fastens the crank in the catch and returns to his post outside the wheel.

No. 1 will use the ejecting rod when necessary, under the direction of the gunner, (as prescribed in "note" paragraph 5 drill for the 1 inch Gatling)

7. At the command *load*, No. 2 assumes his position at the hopper, in rear of the axle, facing to the right; introduces the feed cases, which he receives from No. 3, successively into the hopper, being careful that the cartridges feed properly with the projectile to the front. He has a filled feed case ready in his right hand and inserts it promptly as he removes the empty one with his left hand, so as to preserve a continuous fire. He passes the empty feed cases over his left shoulder to No. 3, or drops them on the ground if No. 3 is not near. At the command *cease firing*, he leaves the partially used case in the hopper, resumes his post outside the wheel, and sees that there are five filled feed cases in his haversack.

It is of the first importance that the piece be properly and promptly fed with ammunition. When necessary No. 2 will call *case* or *drum* to No. 3, so as to insure a continuous discharge from the piece. With a full number of cannoniers, it will be found more expeditious to make one insert the full while another removes the empty feed cases.

8. At the command *load*, No. 3 will get five full feed cases from No. 4 and place them in the haversack of No. 2, with the open ends to the rear and projectile down; he will then seize the end of the trail hand-spike and give the direction as indicated by signals from the gunner. When the gunner raises both hands, No. 3 receives five full feed cases from No. 4, and resumes his post. At the command *commence firing*, No. 3 places the full feed cases in the haversack of No. 2 as soon as it is empty, returns the empty feed cases to No. 4 and receives five more full ones, and so keeps No. 2 supplied with ammunition. At any time that piece requires a new direction the gunner will command *point* and No. 3 will spring to the end of the trail hand-spike as above prescribed.

At the command *cease firing* No. 3 sees that the empty feed cases are returned to No. 4, and that No. 2 and himself are each supplied with full ones, and then resumes his post.

To relieve No. 2 of his constrained position in continuous firing, he and No. 3 will exchange numbers and duties upon orders from the gunner, without interrupting the firing.

9. At the command *load* No. 4 gets five full feed cases ready for No. 3 and places them in his haversack, open end to the front projectiles down, and replaces the



empty feed cases in the trays when No. 3 returns them. Whenever time is saved by it, No. 3 should take the full cases immediately to No. 2 without placing them first in his own haversack. At the command *cease firing* No. 4 receives the empty feed cases and arranges the trays in the limber so that the top ones contain only full feed cases.

When a specially rapid and continuous fire is necessary No. 4 will carry full feed cases to No. 2 and bring back empty ones to the limber, alternating with No. 3 as prescribed for Nos. 5 and 7 in the drill for the 1 inch gun.

10. Should the instructor give the command *commence firing* without giving the command *load*, all that is prescribed under both commands will be executed under the direction of the gunner.

11. To change posts with the piece unlimbered No. 1 faces about and changes with No. 4, No. 4 with 3, No. 3 with 2 and No. 2 with 1; with the piece limbered the even numbers face about and No. 1 changes with No. 3, No. 3 with No. 4, No. 4 with No. 2, and No. 2 with 1.

WITH THE FEED DRUM.

Haversacks are not worn.

12. At the command *load* No. 2 assumes his position at the hopper, facing to the right, receives a full feed drum from No. 3, and justs it upon the hopper with the assistance of the gunner, throws back the hinged lock from the drum stud, and placing his left thumb on the end of the left hopper rib and the forefingers of his left hand upon the neighboring drum studs, he makes the rib and successive studs coincide so as to keep up a continuous fire. As soon as the cartridges begin to flow from the last compartment No. 2 calls drum he removes the empty drum from the hopper passing it to No. 3, and adjusts the full drum on the hopper as before.

The gunner comes up on the right of the stock to assist No. 2 in adjusting the drum.

TO FILL THE FEED DRUM.

13. Invert the drum, unlock it, turn the bottom plate until the cartridge slot comes directly over a compartment, raise the weight with the left hand and fill the cartridges regularly, projectiles inwards, letting the weight down slowly until the compartment is full. Repeat the operation until all are filled. Lock the drum before it is placed upright again.

LIMBERING AND UNLIMBERING.

14. At the commands *limber to the rear*, *action right*, etc., the gunner handles the trail handspike and raises the trail; Nos. 1 and 2 work at the wheels of the carriage, and Nos. 3 and 4 are with the limber, being at the end of the pole when the piece is not horsed. No. 1 arranges the stock seat upon its prop when the piece is unlimbered and secures it down to the stock when the piece is limbered. As soon as the piece is limbered up No. 3 returns all the feed cases or drums to No. 4 to replace in the limber chest, assuring himself that no cartridges are left at the gun.

POST OF THE CANNONEERS.—PIECE LIMBERED.

15. Nos. 1 and 2 are opposite and three feet outside the naves of the limber wheels; and the gunner midway between and on the same line with Nos. 2 and 4, who are on the right of the piece the odd numbers being on the left.

MOUNTING AND DISMOUNTING THE CANNONEERS.

16. The cannoneers are mounted and dismounted as in the Field Artillery Tactics, except that the gunner and Nos. 1 and 2 mount on the limber of the piece, No. 2 in the middle.

17. In drilling at the school of the piece in garrison or camp, it will be well to remove the locks, to prevent the unnecessary snapping of the springs, and the cartridges can then be run through the hopper at will, familiarizing the men with the use of the gun without waste of ammunition or injury to the locks.

18. SERVICE OF THE PIECE WITH REDUCED NUMBERS.

With two men.—The gunner performs his own duties and turns the crank; No. 1 wears a haversack, points, brings up ammunition, feeds the piece, removes and takes back the empty cases.

THREE MEN.—The gunner performs his own duties as with a full detachment and assumes those of Nos. 1 and 2 when either is absent from his proper station; No. 1 turns the crank and points, brings up and serves ammunition and handles the feed cases.

FOUR MEN.—The gunner and Nos. 1 and 2 perform the same duties as with a full detachment; No. 3 points, brings up ammunition, takes back empty feed cases and has charge of the limber.

Numbers retained.	Distribution of duties.			
	Gunn'r.	1	2	3
Gunn'r & No. 1.....	G. 1	2, 3, 4.		
Gunn'r & No. 1, 2...	G.	1, 3.	2, 4.	
Gunn'r & Nos. 1, 2, 3.	G.	1.	2, 4.	3, 4.

In another column will be found a letter from a distinguished officer of the United States Cavalry, which appeared in the United States Army and Navy Journal of 23rd May, entitled, "The destruction of our Forests;" and which we gladly reprint, as our own country labors under the evils so well described in this letter, and our people are doing their utmost to increase them.

We have received an advance sheet of the "Ontario Tribune," published in Toronto. It is in the interests of the Irish Catholics of Canada, and from the introductory article we learn that the "main objects of the journal will be the fostering of unity amongst the Catholic people, the maintenance of Catholic interests generally, the thorough effusion of Catholic education, and an unflinching advocacy of the cause of Temperance." "Another object will be to keep alive the spirit of Irish nationality in Canada, to bestow attention on Irish affairs, and to record the progress of the Irish race in Ireland, here, and elsewhere." It is neatly printed, tastefully got up, and ably edited, and will no doubt meet with a large circulation amongst its co-religionists.

The French Ministry has been defeated, and tendered its resignation to President McMahon, who declined to accept the resignation of his Cabinet. There is great excitement in Paris in consequence.

MISCELLANEOUS.

The Provincial Ministry of Manitoba was defeated on a direct motion of want of confidence on Friday last. A new Anglo French coalition Ministry has been formed as follows:—Hon. M. A. Girard, Provincial Treasurer; E. H. G. Hoy, Minister of Public Works and Agriculture; Hon. J. Dubuc, Attorney General; Hon. F. Oglestrie, President of the Council.

By a special from St. Paul, Minn., we learn that Mr. Cunningham of Marquette, died at that city a few days ago.

On Sunday 5th, the Sioux massacred five Metis at St. Joseph Village, Manitoba, within half a mile of the Frontier.

A war party supposed to be northern Sioux, who attempted to capture a party of soldiers, were followed out of Wind River valley by the Shoshonee scouts and trailed to their camp, some 75 miles east of north from Brown. A party of troops was sent after them. They attacked the Indians on the 3rd, killing and wounding about fifty, who proved to be Sioux, and capturing over 100 head of horses. Three soldiers were killed and three wounded. These Indians have been committing depredations along the frontier for some time.

The Times Paris correspondent telegraphs that McMahon, in his forthcoming message, will probably state that he could not accept the resignations of the ministers because they devalued his powers and he wished to save the country from a new ministerial crisis. He will request the Assembly to hasten action on financial measures then adjourn for some months; and on the re-assembling proceed to definitely organize his powers.

London, July 9.—It is reported that Parliament will be prorogued on the 8th of August.

Despatches from Calcutta state that eight hundred thousand natives are now employed on the relief works—a million less than three weeks ago. Half a million are still subsisting on the charity of the Government and the public.

A special despatch from Paris to the Times, says, that the Right and Left Centres have agreed upon an order of the day, declaring that the Assembly is determined to defend McMahon's powers from any attack of their opponents. The Cabinet still has a majority of 50 in the Assembly, but the Bonapartists and a portion of the moderate Right, who are able to turn the scales, are wavering and if the Government is defeated a dissolution of the Assembly is inevitable.

A novel design for an iron clad has just been submitted to the British Government by a Mr. Hill. The vessel is built on a somewhat similar principle to the life boat, having her floating power and reserve of stability above the water. She can thus, so claims the inventor, be built on the very finest lines, and at the same time be very heavily plated. Her sides above water are of a tubular form. The guns are mounted in circular rotating carriages, which ascend and descend. Mr. Hill claims to be able to deliver a complete all round fire. It is proposed to ram her with 600 pounders which would be fired by the helmsman by electricity.

REMITTANCES Received on Subscription to THE VOLUNTEER REVIEW up to Saturday the 11th inst.

Warwick, O.—Capt. G. J. Kingston to Aug 7/71  
 Capt. Alex. Kerr, to July 15/71  
 Huntington, Q.—Lt. Col. Jas. Reid, to July 7/71  
 Quebec, Q.—Major C. A. Pentland, to July 7/71  
 Waterloo, Q.—Major Thos. H. Cox, to Sept. 7/71

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD QUARTERS,

Ottawa, 10th July, 1874.

GENERAL ORDERS (19).

No. 1.

ACTIVE MILITIA.

PROVINCE OF ONTARIO.

"A" Battery, School of Gunnery.

To be Captain :

Brevet Major William Henry Cotton, G.S. formerly of Ottawa Brigade of Garrison Artillery..

To be Lieutenants :

Captain Josiah Greenwood Holmes, G.S. formerly of St. Catharines Battery of Garrison Artillery.

2nd Lieutenant James Frederick Wilson, G.S. from Kingston Field Battery.

Lieutenant James Peters, G.S. formerly of the Detachment of Artillery on Service in Manitoba.

12th Battalion of Infantry or "York Rangers."

No. 6 Company, Markham.

To be Lieutenant :

Ensign Cicero Tomlinson, M.S., vice Henry Arthur Reesor, whose resignation is hereby accepted,

13th Battalion of Infantry.

Lieutenant John Little is hereby permitted to retire retaining rank.

BREVET.

To be Lieutenant Colonel :

Major Frederick W. Macdonald, V.B., 19th Battalion, from 9th August, 1872.

PROVINCE OF QUEBEC.

"B" Battery, School of Gunnery.

To be Captain :

Brevet Major Charles E. Montizambert, G.S., from late Quebec Provisional Brigade of Garrison Artillery.

To be Lieutenants :

Maurice E. J. Duchesnay, G.S., formerly Captain late Beauvois Field Battery.

Captain Charles John Short, G.S., from Sherbrooke Battery of Garrison Artillery.

2nd Lieutenant Oscar Prevost, G.S., from Montreal Brigade of Garrison Artillery. Charles Auguste LaRue, G.S. formerly 1st Lieutenant late Beauvois Field Battery.

11th Battalion of Infantry, or "Argenteuil Rangers."

To be Assistant Surgeon, from 26th June, 1874 :

Ensign George Nelson Jones, M.D., from No. 1 Company, vice Wolfred Nelson, whose resignation is hereby accepted.

No. 1 Company, St. Andrews.

To be Captain from 26th June, 1874 :

Lieutenant Archibald LeRoy, M.S., vice H. W. Kenolly left limits

To be Lieutenant, provisionally :

Quarter-Master Sergeant Thomas Weightman, vice LeRoy promoted..

55th "Megantic" Light Infantry Battalion.

To be Lieutenant-Colonel :

Major and Brevet Lieutenant Colonel William Makay Hyde King, M.S., vice Barwis.

No. 6 Company, St. Sylvestre.

Lieutenant William P. Anderson, having left limits, his name is hereby removed from the list of Officers of the Active Militia. And the resignation of John S. Thomb, is hereby accepted.

Three Rivers Provisional Battalion of Infantry.

No. 1 Company.

The Head Quarters of this Company are hereby transferred from Three Rivers to Berthier, en haut.

To be Captain :

P. Grandpierre, Esquire, M.S., vice J. F. V. Bureau, out of limits.

To be Lieutenant, provisionally .

J. H. O. Lambert, Gentleman, vice Narcisse Martel out of limits.

Ensign Thomas Ryan, being out of limits his name is hereby removed from the list of officers of the Active Militia.

BREVET.

To be Lieutenant Colonel :

Major Michel T. Deguise, V.B., 65th Battalion, from 18th June, 1874.

PROVINCE OF NEW BRUNSWICK.

New Brunswick Engineer Company.

To be Captain :

1st Lieutenant Henry Fullerton Perley, M.S., vice John H. Parks, appointed Major in Reserve Militia.

73rd "Northumberland" Battalion of Infantry.

Lieutenant Colonel Daniel Ferguson, is hereby permitted to retire retaining rank:

74th Battalion of Infantry.

To be Assistant Surgeon, from 6th July, 1874 :—Harrison, Esquire, vice William Edwin Vail, deceased.

PROVINCE OF NOVA SCOTIA.

69th Annapolis Battalion of Infantry.

No. 1 Company, Wilmot.

To be Captain :

Lieutenant William L. Marshall, V. B., vice George A. Covert, who is hereby permitted to retire retaining rank.

No. 6 Company Bear River.

To be Lieutenant :

Sergeant James Kelly, M.S., vice Nichol promoted.

Ensign Wallace Morgan, having failed to qualify, his name is hereby removed from the list of Officers of the Active Militia.

PROVINCE OF BRITISH COLUMBIA.

Seymour Battery of Garrison Artillery.

The formation of a Battery of Garrison Artillery, to be styled the "Seymour Battery of Garrison Artillery," with Head Quarters at New Westminster, is hereby authorized, To be 1st Lieutenant, (provisionally) commanding ; John F. Scott, Gentleman.

To be 2nd Lieutenant, provisionally :

E. Beven Gentleman.

GRAND TRUNK RAILWAY BRIGADE.

To be commandant, from 26th June, 1874 : Lieutenant Colonel Joseph Dickson, from 1st Brigade Garrison Artillery, vice Brydges retired..

1st Battalion of Rifles.

To be Lieutenant Colonel :

Major Frederick Henderson Brydges, V. B., vice Henry Baily, who is hereby permitted to retire retaining rank.

To be Major :

Captain James Stephenson, V. B., vice F. H. Brydges, promoted.

To be Captain :

Lieutenant Robert McGlaughlin, V. B., vice W. Alfred Bailey, who is hereby permitted to retire retaining rank.

By Command of his Excellency the Governor General.

WALKER POWELL, Lieut. Col. Acting Adjutant General, of Militia, Canada.

## HORATIAN LYRICS.

## ODE III. OF BOOK II.

IN WHICH THE POET SUGGESTS A PIC-NIC.

"Æquam memento rebus in arduis servare mentem."

Keep a stout heart when times are bad, my boy,  
And don't forget when things are looking  
better,  
To guard against extravagance in joy,  
For Death will come—a foe no man can fetter—  
Whether your life has passed in cheerless  
gloom,  
Or midst the song and dance and mirth and  
revel;  
Unfainful that forever gapes the tomb,  
Where every man at last will find his level.  
Then—to a hook where aged trees entwine  
Their mingling arms, and cast a grateful shadow;  
And crystal streams leap forth to cool your wine,  
Then run, exulting, toward the sunny meadow—  
Bring wires and olives, and too short-lived  
flowers,  
And every choice invention of kind pleasure;  
While young and rich, and while the Sister-  
powers  
Leave still unclipped your life's uncertain measure.

For you must quit your country-house and club,  
River and park, and well-beloved plantations;  
And all you die possessed of—there's the rub—  
When you are gone must go to your relations.

Art thou a millionaire? Canst trace thy blood  
Right upward to the Conquest?—'tis no matter;  
Still you must die and cross death's sable flood,  
Just like a pauper, or a common "hatter."

Our lines in one great Central Station meet;  
From out the dread urn each one's ticket's  
shaken

Sooner or later; and our final seat  
In the Down Train must certainly be taken  
When the bell tolls.

—KNAPDALE; *Lackwood's Magazine*.

## ARMY ORGANIZATION.

(By General George B. McClellan.)

General George B. McClellan of the United States Army has an historical reputation not only as at one time Commander-in-Chief of one of those great armies which the contest between the Northern and Southern States called into existence, but also as one of those officers who were sent to the Crimea to witness and report on the operations of the allied and Russian armies before and in Sebastopol and the Cavalry of the United States is indebted to him for many and valuable improvements in equipment as the military literature of that country is enriched by his able report on European Cavalry equipment and organization.

With such a reputation and such practical experience any essay on military subjects must command attention and respect as well, as stamp with authority opinions which would obtain no notice if emanating from a less distinguished soldier.

The papers on "army organization" from his pen have appeared in the April and June numbers of *Harper's New Monthly Magazine* which we feel to be of such value as to republish without abbreviation in the columns of the VOLUNTEER REVIEW.

The subject of army organization covers so large a field, involving such a multitude of political, geographical, ethnological, and scientific considerations, that it would be impracticable to treat it fully within the limits of two or three magazine articles, intended solely for general readers, and designed neither to be exhaustive nor strictly scientific. Nothing more, then, will be at-

tempted here than a sketch of the general considerations which determine the solution of so vital a matter, and a brief review of the present tendencies of military nations in this connection.

Without attempting to discuss or even to enumerate the many definitions that have been given of the word "army," and of the term "army organization," it will be sufficiently accurate for our present purposes to state that in its most general sense "the army" is that portion of the people which is organized and made available for the purpose of fighting the battles of the nation. Volunteers and militia—as soon as they are organized, armed, and equipped—are included with this definition equally with the standing or permanent forces, but except when otherwise specially stated, the discussion is supposed to apply particularly to the latter. By "army organization" is meant the entire system adopted for recruiting, officering, instructing, disciplining, arming, and supplying the armed forces, as well as for handling them to the best advantage when they are called upon to act. It requires no argument to prove that the organization of any army must depend not alone on the character of the people who compose it, but also upon the situation and nature of the country they occupy its topographical and political relations with possible antagonists, the form of the government, the extent and nature of the available resources (including the weapons at command), military and political traditions, the social system, and other important considerations, some of which will appear in the course of these articles. It is equally clear, then, that the armies of no two great nations can well be organized precisely alike in all respect, and that, to secure the best organization for any particular army, it will not suffice to copy literally and blindly the organization of any other, no matter how perfect in itself; but that it is necessary to weigh carefully all the considerations bearing on the subject, and to adapt the organization thereto so wisely as to secure, as far as practicable, all the advantages, and avoid the inconveniences they present in the particular case in question. In illustration of what has just been stated, a moment's consideration will show that the army of republican Switzerland, designed solely for the defenses of a region much of which is mountainous and sparsely inhabited, and whose political situation is such as to preclude an offensive war, ought to be organized quite differently from the vast forces of the German and Russian Empires. So, also, if we compare the duties of our own army with those of any European army, it will at once appear that the circumstances differ so widely as to render essential difference in organization often imperative.

The study of the organization of ancient and mediæval armies is of great interest, but the first branch of the subject would require more space than is at our disposal and with regard to the second, it must suffice to say that with few exceptions they were composed of militia, collected for the special purposes of the campaign, and disbanded at it close—often, in fact, too soon for its proper completion. It must, however, be borne in mind that in those days the great majority of the able bodied freemen were instructed in military exercises, trained to the use of arms, and to a considerable extent inured to the fatigues and privations of war.

It is unnecessary to trace the steps which gradually led to the formation of the stand-

ing armies of modern Europe; it is enough to state that under Frederick the Great, and during the wars of the First Empire, will be found the germs of the principles which still mainly control the organization of armies, precisely as careful study will discover in the campaigns of the great generals of antiquity those immutable principles of grand tactics and strategy first enunciated in clear, precise, and distinct terms by such modern writers as the late General Jomini. Improvements in the useful arts, in fire-arms, in the means of communication, and in the transmission of intelligence have greatly modified the application of those principles, and a more general and wider adoption of the system of conscription has tended to enlarge the actual forces, and to shorten the duration of wars. During the period of Frederick, armies were recruited chiefly through voluntary enlistment, and they were comparatively small. During the wars of the French republic and the First Empire, the system of conscription came into use, and armies became much larger than before. The present theory of modern organization is to maintain comparatively small armies in time of peace, but to provide—through a system of general conscription and instruction—the means of increasing them with great rapidity upon the breaking out of war. These additional troops must already have been thoroughly instructed and disciplined; places must be ready for them in existing regiments; arms, clothing, supplies of all kinds, means of transportation, and, by no means the least important item, the requisite staff, must also be ready for the emergency. In brief, never before in the history of the world has maxim, "In time of peace prepare for war," been so fully, so generally, observed as in the military organization of modern Europe. It may safely be asserted that, judged by the standard of well merited success against different and powerful opponents, the German empire possesses the best organization and the best army in the world; it may even be permitted to go further than this, and to assert that never before in the history of the world did there exist an army so formidable, so admirably organized, so perfect in discipline and instruction, so well officered and handled throughout, from the renowned Von Moltke down to the youngest corporal.

And just here it may very properly be stated once for all, that the existing German organization is the fruit of the patient labors of her ablest men throughout long years of adversity as well as of success. When the lightning blow of Jena disclosed to the world that the mere details of the system of the great Frederick had outlived the period of their usefulness, and that the venerable relics of his glorious campaigns had preserved the mere forms and lost the spirit of his institutions, then, at once—in the midst of such misery and defeat as few civilized nations had ever undergone—the Steins and Scharnhorsts of that day commenced the difficult but vital task of adapting the civil and military institutions of Prussia to each other, as well as to the exigencies of the times. During the campaigns of 1813, 1814, and 1815 the work progressed with rapid strides, nor did it cease with the return of peace, neither has it yet reached its end. The experience of the minor campaigns of Baden and Schleswig-Holstein was eagerly availed of. Even the mobilizations of 1850 and 1859—rendered unnecessary by the unexpectedly pacific turn of events—were not lost; the latter especially proved the great defect

of the existing Landwhar organization, and resulted in a complete change of the system. So, too, immediately after the Austrian war of 1866, and the French war of 1870-71, commissions were appointed in all arms and branches of the service to investigate closely the workings of the military system, and to recommend the change required to obviate existing defects. These inquiries covered everything—tactics, weapons, ammunition, food, clothing, equipments, transportation, etc.; nothing was regarded as so good as to be above examination and criticism, nothing as so unimportant as to be beneath notice. In few words, the Germans, unlike their late antagonists and many other nations, have never regarded as perfect the military institutions which have given them victory; no matter what successes they may achieve, their first step is to examine carefully the means by which they were gained, and to ascertain what possible chances of failure may be guarded against in the future. He who should encounter a German army to-morrow, and act upon the supposition that its tactics, its arms, and its manner of operation would be precisely as in 1870-71, would learn to his cost that he had made a grave mistake. Much of the German success may safely be attributed to his course on their part, and it is an example which can be recommended to the imitation of other nations.

Our subject will probably present itself in the simplest and most natural light to the general reader if we first explain.

(To be Continued).

THE DESTRUCTION OF OUR FORESTS.

To Hon. P. W. Hitchcock, U. S. Senate, Washington, D. C.

MY DEAR SENATOR: I cannot say when I was more gratified than in reading in the papers the other day that the President had made the preservation of our forests the subject of a special message to Congress, and recommended the passage of an act creating a Commission of Forestry. I doubt if a wiser recommendation has been made by any President, and I hope Congress will not adjourn without acting upon that message. None but those who have made tree-growing and the criminal waste of timber a careful study can appreciate the necessity of legislation on this subject. We have now left untouched, in the whole United States, but one really great tract of timber, consisting of about one half of Washington Territory and a third of Oregon. California has, perhaps, 500,000 acres of forests, one-half of which has been cut away within the last two years; but that State, aware of the future necessity, and keenly alive to the depletion of our forests, has already commenced the cultivation of the Australia, a tree that grows rapidly and to great size.

New York has lost her maple, walnut, hickory, and has now no considerable forest left, except what is to be found in her Adirondacks. The Wisconsin forests are in process of rapid destruction—no less than 1,000,000,000 feet having been cut in a single year. Tens of Thousands of logs are annually rafted down the Mississippi to towns in Iowa, where they are cut into lumber. One firm—Young and Co.—I am told have a mill at Clinton, Ia., that runs 200 saws and three fourths of all the lumber they cut goes to Kansas and Nebraska. In one year, 185,000,000 of Wisconsin logs were cut in Iowa; and I predict that, if the present destruction goes on, in ten or

twenty years at most, not only the forests of Wisconsin, but Michigan and Minnesota, will be swept away.

Only consider for a moment that 50,000 acres of Wisconsin timber are cut annually to supply the Kansas and Nebraska market alone. The Saginaw forests are now practically destroyed; and, if the Northern Pacific Railroad should be built, it will open to the subject to the axe in the Oregon and Washington Territory forests, and then the last great belt of American timber will be destroyed. Let us at least save, and use with economy, the magnificent yellow pine trees (many of them 300 feet high) that cover this portion of our public domain.

The greatest corncribs we will have to content with will be the railroads. They already use one hundred and sixty millions of ties annually, and our railroading has but just begun. Ties have to be replaced every seven years, and, when 10,000 miles more of rails have been laid, it will require all the young trees in the country to supply the demand for ties. A tie, as every one knows, is made from young timber, the trees being only 8 to 10 inches in diameter, and few trees will cut more than two ties.

There can no longer be any doubt that the rainfall and water courses of a country are greatly affected by its forests.

A peach tree will give off 18 pounds, or about 2 gallons of moisture every twelve hours. The evaporation, then, from the earth through trees must be immense, the roots often drawing from underground springs, and throwing off through their branches vast volumes of humid air. Especially is this true of Kansas and Nebraska, where at the depth of some 20 feet, white sand is struck which is so full of water that, in many places, subterranean streams have been formed, and are frequently struck when boring shafts for wells.

I think the great currents of air which leave the Pacific Coast humid and warm empty in snows on the Rocky Mountains; and, leaving the mountains dry, they sweep over the great plains, finding no moisture to take up until they pass over the Missouri and Mississippi, when, having been recharged, they empty into Illinois and Wisconsin in Wyoming Territory, as we know, the dearth is almost complete; but in Nebraska, the heavily timbered heads of her streams give some humidity, and the clouds empty in frequent showers along the Loups, Nebraska, Platte, Elkhorn and Missouri. Those who have watched the effect of forests on rainfalls, say that by commencing at the edge of a dry belt, the forest, and consequently rainfalls, may be gradually extended across the whole of the dry belt. So we might commence here at Omaha, and by gradually planting trees westward, increase the humidity of the atmosphere, until the required moisture for rain is reached.

The deplorable result of the loss of timber is now to be seen all over Europe. The Elbe has lost 18 per cent. of its flow in consequence of cutting away of the trees along its banks, exposing its waters to the hot sun, and consequent increased evaporation. The island of Santa Cruz, in the West Indies which twenty five years ago, was a garden of fertility, is now a desert alone,—the result of cutting away the forests. The theory is, that the dry currents of air are retarded by forests, and elevated until a point of condensation is reached. Radiation is also prevented, the

air cooled, and the clouds passing over forests are rendered more easily condensed, Electricity is also a great agent, the trees being negatively charged, and drawing with great power the positively charged clouds. This theory is no longer doubt or experiment, but positive fact, demonstrated by experience and knowledge of the laws which govern the atmosphere. I know you agree with me in these views, and it was a conviction that they are correct which led you to fame and have passed the great timber growing bill, giving every person 160 acres of the public lands who would plant and keep in good order for ten years forty acres of timber. That law, as amended at this session of Congress, I think is nearly perfect, and does you great credit as a wise law giver.

But not only in Europe, but in America, is the loss of timber already lamentably felt. Many of our rivers have lost half their usefulness for manufacturing purposes. The Connecticut is hardly navigable, and the Kennebec and Merrimack have shrunk one fourth. The Potomac has lost nearly a fourth of its volume, and the Hudson nearly a sixth. If the Adirondack wilderness and other forests adjacent are destroyed, I believe it would render the Hudson wholly unnavigable.

Perhaps the greatest drain at present on our timber supply is the fences of the United States. This cormorant is now felt in every State of the East, and every year farmers are becoming more saving of their timber. It is an astonishing fact, but nevertheless true, that the fences have cost more than the lands, and are to day the most valuable class of property in the United States, except railroads, and real estate in cities. Our fences are valued at one thousand eight hundred millions to keep them in repair. The new State of Illinois alone has \$2,000,000 invested in fences, 60 per cent. of which are in boards, posts, and rails, and 40 per cent. wire and hedges. They cost annually \$175,000 for repairs.

In Nebraska, fences have cost less in proportion to the population than in any other State in the Union, the excellent herd laws in force here having lessened the necessity for fences. These laws should be adopted in every State, and farmers should hedge, and thus utilize the \$1,000,000 or more of dead capital now invested in fences in the State.

Incredible as it may seem, forests are still felled and burned for the purpose of bringing the land under cultivation. From 1860 to 1870 no less than twelve million acres of forest were cut, the timber logged, and burned on the ground, so the land could be farmed. The annual decrease of forests by logging and burning, I am told, is still some 200,000 acres per year. And while we have been doing nothing to replace our forests, the demand for lumber in the United States has increased at the rate of 25 per cent. each year. There was received at Chicago in 1871 over 2,500,000,000 feet of lumber, and 10,000 acres of land were stripped of timber to supply that great city with fuel. I cannot say with certainty what is just our annual decrease of forest, but it is not far from 8,000,000 acres, as against 10,000 acres now forest planted. This is truly alarming, and certainly it is high time for some one to call the attention of Congress to the subject of forestry.

Your excellent bill to provide for the growing of new forests will do much to save us from a timber dearth; but we must, nevertheless, take the best care we can of

our ol  
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bill,  
persor  
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Yours truly,  
JAMES S. BRISIN,  
(Major Third Cavalry, U.S. Army.)  
Omaha, Neb., April 4, 1874.

RIFLE COMPETITION.

(New York Correspondence.)

RIFLE MATCHES AT CREEDMOOR—ARMORY PRACTICE—FENIANS AND THE FOURTH.

New York, July 7, 1874.

A few weeks since and it was hard work to raise a team who would bother themselves to go out to Creedmoor and try their skill at the targets. The challenge to the Irish Eight and their acceptance has, however, changed all this and each recurring Saturday not only finds a number of crack shots at the ranges but the number of interested spectators has been remarkably augmented. The members of the Amateur Club and of the National Rifle Association are keeping hard at work and as a result the scores improve on each public trial.

LONG RANGE MATCH.

On Saturday, June 27, the third competition for the Amateur Long Range Badge took place. Five shots each at 800, 900, and 1000 yards. The badge consists of a cross bar of polished gold with enamel centre, to this is attached a pendant of gold with an eagle and camel in frosted silver. In the centre of the badge is the monogram A.R.C. and surrounding it the motto "Pulma non sine pulvere." The whole is a very tasteful piece of workmanship and cost \$50. The shooting commenced shortly before noon the wather at the time being very raw but the atmosphere clear with a slight north-west blowing. Distance—800, 900, and 1,000 yards. The following is the score of the seven best shots:—

	Total.
John Bodine.....	45
J. P. M. Richards.....	44
A. J. Roux.....	44
Henry Fulton.....	42
John Trageser.....	42
Geo. Crouch.....	34
L. M. Ballard.....	32

An unfortunate dispute arose owing to the carelessness or incapacity of the markers. On the second shot at the 800 yard range, Mr. Richards' bullet was heard to strike the target, but the marker failed to signal it and a miss was recorded.

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The practice of employing inexperienced markers has caused great annoyance hitherto and the Range Committee are making arrangements so as to have none but practical hands in the butt on match days.

200 YARD MATCH.

On the same day the sixth competition for the Turf, Field, and Farm Badge was held there were 47 entries. Distance—200 yds., 5 shots, position standing. The shooting was unusually good, the winner scoring 18 out of a possible 20. The following are the leading scores:—

	Total.
E. H. Madison.....	18
R. B. Lockwood.....	17
A. Wood.....	15
G. W. Wright.....	15
N. G. McCook.....	15
F. M. McMillan.....	14
Gen. T. S. Dakin.....	14
N. V. Davis.....	14
Col. Gildersleeve.....	14
N. J. Hennion.....	14
C. F. Deboist.....	14
J. T. B. Collins.....	14
H. B. Dominick.....	14
A. J. Roux.....	14
W. F. Edmondston.....	14
J. L. Price.....	14
J. McEwen.....	14
P. Klein.....	14
F. P. Fairbanks.....	14
G. Crouch.....	14
F. F. Millen.....	14
H. B. Smith.....	14

The days' practice on the whole shows a very marked improvement, but much has yet to be done before a team can be picked out that will have a chance against the Irish Eight.

ONE THOUSAND YARD SWEEPSTAKE.

On Saturday July 4th, the Amateur Rifle Club celebrated Independence Day by a Sweep-stake Shooting Match, twenty shots each at one thousand yards. There were 17 entries, but three of the competitors retired before the match was completed. Below is a summary of the shooting.

	Total.
Gen. T. S. Dakin.....	54
J. P. M. Richards.....	51
Thos. Lloyd.....	48
Henry Fulton.....	47
Leon Becker.....	47
A. V. Canfield, Jr.....	45
John Trageser.....	45
L. M. Ballard.....	44
H. Tolloy.....	44
Geo. Crouch.....	44
Col. H. A. Gildersleeve.....	42
Geo. Wood.....	34
P. G. Simlford.....	30
Jas. L. Price.....	25

A high wind prevailed during the entire match. The score of the winner, General Dakin, 54 out of a possible 50 is a remarkably high one.

NATIONAL GUARD PRACTICE.

The different regiments of the National Guard Practice are each in turn ordered to do a day's shooting at Creedmoor. The practice commenced last week and has been

followed daily since. The scoring made has not been very great but considering that previously to the establishment of these ranges the militia never had any practice at target shooting the progress is creditable.

Many of the regiments have targets fitted up in their armories at such ranges as the buildings will admit of. The 22nd Regiment, the first to inaugurate this system have a 50 yard range. The 23rd regiment, Brooklyn, have recently erected a rifle range forty feet long and twelve feet wide. Any member missing this target will hardly be eligible for the International Team. The 8th Regiment have just completed in their armory a range 45 feet long. The target is eight by four feet, is made of pine one foot thick backed by boiler plate, so that a bullet striking is imbedded in the wood and all "splash" prevented.

FENIANS ON THE RAMPAGE.

The Fenian element celebrated the "Glorious Fourth" in a (to them) peculiarly appropriate manner. A picnic was held at Jones' Wood where the 69th (Irish) Regiment turned out in all the gorgeousness of their uniforms, the pompous of the shakos being the "Green above the Red." The ancient order of Hibernians, the men who are responsible for the Orange riots here in 1870 and 1871 were also present in large numbers. When the whiskey began to circulate the spirits of warriors rose proportionately. It needed but a trivial pretext to start a free fight during which some of the gallant 69th used their bayonets. The police who arrived were badly beaten and several are hors de combat. Several members of the regiment were arrested and escorted to the police stations. Col. Cavanagh the commanding officer of the 69th drew his sword and rushed into the thick of the melee slashing out and left with the flat of his weapon. He returned from the field covered with glory and rags.

HAL.

THE 47th BATTALION.

Captain Hewton made himself so agreeable to the men of the battalion that they yesterday presented him with the following address accompanied by a handsome walking cane and meerschaum pipe:

To Captain Robert Hewton, No. 1 Company, 47th Battalion.

Dear Sir—As the camp is about drawing to a close we, the non commissioned officers and men of No. 1 Company, desire to express our sense of the kindness and consideration we have always experienced at your hands. Although you have caused us to be attentive to our duties as soldiers and have been strict when duty required, we have always felt that we had in our Captain a firm friend. We beg in conclusion to tender you the accompanying walking stick and meerschaum pipe as a slight mark of our regard, and we trust that you will long continue to command this company in the future as successful as in the past.