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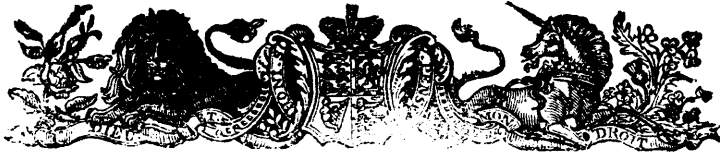
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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. IX.

OTTAWA, (CANADA,) TUESDAY, JUNE 3, 1875.

No. 23.

The Volunteer Review

Published EVERY TUESDAY MORNING, at OTTAWA, Dominion of Canada, by DAWSON KEER, Proprietor, to whom all Business Correspondences should be addressed.

TERMS—TWO DOLLARS per annum, strictly in advance.

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

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

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THE SUN.

WEEKLY, AND DAILY FOR 1875.

The approach of the Presidential election gives unusual importance to the events and developments of 1875. We shall endeavour to describe them fully, faithfully and fearlessly.

THE WEEKLY SUN has now attained a circulation of over seventy thousand copies. Its readers are found in every State and Territory, and its quality is well known to the public. We shall not only endeavour to keep it fully up to the old standard, but to improve and add to its variety and power.

THE WEEKLY SUN will continue to be a thorough newspaper. All the news of the day will be found in it, condensed when unimportant, at full length when of moment, and always we trust, treated in a clear, interesting and instructive manner.

It is our aim to make the WEEKLY SUN the best family newspaper in the world. It will be full of entertaining and appropriate reading of every sort, but will print nothing to offend the most scrupulous and delicate taste. It will always contain the most interesting stories and romances of the day, carefully selected and legibly printed.

The Agricultural Department is a prominent feature in the WEEKLY SUN, and its articles will always be found fresh and useful to the farmer.

The number of men independent in politics is increasing, and the WEEKLY SUN is their paper especially. It belongs to no party, and obeys no dictation, contending for principle, and for the election of the best men. It exposes the corruption that disgraces the country and threatens the overthrow of republican institutions. It has no fear of knaves, and seeks no favors from their supporters.

The markets of every kind and the fashions are regularly reported in its columns.

The price of the WEEKLY SUN is one dollar a year for a sheet of eight pages, and fifty-six columns. As this barely pays the expenses of the paper and printing, we are not able to make any discount or allow any premium to friends who may make special efforts to extend its circulation. Under the new law, which requires payment of postage in advance, one dollar a year, with twenty cents the cost of prepaid postage added, is the rate of subscription. It is not necessary to get up a club in order to have the WEEKLY SUN at this rate. Anyone who sends one dollar and twenty cents will get the paper, post-paid, for a year.

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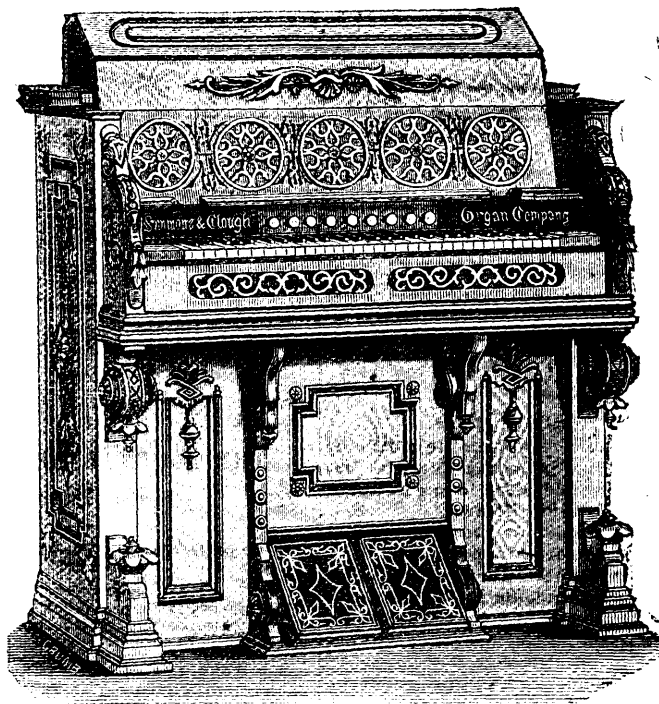
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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. IX.

OTTAWA, (CANADA,) TUESDAY, JUNE 8, 1875.

No. 23.

NEWS OF THE WEEK.

The Hon. Edward Blake, Finance Minister, was re-elected by acclamation to the Commons for South Bruce on the 2nd inst.

During the absence in Europe of Hon. Mr. McKenzie, Minister of Public Works, Hon. Mr. Huntington will administer the affairs of that department.

Capt. Hopper has resigned the charge of No. 5 Battery Garrison Artillery, and the stores have been transferred to Lt. Maingy, who takes command of the Battery while in Camp at Brockville.

The troops which are to form the camp at Niagara for the annual drill assembled on the 2nd with the exception of the artillery and a portion of the cavalry. The camp will be commanded by Lt. Colonel Durie, D. A. G.

The conviction of Greaves and Sparham, the Brockville abortionist, an appeal against which was carried to Toronto, has been sustained by the Judges. Their only hope of escaping the execution of the sentence now rests on the clemency of the Executive.

Reports from the Upper Ottawa state that fire is committing great ravages in many of the timber limits on the Mattawan and Kippewa. One firm have had several houses burned and a variety of farming implements.

Freights on lumber from Ottawa to New York have been reduced 50 cents per 1,000 ft. since the opening of navigation.

The improved target, the invention of Lt. Col. Brunel, of this city has attracted attention in England. It is understood that drawings of the target have been ordered by the Rifle Association with the view of the adoption of the improved article for use at the Wimbledon matches.

The Restigouche Bridge, on the Intercolonial Railway, was thoroughly tested on the 2nd inst. The deflection of each span, under a weight of 81 tons, was only from a quarter to half an inch. This bridge connects the Provinces of Quebec and New Brunswick. It is 1,000 feet in length, divided into five spans of 200 feet each.

\$10,000 was raised in ten minutes at a meeting in the Metropolitan W. M. Church, Toronto, last night, for the purpose of erecting a fence and beautifying the grounds around that building.

Canada is to have 57,000 square feet of accommodation in the Centennial building, Philadelphia.

A special despatch from London (Eng.) says that the condition of affairs between the British Government and Burmah is critical, and a peaceable settlement of the difficulty seems impossible.

A St. John, N. F., despatch of June 2nd, says: "Nearly all the sealing vessels have returned from their second trip, and, with few exceptions, have proved unsuccessful. The crew of the *Porteous*, made thirty four pounds per man on the season; the crew of the *Nimrod*, thirty eight; and crew of the *Ariel*, only four. There is every indication of a prosperous western fishery the coming season."

At the recent meeting of the Grand Orange Lodge of British North America, held in Sarnia, the brethren presented their Grand Master Lt. Col. Bowell, with an address inscribed on vellum, accompanied by a portrait of himself, painted by Mr. Sawyer, and a magnificent tea and breakfast set of solid silver, valued at \$1,200, in recognition of his services on behalf of the Order.

The Militia Department is making arrangements for the early distribution of the money granted by Parliament at the last session to the veterans of 1812. It is probable that the payments will be made about the first of July. There are nearly three thousand applicants, but it is likely that many of these will be unable to establish their claims. It does not seem possible that there can be any such number, now alive, of the militia force in active service sixty three years ago.

Mr. LeSueur, of the Post Office Department, has succeeded in effecting a modification of the Convention with the United States relating to money orders.

Extensive preparations are being made in Boston to celebrate the Bunker Hill Centennial on the 17th June. It is arranged that there will be a procession numbering 30,000 men, and about 8 miles in length, which will form an important feature of the celebration.

A fearful wind and rain storm passed over parts of Virginia, Kentucky, Ohio, and other states, on the night of the 2nd. At Columbus, Ohio, the roof of the east wing of the Deaf and Dumb Asylum, covering a space about 110 feet long by 40 wide, was blown to the ground. Walls chimneys, and large trees were also blown down. An accident on the Bellefontaine road was caused by the washing away of a culvert near Fortville. The Engineer and fireman were instantly killed. The country in the vicinity of Fortville is inundated. The loss is estimated at over a quarter of a million dollars.

It is reported that the Prince of Wales will be accompanied on his visit to India by four well known representatives of London journals. Dr. Russell, going for the *Times*, Mr. Forbes, for the *News*, Mr. Henry, for the *Standard*, and Mr. Edwin Arnold for the *Telegraph*.

The first sod of the Canada Pacific Railway was turned at Fort William on the 2nd inst.

A Paris despatch, dated June 2nd, says: "The journals here to-day publish articles urging upon England and Russia a union with the avowed purpose of permitting no European power to disturb the peace of Europe."

They have a scheme in operation in England for the extinction of the national debt, which, with great complication, will extinguish in 100 years £91,000,000 or less than £1,000,000 a year.

The New Orleans *Times*, in commenting on the sugar crop prospects of Louisiana, says: "The prospects are favorable for another prosperous year. The stand obtained is, on the whole, very satisfactory."

The Duke of Argyll's new deer forest is about six miles round, has just been finished, and some two hundred deer were driven into it lately. The fencing is composed of twelve wires, is eight feet high, and is quite deer proof.

In the House of Lords, on the night of May the 31st, Lord Derby, Minister for Foreign Affairs, said of the recent war cloud, that Britain and Russia had removed the misunderstanding between Germany and France, which otherwise must have led to war.

The *Post* says it has reason to believe that there is every likelihood of the Governments of Russia and England coming to a friendly arrangement in the question of Central Asia. The Parliamentary Whip has invited supporters of the Government to meet in "Disraeli" this afternoon.

An unsigned letter in the *Times* gives a clear explanation of the recent warlike movements. The writer says: "A few weeks ago the German Ministers at various European Courts officially complained that France was arming with a view to an early beginning of war anew. General Von Scherwitz, German Minister in Vienna, declared that owing to Germany's long suffering, war had not yet broken out. The Czar thereupon telegraphed the Emperor William, entreating him to defer operations until the Berlin interview. He also instructed the Russian Ambassador at St. James to suggest the co-operation of Great Britain in behalf of Peace."

Le Nord, the organ of the Prussian Government in its editorial article of 31st ult. says that in consequence of the recent attitude of England to maintain peace in Europe, public opinion in Germany is agitating the irrevocable exclusion of England from the Council of the Continental Powers.

It is estimated that Paul Boynton in crossing tides and currents of the Channel paddled 34 miles.

Annual Report on the State of the Militia for 1874.

(Continued from Page 256.)
APPENDIX NO. 2.

REPORT ON "A" BATTERY SCHOOL OF GUNNERY.

KINGSTON, ONTARIO,
31st December, 1874.

During the year ending 31st December, 1874, five officers, 152 non commissioned officers and men joined this school. The numbers from each battery in the Province will be seen on reference to the subjoined list:—

BATTERIES.	Officers.	N.C. and Men	Total.
London Field Battery	12	12	24
Wellington do	13	13	26
Goderich Garrison Battery, Sarnia do	2	2	4
Hamilton Field Battery	2	2	4
Welland Canal do	9	9	18
Toronto do	21	21	42
St. Catharines Garrison Artillery	6	6	12
Toronto do	17	17	34
Collingwood do	1	1	2
Kingston Field Battery	50	50	100
Durham do	1	1	2
Cobourg Garrison Artillery	1	1	2
Port Hope do	3	3	6
Napanee do	3	3	6
Trenton do	1	1	2
Ottawa Field Artillery	3	3	6
Gananoque do	1	1	2
Ottawa Brigade of Garrison Artillery	0	0	0
New Brunswick do	1	1	2
Winnipeg Field Battery	1	1	2
Artillery on duty, Manitoba	1	1	2
Total	6	147	153

The following short course certificates have been received during the past year:

	1st class.	2nd class.
Officers	6	0
Non com. Officers and Men	16	20
Total	22	20

Shewing an increase on last year of 7 14

Fifteen non-commissioned officers and men received their discharge from the school for the purpose of engaging in the North West Mounted Police Force. During the past year four officers, fifty nine non-commissioned officers and men joined the school for a short course of instruction.

1. The results of this, the third year of the existence of this school, have as regards the attendance and instruction of non-commissioned officers and men been very satisfactory, and I have uniformly found, during my inspection of the greater portion of the artillery of this Province, the good results attending the intermixture, in the ranks of the volunteers of non-commissioned officers and men who have received such instruction and experience in their duties and discipline. The non-attendance of officers in greater numbers for a short course of instruction is much to be deprecated, I attribute their reluctance in coming forward principally to the two following reasons, viz: 1st. The necessary expense attendant on the purchase of a varied and costly uniform, and the necessity of providing sufficient barrack furniture to supplement the regulation table and chairs, it being borne in mind that for officers attending a course of instruction the pay is only \$1 per diem and rations; and 2ndly—the difficulty, and in some cases, the impossibility of officers and men, who may be engaged in professional or commercial pursuits, absenting themselves from their duties for so long a period as two or three months.

To obviate the above I would suggest as a remedy with regard to the former, that a serge jacket with appropriate facings, to cost about \$7 be substituted for the present expensive patrol jacket, and the use of the ordinary tunic at mess, instead of the shell jacket, left optional. That a few necessary articles of furniture be supplied to quarters for "Short Course" officers, that the pay of such officers and non-commissioned officers, while at the school, be according to rank.

With regard to the latter I would recommend that, during the summer months, classes of instruction under the superintendance of a properly qualified officer from the School of Gunnery assisted by one or more sergeant instructors, be formed at Ottawa and Toronto, or elsewhere if required, and under rules to be hereafter laid down, at the close of any a two months course of three hours per diem, an examination practical and theoretical could be held by the Commandant School of Gunnery, and 2nd or 3rd class certificates awarded. The holders of these might afterwards qualify for a higher grade by attending one month's course at the school, for additional instruction in interior economy, discipline and riding, &c.

2. I would recommend the adoption of a 3rd class certificate, to meet the case of certain non-commissioned officers and men, who though capable to instruct in drills &c., are of inferior education, such certificates not to qualify the holder as fit for a commission.

3. An increase in the present Field Battery establishment of the Schools of Gunnery, has been previously recommended by the Inspector of Artillery in Quebec and Ontario. As in "A" Battery there are at present 71 men belonging to different field batteries in the Province, the importance of providing adequate means for their instruction will be at once apparent.

4. I would recommend the enrolment of certain non-commissioned officers and men for three years' service in "A" Battery. The former would consist of sergeant major, quarter master sergeant, sergeant instructors, battery artificers, musicians, caretakers for forts canteen steward, hospital sergeant, &c., &c. From the nature of their employments, these men are unable to join their own batteries for annual drill, &c., should not therefore be borne upon their strength, whilst the due performance of their duties demands a lengthened experience.

5. It being found that greater numbers of non-commissioned officers and men present themselves for admission for short courses of instruction during the winter, than during the summer months. I would recommend that at such periods the establishment of "A" Battery be increased, to be compensated for by a corresponding decrease during summer.

5. A rifle association has been kept up in the School of Gunnery during the past two years, an annual match being fired in the month of June, and aggregate prizes subscribed for the best scores made on a certain number of Saturday afternoons. Last year the association numbered 77 members.

6. A summer camp for a week in August was formed on the lake shore, about five miles from town, during which the battery was instructed in camp duties, ordinary drills and field gun practices. The officers performed a survey and a road sketch, opportunity was afforded for athletic sports, swimming, &c. The rations were brought out by the battery horses, &c. The conduct of the men was excellent.

7. During the past year all the officers

and one non-commissioned officer have been instructed in surveying, road sketching, reconnaissance and defence of buildings. Considerable progress has been made in the above studies.

I have the honor to be, Sir,
Your obedient servant,
D. T. IRWIN, Major,
Commandant School of Gunnery.
The Deputy Adjutant General,
Headquarters, Ottawa.

REPORT ON "B" BATTERY SCHOOL OF GUNNERY.

CITADEL, QUEBEC,
31st December, 1874.

Sir,—I have the honour to forward a synopsis of the instruction carried out for the last three years in "B" Battery Gunnery School, and beg to state that not having a sufficient staff of assistants, I desire, with your permission to lower the standard of instruction by omitting from the "Long Course," mathematics as applied to the higher gunnery problems, military history and the construction of siege batteries, rafts and bridges, for which there is a difficulty in obtaining the necessary material, as well as working parties from the multiplicity of duties devolving on the small force under my command.

I need not in this report, I presume, refer in detail to the recommendations previously submitted with reference to the subdivision of the 174 of all ranks of "B" Battery into a brigade of 3 batteries of 80 each, one serving as a branch School of Gunnery at Montreal, which has already been at work for two years without any expense, as yet, to the Government beyond the pay of the officer and non-commissioned officer and 20 men of the St. Helen's Island detachment "B" Battery. It is scarcely necessary to refer to the facility with which cavalry and infantry drills could also be taught by such an establishment as proposed.

T. B. STRANGE, Lieut. Col.
Inspector of Artillery, and
Com. Gunnery School, Quebec.
Deputy Adjutant General
of Militia, Ottawa.

SHORT COURSE.
GUNNERY SCHOOL, QUEBEC,
April, 1874.

Field Gunnery.

1. Define the following terms:—Trajectory, line of sight, line of fire, point blank range, deflexion, derivation?
 2. What is meant by curved fire?
 3. What projectiles and fuses would you use respectively against troops in the open troops behind a stockade, troops sheltered behind rising ground or in woods; and how would you act against artillery whose limbers and horses were sheltered?
 4. Give the rough rule for calculating length of fuse for common and Sharpe's shell, (rifle guns,) take sharpshooter at 1,500 yards as an example?
 5. State the rules for calculating deflexion for the wind cross range, and for one wheel being on higher ground than the other?
 6. On the first coming into action how would you regulate and correct the fire of your guns?
 7. State in detail the positions and duties of the members in action with 9 Pr. M. L. & field guns, and the duties in case the gun detachment were reduced to five and six men by casualties?
- T. B. STRANGE, Lieut. Colonel,
Insp. of Artillery, and Com. S. G.
- 8th. What orders would you give to the officer in charge of your waggons?

SHORT COURSE,

GUNNERY SCHOOL, QUEBEC,
April, 1874.

Field Artillery.

1. Describe the method of preparing and fixing the different fuzes, time and percussion, for the 9 Pr. M. L.R. gun. What percussion is used when the shells are carried filled in the limbers?
2. Give distances of close interval with horses

1	do	"	"
1	do	"	"
Full	do	"	"
3. State movements of the different divisions in forming column of divisions in rear of the right from line, (with diagram)?
4. With four guns in action, change front half right on No. 3 for action. Shew the movement by a diagram?

Harness.

1. Name the different parts of a set of wheel harness?
2. How do you disengage a fallen shaft horse?
3. What shift would you make if the off shaft was broken and no spare one at hand?
4. What principal points are to be observed in adjusting collar, traces, belly band, breeching and side rein?

T. B. STRANGE, Lieut. Colonel,
Insp. of Artillery and Com. G. S.

SHORT COURSE,

GUNNERY SCHOOL, QUEBEC,
April, 1874

Field Artillery Material.

1. Describe the construction system of rifling, sighting, weight calibre, and charge of the 9 Pr. M. L. R. field guns.
2. Describe its case shot, and common Sharpnell shell, their action and the fuzes used with them.
3. Describe a common friction tube, give its diameter, and that of the vent. What substitute could you make if the supply ran short on service.
4. What are the ingredients of service gun powder, in what proportion are they used, and what is the specific action of each?
5. Is there any advantage in using gun cotton for the bursting charges of shells? Would you prefer dry gun cotton, or shells filled with water, with a little gun cotton pulp in it? What modification of fuse would be necessary?
6. Name the different parts of the gun carriage and limber, the number and nature of rounds carried in it, together with the stores carried on it in marching order.

T. B. STRANGE, Lieut. Col.
Commandant S. G. Quebec.

FIELD ARTILLERY.

GUNNERY SCHOOL, QUEBEC,
April, 1874,

Tactics.

As the Commander of a single field battery in action, give your ideas as to the solution of the following questions, and illustrate by diagrams:

- 1st. Where to fire?
- 2nd. When to fire?
- 3rd. What to fire at?
- 4th. What to fire?
- 5th. How to replenish your limbers?
- 6th. When to move?
- 7th. How to move?

9th. What advice to the officer in command of your escort?

T. B. STRANGE, Lieut. Colonel,
Insp. of Artillery and Com. S. G.

SHORT COURSE.

GUNNERY SCHOOL, QUEBEC.

Gunnery.

1st. Define the following terms:—

- Trajectory.
- Line of Fire.
- Line of sight.
- Angle of Elevation.
- Angle of Clearance.

2nd. What is windage? Why is it necessary, and what are its advantages and disadvantages?

3rd. What sights are used with smooth bore guns? How are the tangent scales graduated?

4th. What is the rule for elevation of S. B. guns having a point blank range of 400 yards? What is the elevation required for 1000 yards?

5th. Give rough rule for finding length of fuze for S. B. common and Sharpnell shell. How many tenths of a fuze for a Sharpnell at 1,200 yards.

6th. Give the rule which regulates the charges for cast iron mortars. What is the charge for a 13 in. mortar at 1,100 yards?

7th. What are the different kinds of fire into which gunnery practice is divided? Enumerate the different kinds of horizontal fire?

8th. Where is the greatest strain on the gun, and why?

9th. Why is the strain upon the metal of a rifled gun greater than upon that of a smooth bore.

T. B. STRANGE, Lieut. Colonel,
Comdt. S. G.

SHORT COURSE.

GUNNERY SCHOOL, QUEBEC.

Artillery Material.

1st. Into how many classes are projectiles divided?

2nd. What are the different conditions requisite in the construction of S. B. Common and Sharpnell shell?

3rd. Describe by aid of diagram a S. B. Sharpnell shell, its uses and most effective range, and what are its disadvantages as compared with a rifled Sharpnell?

4th. Enumerate and describe the miscellaneous projectiles and there uses?

5th. In what material are cannon cart-ridges made up, and why?

6th. Into what classes are fuses for S. B. ordnance divided? Enumerate the different time fuzes for S. B. shells, and at what rate does fuze composition burn?

7th. To what projectiles are wooden bottoms always attached, and why?

8th. What is the composition of gun powder? The proportions of its ingredients, and what are its advantages over other explosive materials?

T. B. STRANGE, Lieut. Colonel,
Comdt. S. G.

SHORT COURSE.

GUNNERY SCHOOL, QUEBEC.

Practical Artillery.

1st. How many orders of the lever are there? Describe them.

2nd. Detail the stores brought up by the different numbers in preparing for action with a 32 Pr. S. B. gun.

3rd. What is the disadvantage of using a gyn in siege operations? How many kinds of

triangular gyns are there, and what weight is each adapted to lift?

4th. Detail the general duties at a gyn.
5th. Describe the method of dismounting a gun over the front of a carriage and mounting it by parbuckling up the side.

6th. In case of a garrison being disabled in action, describe the quickest method of shifting the gun to spare carriage.

7th. Describe in general terms the method of mounting a 10 inch mortar.

T. B. STRANGE, Lieut. Col.
Comdt. S. G.

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Gunnery.

1. Define the following terms:

- "Axis of piece,"
- "Line of sight,"
- "Line of fire,"
- "Trajectory,"

and shew, with the aid of a diagram, of what forces the latter is the resultant.

2. Define windage. Does it exist in all guns? What are its advantages and disadvantages?

3. Explain why an elongated projectile from a rifle gun will penetrate an iron clad better than a spherical shot fired from a gun of the same calibre, and striking with the same terminal velocity.

4. Give the formula for finding the energy of a shot striking, in terms of its weight and velocity.

5. The accuracy of spherical common shell will not be as great (especially at long ranges) as that of shot of similar calibre, fired with the same charge. Will this also be the case with elongated shot and shell fired from rifled guns? Give reasons.

6. Show how you calculate the charge and length of fuze for mortars? Give charge and length of fuze for 13" mortar at 1,390 yards as an example.

7. Why does Sharpnell shell require a shorter time fuze than common shell? And give a rough rule to find length of fuze for ordinary S. B. guns.

8. How many tangent scales and sights are there for an ordinary smooth bore siege gun? Are the degrees the same length; if not, why?

9. It is sometimes required to render captured guns available. Give a ready rule to find the length of a degree for a tangent scale for any gun.

10. How is the derivation or constant deflection of the projectile from rifled guns arranged for, and the accidental deflection right and left?

11. Supposing the 7" breech loading gun gave an error of four feet to the right at a range of 1,500 yards, how would you set your tangent scale as regards deflection?

T. B. STRANGE, Lieut. Colonel,
Comdt. Gunnery School, Quebec.
(To be Continued.)

OLD IRON.—A wedge or plate of iron has been found imbedded in the masonry of the great pyramid in Egypt, indication being that it must have been wrought in the age of Cheops, placed by some authorities as far back as 5400 years ago. This makes the use of iron about 2660 years more ancient than it is supposed to be, and affords opportunity for explaining the cutting of the shaft and well defined hieroglyphics or porphyry, granite, and other hard stones employed in the construction of Egyptian pyramids, temples, and tombs. How these could have been cut before the age of iron has been a puzzling question to many. Further investigation may show iron to have been in use 6000 years ago.

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD QUARTERS.

OTTAWA, 4th June, 1875.

GENERAL ORDERS (14).

No. 1.

ACTIVE MILITIA.

PROVINCE OF ONTARIO

3rd Provisional Regiment of Cavalry.

To be Paymaster :

Troop Sergeant Major John Graham Hagerman.

To be Adjutant, with rank of Lieutenant :

Cornet Volney V. Ashford, C. C., from No. 2 Troop.

To be Quarter Master :-

Troop Sergeant Major Charles Stapleton.

To be Surgeon :

Henry Turner, Esquire, M. D.

Lieutenant and Adjutant D'Arcy Edward Boulton, C. S., Northumberland and Durham Squadron, is hereby permitted to retire retaining rank of Lieutenant:

Surgeon Philip Palmer Burrows, N and D Squadron, having left limits his name is removed from the list of officers of the Active Militia.

4th Provisional Regiment of Cavalry.

Adverting to No. 1 of G. O. (12), 21st May last, in the appointment "To be Paymaster: read "Maxwell William Strange, Junior Esquire."

Adverting to No. 2 of G. O. (13) 28th May last, in the appointment To be Assistant Surgeon, read "Marshall J. Brown" instead of "Marshall Bidwell Brown."

No. 2 Troop, Napanee.

To be Cornet, from 21st May, 1875 :

Sergeant Edwin Greene, C. C., vice Griffith, promoted.

Ottawa Field Battery of Artillery.

To be Surgeon :

Assistant Surgeon Thomas B. Bentley, M. D., from Ottawa Brigade G. A., vice Van Cortlandt, deceased.

Toronto Field Battery of Artillery.

To be 1st Lieutenants :

2nd Lieutenant Edward George Green, G. S., vice Dension, retired.

Sergeant Major Stephen Staughton (provisionally) vice Wright, retired.

To be 2nd Lieutenant, provisionally :

Quarter Master Sergeant Charles Johnson, vice Green, promoted.

Ottawa Brigade of Garrison Artillery.

To be Assistant Surgeon :

Duncan A. Carmichael, Esquire, M. D., vice Bentley, transferred to Ottawa Field Battery.

No. 7 Battery, Ottawa.

The resignation of Captain J. V. de Boucherville is hereby accepted.

1st Battalion Governor General's Foot Guards.

To be Ensigns, provisionally :

Frederick Toller, Gentleman, vice Dunlevie, promoted.

Color Sergeant Christopher Graburn, vice Aumond, promoted.

2nd Battalion or "The Queen's Own Rifles," Toronto.

To be Lieutenant :

Frederick Wright, Gentleman, M.S., vice Allan promoted.

12th Battalion of Infantry or "York Rangers."

Adverting to No. 2 of G. O. (13) 28th May last, read "vice Brevet Lieutenant Colonel Ernest M. Peel, V. B., who is hereby permitted to retire retaining his Brevet rank," instead of "vice Ernest M. Peel, left limits."

13th Battalion of Infantry.

Erratum in No. 2 of G. O. (13) 28th May last, read "To be Ensign:" instead of "To be Lieutenant."

15th Battalion or "The Argyle Light Infantry"

No. 3 Company, Belleville.

To be Captain provisionally, from 21st May, 1875 :

Alfred A. Farley, Esquire, vice Uriah E. Thompson, who is hereby permitted to retire retaining rank.

To be Lieutenant, from 21st May, 1875 :

Samuel C. MacDonald, Gentleman, M. S., vice John Tayler, who is hereby permitted to retire retaining rank.

Ensign Frederic G. A. Henderson having left limits his name is hereby removed from the list of officers of the Active Militia.

22nd "Oxford" Battalion of Rifles.

No. 3 Company, Princeton.

To be Lieutenant, provisionally :

Edward Davidson Galbraith, Gentleman, vice Williamson, promoted.

25th "Elgin" Battalion of Infantry.

The resignation of Surgeon Elephat W. Gustin is hereby accepted.

26th "Middlesex" Battalion of Infantry.

No. 2 Company.

The Head Quarters of this Company are hereby transferred from Napier to Strathroy.

87th "Lambton" Battalion of Infantry.

To be Major :

Captain and Brevet Major John Lewis, V. B., from No. 5 Company, vice McKenzie resigned.

34th "Ontario" Battalion of Infantry."

No. 3 Company, Oshawa.

The resignation of Lieutenant George Frederick Slade is hereby accepted.

35th Battalion of Infantry or "The Simcoe Foresters."

To be Assistant Surgeon :

Adam Macouchy Lynd, Esquire, M.B., vice Wells resigned.

No. 5 Company, Burford.

Adverting to No. 2 of G. O. (13) 28th May, 1875, read "To be Lieutenant: Ensign Gilbert French, M. S."

38th "Brant" Battalion or "Dufferin Rifles,"

To be Paymaster :

Quarter Master Francis J. Grenny, vice Andrew Morton, whose resignation is hereby accepted.

No. 6 Company, Drumbo.

To be Lieutenant, provisionally :

Sergeant John Cockburn, vice Edward McF. Fair, whose resignation is hereby accepted.

44th "Welland" Battalion of Infantry.

Honorary Major and Paymaster J. C. Kirkpatrick is hereby permitted to retire retaining the Honorary rank of Major.

48th "Lennox and Addington" Battalion of Infantry.

No. 5 Company, Enterprise.

To be Lieutenant, provisionally :

Nathaniel V. Woolfe, Gentleman, vice Awey, promoted.

77th "Wentworth" Battalion of Infantry.
No. 4 Company, Rockton.

To be Captain :

Lieutenant Alexander Bertram, M.S., from No. 1 Company, vice James Elgin Rymal, left limits.

To be Lieutenant :

Sergeant John Thomas Hatt, M.S., vice Young, resigned.

BRIEFER.

To be Major :

Captain George Evans, V. B., No. 4 Company, 36th Battalion, from 23rd May, 1872.

CONFIRMATION OF RANK.

Ensign James Adam, V.B., 13th Battalion, from 23rd February, 1875.

Ensign Edward Cartwright Kerr, V.B., 13th Battalion, from 23rd February, 1875.

Ensign John Stoneman, V.B., 13th Battalion, from 23rd February, 1875.

Ensign John James Smith, No. 2 Company, 34th Battalion, from 23rd February, 1875.

Ensign Thomas James Decatur, No. 3 Company, 36th Battalion, from 23rd February, 1875.

Ensign William Wells, No. 6 Company, 77th Battalion, from 23rd February, 1875.

PROVINCE OF QUEBEC.

6th Battalion "Hochelaga" Light Infantry.

To be Lieutenant :

Ensign Samuel Paxton, V.B.

55th "Magantic" Light Infantry Battalion.

No. 2 Company, Inverness.

To be Lieutenant :

Sergeant Major John Alexander Wallace, M.S, vice McKenzie, promoted.

Ensign Donald McKillop having left limits, his name is hereby removed from the list of officers of the Active Militia.

No. 3 Company.

The Head Quarters of this Company are hereby transferred from Glen Lloyd to Lower Ireland, Clapham.

Portneuf Provisional Battalion of Infantry:

No. 2 Company, St. Raymond.

The services of Captain Sifroi Martel as an officer in the Active Militia are hereby dispensed with.

Charlevoix Provisional Battalion of Infantry.

No. 3 Company, Les Eboulemens.

The services of Ensign George N. Cimon, as an officer in the Active Militia are hereby dispensed with.

Joliette Provisional Battalion of Infantry.

No. 1 Company, Joliette.

To be Captain :

Lieutenant Joseph Ulric Foucher, M.S., vice Louis A. McConville, who is hereby permitted to retire retaining rank.

To be Lieutenant :

Ensign C. P. Oscar Sheppard, M.S., vice Foucher, promoted.

No. 2 Company, St. Jacques de l'Acadigan.

To be Lieutenant, provisionally :

Seraphin Robichaud, Gentleman, vice Foucher, left limits.

Ensign Joseph Lapointe having left limits, his name is hereby removed from the list of officers of the Active Militia

No. 3 Company, Ste. Melanie & Ailleboul.

To be Ensign, provisionally :

Sergeant Octave Lavoie, vice Desmarais, resigned.

No. 4 Company, Ste. Elizabeth.

To be Lieutenant, provisionally :

Augusto Drolet, Gentleman, vice Beaubien, resigned.

The resignation of Ensign Joseph Brissette is hereby accepted.

PROVINCE OF NEW BRUNSWICK.

5th Regiment of Cavalry.

No. 4 Troop, Upham.

To be Cornet, provisionally :

Trooper Robert Chillis McMonagle, vice Titus.

No. 7 Troop, Springfield.

To be Cornet :

Sergeant Isaac Anderson Worden, vice Case.

62nd "St. John" Battalion of Infantry

To be Ensign, from 7th May, 1875 :

Private Hugh McLean, M. S., vice Kaye, promoted.

CONFIRMATION OF RANK.

1st Lieutenant Herbert Dibblee, G. S., Woodstock Field Battery, from 20th May, 1875.

PROVINCE OF BRITISH COLUMBIA.

No. 2 Company of Rifles, Victoria.

To be Captain :

Lieutenant James Gordon Winter, Q. F. O., from No. 1 Company, Victoria, vice Charles Edward Pooley, whose resignation is hereby accepted.

To be 1st Lieutenant, provisionally :

James William Douglas, Gentleman, vice Hett, resigned.

The resignation of Ensign William Blair McKenzie, is hereby accepted,

No. 2.

CERTIFICATES GRANTED.

SCHOOLS OF GUNNEERY.

PROVINCE OF ONTARIO.

FIRST CLASS "SHORT COURSE" CERTIFICATES.

1st Lieutenant John Wier Anderson, Toronto Garrison Artillery.

1st Lieutenant Herbert Dibblee, Woodstock Field Battery.

PROVINCE OF QUEBEC.

SECOND CLASS "SHORT COURSE" CERTIFICATES.

Bombardier Léon Gilbert, "B Battery" Quebec.

SCHOOLS OF MILITARY INSTRUCTION.

PROVINCE OF NEW BRUNSWICK.

FIRST CLASS CERTIFICATES.

Regimental Division. Names.

York. —Fred Philippe Robinson, Gentleman.

SECOND CLASS CERTIFICATES.

Regimental Divisions Names.

Carleton. —Corporal Joseph Wm. Williams, 67th Battalion.

do —Private Wm. Frederick Thomas 67th Battalion.

do —Private Charles Rodolphe Watters, 67th Battalion.

do —Private Robert Henry Wilson, 67th Battalion.

do —Private Josiah Rainsford Roscoe, 67th Battalion.

Kings. —John Barbara Hallet, 74th Battalion.

do —Arthur William McMillan, 75th Battalion.

(For continuation see page 273.)

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The Volunteer Review,
AND
MILITARY AND NAVAL GAZETTE

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

OTTAWA, TUESDAY, JUNE 8, 1875.

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, and Captain H. V. EDMONDS of New Westminster, are our authorized Agents for British Columbia.

We have to thank our kind friend, T. D. SULLIVAN, Esq., Librarian of the Royal United Service Institution, for a very interesting historical and practical pamphlet "On the proposed enclosure of Dover Bay—Review of designs, and historical Essay on the Harbour by JOHN BALDY REDMAN, F.R.G.S.M.I. C.E., &c. It is similar to Sir JOHN COODE's paper on Harbour of Refuge, and we shall review it in connection therewith at an early day.

On another page will be found an article entitled, "Our Rifled Ordnance," which is copied from the United States Army and Navy Journal, of 13th February, from which it would appear that a very decided stride has been made towards solving the problem of converting cast iron smooth-bore ordnance into rifled guns. The experiments as far as carried out are certainly encouraging, to say the least, and appear to be an innovation on European practice in the manufacture of guns of large calibre. It appears that the United States ordnance consisted of cast iron guns of calibres ranging up to ten inches for spherical shot—that this latter nature of gun has been bored up to thirteen and one-half inches in diameter, and a "lining tube of coiled wrought-iron (welded), the

bore of this to a distance of thirty-two one half inches being a double tube, the outer one shrank on the inner—the former, however, having the same exterior diameter as the inner tube at the muzzle end." The tube is adjusted to the cast iron body with great care—the lining consists of fifteen grooves with a twist of one turn in 40 feet. In Europe the practice is to use cast steel for the inner tube, and wrought iron for the outer case or shell. If it does turn out that our neighbors have succeeded in accomplishing the revolution involved in the success of their system they will certainly have solved a very interesting problem in finding the cheap material for the manufacture of heavy gun.

Broad Arrow of 20th March, has an article on "Compulsory Service," which we have copied in another column, its chief value consists in an extract from the speech of the Right Honorable GATHORNE HARDY, Secretary of State for War, the principle of compulsory service is obscurely hinted at. We say obscurely, because it is by no means evident that compulsory service in its proper acceptance was intended—the ballot as applied (or rather not applied, because its operations is unequal and public feeling is against it) to the British Militia is not by any means a popular law—under the complicated system devised by the late Government who styled themselves the friends of the people the whole burden of military service as might be expected fell on their clients, and in such a way too as to make the service detestable—in fact, it appeared to be the fixed idea with Mr. GLADSTONE and his colleagues that the further they could separate the interests of rich and poor, and the greater distance which could be placed between the people and their natural leaders the better it would be for the interests of the party they represented. Acting on this principle they disorganised and destroyed the military system that had rendered England formidable for two centuries—the Naval system on which her existence depends as well as the basis of her prosperity, and carefully took such measures as were best adapted to restrict martial or patriotic feelings amongst the people.

Instead of making "military service" obligatory on all, by cherishing the relations between the people and their natural leaders, they occupied themselves in trying to ape the vicious conduct of the rebels of the Long Parliament, by depriving the landed gentry of the commands they held in the militia, which should be recruited from their tenants, and concentrating it in the House of Commons where they reckoned on the majority of Representatives being traders, whose policy would be peace at any price, and patriotism a negative quantity measured by their gains. By Legislative interference they so complicated (what is after all the simplest of all political machinery) the orga-

nisation for offensive or defensive purposes that it is practically worthless, and that the boasted British Army costing fifteen million pounds sterling annually could not turn out 50,000 effective men for any purpose, nor will the present Secretary of State for War effect any reform till he undoes the whole work his predecessor so laboriously built, and begin *de novo*.

In that case compulsory service would mean the liability of every man physically able to bear arms, and the basis of such a system must be to restore the landed gentry to their position in the militia proper—i.e. the force raised in the agricultural districts, while the volunteer force should be raised in the great manufacturing towns the centers of population and industry.

The law should apply to all equally as regards service—the only exemption from serving in the militia should be the liberty of serving in a volunteer corps—from both those forces the Regular Army should be recruited by offering to picked men solid advantages and inducements—service for life being the general rule with ample pensions in case of ill health or being invalided. The whole civil departments of the army should be swept away, there should be no non-combatants, and retired officers as well as soldiers should be engaged in doing the work that is now performed by political clerks who absorb about two-fifths of the whole cost for no good purpose except to extend ministerial patronage.

In this case the ears of the people would not be offended with the word Ballot—their duty would be performed by roster according as their names stood on the list of their battalion. In this case what was universal, was not compulsory any more than other necessary social regulations, and need not interfere with the liberty of the subject in any appreciable and certainly not in an oppressive degree?

This we are sure would suit the great mass of the British people and would meet no opposition except from the party who have always been their country's worst foe.

The following very sensible, liberal, and generous article is taken from the United States Army and Navy Journal, of 15th May, and shows conclusively that the experience gained by the great contest through what that country has passed has not been lost upon the educated and thinking classes of the community—and we hope the hand of friendship here held out will be cordially grasped by a people who ought to be at one, and have a far higher mission than merely slaughtering each other at the will of scheming politicians or in the interests of a selfish class. We are, of course, well pleased to find our contemporary fearlessly recognises the truth of history without resorting to euphemisms, and we are satisfied that most wars spring from as mean, petty and selfish motives as the war of the Revo-

lution or that of the Southern Confederacy— all honor to the gallant soldiers of the *Grand Army of the Republic* :

"The Grand Army of the Republic which meets this week at Chicago, has signalled its meeting by a generous deed, which is also an act of the truest and highest statesmanship. It has extended a full and cordial invitation to all who fought in the Great War, on either side, to join in the solemn commemoration of illustrious dead; in rejoicings over peace returned. This act is the burying of old hatreds, the fastening of new bonds, the mending of old and broken ties, the full and hearty inauguration of a new brotherhood, between men of a common country. The man who can accomplish this deserves indeed the name of a statesman, for he secures the greatest good of the greatest number, and makes the safety of a nation.

"Consider the country as a family, and the problem becomes a simple one. Here are a number of brothers in one house. They cannot leave that house. They must stay in it, whether they will or no. They must make their living in that house and off that farm, for there is no other place for them to go. These brothers quarreled ten years ago and had a grand fight, in which the weaker succumbed to the stronger. Since that day, the situation has been one of mutual doubt. The farm work lags, both parties look grim and sulky. What is the best thing to do? Obviously there are two choices, either to begin the fight again and let one side exterminate the other *in toto*, leaving nobody to grumble—or else—to make peace for good and all, bury old feuds entirely out of sight, think only of the bravery and generosity that was manifested in the fight, and forget all the foul words that were used, all the hatred and misery that were felt by either. There is nothing to be gained by sulking or bragging on either side. These men must live together, the farm must be worked, and while men are scowling at each other, work goes undone. That we are realizing this more and more as the political advantages of encouraging the war spirit grow less, the Chicago invitation proves. It is only natural that it should come from the men who fought, for, be it noticed, it is not the fighters that began the scowling, but the cowards. Brave men, after a good hard fight, respect each other. They find that fighting is a poor business after all, and it is very difficult to get them at each other a second time. But the cowards who sneaked to the rear; the critics who smile serenely at ease, like the Roman nobles above the circus full of dust and blood, these by taunting one side or the other, seek to breed fresh strife, and by persistent appeals to the baser passions which slumber in every man to stifle the nobler sentiments of pity and generosity. From henceforth for another generation, the true policy of Americans, North and South, is to leave all the disagreeable things unsaid, and to dwell only on the better points of their adversaries. There is enough nobility on both sides to render reciprocity certain.

"We are now in the midst of the catenals of a successful rebellion, and that fact should make us hesitate before we lightly cast about abusive epithets such as 'rebel' and 'traitor.' We are proud of our 'patriotism,' and the word abounds, especially in country newspapers. The rebels of 1775 are 'patriots,' while the rebels of 1861 are 'traitors.' However disagreeable the admission to our pride, facts will not be gainsaid, and it is better for us Americans frankly to acknowledge this, than to have it flung in

our teeth by disinterested foreigners, pointing a sarcasm. A hundred years before our first Revolution, Sir John Harrington, in his *Epigrams*, Book IV., Ep. 5, remarked :

"Treason doth never prosper, what's the reason? Why if it prosper none dare call it treason."

"It was the silent and unacknowledged, but nevertheless irresistible logic of the memories of 1775, that made the American people so slow to coercion at the beginning of 1861; so slow to punish after the war was all over; and which prompts them to forget the past, except so far as it affects the present and the future, and to establish as the only test of citizenship that which the Government has itself established, obedience to the laws as they are, and to the Government as it is, and not proof of a hearty co operation in establishing these laws, or in making the Government what it is."

Our readers will find below two able editorials on "The Manufacturers' Exhibition," to be held in St. John, N.B., next fall, and "Manufacturers' Associations," both of surpassing interest to those engaged in the industrial pursuits of Canada. We deem it best to give the articles in full, as our readers will profit by the ability and talent of the Editor of *The Maritime Review* in the April number of which they appeared :

THE MANUFACTURERS' EXHIBITION.

The prospects of the Maritime Provinces Manufacturers' Exhibition, to be held in this City next Fall, are good. Such an Exhibition is required by the manufacturers and the people at large, and there are ample materials for making the display important enough to attract attention from abroad. St. John people of all classes are entering heartily into the project; our manufacturers are unanimous in working for its success, and nothing is required but the hearty co-operation of the manufacturers of the other cities and towns of New Brunswick, Nova Scotia, and Prince Edward Island. Our manufactures are varied and important, and steadily increasing. It is difficult to ascertain, except by having them well represented at an Exhibition of the kind that has been projected, their real value and extent. The people generally do not realise that we have among us the germs of almost all the branches of manufacturing necessary to render us practically independent, and a fitting collection of the products of home industry will do more than volumes of statistics, and hundreds of detached descriptions to open their eyes. At these Exhibitions manufacturers have an opportunity of making each others acquaintance, and of arranging for getting wares from each other that they might otherwise import. They are stimulated by each others skill, and encouraged by each others success, and the general attention that their wares attract leads to the more general use of home productions. There are many prejudices against articles of home manufacture—prejudices that can only be overcome by persuading people to give them a fair trial. The use of home productions must be made fashionable before a great part of the community can be made to buy them at the same price they pay for imported goods of the same kind and quality, and grand Exhibitions have an important influence in popularizing meritorious articles. We hope that there is no manufacturer in these Provinces so blind to his best interests as to be indifferent to this Exhibition, or to grudge the slight expense of sending to it samples of his skill. If his

wares are good, and he can produce them at a price that will compare favorably with the imported articles that now monopolize the greater part of his legitimate market, he is sure of gaining new customers, and a wider reputation. We believe manufacturers are alive to the great benefits to be gained by being properly represented at the Exhibition, and are assured that the display will be such that the people of these Provinces will be proud of it, and their manufacturing interests promoted by it.

MANUFACTURERS' ASSOCIATIONS.

We refer in another column, to the Exhibition to be held in St. John next Fall by the Manufacturers' Association. And it affords us much pleasure to notice the energy and zeal which members of the association display in connection with this laudable enterprise.

But we would remind those who are not members of the association that the holding of exhibitions is not by any means the only purpose for which this, and similar institutions in other parts of the Dominion, have been formed. Manufacturers have many interests to protect, and many questions to discuss, which affect them as a class, but are not felt by other portions of the community. And while the force of the maxim, "Unity is Strength," has been recognized by merchants in the formation of Boards of Trade, and by other classes in establishing various combinations for the protection of their special interests, the only matter for surprise is that our manufacturers have not sooner availed themselves of the advantages of combined action for the promotion of their common welfare.

We have referred to the power gained by combination, and we may here suggest the thought that power in itself is not a benefit, but only becomes so when it is judiciously controlled and managed for the accomplishment of some good object. Instances of the ill effects of this particular kind of power, when badly managed, are familiar to every one. In making these remarks we do not mean to suggest that there have been or are likely to be any ill effects arising from the power wielded by the Manufacturers' Association. On the other hand, we believe that it has already exercised a marked influence for good upon our manufacturing industries; and this power will be constantly increasing. But the benefit to be derived from it, to manufacturers themselves, and the community at large, will be greatly enhanced, by the cultivation of a liberal cosmopolitan principle among the members. We believe in association for the purpose of protection, but only so far as is compatible with development and progressiveness. When it fosters a selfish, exclusive spirit, and works upon narrow-minded principles, each member seeking his own aggrandizement, rather than the common welfare, it fails of its object and retards instead of assisting progress.

In view of these facts we do not doubt that our manufacturers will soon find it advantageous to extend their connections to other parts of the Dominion, by contributing to the formation of a Dominion Manufacturers' Association, which we believe is already projected in Ontario by the Association for that Province. The Manufacturers' Associations will then be to manufacturers, what the Boards of Trade are to merchants, only that the uses and advantages are even more numerous and varied.

We believe, also, that after competing with one another here this Fall, the manufacturers of these Provinces will be stimu-

lated with such a laudable pride in their achievements, that they will be anxious to win laurels in other fields, and a Dominion Manufacturers' Exhibition will be felt to be a necessity. That our manufacturers would learn much from comparing notes with those of the Upper Provinces cannot be disputed, but at the same time we imagine our Upper Province friends would have their eyes opened, and their ideas of our resources and capabilities very much enlarged, by the display we could make at a Dominion Exhibition.

We have received a letter from Mr. Fraser, the Secretary of the Ontario Manufacturers' Association, on the above subject (that of forming a Dominion Association) and suggesting that the Inter-provincial Exhibition, to be held at Montreal in October next, would be a suitable time and place for delegates from the different Provincial Associations to meet and consider the matter.

NEW FELT HELMET.—We were yesterday shown through the courtesy of the ADJUTANT GENERAL, a new Felt Helmet, recently imported from England by Lieut.-Colonel SMART of Port Hope, for the Cavalry under his command. It is grey in colour, bound round the rim with brass, the spike on the top of the helmet being also of brass—in shape and appearance it resembles that worn by the Prussian troops. The inside leather lining is attached to the helmet by India-rubber balls—something quite new. The weight of the helmet is only three quarters of a pound; but by removing the spike from the top, and substituting leather for the brass binding, it would not weigh more than half a pound. It could be made to answer the three arms of the service—Artillery and Infantry, as well as Cavalry—no spike being necessary in the hats of the two former. In our humble opinion it is just the kind of head-dress that was wanted, but the great drawback against its being adopted by the Military Authorities is its cost. If it could be manufactured in this country at a reasonable price, such as the country could afford to give, then the Government might be induced to adopt it. Even if it did cost a little more than the present head-dress, in the end, we believe it would be found the cheapest. Colonel SMART is a popular and painstaking officer, who looks well after the comforts of the men under his command, and by whom he is deservedly loved and respected.

CORRESPONDENCE.

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

The Queen's Birthday in Halifax. To the Editor of the VOLUNTEER REVIEW.

Perhaps a description however imperfect of the review of Her Majesty's and the local forces on the Common at the rear of the Citadel, may prove not altogether uninteresting to some of your readers. I fell in with the 1st Battalion 60th Rifles on their way to the ground from their quarters in the Cit-

adel, and was at once struck with their extreme neatness, smartness and force. There can be no doubt of their being a very pushing lot. Even the unmilitary stranger could see at a glance that it was a battalion up to the mark in everything that could be expected of such troops, and a great deal is expected of the "Royal Americans," as they were once called. The playing of their band with a bugle accompaniment, the bugle corps marching in front, was both sweet and strong and of the most stirring kind. The common presented a confused appearance at first, but a few men easily cleared the square and people remained outside after that, as they always do when the "regulars" are present; perhaps they are fonder of the Volunteers for they never give them room to move but stick to them like leeches. A long time ago when it was quite new, seeing their sons and brothers gorgeously arrayed in military apparel, tradition says that bayonet charges, had to be executed to enable the "boys" to get a cartridge out of their pouch.

The troops which received the senior officer of the garrison, who, in the absence of Lieut. General O'Grady Haly, C.B., was Colonel Luard, with a general salute, were formed in line in the following order: Volunteer Field Battery six Armstrong guns; 2 Batteries Royal Artillery, Major Brown; the 5th Regiment Royal Irish Fusiliers, Lt. Col. N. Stevenson; the 1st Battalion 60th "Royal" Rifles, Major Dundas; 1st Brigade Militia Artillery, Lt. Col. Mitchell; 66th Battalion, "Halifax Volunteer Infantry," Lieut. Col. Bremner; 63rd Battalion "Halifax Volunteer Rifles," Lt. Col. Pallister. After firing *a feu de joie*, the men took off their caps and gave three cheers for the Queen. Very shortly after the march past took place. First came the Field Battery, of whose performance I can say nothing not being at all up in their drill, followed by the Royal Artillery looking well as they always do; proudly swept after them the Irish Fusiliers 400 Bayonets, an irresistible torrent of life and force looking perfection itself; then dashed along the 60th Rifles also 400 strong, neat and compact and with the general aspect that they could not be denied of in earnest. The Canadian Militia formed the second Brigade under the command of Colonel Laurio D. A. G., late 4th "King's Own Royals," an able and favorite officer, who was attended by a numerous staff numerous enough it seemed to me for ten times as many men. The 1st Brigade Militia Artillery rank and file moved steadily along followed by the 66th Batt. 150 Bayonets, who not only looked weaker than usual but did not appear to march as well and had a neglected air, for while the other corps rejoiced in bushes they had been turned off with glories, while odd-eyenough the officers wore shakoos; the 63rd Rifles brought up the rear, and very well they did it—they numbered 150 men and looked compact and

steady, and they would have looked much better if they had received the new uniforms in time for this parade. They sport a Highland Piper handed down to this generation by the old Scottish company. The handsome pair of colors presented to them by the ladies of Halifax seems to be "confined to barracks." Perhaps they don't care to wavo much over less than six hundred Bayonets, the number that once gathered about them. I feel obliged to say that the Volunteers seemed sadly in want of drill. There is no doubt about it that three or four hours *exercice* in the dark, in a double sense, was scarcely adequate to qualify them to muster with crack regiments of Her Majesty's Army, nor can I account for the apparently obstinate manner in which they were wholly excluded from all the advantages afforded by the Drill Shed, which was erected by the Government of Nova Scotia for their use and benefit, not only all the Winter and Spring but up to the last moment *the military school* occupying it all that time, it seems to me with doubtful benefit to the service, if those who pass through the School and become officers are obliged to instruct their recruits at night in the open air *suble gmine*.

SRUCE TREE.

Provincial Rifle Association:

The semi-annual meeting of the Council of the Provincial Rifle Association took place at the Gordon House, St. John, on Thursday evening last. There was a fair attendance from St. John, Fredericton, St. Stephen, Sussex and elsewhere, including the Deputy Adjutant General, Lt. Col. Maunsell.

After the reading and approving of the minutes of the former meeting, Lt. Col. Beer gave a viva voce report of his mission to Ottawa last winter as the delegate of the Association. While this report in the main was highly satisfactory, a majority of the Council took exception to the regulation which required competitors for Wimbledon to travel to and compete at Ottawa. Hitherto the scores made at the Provincial competitions have been accepted, and this plan had always proved satisfactory. The new regulation appeared unreasonable and unjust.

On motion of Quartermaster Hogg, seconded by Capt. Armstrong of St. John, it was decided, after a sharp debate, to hold the forthcoming annual matches of the Association at the Rifle Range in the City of Fredericton, the local Association offering the use of the Range free of charge. The matches will accordingly take place in this city commencing about 1st September prox.

The Wimbledon regulations will be adhered to in every particular. Any position at all ranges, including the 200 yds., except for the Prince of Wales' Cup. No coaching or shading allowed.

A Watch, to be substituted for the Gold Medal of the Association, will be awarded this year as last.

The meeting was most harmoniously conducted, and the members separated with the full desire of making the forthcoming competition satisfactory to the competitors and conducive to the future prosperity of the Association.—*N. B. Reporter.*

(Continued from page 269.)

Kings,	—Private Oliver Howard Arnold, 74th Battalion.
do	—Private William Henry Wallace, 74th Battalion.
Yok.	—Sergeant Saunders G. Brown, 71st Battalion.
do	—Private Murdoch Gillies, 71st Battalion.
do	—Private Jared Oscar Smith, 71st Battalion.
do	—Private Charles William Moores, 71st Battalion.
do	—Private Martin White, 71st Battalion.
do	—Charles Westly Currie, 71st Battalion.

PROVINCE OF NOVA SCOTIA.

FIRST CLASS CERTIFICATES.

Regimental Divisions	Names.
Halifax City.	—Captain George Ansley Sandford, 1st Halifax Brigade Garrison Artillery.
do	—Captain William A. Purcell, No. 5 Battery, 2nd Halifax Brigade Garrison Artillery.
do	—1st Lieutenant William Lithgow, No. 2 Battery, 2nd Halifax Brigade Garrison Artillery.
do	—1st Lieutenant Edward Stairs, No. 5 Battery, 2nd Halifax Brigade Garrison Artillery.

SECOND CLASS CERTIFICATES.

Regimental Divisions.	Names.
Halifax City.	—Ensign James E. Dimock, 63rd Battalion Rifles.
do	—Private A. Caithness, 63rd Battalion Rifles.
do	—John Stratton, 63rd Battalion Rifles.
do	—B. S. Major J. Hartlen, 1st Halifax Brigade Garrison Artillery.
do	—Sergeant Patrick Phelen, 66th Battalion of Infantry.
do	—Sergeant Daniel B. Ready, 63rd Battalion of Rifles.
do	—Corporal S. Williams, 66th Battalion of Infantry.
do	—Private William Gibson, 63rd Battalion of Rifles.

do	—Private Michael Bowser, 66th Battalion of Infantry.
do	—Private H. Hainsworth, 66th Battalion of Infantry.
do	—Private George Hilton, 66th Battalion of Infantry.
do	—Private J. A. Fegan, 66th Battalion of Infantry.
do	—Private J. McGae, 66th Battalion of Infantry.
do	—Private J. McGillivray, 66th Battalion of Infantry.

BOARDS OF EXAMINERS.

PROVINCE OF ONTARIO.

FIRST CLASS CERTIFICATES.

Regimental Divisions.	Names.
Lieutenant Peters B. Barnard, 13th Battalion.	
Ensign J. McGillivray,	34th do
do James Aikins,	77th do
Sergt. Major Joseph Delamere,	2nd Battalion.

SECOND CLASS CERTIFICATES.

Regimental Divisions.	Names.
Lieutenant M. Brennan,	19th Battalion.
Ensign R. H. Bowes,	2nd do
do Thomas Langton,	do do
do James Adam,	13th do
do E. C. Kerr,	do do
do John Stoneman,	do do
do Thomas J. Decatur,	36th do
do John G. Smith,	34th do
do Joseph Clark,	44th do
do William Wells,	77th do
Sergt. Major T. K. McKeand,	13th Battalion.

By Command,

WALKER POWELL, Colonel,
Adjutant General of Militia,
Canada.

REVIEWS.

The *Edinburgh Review* for April (reprinted by The Leonard Scott Publishing Co., 41 Barclay Street, N.Y.), is now ready. Contents as follows;—New Series of Wellington's Despatches; The Geology of India; Maclouel's Memoirs—State of France; Modern Architecture and its Assailants; Reminiscences of William Macready; Arctic Exploration; Supernatural Religion; Kinglake's Battle of Inkerman; Papal Rome and Catholic Reform.

REMITTANCES Received on Subscription to THE VOLUNTEER REVIEW up to Saturday the 5th inst. :—

Gananoque, Ont.—Capt. Wm. McKenzie, to	June, 1876,	\$8.00
Ottawa, Ont.—Hon. Jas. Skead, to Jan., 1876,		4.00
Victoria, Ont.—Mr. C. F. Young, to Dec., 1875,		4.00
Winnipeg, Man.—Capt. J. C. Schultz, M.P., to Jan., 1876,		6.50

The Fluding of the Sails of Nelson's Flag Ship.

(From the Telegraph, May 3.)

While rummaging lately an out-of-the-way loft in the Dockyard at Chatham, there have been found certain old waifs, concerning which a few words ought, we think, to be said. In appearance the relics seemed nothing better than three or four bundles of navy canvas, and a marine-store dealer, turning them over, would have offered very little indeed for the lot. There was a maintop sail, a foretop-gallant sail, and a foretop sail, which had all evidently belonged to a large vessel; but the canvas was withered and mildewed, the bolt-ropes had perished, the cringles and thimbles were rusted, and besides all this the cloths of the rusty suit were tattered and torn in the most extraordinary manner, so that it would have puzzled a master sail maker to cut out from the biggest the lugsail for a man-of-war's pinnace. This useless canvas was on the point of being condemned to the "clearing-out" auction, along with other rubbish, when somebody thought of overhauling it for further information. Upon the bonnet of one of the sails was then found marked "MILLER, Contractor, Portsmouth, 1805," and fastened to the stops of another was a label bearing an inscription which in a moment changed the value of that yellow old duck into something that, if the Lords of the Admiralty know their business, all the marine store dealers living have not cash enough to buy. For, written on the label was "H. M. S. Victory, 1805," and it was at once perceived that these same topsails were none other than the fore and main upper canvas of the noble ship in which Nelson led the weather division of the British fleet on the ever-glorious day of Trafalgar. Those rents and tatters, too, in the venerable stuff, were not the ravages of time or holes gnawed by dockyard rats, but the thick and honourable wounds which our brave old fighting ship took aloft when French and Spanish shot tore screaming over her tops, what time Nelson was bearing down upon Villeneuve and Gravina, amid the thickening fire and smoke of that tremendous noon on the 21st of October, 1805. In the foretop sail there were over eighty holes, great and small; in the maintop sail there were more than four dozen shot and bullet marks. In a word, this was part of the very suit that the famous old line-of-battle ship bent on going into action; and, when the battle was over, those very sails, as full of holes as a potato strainer, carried the Victory, with the dead Admiral's body on board, into Gibraltar, as Stanfield has painted it, and as immortal history records. Once safe at the Rock, the gallant vessel, no doubt, sent down her damaged gear, and these among them, after which, setting new gear, she sailed home, as we all know, bringing the corpse of the great victor into Portsmouth. The Victory was subsequently paid off at Chatham, but how the relics came thus sadly to pass out of notice and knowledge is a reflection on the authorities; but there at all events, they have reposed for seventy long years, and probably those who unrolled the old stuff and shook out its bunts last week were the first to clap eyes upon the cannon-rents since the hour when, with the blood upon her decks not yet dry, and the splinters of battle still white and fresh upon her, the Victory's foretopmen rolled up her shot-torn pinions and laid them by.

HEALTH FOR THE 21TH OF MARY.

BY MISS JULIA GODDARD

"Crown the cup with roses,
Drink a health to-day,
For years ago a princess
Was born in merry May;
And through the land, like joy-bells,
The people's shout rang clear,
God bless the little princess,
Our sweetest gift this year!

"Crown the cup with roses,
Let the toast go round,
We pledge the noblest lady
That trends on English ground:
The lang-syne sweet May princess,
Who joy and grief hath seen,
Since through the Grand old m^{aster}
First pealed, "God save the Queen."

"Crown the cup with roses,
Call Heaven's blessings down
On her who long and loyally
Hath worn our English crown;
On her who o'er her people
Hath held a gracious sway—
The Queen! the Queen! God bless her,
We drink her health to-day."

Our Rifled Cannon.

The late recommendations of the President's message on the subject of rifled ordnance have awakened a great deal of interest among all thinking people as to our coast defences. Despite the clamour of the penny-wise-pound-foolish economists, it is noticeable that the people at large are waking up to the fact that our harbors are practically almost defenceless against rifled ordnance, fired from the ports of most foreign iron clads. In these matters the sagacious Nast follows the drift of public opinion, in a late cartoon in *Harper's Weekly* on this very subject. One side represents Columbia crouching in terror by a defenceless battlement, with a "quaker" gun beside her, while she hugs the dove of peace to her bosom, for fear it might escape her; the other side represents her calm and proud, with doves flocking to her from all quarters, protected by the muzzle of a large gun. Reserving for another time any thorough discussion of the subject of coast defence, we now simply summarize the Ordnance solution of the problem of how to convert our smooth-bore into rifled at the least cost and in the best manner, taking our facts from Ordnance Notes No. 33. This pamphlet embodies the report of the "Board on Experimental Guns," consisting of Colonel Crispin, Majors Treadwell and Baylor and Captain McKee of the Ordnance Department, lately ordered by the Secretary at War, as to the trial of the 8-inch converted rifle, made from the 10-inch smooth bore, so common on our sea coast forts.

The gun is essentially composed of two parts, the original 10-inch smooth-bore bored up to an interior diameter of 13.5 inches, and a lining tube of coiled wrought iron, (welded,) the breech of this to a distance of 32.5 inches being a double tube—the outer one sprung on to the inner—the former, however, having the same exterior diameter as the inner tube at the muzzle end. A screw-collar prevents the tube from being thrust forward at the muzzle by the compression of its metal by repeated firings. The bottom of the tube is closed by a wrought iron base or cup. The dimensions of the finished bore of the cast-iron body and the exterior dimensions of the inserted wrought-iron tube are such that play between the cast iron body and the tube does not exceed 0.0105 inches for a length of 32 inches at the breech end, and 0.009 inches for the remainder of its length. The tube was adjusted to the cast iron body with great care, especially to insure its

breech end being closely in contact with the cast iron. After its insertion it was secured at the muzzle by the screw collar above mentioned. The venting is the ordinary copper bushing, the old vent being closed by a wrought iron screw plug. A screw plug is inserted to prevent the tube from turning. The rifling consists of fifteen grooves and lands (equal) with an uniform twist of one turn in 40 feet. The weight of the gun and tube complete is 16,100 pounds. The gun is mounted on the ordinary wrought iron carriage for the service of our 10-inch smooth-bore cannon in casemate. It consists of the upper carriage and chassis, the total weight being about 6,000 pounds. The axis of the gun is 7 feet above the surface of its wooden platform. The upper carriage, consisting of two check pieces connected by its transoms, has attached the box clamp and friction plates of the recoil-check. The only changes in its construction are the ones necessitated by the modes adopted for checking recoil and for elevating and depressing the gun. The recoil is checked by friction. For elevating and depressing, two circular toothed arcs, having their centres at the axis of the trunnions, (one on each side), are attached to the gun. A wrought iron axle passing through the check plates has at one end a hand wheel. By simple multiplied gearing, power is transmitted to the toothed segments. This arrangement admits of 20 deg. of elevation and 14 deg. of depression. The means for loading and running the gun and carriage in and out of battery, and traversing remain unchanged from the original systems of 10-inch smooth bore carriages. The ordinary service pintle and strengthened pintle transom (2 inch thick) were used in the experiments. The carriage complete weighs about 6,000 pounds, the upper carriage weighs 2,500 pounds and the chassis 3,500 pounds. The experiments at Fort Monroe during the winter of 1872 and spring of 1873, with what is known as hexagonal grained powder, manufactured by Messrs. E. J. DuPont and Co Wilmington, Delaware, demonstrated the superiority of this powder for heavy ordnance, giving low maximum pressures and satisfactory velocities; with great uniformity in its action. One of the samples tested, designated by the manufacturer as E. V., was selected as the standard for guns of 8-inch and 9-inch calibres. The uniformity in size of grain and their particular polyhedral shape insures great uniformity in the position and size of the numerous interstices in the make up of the charges, and thus insures with an uniformity of density in grain, a high degree of uniformity in pressures and velocities for given charges of powder and weights of projectiles. The powder used in the experiments was composed of the United States standard proportions for its different ingredients, and had a specific gravity of 1.7511. Fourteen charges with 100 pounds of E. V. hexagonal-grained powder and 450-pound shot in the 15 inch gun gave a mean maximum pressure of 13,964 pounds and a mean initial velocity of 1,594 feet. Large charges using 120 pounds E. V. hexagonal-grained powder and 450 pound shot gave a mean maximum pressure of 22,000 pounds and a mean initial velocity of 1,603 feet. One 450-pound shot with 120 pounds charge gave a maximum pressure and velocity, the former 22,000 pounds and the latter 1,735 feet. Seven rounds from an 8 inch wrought-iron rifle with 35-pound charge and an average weight of projectile of 168 2-3 pounds gave a mean maximum

pressure of 29,714 pounds and a mean initial velocity of 1,470 feet. The cartridge bags were made allowing a windage of .85 inches, the material used being woolen sergo. The friction primers were made at Frankford Arsenal and proved of excellent quality. The projectiles used in the experiments were elongated cast-iron conoidal shot, with soft metal bases, to take the grooves and insure rotation.

Trials were first made with charges of powder varying from twenty to thirty pounds and with projectiles varying from one hundred and fifty-seven to one hundred seventy three pounds, to note resulting pressures and velocities and the effects on the gun and were preliminary to the use of thirty five pound charges, the weight selected for the test of the gun for endurance. Satisfactory results having been attained, experiments were then commenced for testing the endurance of the gun, using thirty-five pound charges. Four hundred and ninety eight rounds were fired with this charge and six rounds with a charge of thirty pounds, completing a record of five hundred and four rounds. Five hundred and thirteen rounds in all have been fired from the gun. The velocities were taken with the Le Boulengé chronograph. The Rodman pressure plug placed in the cartridge bag, was used for ascertaining the maximum pressures. The calculated energy of a mean weight of projectile 173.7 pounds with thirty five pound charge shows a power about equal to the wrought iron 8-inch English service rifle, and, as it was believed that the length of the bore would enable us to advantageously burn but little, if any, more powder, a charge of thirty five pounds was fixed as a maximum in the tests. The mean maximum pressure with battering charges was 31,282 pounds. The necessary repairs of proof butt, the delays in the procurement of projectiles, etc., and the limited and imperfect character of our facilities at command are causes which prevented an earlier completion of these experiments than December 22, 1874. The gun was as a rule washed out, star gauged and otherwise examined at the end of each day's firing. Before concluding the series of five hundred and thirteen rounds it was desired to make some experiments to test the accuracy of the systems of rifling and projectiles; accordingly a board target 20x40 feet was erected exactly one mile (1,760 yards) from the gun, and commencing with the four hundred and sixty-sixth round on December 22, 1874, thirteen consecutive shots, using thirty five pound charges, were placed in the target, thus concluding the record of that day's firing. The mean horizontal deviation from centre of impact was 1.8 yards; the mean vertical deviation was 0.66 yards; the total mean deviation was 1.91 yards. Considering the appliances used for laying, training, sighting and pointing the gun and other circumstances attending the trial, this record was considered highly satisfactory. The remarkably small horizontal deviations afforded indisputable evidence of the serviceable condition and good character of the rifling and of the satisfactory action and accuracy of the projectiles. After the first five rounds the star gauging indicated no sensible enlargement of the bore, showing that the play allowed in the construction between the tube and the cast iron body had not yet been obliterated and that the tube was not yet set out firmly against the cast iron walls, seven additional rounds, using battering charges, firmly set the tube in its position. The enlargements by subsequent

fringe are given in the table, and it will be seen that after five hundred and thirteen rounds the maximum increase of bore was 0.0400 inches and at 23 inches from the bottom. By deducting the play of the tube at that point we have only an actual maximum enlargement, due to the total five hundred and thirteen rounds, of 0.0295 inches. The results were especially satisfactory, as an official report of European experiments with a converted system (2-inch rifle) gave, in a case brought to the notice of the Board, a maximum enlargement after only one hundred and sixty odd rounds (with one hundred and fifty pound projectile and thirty pounds of powder) of 0.0600 inches. Impressions of the bore taken with gutta-percha show but little erosion from the gasses, and this and a slight general roughness and at the seat of the shot are the extent of the damage done to the surface of the bore in the entire experiments and tests. The table of comparison between the 8-inch converted and the English eight inch nine ton gun shows that we can calculate on a power from the former equal to that of the latter. The calculations are not carried beyond eighteen hundred yards, as to our more important harbor defences a greater range than this would not generally be required for their casemated guns, which would probably be used in case of attack as powerful auxiliaries to the larger calibres of 10-inch and 12-inch rifles. The calculated power against armor plates (unbacked) is at the muzzle a penetration of 8.66 inches; at six hundred yards, 7.87 inches; at one thousand yards, 7.42 inches, and eighteen hundred yards, 6.75. The Board believe that in some of our harbors, where the draught of water is comparatively light, guns of this power would have sufficient energy to afford by themselves an efficient armament. They here state that the nationalities of Europe embrace in their calibres for heavy ordnance as low as 7 inches. The record showed that an increase of power from two to threefold over the original smooth bore 10-inch gun, at ranges varying from one thousand to three thousand yards, is gained by the conversion. The present armament for our seacoast includes for our casemated defences twelve hundred and ninety four 10-inch Rodman smooth bore guns distributed in our harbors, as follows: At Port land, Me.; Boston and New Bedford, Mas.; Newport, R.I.; New Port, Fort Delaware, Hampton roads, Va.; Charleston and Savannah harbors, the forts of the Gulf and the harbor of San Francisco. "These guns," say the Board are worthless for purposes of defence against armor-plated vessels of modern construction, and the casemates provided for their emplacement (which have cost millions of money) are now useless, and demand for their utilization either a re-armament of new guns or that the old ones shall be converted into rifles of efficient power to render the casemate batteries powerful and efficient auxiliaries to our heavier calibres in battle; all to provide effective harbor defences. Proof that effective and durable guns can be provided by conversion having been given by our recent experiments and conversion, affording an undoubted economy, it is recommended that the Department ask for liberal appropriations to make to initiate the work of providing converted rifles for already existing permanent casemated works now useless, as above stated, for the want of efficient armaments; yet for which appropriations are annually being made. The strong assurances afforded by

our experiments, that additional experimental guns of the heaviest calibre now fabricated by civilized nations, constructed on the principle of combining cast-iron with wrought iron or steel lining tubes, and after judicious and well matured plans, approved by the Department, will, when tested, give successful results and prove that an effective, durable and economical rifle armament can be secured, leads the Board to submit the additional recommendation that Congress be asked to appropriate an adequate sum for further experiments and tests, and especially for the manufacture, trial and tests of one 10 inch and one 12 inch experimental rifle, to be constructed in accordance with the general plan above suggested."

Compulsory Service.

The final remarks in Mr. Hardy's speech last week were as important as any he made, but they have not received any marked attention, and their force was altogether evaporated in the condensed accounts published in several newspapers. They were so candid and so pointed that we make no excuse for referring to them, and we shall have, in examining them, an opportunity for expressing opinions we have discreetly held in reserve, though occasionally hinted at them so that he who ran might read. Mr. Hardy's observations have almost the nature of a soliloquy. He fears we cannot hope to procure a better class of men for the Army. We must draw our recruits from the same sources as before. Conscription, if it ever come, will come at a distant day. We have "only one compulsory force, the Militia, and we suspend the ballot for it every year" upon grounds which have hitherto commended themselves to the country." If Mr. Hardy had stopped here there would have been no special force in his remarks. But two observations followed, which help us to understand what is passing in his mind. "I am bound to say, no continued, after making this reference to the Militia, "that I have been extremely struck lately at finding in many quarters, where I could hardly have expected such a feeling, a growing inclination to try in some shape the ballot for compulsory service." There was no ridicule of this inclination on his part. He was struck by the discovery as many others have been. But, of course, his duty was not to anticipate popular feeling. It is enough for him to understand what was going on. We now reach the second observation. "I do not deceive myself as to the difficulties of the position, but I wish to give a fair trial to the existing system, till I see myself obliged, if I should be obliged, to confess that the system is a failure. If I do make that discovery, I shall not hesitate to say that I have been wrong in giving it so long a trial, and I will ask this House to sanction such changes as will make the Army efficient for the purposes for which it is intended." These are highly important confessions. When a Minister of War takes the House of Commons into his confidence in this manner, we may be sure that he is more than half inclined to move in the suggested direction, and that direction is made sufficiently clear by the words we have italicised.

We have already noticed this growth of feeling. Reviewing Sir Henry Havelock's Army scheme in the first number of the *Broad Arrow* for this year, we stated that the Volunteer movement was "preparing us for universal service," that we are "much nearer it than we were twenty years ago,"

that we agreed with Sir Henry Havelock in regarding compulsory service for the Line as at present out of the question," and that, as regards compulsory service in the Militia, there had been a great advance of opinion since the last part of the Army Regulation Bill was quietly dropped in committee." What influences have been at work in creating this change of opinion? The abolition of purchase was, undoubtedly, a constitutional advance, but it merely registered a prevailing opinion. So long as first commissions were purchasable, promotion by selection, as well as pure seniority, was impossible. There could be no opening in the Army for military careers to the general public. Compulsory service would have been unjust under the old system. Lord Lyton, whose full blooded, high principled Conservatism no one doubted, in a work on France, published in 1836, and now almost forgotten, dwells on this point in comparing the French with the British Army. "The French Army," he says "is recruited, not by Volunteers of the working class, but by conscripts from every class; and the injustice would be terrible if you forced a man of fair prospects and education, to whom all professions were open, to engage in the Army, and then did not allow him any chance of advancing himself in the service into which you had forced him to enter." By abolishing purchase we made compulsion possible, not because we had compulsion in our minds, but because purchase was the one internal hindrance in the Army itself. Arguments were used in favour of selection that implied general service, and thus the public were rendered familiar with an idea which crept in under cover of a reform supposed to be complete in itself. But the full benefits of selection can only be obtained under conditions following universal service, and yet we are all ready to say that we did not make one radical change in immediate view of the other. Of course not, and yet one link in a chain draws the others after it, and it happens, in the long run, that we incline to accept conclusions we never intended, simply because they are logical outgrowths. Our course of thinking met with a break, and if we did not think of compulsion in the Line, we came to dwell upon it for the Militia.

This is precisely our present mood. We toy with compulsion, and yet we hesitate to adopt it. Our feelings are superior to our logic. It has always been so in military matters. The Volunteer movement might be called compulsion, deflected. The idea of a quasi compulsion was in it; and if we had been a military instead of a warlike nation, if we had had statesmen of a severer type in office, it is quite possible that we might have travelled to the goal which is still before us in a less circuitous manner. A very little coaxing would have directed the same patriotic impulses into a more military channel, and instead of organising a second army we should have reorganised the old one, either by devising new links between the Militia and the Line, or by reducing the standing Army in obedience to some principle of general service. Lord Cardwell called us a little way in the old direction, stopping short at the critical moment, and creating a feeling of, it may be, false security by increasing the Regular Army and encouraging the Colonies to do what we were, or seemed, hardly ready to undertake. To many observant mind, the localization scheme was a mere farce, except as a silent introduction to some more radical change, for which it was an education process. And this, in truth, it has really been, softening

old anti-military animosities, and creating a new spirit altogether. The essence of a true localization scheme is general service, for which each depot is the appropriate centre. Here, again, we eagerly seized the idea, and in seizing it we got more accustomed to what was behind. But we stopped short again, and curved away from the logical result. All these curves and temporary advances, however, have brought us a little nearer to the thing we once dreaded, and we begin to see that there is nothing very dreadful in it. Political changes have assisted. With the growth of new Powers in Europe, wielding mighty armies, the doctrine of non-interference—a newer and truer rendering of the old formula of non-intervention, which implied even moral isolation—has assumed a greater power, and the necessity for self protection has taken a more pronounced shape. We do not want an Army of real strength and efficiency to protect others, but to protect ourselves. Liberty, not conquest, is the new motto; and freedom is seen to be the foster-sister of self-assertion. The old opposition to a standing Army was based upon many absurd ideas, most of which have evaporated, and the newer idea is that an Army is necessary but need not be professional, in the strictest sense of the word. In other words, if armed nations are good for anything, they are more valuable for national protection than national aggrandisement, by means of foreign conquest. It is the big standing Army that tempts rulers to be ambitious, not the armed nation. Military experience has added its warnings. War is more swift and terrible. We can no longer afford to blunder in the beginning, and trust to energy and wealth to make us all right in the end. If our Army is small, we must be able to place it in the field at the shortest possible notice, and rapidly repair all the ravages war may make in its ranks. At this point, once more, we notice the half-thought already referred to. Short service and the Reserves are parts of a system of compulsion, not as yet logically developed, but ready to fit into it, whenever we shall have advanced so far.

Shall we make this advance at two strides or one? The presumption is largely in favour of two. *Festina lente* is a very good motto in these matters. We are approaching compulsion by a series of zigzags, and if, for the time, we seem to be going away from it, we shall be much nearer to it by and by. Public opinion, as Mr. Hardy says, will have to pronounce "very generally and strongly in its favour" before any kind of compulsion will be reached. We shall reach it first by means of the Militia ballot, and, if the experiment should become popular, of which these best qualified to judge have not a particle of doubt, we shall take the next step, and make the required service so long in one force and so long in the other. We may be many years in reaching the complete system, but there cannot be much doubt that we shall ultimately reach it. There is no real resting-place for us between our present stage and the final one. In the event of another war, in which our existence as an independent Power may be at stake, the nation will become the force to which we must ultimately appeal. It is the only force behind the Army at any time. The notion of a foreign contingent, which pleased many Liberals when we had only been nine months at war with Russia, cannot be again entertained. There was much prophetic force in the language used by the late Lord Grey when

a question of this kind was being debated "Though he was not ready to deny that for the purposes of our own defence we should sometimes employ foreign troops, yet he could not help thinking that the wisest course for us was to rely on what had been emphatically called, *the energy of an armed nation*." Speaking from a purely military point of view, there can be no other ground of reliance. When Earl Russell asked, in December, 1854, for 10,000 troops, enlisted abroad, there was every disposition to enlist in the army at home, and the indignant outburst of Lord Lytton will long be remembered. "What I had it come to this? In an empire on which we are told the sun never sets, the national council is hastily summoned to prepare and parade all its military power. One Minister tells us his recruits are more than he can manage; another says he could bring a million soldiers in the field—some day or other; and then, when all the world is breathless to know what you are about to bring forth—*nascitur ridiculus mus*—out creeps this proposal to borrow or crimp from the foreigner 10,000 troops to be drilled in these realms." Crimping being out of the question in the future, why should we not fall back now or very soon upon the real source of true defensive military power—the nation?

Failure will educate us more thoroughly. If we cannot get good men for the old system, we must offer more pay, and then the Army will be come unbearably costly. Economy will plead for something else, in a voice of its own. Perhaps we shall not have so many millions to waste, or, at any rate, not be so ready, by means of a large standing army, to keep up a wholesale system of substitution, for which we have to pay in imperial taxation. The idea that something must be done is being pressed home upon us from many quarters. What other shift is open to us that will not lead us one march further on the high road to compulsion? We know of none; the most sanguine civilian army-reformers cannot suggest one. In every direction we are confronted with compulsory service, and no one can plead—with the Militia law before him, which Mr. Hardy promises to consolidate, so that "we shall have a better groundwork in future years to move upon in respect to the ballot and the enrolment of the Militia"—that compulsion is adverse to the genius of our constitution. We suspend; we do not destroy. To-morrow, perhaps, we shall no longer suspend—we shall begin to create. It is as well we should cultivate familiarity with the inevitable. Bloated armaments may excite apprehension, but these apprehensions are best allayed by that condition in which panic is impossible, and foreign contingents would be ridiculous. The fleet is our sufficient present stay. But does it cure us of moods of national disparagement and flutters of foolish fear? To be strong in one way is undoubtedly better than not being strong at all; but Britain is Britain and it, out to be invincible—at home.

The latest discovery in France is that the numerous Gypsy bands scouring that country are entirely under marching orders and military discipline from Berlin. They are wont to pick out their camping grounds fifty miles ahead, and know in advance the name of the man owning that ground as well as he knows it himself.

Rifle Match.

The fourth competition for the subaltern Silver-Challenge Cup took place yesterday, Her Majesty's Birthday, over the Range of Hastings Rifle Association, ranges 200, 500 and 600 yards—five rounds at each range. Highest possible score was 60 points—Wimbledon targets and scoring of 1873. The weather was all that could be desired, with a slight breeze from the left rear. At the hour of 10 o'clock, there being no other aspirants present, Sergt. Bennet and Pte. Tammadge made their necessary deposit of five dollars each, and got to work in good style with the following result:—

	200y	500y	600y.	T'l
Pte. Tammadge.....	17	17	16	50
Sergt. Bennet.....	15	18	13	46

The shooting made by Pte. Tammadge in this match is very creditable, both to himself and to the 49th Battalion, which Battalion he will represent at the coming competition at Wimbledon, 50 points being the highest score made in any match on this ground since the opening of the Hastings Rifle Association matches six years ago, and shows that our "crack" shots are moving forward in the art of rifle shooting towards perfection, and should meet with the encouragement they deserve from the public. We congratulate Pte. Tammadge on his success in this match against a shot of the reputation of Sgt. Bennet, and hope he will receive all the encouragement and aid necessary from the officers of the 49th Battalion, in his intended visit to Wimbledon, and may success attend his efforts.—*Belleisle Intelligence*.

Dr. Carpenter, an eminent English savant, who has been engaged in hydrographic researches in the employ of the Royal Navy, has made a discovery which is analogous to that of Harvey. He has found that the ocean, like the blood in the animal system, circulates regularly. The Poles supply the place of a heart, and the motive power is the action of heat and cold. The intensely cold water of the Arctic and Antarctic regions is continually moving towards the Equator, the warmer water from which latitude flows northward and southward. It is singular that the same important item of scientific information was contributed by a Russian named Lous fifty years ago, but dropped entirely out of the history of science. His theory is expressed in terms almost identical with those used by Dr. Carpenter, though the latter could not have known of the existence of such a theory.

A LOCOMOTIVE ON LEGS.—At the sitting of the Academy of Sciences a short time ago M. Tresca exhibited a model of a locomotive engine now being tried on the Eastern Railway. This engine has no wheels, but what may be called legs. It does not roll; it walks, runs, or gallops. It is like an ordinary railway engine with straight rods terminating in broad circular skates. There are three legs in front and three behind. The moving cylinders, instead of turning wheels, raise the feet, and the whole acts something after the fashion of a three-legged horse. This invention is especially adapted for carrying great weights up an incline. The engine at work on the Eastern Railway weighs ten tons, and does seven or eight kilometres an hour, and can accomplish if desired twenty kilometres. Of course, this new style of locomotive is not likely to displace the one now in use, but is specially applicable to mountain railways, and is a step in a new direction. The model exhibited at the Academy of Sciences ascended an incline of 25 deg. with ease.—*London Times*.

THE ARMY.—The *Times* well observes that England cannot aim at more as regards its army than maintaining a military force sufficiently powerful to meet the ordinary needs of our Empire, and capable of expansion in case of an emergency. It is no valid criticism to say that it does not exist in a state of expansion. We do within certain limits expect our people to rise to a sudden or a great occasion, but we think it unreasonable to call on them to be always in the fighting attitude which great European emergencies might require. England must rely as she has always relied on her power to make an exceptional effort in response to an exceptional emergency.

The *Standard* says compulsory service is impossible, and the nation must put its hand in its pocket, and raise the rate of pay in order to surmount the present crisis in military affairs.

In 1874 Russia expended 788,000,000 francs in maintaining the army; France, 719,000,000; Germany, 488,000,000; England, 378,000,000; Austria, 255,000,000; and Italy, 210,000,000; Total, 2,838,000,000—a sum of money about equal to \$567,600,000. The number of armed men which this huge sum was required to maintain amounted in 1874 to an effective force of 2,121,000 men. It would seem that England pays the highest price per soldier, Italy and Austria the lowest price, and Germany and France less than half the sum it costs England.

MEMPHIS, TENN., May 25.—The memorial ceremonies were the grandest ever witnessed in the South. The procession was over a mile in length. As the objects of special interest were seen at the head of mounted ex-Confederate Gen. Forrest and the surviving members of his staff, while the Mexican veterans were led by General Gideon J. Pillow. In one carriage were two large flags, Federal and Confederate, made entirely of flowers, the latter partly furled, and the national flag flung to the breeze. The number of ex-Federal officers participating in the procession was a hundred, representing nearly every State in the Union. Everything passed off well, and the general impression prevails that nothing since the war has occurred to so completely break down the barriers between North and South, and unite the whole people.

It is estimated that an expenditure of \$4,850,000 will be incurred during the fiscal year ending June 30, 1876, on the construction of the Canada Pacific Railway. Four and a quarter million dollars are estimated to be expended on Dominion canals during the same period.

A new idea of the disposition of the dead has recently been broached in Paris, by a lady, Mlle. Jaloureau, which is both simple and practical, and certainly appears to offer a means of avoiding the deleterious results ascribed to the presence of cemeteries while allowing of the retention of those, by most people, hollowed resting places. The objects sought were, first, a coffin which should closely confine all noxious exhalations, and second, a means of hastening decomposition while preventing putrid fermentation. These desiderata, it is said, are effectually obtained, the first by coating the interior of the receptacle with bitumen or asphalt, and the second, by placing with the body a quantity of phosphate of lime. The editor of the *Les Nondes* in describing this invention, asserts that corpses thus enclosed may be kept for years without alteration, save in the mummification of the bodies, and he adds that the process is virtually the same as that of the Chinese and ancient Hebrews.

The growth of the 81 ton gun is vigorously proceeding, and its immense proportions are becoming more apparent at every stage. The inner tube and some of the strengthening coils have been shrunk together, and the gun in its embryo state now stands half hidden in the new shrinking pits at the Royal Gun Factories at the Royal Arsenal, Woolwich, waiting until the crane above it is sufficiently strengthened to lift it out. Beside it rests the great double coil which is to encompass the breach, after it has been welded into compactness under the great hammer, and the only remaining portion, the trunnion ring, which is to be shrunk on over all, lies close by. This trunnion ring is believed to be the largest forging ever made, and it has cost about £600. The double coil will be welded some time during the present week, and the operation will be carried out during the night, in order to avoid any risk of disturbance by spectators. The 40-ton hammer, which was thought fit for anything in the shape of gun-making when it was erected about a year ago, will be only just large enough to deal with this great coil, and should any further advance made in the size of the Woolwich Infants, a still more powerful hammer will have to be provided. The coil stands about eight feet high, and when it is placed upright on the anvil, there will be very little free play for the hammer.



NOTICE.

CUSTOMS DEPARTMENT.

OTTAWA, 10th May, 1875.

NOTICE is hereby given that His Excellency, the Governor-General, by an Order in Council bearing date the 7th inst., and under the authority vested in him by the 3rd section of the 34th Victoria, Cap. 10, has been pleased to order and direct that the following articles be transferred to the list of goods, which may be imported into Canada free of duty, viz:—

- "Sheet German silver."
- "Box wood."

By command, J. JOHNSON,
Commissioner of Customs.

May 20, 1875. 21-3



Department of Militia and Defence

TENDERS will be received until noon on the 15th day of June, 1875, for the supply of such Cloth of Canadian Manufacture as may be required for Uniform Clothing for the Militia, during the current year, the cloth to be regulation colours, viz: Oxford Mixture, Scarlet, Green and Blue; and to be furnished in such proportions as may be required.

Patterns may be seen, and further information will be given on application.

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

W. POWELL, Colonel,
Adjutant-General.

Ottawa, April 30th, 1875. 18

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