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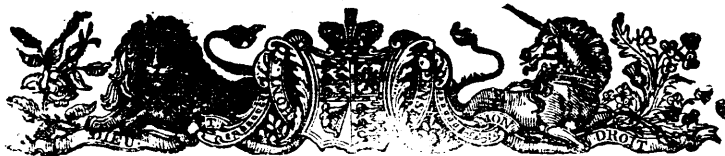
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The Volunteer Review

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 15, 1875.

No. 24.

The Volunteer Review
 Published EVERY TUESDAY MORNING, at
 OTTAWA, Dominion of Canada, by DAWSON
 KERR, Proprietor, to whom all Business Corres-
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 All Communications regarding the Militia or
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 We cannot undertake to return rejected com-
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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 pre-paid 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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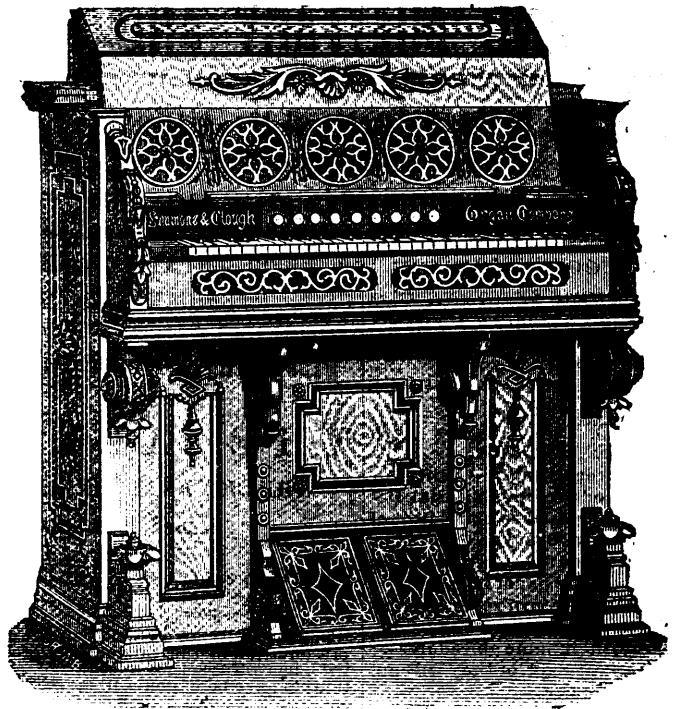
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The Volunteer Review

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 15, 1875.

No. 24.

NEWS OF THE WEEK.

The Corner Stone of the New Dominion Methodist Church, now being erected on the corner of Metcalfe and Queen Streets (the old building being pulled down to make way for a more commodious one) was laid on last Wednesday afternoon at three o'clock by Mr. W. E. Sandford of Hamilton. After the stone was laid addresses were delivered by the Rev. James Elliott, President of Eastern Conference, and several other Gentlemen belonging to the same body. The collection taken up on the occasion amounted to over seven hundred dollars. A very successful garden social was held in the evening at the residence of Mr. John Rochester, M.P., given by Mrs. Rochester, the proceeds of which realized the handsome sum of one hundred dollars. The building when completed will be one of the handsomest in the City, and will add greatly to its beauty, being in a central and commanding position. It is intended to seat 1,500, and will cost about \$60,000. To the Rev. Mr. Hunter, Pastor of the Church, is mainly due the erection of this spacious edifice, and was much needed to meet the growing wants of the rapidly increasing population of the City of Ottawa. The cavity in the corner stone was filled with the Historical Record (just read) "a copy of the *Christian Guardian* and *Evangelical Witness*, *Provincial Wesleyan*, and *London Watchman*, *Ottawa Times*, *Citizen*, *Free Press* and *Volunteer Review*, *Toronto Globe*, *Mail*, and *Liberal*; Dominion of Canada fifty, twenty-five, ten, five and one cent pieces, &c. &c.

Lieut. Col. James Egleson, commanding Ottawa Brigade of Garrison Artillery, was presented on Tuesday evening last, on the eve of his marriage, with two addresses and a beautiful service of plate by the Directors of the first and second Mutual Building Societies of which he was Secretary Treasurer, as an acknowledgment of his services. The incident was a pleasing one of which the Colonel may feel justly proud, as it shows the estimation in which he is held by his friends.

The work on the Brockville camp ground is rapidly progressing to completion. Four bridges have been built, and four wells sunk. The butts at the ranges are also completed. Wakefield, Eady and Alwin companies will parade at this camp.

The Camps for 1875 will be held at the following places:—*Ontario*—Cobourg 14th inst.; Kingston, 21st inst.; Guelph, 22nd inst.; Holland Landing, 22nd inst.; Brockville, 22nd inst.; London, 1st September. *Quebec*—Franklin, 21st inst.; St. Andrews, 5th July; Granby, 6th September.

Major General Smyth and his aide de camp arrived at Niagara on the 8th, and was met at the wharf by Mr. Plumb, M.P., whose guests they were. During the afternoon the General visited the camp. On Wednesday an inspection of all the troops was made but Thursday was the great field day. The weather was delightful and no sick in hospital, the sanitary arrangements of the camp being well looked after.

The annual meeting of the Metropolitan Rifle Association takes place this evening at 8 o'clock, in the room over Lang's hardware store, corner of Sparks and O'Connor streets, for the election of officers and receiving the annual report.

We understand that several gentlemen of this City, who take a deep interest in Volunteering and rifle shooting, have organized a club called the "Ottawa Rifle Club," having for its object the attainment of accurate shooting and the introduction into this section of country of improved arms. A number of them have already received from England, rifles of the Snider Enfield pattern similar to the Government issue, which can compete according to the Wimbledon rules and those of the Dominion Rifle Association at all matches. The rules and constitution of the club are published, and no doubt can be procured from the Secretary Capt. Todd, of the Governor General's Foot Guards. The names of the officers are Mr. John Taylor, President; Col. Brunell and Major Anderson, Vice Presidents.

The Provisional battalion on service in Manitoba will, we are given to understand, be reduced shortly to one hundred strong. The services of three or four officers will consequently have to be dispensed with. It is generally believed that this reduction has been determined upon because of the efficient services rendered by the North west Mounted Police. The period of service of most of the men engaged just now will be out in August next, when a draft of fresh men will have to be sent up.

Advices just received from New York announce the completion of the direct cable and communication established between Ireland and America.

The Government Engineers have taken up the necessary lands at the mouth of French River for depot grounds of the Canada Pacific Railway Station. Plans of the same have been forwarded to Ottawa.

Queen Victoria is about to throw open to the public the memorial chapel of the Prince Consort, at Windsor Castle. The internal decorations of the buildings are the work of Baron Triqueti, Miss Durant, Messrs Clayton and Bell, and other eminent artists. They were begun in 1864. An attractive feature of the chapel is the cenotaph, which stands in the centre. This is in white marble, and on the top is an effigy of the Prince, clad in mediæval armour, while at the side are figures of angles weeping. A model of Eos, the favourite dog of the Prince Consort, lies at the feet of the effigy, and below her Majesty is represented.

What does this mean? *The Daily News* reports that several Russian men of war at Odessa have been ordered to proceed to Greece, and three others are expected at Greek ports from the Baltic.

The Lord Mayor of Dublin has issued invitations to a banquet to be given to the Irish and American Rifle Teams, on the evening of the day of the International shooting match. The Masonic body will also entertain the American riflemen.

This year's Wimbledon meeting will be commenced on the 12th July. Teams from New Zealand, the United States and Canada are expected. The off shoulder shooting is to be abolished, and the standing position, at 200 yards rendered no longer compulsory. There is a decrease on the value of association prizes, as compared with former years, of about £545.

In the International match competition the following riflemen made the best score, and first six will likely comprise the team to compete against the Americans:—Messrs. Wilson, Hamilton, Miller, Pollock, Rigby, Johnson, Fulton, McKenna and Young. The three last having used English rifles will have to shoot over again.

The Sultan of Zanzibar arrived at Westminster, afternoon this (9th,) and was received by a guard of honor. He will remain in England a month or more. The expenses of his visit will be defrayed by the British Government.

A cable telegram from Melbourne, June 7th says:—"Reports have been received here from the Fiji Islands that 5,000 natives have died of an epidemic.

Details of the earthquake in Asia Minor show several villages destroyed and 2000 lives lost.

The French Minister of war asks for 51,000,000 francs, for fortifications and war materials.

Annual Report on the State of the Militia for 1874.

(Continued from Page 267.)

APPENDIX NO. 2.

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Artillery Material.

1. What do you mean by the term ammunition?
 2. How many kinds of incendiary projectile are there? Describe them and their uses.
 3. At what rate does fuze composition burn?
 4. Into how many classes may ordnance be divided, and sub divided? State the uses of each class, and the fuzes they will take.
 5. State the most effective ranges for the various projectiles used with the 32 pounder S. B. Guns, and if your supply of case and grape ran short, what makeshift would you use on emergency, at close quarter?
 6. Describe Pettman's general service fuze and its action; make a sectional sketch of it; has it any defect for siege purposes or coast defence?
 7. Describe the segment and Sharpe's shell for rifled guns; give a sectional sketch of each; state the circumstances for which each are most applicable, and the fuzes you would prefer to use with each of them.
 8. Describe the rifle gun mounted in the King's bastion; its sights, ammunition, and small stores; its advantages and defects, and the service it is most suited for.
 9. In what proportion are the component parts of gunpowder mixed? What are the various kinds and classes of service powder, and with what natures of ordnance are they used?
 10. Do you know any curious fact, as regards initial strain and velocity, lately brought to light by the bursting of the inner tube of 35 ton gun a Woolwich with pebble powder?
 11. What deduction may you draw from the experiment, as regards the relative values of steel and wrought iron, in resisting the strain of the explosive force?
 12. What are the lines of least resistance due to the forms of S. B. cast iron ordnance, what is the cause of these planes of weakness; and has this construction been modified of late?
 13. Explain the advantages of the Paliser system for converting guns, over that of Blakely, and the method adopted by various continental nations.
 14. Describe in general terms the American method of casting heavy iron ordnance, and the advantage gained by it over the ordinary system.
- T. B. STRANGE, Lieut. Colonel,
Commandant G. S., Quebec.
- GUNNERY SCHOOL, QUEBEC,
November, 1874.
- Practical Artillery, Cordage, &c.*
1. Give an approximate rule for calculating the strength of new rope. As an example, find the breaking strain of a gun sling of six inch rope.
 2. Describe how you would sling a bulge barrel, or any barrel of gunpowder that was open for use.
 3. Supposing you find a weak or damaged place in a rope, on which you expect a steady strain, how would you temporarily overcome the defect?

4. Laying friction out of the question, give a rule to find the power of tackles, and state the powers of the following:

Ordinary gun tackle,
Heavy gun tackle,
Gyn tackle.

5. Is there any drawback to using a gyn in siege operations? Give reasons for or against its use, and calculate the mechanical power gained in terms of P. W., taking levers as seven foot, and diameter of wind-lass eight inches.

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

November, 1874.

Heavy Gun Exercise and Shifts, &c., S. B. Ordnance.

6. In preparing for action with a smooth bore gun, on garrison carriage, give a detail of the stores brought up by each member, and his duties at the gun.

7. State what stores are not interchangeable for the same natures of the above guns and carriages, and how you know the right ones?

8. A standing carriage, bearing a gun of 55 cwt. or thereabouts, has been disabled while run back; describe the quickest way of shifting the gun to a new carriage, with no material but gun stores, and two short skids a yard long. Could you do it without the short skids? How many men would you want, and how long would it take? Detail the duties and position of members, with the aid of a diagram.

What is the readiest way of dismounting a 50 cwt. garrison gun, without any material but the gun stores? How long would it take with fifteen men?

9. Detail the general duties of the gunners in shifting ordnance.

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

OFFICERS' LONG COURSE.

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Artillery Material.

1. Classify the armament of the fortress in which you have been serving. State the number of projectiles per gun, for land and sea fronts, and how long do you calculate they would last in case of active operations?

2. What kind of armament would you suppose most likely to meet the requirements of modern war with the least cost? Give reasons for your opinion.

3. Describe the rifle guns mounted in the salients, their sights, fittings, ammunition, their advantages and defects.

4. What are the proportions of the component parts of gunpowder, and what are the various kinds and classes of gunpowder in the service?

5. Would the result be different in two gun cotton mines, one exploded by a slow match, and the other by a detonating tube, and could you explode a wet gun cotton torpedo?

6. What ammunition should not be placed in a magazine, and why?

7. Describe the process of examining ordnance as you have seen it done.

8. What number of service rounds may be fired from a cast iron serviceable gun without examination? Where do fissures in the metal first show themselves, and what do you consider the nature and extent of flaws that would render a gun unsafe?

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

GUNNERY SCHOOL, QUEBEC,
October, 1874.

Fortifications and Sieges.

1. Trace briefly the progressive stages of fortification and attack from the early ages to those of Vauban, including the siege of Ath, 1697.

2. What were the principle causes that led to the brief defence of most of the French fortresses in war of 1870-71?

3. State the leading points of difference in the attack and defence consequent upon the introduction of rifled guns and breech loading small arms.

4. What do you consider the five most important principles of modern defence of fortresses?

5. How do the above principles apply to the fortress of Quebec and its defence.

6. Make a free hand rough sketch from memory of the fortress of Quebec.

7. State in general terms the advantages and disadvantages attributed to the Moncrieff system compared with the modern structures of granite and iron.

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

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Field Fortification.

1. State what are the principal objects of field fortification, and describe what are the general means adopted to obtain those objects?

2. State approximately the thickness of parapet required, in earth—pine logs—or masonry to resist rifled artillery?

3. Draw rough profiles to scale (10 feet to an inch), of hedges made defensible on level ground, on ground sloping downwards towards an enemy, as well as on ground sloping upwards towards the defenders, should it be absolutely necessary to hold such a position as the latter?

4. In loopholing walls what is the minimum height they should be towards an enemy?

5. In tracing a work, what are the principal points to be considered?

6. Draw to scale, 20 feet to an inch, marking dimensions and lettering so as to describe the technical names of slopes—the profile of a field work on the most favourable slope for the action of field artillery, with a thickness of parapet sufficient to resist that of the enemy, the terreplein for a distance of 20 feet behind the crest must be defiladed from a distant hill, the enemy's fire descending at an inclination of one in six. The remblai must be proportioned to the defilade, allowance for the increase in bulk of excavated earth not being taken into the account being utilized for traverses?

7. Describe the preparation of a village as an advanced post for defence—with the aid of a sketch show your arrangements for defending the house or building you had selected as the keep or central point—

8. In street fighting it is desirable to get from house to house by demolishing partition walls. What would be the best way to utilize lithofracteur?

9. Make a sketch of a double lever bridge of pine spars, to span 40 feet of blown up arch of a masonry bridge; give a rough estimate of materials and tools required, no nails being available?

10. Empty casks are procurable from the Commissariat of every army that carries pork, flour, beer, wine or spirits. Describe in general terms the construction of a cask—

raft, and calculate the floatation power of a cask raft of thirty fifty gallon casks, without taking weight of superstructure into calculation?

11. An advance on Montreal is threatened. You are desired to render the railway impassable in a few hours. Describe how you would effectually do the work, so as to get the smallest amount of blame for damage; supposing the rumoured advance turned out to be a cancard, or supposing a subsequent retreat of the enemy rendered it advisable to re-open communication quickly?

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

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Military Law, &c.

1. How many classes of Courts Martial are recognized in the service, and what are they?

2. Detail the form of proceeding of a Court Martial.

3. What remedy has a soldier who thinks himself wronged in any matter affecting his pay or clothing by the officer commanding his troop, battery or regiment?

4. How long can a soldier be kept in confinement before being brought in front of his commanding officer?

5. If a soldier has been confined and is subsequently made to do duty under arms, can he be punished for his offence?

6. What number of days confinement to barracks, and how many hours cells, can a commanding officer award?

7. Gunner Thomas Aitkens has been absent for 3 days from the 20th inst., and returned at 2 p. m., drunk, having lost his forage cap. Frame the charge that would be submitted to the commanding officer for investigation?

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

OFFICER'S LONG COURSE.

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Military Surveying.

1. Plot the following bearings and distances to scale 100 yards to an inch:

From.	To.	Bearing.	Distance in yards.
A	B	260°	190
C	B	35°	160
D	C	170°	60
D	E	265°	40
F	E	180°	50
F	G	190°	50
H	G	100°	30
H	I	240°	70

2. State briefly the general principles of making a military sketch, and the principal points to be noted in a reconnaissance report?

3. Submit your copy of the sketch made by the officers at Beauport Camp last Summer?

4. Describe Lieut. Col. Drayson's method of range finding?

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

OFFICER'S LONG COURSE.

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Tactics.

1. Define the following terms for Infantry, Cavalry and Artillery formations: A rank

a file, fours, section, sub division, division of artillery and what relation it bears to the battery, compared with that of the squadron and company to the larger unit of the other arms.

2. For parade purposes what is the extent of front of a squadron, a battery in line at full intervals, a company of 40 files; what intervals should be left between battalions in line of contiguous columns, squadrons, artillery, and other troops, and how is the dressing of artillery regulated with reference to infantry?

3. State the most important points for consideration by a battery Commander in the choice of a position, and the principles which govern the action of divisional, as well as of reserve or corps artillery in masses, on the march and in action, giving instances of the latter from the Franco-Prussian war.

4. Show by a diagram your disposition for an advance of the above corps d'armes in fighting order of march towards the frontier, by two parallel roads, sufficiently close together.

5. Suppose the advanced cavalry feeling the enemy falls gradually back on the advanced guard, which seizing a good position, with open ground in front, holds its own until the main body comes up, and the enemy draws off for the night. Shew with the aid of a sketch your arrangement of the corps d'armes, and the covering pickets, (supports and reserves not thrown out). State the strength of the pickets for a front of 1600 yards for each division: double sentries with an average beat of 50 yards are required?

6. At daybreak the force must be drawn up for battle, with the aid of a sketch shew the general outline you would adopt, the sort of ground you would prefer. You are facing south perpendicular to your communications, those of the enemy running south west; in what direction would you expect the real attack; how, when and where would you prepare to use your corps artillery and endeavour to develop a counter attack; with what special object? With a second sketch detail the formation for attack of one of your divisions on a front of 2,000 yards, skirmishers, supports, flank, battalion, brigade, and division reserves, according to the plan proposed by Captain Hume. Supposing in this case no strong features of ground break the general idea.

Give your reasons for everything.

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

OFFICER'S LONG COURSE.

GUNNERY SCHOOL, QUEBEC,
November 1874.

Military Law, &c.

1. What is the difference between Martial Law and Military Law? State in general terms the persons subject to the latter.

2. Can Militia men be tried by officers of the regular forces and vice versa, and if so under what circumstances?

3. What punishment can a commanding officer award, and in what case has a soldier the right of demanding a court martial?

4. What is the limit of fine for drunkenness without court martial and with court martial?

5. Can a soldier be tried by a Regimental or Detachment court martial for drunkenness not on duty?

6. What are the powers of a Regimental court martial, of how many officers is it composed, and is there any exception to the usual number?

7. How often may the revision of a court martial be ordered, and is it allowable to take fresh evidence in respect of any charge on which the prisoner then stands arraigned?

8. May "hearsay" be taken in evidence?

9. Should soldiers committing minor offences, such as absence from tattoo, overstaying a pass, be lodged in the guard room. If returning sober after tattoo, how are they to be dealt with?

10. What are the rules relative to placing officers under arrest; can a junior place a senior under arrest, and what is it that prevents an officer leaving his room when ordered under arrest?

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

NON-COMMISSIONED OFFICER'S AND GUNNER'S SHORT COURSE.

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Gunnery.

1. What is the meaning of the words:—

- (a) Dispart.
- (b) Preponderance.
- (c) Calibre.
- (d) Windage.
- (e) Axis of the piece.
- (f) Line of Sight.
- (g) Line of Fire.
- (h) Line of Metal.
- (i) Point Blank.

2. How many kinds of fire are implied under the head of "horizontal fire," and name them?

3. What piece of ordnance is specially used to obtain vertical fire, and for what purposes is vertical fire chiefly used?

4. Give the rough rule to find the elevation required for a given range with S. B. guns.

5. Give a rule to find the service charge of a S. B. cast iron gun,

6. Give a rule to find the bursting charge of Shrapnell shells for S. B. Garrison guns.

7. Give a rule to find the length of fuze required for a given range for S. B. Common and Shrapnell shell.

8. Give a rule to find the charge of mortars for given ranges, and find the charges required to project an 8 inch mortar shell to 1,200 yards.

9. Up to what range can you effectively use Case and Shrapnell shell?

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

NON-COMMISSIONED OFFICER'S AND GUNNER'S SHORT COURSE.

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Artillery Material.

1. Name the different Projectiles fired from a S. B. Gun.

2. For guns of what calibre is Common Shell made?

3. What fuzes are used with S. B. ordnance shells, and describe the time fuzes?

4. In what respects does the exterior of the Pettman's Land service fuze differ from the General service?

5. What are the different substances of which service Gunpowder is composed, and in what proportion do they enter into its composition?

6. Describe the different natures of sabots or wood bottoms. How, with what Projectiles, and why are they used?

7. Describe a Grummet wad and a Junk wad, and what is the use of each?
8. Can the 68 por. projectiles be used with the 8 inch gun?
9. What are the different kinds of fuze borers in the service, and with what fuze would you use the brace and bit?
10. If you had no portfires or tubes, how would you make them?
11. What precaution do you take in extracting a drill shot jammed in the bore?

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

NON-COMMISSIONED OFFICER'S AND GUNNER'S SHORT COURSE.

GUNNERY SCHOOL, QUEBEC,
November, 1874.

Shifting and Working Ordnance.

1. Give general duties of different numbers at 7 inch B. L. R. gun drill.
2. Detail stores brought up at the command "Prepare for action," with S. B. Garrison guns.
3. Give a rule to calculate the power gained by any tackle, and with the rule find the power gained by using a gun tackle.
4. Detail general duties at 10 and 13 inch mortar drill.
5. Detail general duties at shifting ordnance and explain in general terms the mode of shifting, on an emergency, a gun from one garrison carriage to another with such stores as are to be found with the guns in a battery.
6. What operations must be performed in laying a gun?
7. How is a mortar laid when the object is not in sight from a mortar?
8. Detail general duties of numbers of 16 and 18 feet light gun drill.

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

NON-COMMISSIONED OFFICER'S AND GUNNER'S SHORT COURSE.

GUNNERY SCHOOL, QUEBEC,
December, 1874.

Gunnery.

1. Define the following terms:
Trajectory.
Line of Sight.
Angle of Elevation.
Angle of Clearance.
Point blank Range.
2. What sights are used with S. B. guns? How are the length of degrees regulated on the various tangent scales?
3. Describe a rough method of testing the correctness of Sights on a S. B. garrison gun.
4. Give a rule to find the bursting charge of Shrapnel shell for S. B. gun.
5. How is the range of mortars increased or diminished? and give rule to find length of fuze.
6. Describe the process of laying them when the object cannot be seen from the mortar platform: the results of an uneven platform, and the means of obviating it.
7. If by raising the rear of a Garrison carriage a 24 por. gun is fired at a greater angle of depression than 15 degs, what should be the weight of the charge of powder used and why?
8. What is the object of firing hot shot, and what precautions must be taken?
9. Give a rough rule to find the length of fuze for Shrapnel and Common Shells for S. B. guns for a given range.

10. Give the different modes of rendering S. B. ordnance useless, entirely, and temporarily.

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

The Annual Muster.

NIAGARA, June 1st.—The camp of exercise here was formed to day under the command of Colonel Durie, Deputy Adjutant General. Colonel R. L. Denison acts as superintendent of drill. The 2nd Regiment of cavalry are in camp with troops from the following points:—Grimsby, Queenston, Grantham, Welland and Burford. The following battalions arrived to day: the 77th, 44th, 37th, 19th, 15th, 13th and Queen's Own. The Welland and Hamilton field batteries, each with eight guns and wagons, are marching by road. They will unite at St. Catharines and arrive in camp to-morrow. The camp is very quiet, and the men have been so far occupied with the task of getting into quarters.

NIAGARA, June 2.—The camp has now its full complement of troops. The Hamilton and Welland Field Batteries arrived to-day. The food supplied to the men is very good in quality and no complaints have yet been heard. Several volunteers who had mis-conducted themselves were sent home to-day, and the same course will be pursued with regard to any men who have come to camp unfit for duty, as shown by the result of the medical inspection of all the corps, which took place this afternoon. The following are the hours for parade, as fixed by the Brigade Orders, viz:—6 30 a.m., 10 30 a.m. and 2 30 p.m. Though the weather has been temperate, a great many of the Volunteers who wear forage caps have suffered from the sun, and there are plenty of sore foreheads. The infantry commenced this morning exercise in squad drill under their company officers, and the cavalry were also being instructed in the details of their duty. Guards are mounted with scrupulous regularity, and habits of discipline rigidly enforced. Practice at the butts has not yet commenced. The sky clouded over during the morning, and a little rain fell. The weather is now fine.

The following is the Brigade Staff: Col. Durie, D. A. G., Commanding; Lieut. Col. Villiers, Brigade Major; Lieut. Colonel R. B. Denison, General Superintendent of Drill, Camp Quartermaster, Major Moore, 13th Batt.; Supply Officer, Captain Mason, 13th Batt.; Musketry Instructor, Capt. Johnson, late 20th Batt.; Orderly Officer, Lieut. Lloyd Jones; in charge of Camp Police, Ensign Kerr, 13th Batt.; Staff Sergeants Sergeant Badcock; Brigade Office Clerk, Sergt. Major J. Cantin; Quartermaster Sergeant Wyld; in charge of Musketry, Sergt. Dunford; Paymaster's Clerk, Sergt. Henderson; Clerk Supply Officer, Sergt. Willis; Police Sergt. D. Steele, 13th Batt.

The following is the list of officers and strength of battalions:—

37th Battalion, Haldimand Rifles. Staff officers:—Colonel, R. H. Davis; Major, R. A. McKinnon; Paymaster, Rogers; Quartermaster, J. A. Sill, Adjutant, Tuck; Dr. Baxter, Surgeon, Dr. Aiken, Assistant Surgeon.

- No. 1 Co.—Capt. Williamson.
No. 3 Co.—Capt. Nelles, Lieut. Walker.
No. 4 Co.—Capt. Glen, Lieut. Almas.
No. 5 Co.—Capt. Ryan, Lieut. Pyno.
No. 6 Co.—Capt. Goodwin, Lieut. Armstrong.
No. 7 Co.—Capt. Whiddon, Lieut. Nelles.

- No. 8 Co.—Capt. Musson, Lieut. Thurnburn.
Band and 270 non commissioned officers and men.
77th Wentworth Battalion—Staff Officers; Lieut. Col. Brown; Major, Gwyn; Paymaster, Hoey; Quartermaster Ryan; Surgeon, Burkholder; Adjutant, Aikens,
No. 1 Co.—Capt. Ogg, Lieut. Greening.
No. 2 Co.—Capt. McMonies.
No. 3 Co.—Lieut. Fletcher.
No. 4 Co.—Capt. Bertram, Lieut. Hatt.
No. 5 Co.—Capt. Carpenter, Ensign Carpenter.
No. 6 Co.—Lieut. Walker, Ensign Wells.
Band 23, and 270 non commissioned officers and men,—G. R. Sackem.

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD QUARTERS.

OTTAWA, 11th June, 1875.

GENERAL ORDERS (15).

No. 1.

ACTIVE MILITIA.

PROVINCE OF ONTARIO

3rd Provisional Regiment of Cavalry.

- To be Veterinary Surgeon:
J. S. Caesar, Gentleman, V. S.
To be Riding Master:
George Benson Smith, Gentleman, C. C.

Kingston Field Battery of Artillery.

- To be 1st Lieutenant:
2nd Lieutenant and Captain Henry Wilmot, V. B., vice Kirkpatrick, promoted.
To be 2nd Lieutenant:
Sergeant Major John Wilmot, G. S., vice H. Wilmot, promoted.

Ottawa Brigade of Garrison Artillery.

No. 5 Company, Nepean.

- The resignation of Captain Edward B. Hopper is hereby accepted.

15th Battalion or "The Argyle Light Infantry"

No. 2 Company, Belleville.

- To be Lieutenant:
Sergeant John Cockburn, M. S., vice Davy, deceased.
No. 6 Company, Belleville.

- To be Lieutenant:

Ensign William Frederic Meyers, M. S., vice James Whitesford, whose resignation is hereby accepted.

26th "Middlesex" Battalion of Infantry.

No. 8 Company, St. John's, Arca.

To be Lieutenant:

Ensign William Elliott, M. S., vice Wood, promoted.

29th "Waterloo" Battalion of Infantry.

No. 3 Company, Cross Hill.

The resignation of Captain Benjamin B. Boyd is hereby accepted.

80th "Wellington" Battalion of Rifles.

No. 1 Company, Douglas.

To be Lieutenant, provisionally:

Private John Hill, vice William T. Blyth, whose resignation is hereby accepted.

31st "Grey" Battalion of Infantry.

No. 4 Company, Durham.

The resignation of Lieutenant Edward E. Williams is hereby accepted.

35th Battalion of Infantry or "The Simcoe Foresters"

No. 6 Company, Oro.

To be Lieutenant, provisionally:

Sergeant Alexander Stuart Clarke, vice Rathborne resigned.

40th "Northumberland" Battalion of Infantry.

No. 3 Company, Campbellford.

The resignation of Ensign Cyprian Francis Caddy is hereby accepted.

No. 6 Company, Grafton.

To be Ensign:

Staff Sergeant Edward Hinman, M. S., vice James Charles Rogers, deceased.

42nd "Brockville" Battalion of Infantry.

Lieutenant and Adjutant Richard Thomas Steele, M. S., to have rank of Captain.

44th "Welland" Battalion of Infantry.

To be Paymaster, with Honorary rank of Major:

Captain Charles Treble, from No. 4 Company, vice Kirkpatrick, retired.

No. 4 Company, Fort Erie.

To be Captain:

Lieutenant Joseph Nowbzigging, M. S., vice Treble appointed Paymaster.

45th "West Durham" Battalion of Infantry.

To be Assistant Surgeon:

William S. Boyle, Esquire, vice Alexander Beith, whose resignation is hereby accepted.

No. 1 Company, Bowmanville.

To be Lieutenant, provisionally:

Everard Brown, Gentleman, vice George P. Sylvester, left limits.

56th "Grenville" Battalion of Rifles.

Captain and Paymaster Daniel Henry Money, M. S., is hereby permitted to retire retaining the rank of Captain.

No. 4 Company, Kemptville.

To be Captain provisionally:

Richard Chambers Esquire, vice Ambrose Clothier, whose resignation is hereby accepted.

To be Lieutenant, provisionally:

Sergeant George Joseph Stitt, vice William Henry Mundle, whose resignation is hereby accepted.

57th "Peterborough" Battalion of Infantry

To be Assistant Surgeon:

John Alexander Stevenson, Esquire, vice Robert Fenniel Boucher, whose resignation is hereby accepted.

BUREAU.

To be Major:

Captain Richard Sidney McKnight, V.B., No. 3 Company, 28th Battalion, from 8th October 1874.

CONFIRMATION OF RANK.

Ensign James Aikens, V.B., No. 3 Company, 77th Battalion, from 23rd February, 1875.

2nd Lieutenant James Alexander McCammon, G. S., Gananoque F. B., from 2nd June 1875.

PROVINCE OF QUEBEC.

23rd "Beauce" Battalion of Infantry.

The services of Lieutenant Colonel Henri J. J. Duchesnay, as an officer of the Active Militia, are hereby dispensed with.

55th "Megantic" Light Infantry Battalion.

Major Robert Stewart, M.S., is hereby permitted to retire retaining rank,

70th "Champlain" Battalion of Infantry.

No. 6 Company, St. Tite.

To be Lieutenant:

Zepherin Baril, Gentleman, M. S., vice Ferdinand Trudel, whose resignation is hereby accepted.

Portneuf Provisional Battalion of Infantry:

No. 6 Company, Ecureuils.

To be Lieutenant:

J. Léandro Frenet, Gentleman, M.S., vice Dussault, retired.

PROVINCE OF NEW BRUNSWICK.

New Brunswick Engineer Company.

The resignation of 2nd Lieutenant T. Barclay Robinson is hereby accepted.

St. George Infantry Company.

To be Ensign, provisionally:

Sergeant Jesse Millikan.

PROVINCE OF NOVA SCOTIA:

68th "King's County" Battalion of Infantry.

To be Quarter Master.

Major Percy M. Brecken, from late 3rd King's County Regiment, vice George Wentworth Barnaby, whose services as an officer in the Active Militia are hereby dispensed with.

No. 2.

CERTIFICATES GRANTED.

SCHOOLS OF GUNNEKY.

PROVINCE OF ONTARIO.

FIRST CLASS "SHORT COURSE" CERTIFICATES.

3rd Lieutenant James Alexander McCammon, Gananoque Field Battery.

PROVINCE OF QUEBEC.

FIRST CLASS "SHORT COURSE" CERTIFICATES.

2nd Lieutenant William Edward Imlah, Halifax, N. S., Field Battery.

By Command,

WALKER POWELL, Colonel,
Adjutant General of Militia,

Canada.

MARRIED.

At the Church of St. John the Evangelist, by Rev. H. Pollard, on Wednesday morning, 9th June, James Ekison, Lieut.-Col. O. B. G. A., to Amanda, only daughter of Mr. Richard Stockda

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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 16, 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.

In the opinion of most people the British Navy is not only the largest, but in proportion to the interests to be defended the most efficient, taking the British Isles alone, this may be true enough—but if the principle is extended to her Colonial possessions and dependencies, it is most erroneous and unwarranted, as the following will conclusively show:

"A pamphlet has appeared in Vienna giving statistical details of the present naval strength of the principal European nations. By it Austria is stated to have altogether, 47 vessels, furnished with 250 guns, extent of coast 240 miles. England, 475 vessels, carrying 6,250 guns; extent of coast (excluding small islands), 800 miles. Germany, 50 vessels, with 438 guns; extent of coast, 216 miles. Russia, 297 vessels, with 1,663 guns; extent of coast (not including the Caspian and Glacial ocean), 681 miles. Italy, 74 vessels, with 610 guns; extent of coast, 718 miles. France, 336 vessels, with 1,666 guns; extent of coast (not including Algeria and other colonies), 465 miles. Holland, 113 vessels, with 981 guns; extent of coast, 80 miles. Spain, 75 vessels, with 835 guns; extent of guns (excluding colonies), 370 miles. Portugal, 48 vessels, with 238 guns; extent of coast, 130 miles. Denmark, 33 vessels, with 291 guns; extent of coast (ex-

cluding Iceland, Greenland and small islands), 320 miles. Sweden and Norway, 53 vessels, with 491 guns; extent of coast, 700 miles. Turkey, 110 vessels, with 1,282 guns; extent of coast (excluding Crete, the Archipelago, Asia Minor and Barbary States), 393 miles. Greece, 20 vessels, with 210 guns; extent of coast, 250 miles. The proportion of expenditure on the navy to the rest of the expenditure is, in England, 13.04 per cent.; France, 5.55 per cent.; Russia, 4.62; Turkey, 3.75; Germany, 3.51; Italy, 3.07; Austria, 1.69."

From this it would appear that, while Austria has one war vessel and about five guns to every five miles of her coast line; Germany, one war vessel and eight guns to every four miles, Russia, one war vessel and five guns to every two miles, Italy, one war vessel and nearly twelve guns to ten miles; France, one war vessel and nearly four guns to every mile and an half of her coast; Holland, two war vessels and nearly twenty four guns to every three miles; Spain, one war vessel and fifteen guns to every five miles; Portugal, one war vessel and seven guns to three miles; Denmark, one war vessel and nine guns to ten miles; Sweden, and Norway, one war vessel and nine guns to fourteen miles; Turkey, one war vessel and ten guns to every three miles, Greece, one war vessel and ten guns to every mile and one-fourth, while England has one war vessel and about thirteen guns to every mile and three fourths of the coast line of the British Isles.

In the event of a general European War she would have against her:

Germany.....	50 ships	438 guns.
Russia.....	297 do	1663 do
Austria.....	47 do	250 do

Total.... 394 do 2341 do

It would be reasonable to imagine that Eastern interests would band those three powers against her while she would have,

Her own fleet..	475 ships....	6,250 guns
France.....	336 do	1,666 do
Italy.....	74 do	610 do
Holland.....	113 do	981 do
Spain.....	75 do	835 do
Portugal.....	48 do	288 do
Denmark.....	33 do	291 do
Sweden, &c....	53 do	491 do
Turkey.....	110 do	1,282 do

Total.... 1,317 do 12,694 do

Leaving out Greece of 20 ships and 210 guns as likely to be neutral in any contest. But in reality the coast line of England, or rather the British Empire is twenty times as large as that with which she is credited in the above category, and she will be bound to defend every inch of it. Still, her strength lies in the diplomatic effect it produces as a factor in any possible contest. She is more heavily armed than her neighbors and knows how to use her weapons better. We cannot therefore, sympathise with the alarmists at home as to the possibility of a German invasion of Great Britain, nor of any chance for repeating VAN TROMP's celebrated achievement two hundred years ago when Holland had a larger Naval Force than England then possessed. The following

from *Broad Arrow* of 8th May shows the style of articles and danger apprehended by the writers:

"Mr. Gathorne Hardy has assured us that our "first line," the fleet, is equivalent to a continental army of 300,000 men. As our second line is, to say the least of it, a good deal less numerous, would it not be as well to strengthen the first by every available means in our power? It is some two centuries since the Dutch sailed up the Medway, and, approaching Chatham, carried consternation into the very heart of the Empire. That was at a time when our fleet was as powerful, according to the science of the day, as it is now. It should never be forgotten that such an event as that to which we allude has occurred in the history of this country, and every means at our disposal should be employed to avert the recurrence of such a disaster. We cannot help thinking that the employment of river and harbour gunboats of an improved pattern would double our "first line" of defence, or, to be moderate, would make it equivalent, according to Mr. Hardy's eccentric mode of calculating, say to half-a-million of men. The Germans are greatly pleased with the happy thought which they have had of putting a couple of monitors, which are practically small moving fortresses, on the Rhine. The details of the construction of these vessels, as given by the *Colonge Gazette*, are interesting. They are armoured with plates twenty-four centimeters (about a foot) thick, and have each a revolving cupola containing two heavy bronze breech-loading guns. The vessels are forty six metres in length, and the engines are of 163-horsepower. They are really formidable boats, and we should like to see a few similar to them on the Thames, the Medway, the Mersey, and other inland waters."

If ever the British fleet is compelled to run up British Rivers—the real defence of the capital and towns situated as it is will not rest on what our neighbors of the United States rather irreverently term *polly wags* (tedpoles), but on heavy Artillery mounted on Moncrief gun carriages and fortifications on his plan—the guns to keep the vessels of the enemy from entering the river at all, or if he does so, to make his return impossible—as the proposed system of fortification would be *rifle pits* on a large scale without parapets, embrasures, embankments or glacis—no seaman in his senses will carry his vessel within range, no matter how well she may be armed. It is easy to understand how useful such boats as described would be on the Rhine, the St. Lawrence, or any frontier River, they would give the owners its command from tide water upwards, and effectually prevent military operations or concentration within five miles of the shore; for any other purpose they are of little use, and would be a doubtful advantage on narrow streams like the British Rivers. From the fact that no general combination of European powers can be formed as against Great Britain similar to the *armed neutrality* of the last century, it would appear that she is holding her own as a Naval Power, relatively to her neighbours and rivals, as she is mistress of more than one fourth of the war ships and nearly half the naval artillery afloat: and she can in a very short period double

her effective strength every way by arming her heavy merchant steam fleet with guns of a calibre that would make a good many of the cruisers of other countries keep at a distance. We do not think the "Battle of Dorking" is imminent, but blundering diplomacy, which has been a characteristic feature of the late administration, may make it possible. Our contemporary *Broad Arrow* says:

"We all remember the thrilling episode in the "Battle of Dorking," in which the British fleet is depicted as being destroyed by German vessels of marvellous construction, which had been secretly prepared in the dockyards of the Baltic. The first step has been taken towards the preparation of these terrible engines, inasmuch as Prussia has actually achieved the task of building an ironclad entirely without assistance. It is true that this wonderful ship is only of about the fourth rate, but as the famous battle which is to shatter England's power for ever, is to be necessarily preceded by the building and equipment of a much more powerful fleet than that which we now possess—which may be assumed to be about twenty times as strong as that of Prussia—it must be allowed that the progress made by Germany is not very rapid in her assumed design of extinguishing Great Britain. Perhaps by the time Bismarck is ready with his fleet we may be ready with our army!"

A few more "heroic" achievements of the style that permitted the abrogation of the treaty of Paris, by having it torn in pieces and flung in the faces of the English Ministry, with a Treaty of Washington and a Geneva Arbitration or two, will prepare the way for the "thrilling episode" which the paragraph alludes to, while the abstraction of English statesmen from meddling in European affairs and allowing the country to abdicate its proper place in the Council of Nations will be the readiest way to realize the dream of Pesimiam.

HIS ROYAL HIGHNESS THE COMMANDER-IN-CHIEF of the British Army has always maintained the reputation of being a particularly cool hard headed practical man, who thoroughly understood his business, and whose unflinching honesty, as well as patriotism, was the great barrier to Mr. (now Lord) CARDWELL's heroic efforts to destroy even the vestiges of the British Army. It would be far more reasonable to suppose that in every case affecting its interests his opinion should be the guide and rule by which improvements ought to have been made, but it is evident from the tenor of his addresses that every possible panacea was adopted to meet contingencies which he thoroughly foresaw and understood.

On the question of a supply of recruits for the Army he has pointed out in the following speech the proper and only method to overcome the difficulties surrounding that problem for which he is better entitled to the gold medal of the Royal United Service Institution than Captain HOME:

"On Tuesday evening the Master and Wardens of the Saddlers' Company, entertained, at a banquet at their hall, in Cheap side, a distinguished party of noblemen and

gentlemen. Mr. Deputy M'Dougall, as master, presided. During the progress of the banquet the band of the Grenadier Guards played a selection of music.

"The loyal and military toasts having been given,

"His Royal Highness the Duke of Cambridge was cordially greeted in rising to reply for the army and auxiliary forces. He said: I am much flattered with the reception you have given the toast this evening, and by the manner in which my name has been connected with it. It is not the first time that I have experienced the hospitality of this company. On two occasions I have been here on business—business, I may say, connected with the immediate interests with which this company was originally associated. The company has done us the honour to take an interest especially in the proceedings of the army. It has given a prize for purposes that I conceive to be of great advantage and value. It has been very liberal in what it has done, and last year and this the masters have requested me to come amongst them to see the result of their action. I was delighted to do so, and was received with that cordiality which I was sure would be extended towards me. I regret that the results of the company's generosity have not been so far quite satisfactory, that the models produced here did not come up to your requirements—that is no fault of the company; on the contrary, it has been caused by the judgment shown by the authorities in selecting that which was so good that it was difficult to find anything better. You have the best model of a saddle for the army. One better cannot be produced, and the prize was therefore not given. This is complimentary to the Service. I am glad to be able to point this out. I hope it will show that "we authorities"—who are constantly told that we do not know our duty—fairly alive to the interest of the profession. I do not speak so myself, but those of the Board of Admiralty I see here to-night will endorse what I say—that we are told, on the one hand, that we are most ignorant, and on the other that we are most incompetent. But I am not sure that we have not our common sense about us. However, I am pleased there is to be another competition for a prize for the manufacture of a saddle, and that on this occasion the award will be competed for by saddler sergeants of the army. I thank the company for the great interest they have taken in this matter. The fact is, we live in times when everybody thinks he has a panacea for everything—every inventor has his hobby, and he rides it to death. And it was thought the authorities should be moved by the same spirit. I think they do try to keep pace as well as they can with the movements of the age. I don't know what would happen if they were to run riot, as some thought they might, in all directions. All were disposed to find fault, but they do not care to pay for public purposes if they can avoid it. The authorities, while they recognise the spirit of the age, do not forget that the public purse was not to be put out of consideration. Now we can manufacture almost anything; but there is one thing that we cannot manufacture, and that is—men. You are so well off that you give men plenty of employment. I am very happy that it is so, for it is that which makes this country rich and prosperous. But I must confess that you should not hang back in paying for that article which makes you great and powerful, and that article is man. That is what is required for the Services—whether for the army or navy; and unless you got good men neither Service

can be properly constituted. Now, the question of getting men is a question of money. Men cannot be encouraged unless you choose to pay for them. If your wages are good, men will remain in the labour market, and not come to us. The more this is understood the easier will be the solving of that problem which seems to many so inexplicable. The question really is whether that money I have alluded to would be well spent on men for the Service. I think it would. Is it for purposes of war that I ask it? No; for purposes of peace. How, you will ask. Well, I look on this great country as so powerful that it ought to have great weight in reference to the events, the politics, of the world. Moral power is nothing without physical power. If you have physical power you have moral power. You are making the very best possible investment by putting yourself in a position to carry weight in the councils of the world. I firmly believe that there is nothing more likely to conduce to the possibility of peace—I say possibility, because we live in singular times—than it being known that England's power could be thrown on one side or other in the event of an emergency arising. If you spend your money in the way I have indicated, you uphold the greatness and power of the country, while at the same time you contribute to the peacefulness of the empire. I hope that these opinions will not only be felt by me, but that they will be shared in by every Englishman. After a few more observations, in which his royal highness adverted to the Volunteer force, he resumed his seat amidst the warm plaudits of the company.

"For the navy, Admiral Sir H. Codrington replied."

The lesson thus conveyed is worthy of serious study—not only in England, but here—we under-pay our recruits, our volunteers, and every man connected with our military force, and at once a cry is raised, we must improve the Militia Organisation—we must fall back on compulsion. For what? Because our neighbour will not give us his time for nothing and endanger his life in the bargain. The DUKE OF CAMBRIDGE, as a sensible business man, says, *pay for your men* and you will have them—and we say so too.

"GENERAL NEUMANN, Inspecting General of the Prussian Engineers, has recently published some observations on the modern system—first developed by the Germans—of fortifying large places by distant lines of detached works. His criticisms, says the *Pall Mall Gazette*, are in the form of a letter addressed to Baron Troschke, who is bringing out a work introductory to the study of military history, and, with a view of getting his advice as to the engineering questions, has sent proof sheets to General Neumann. The letter takes the occasion to emphatically warn his comrades throughout the army against the vital defect he conceives to lie at the root of the present fashionable use of detached works by military engineers. It is true, he says, that the additional ground gained by pushing these forward from the place throws the limits of protection under the former system into insignificance. But there is this inherent objection to that view: it is impossible to concentrate in one detached fort anything like the defensive means that may be collected in a large fortress. It is only necessary for the enemy to appreciate this truth thoroughly, and lay vigorous siege to a single one of the detach-

ed works, in order by carrying it too soon render their general line futile, and advance the attack to the body of the place within, which may very probably not be as well prepared to receive it as it should have been, and will certainly be at a distinct moral disadvantage. Hence, he says, one essential part of the new system should be to prepare from the first to assist the outer chain of forts where threatened by ready efforts at improvised counterworks thrown up against the enemy's attack; and he concludes by stating emphatically that the active defence of Sebastopol by Todleben here offers the best example that can be studied. He might reasonably have added that the passive defence of Paris by General Trochu presents, whatever its political excuse, the greatest possible warning against the neglect of such efforts, seeing that it resulted in allowing half a million of armed men to be hemmed in and made to surrender by about one fourth their number."

The foregoing paragraph claims for the Germans the *modern system* of fortification—by distant lines of detached works—a system subject to the faults which are inseparable from it of weakening the defensive and offensive powers of the object to be defended—indeed, it would seem to be intended or invented for the sole purpose of multiplying the complications of the defence and simplifying the operations of the assailants.

We do not know what may be thought the best system of defensive works amongst the Engineers of the Armies of Continental Europe, but we do know that all those systems which involve the erection of works above the surface are little better than mere *shell traps*, and all but, if not absolutely useless against modern artillery. The system of detached forts did not save Paris during the last war—it prolonged the agony—but the structures were useless against the German Batteries; they did not even protect the capital from the effects of artillery fire, although they lay much nearer to the enemy than to the city, and were silenced with very little effort indeed.

It appears that the system of Rifle pits connected by covert ways, showing no structure above ground as advised by Major MONRIER, mounted with heavy artillery on the carriages he has invented which brings the gun below the surface to be loaded, not even exposing the gunners, is the one that must be ultimately adopted—because it affords no mark to fire at—because it will cost nothing beyond the necessary excavation of bomb proof and ordinary plank platforms—because it will not be necessary to maintain the works after service—because the pits can be so arranged as to afford mutual support and prevent the possibility of isolation, and finally because no enemy will attempt to establish himself within range.

If the people of Great Britain would rely on the resources of native genius there would be no panics about possible or probable danger from the talents of our neighbors.

THE HON. W. B. VAIL, Minister of Militia, accompanied by Lieut. Col. MACPHERSON left Ottawa on the 5th inst. for the Niagara Camp. He reviewed the troops on Monday and returned to Ottawa on Tuesday, but again left Ottawa for Halifax on Thursday. His visit to the camp gave special satisfaction, and his well timed remarks, could not fail in producing a favorable impression on the minds of all, and show that he took a deep interest in everything pertaining to the prosperity of the Force. We extract from the *Toronto Globe* the following account of the Minister of Militia's visit to the Niagara Camp:—

"There was an after order issued yesterday afternoon that the parade would be formed at 10.30 this morning, by the Brigade, as the Hon. W. B. Vail, Minister of Militia, would visit the camp and that an escort of cavalry would be detailed to meet him at the dock, where the steamboat lands; and also that a levee would be held afterwards when the officers in camp would be presented. An escort of fifteen men from Welland troop, under Lieutenant Wilson, was on the ground at the time appointed and on the arrival of the steamer *City of Toronto*, Col. Durie and Lieut. Col. Villiers, were ready to receive the party, consisting of the Hon. Mr. Vail and Lieut. Col. MacPherson, Deputy Adjutant General, when they landed. They entered a carriage and drove off first to see the men at the shooting ranges, after which they proceeded to the Queen's Royal Hotel, and after a short stay drove at once to the camp. Here the troops had been formed in line of columns—the cavalry on the right; next the artillery; then the Queen's Own Rifles, and following this corps on the other battalions according to their number on the volunteer strength of the Province. The infantry deployed into line, and immediately the Hon. Mr. Vail drove on the ground. The saluting point was about 300 yards from the grass grown ramparts of Old Fort George; the troops being to the west. The visiting party first drove slowly along the front of the line, the band of each battalion playing as they passed; then along the rear; and this concluded, the review began. The cavalry went past in squadrons, the artillery in column, and the infantry at a quick step, the Queen's Own leading in open column of companies. The march past was a surprise to most even of the officers it was in general so well done; and if there were some battalions that excelled, I will allow virtue to be its own reward for once, and make no comparisons, although it is difficult not to speak of the best. The infantry corps halted about a quarter of a mile from the saluting point, the cavalry and artillery went round and passed again at the trot, the former breaking a good deal in this movement. The infantry changed front by a counter-march of companies, and marched back past the saluting point, left in front, and took up position on the original ground. After an interval which seemed difficult to explain in the minds of a small group of spectators, of whom not the most baffled were several ladies, expectation was gratified by an advance of the whole force in line, which formed a really splendid spectacle. The line was halted; retired by fours from the right of companies; the cavalry and artillery going about at the gallop. The troops were formed in hollow square, the officers and colors coming to the front, and the carriage con-

taining the visitors was driven into the square. The Hon. Mr. Vail arose and spoke, addressing Col. Durie, the officers and men of the force: "It had afforded him a great deal of pleasure to make this visit, and to witness the movements and become acquainted with the officers of the force. It only required a soldier's eye to enjoy the manoeuvres of the troops, and to see that there were in the ranks that had passed in review before him the making of brave and expert soldiers. He was glad to see so much military spirit in the western volunteers. He had recently been on the lower St. Lawrence, and had seen there the great fortifications that were left without a garrison, and remained as a legacy to the people of this country and he believed they would have a soldier's pride in filling the place of the troops that had once been there. There were no soldiers there now, but it was a pleasure to see the old flag flying there still. Gen. Smyth, the Inspecting Field Officer, would probably pay them a visit of inspection in a few days, and it was possible he would point out some improvements; but he (Hon. Mr. Vail) thought that officer would find here a body of men equal to the famed militia of the Old Country. He spoke of the pleasure he had experienced from the beautiful scenery of the country in which he stood; and as he remembered the old associations, and that he was speaking to the descendants of the brave men who had made the ground beneath their feet famous, he promised that he would oppose any scheme to transfer the right of the military reserve at Niagara. He could conscientiously compliment Colonel Durie and the officers and men, and he would be proud to represent them on the floor of Parliament; and he believed the Government of which he was a member would not neglect the volunteers. He concluded by saying he would not soon forget the pleasure of this day, which had been one of the most agreeable in his life. Then there were given three mighty cheers for the Queen; the command was given, "officers and colors take post"—the order for each corps to march to their private parades—and the day was over. The Hon. Mr. Vail then drove through the camp, and proceeded afterwards to the brigade headquarters, where he met the staff and officers commanding battalions and corps at dinner. In the afternoon there was a levee, when the officers in the camp were presented."

METEOROLOGISTS have long held that the climate of Southern Europe, especially of the Alpine ranges, has been in a very considerable degree, and within a comparatively recent period, modified by the desiccation of the sea which once covered the Desert of Sahara. What the effect of again filling that arid expanse or any portion of it with water will be, can only be ascertained by what is presumably proven to have happened, and that is said to have been an indefinite enlargement of the Alpine glaciers with a very perceptible change in the climates of France and Italy, if such changes do not extend further.

It is well known that the sirocco of Sicily, Naples, Malta, &c., is a wind which had all moisture extracted from it by passing over the Great African Desert, and its agency in the higher temperatures of those countries is well known.

The aspect of the design is shown as at pre-

sent developed, by the following letter of Mr DONALD MACKENZIE to the *Daily Telegraph*, of 9th April:

"Sir—In one of your leading articles you allude, in rather facetious terms to the practicability of the formation of the inland sea proposed to be made on the western portion of the Sahara. Though not actually condemning the scheme as the offspring of an imaginative mind, you clothe your remarks in such language as would lead most of your readers to believe that we are attempting an almost impossibility. If you will allow me to trespass upon your columns for a brief space I will put such facts before you as may perhaps induce you to think more favourably of the undertaking. In the first place, the waddy which is called in our maps the River Belta is ten miles wide, and its bed is considerably below the level of the Atlantic. Across the mouth of this waddy there is a sand ridge about thirty feet high and five miles broad. This we know is a fact from a survey by Captain Riley. Instead of the 'few years' spade work,' therefore, it would be a comparatively easy task to clear out a channel through this intervening ridge. Secondly, we do not intend the sea to go "washing away all obstructions," &c., since a similar entrance would be made as was done in the Suez Canal. How this is to be done would be premature for me to say at the present time. Our preliminary survey would determine this. Thirdly, the map constructed by Mr. H. F. Brian, instead of being a 'pretty, yet fallacious, piece of cartography,' is constructed from the highest authorities, and is the result of more than seven years' investigation. It is true that the heights are not proportionate to the horizontal measurements, since that would be impossible in a relief model; but if you would consult our large model, you would at once be convinced that the boundaries of the hollow are not so indefinite as you imagine. In place of the Saharan Desert being unbroken from the Nile to the Atlantic, there is a range of mountains, the Asbera, 5,000 feet high according to Dr. Barth—if he is any authority—which rise from a tableland stretching across from the Mediterranean Sea to Lake Chad. The expedition selecting the Gulf of Gabes as the starting point, hit upon one extremity of this tableland, so of course they failed. Lastly, the hollow of El Juff is totally uninhabited; caravans never cross it, but keep on the high lands surrounding it; and, though the destruction of the 'snakes, jackalls, &c.' might be desirable, even such 'varmint' could not exist in a salt pit, and, since there are no trees, the inhabitants, even if there were any, would have but a poor chance of building Noah's ark. The expedition will make an accurate survey of the well defined boundaries of this huge depression to ascertain if any 'cracks' exist before the water is 'turned on,' so that Mr. Stanley need not keep in proximity to his rafts in dread of the impending deluge.—I am, Sir, faithfully yours."

Some of our readers as may be students of or amateurs in the "dismal science" will find food for cogitation in the following letter addressed to the Editor of the *Toronto Mail*:

"Sir,—Mr. Childers is reported to have said on his return to England, that 'the United States would have a population of 150,000,000 fifty years hence.'

"Mr. Childers's calculations were very

easily made. The Americans have told him that their population had doubled every twenty five years, which was correct previously to 1850. This decline comes in just where those knowing all the circumstances have long since predicted it would. The causes of this Mr. C. has not looked into. The population of the United States in 1850 was 23,256,000; in 1870, with an immigration of five or six millions, it was only 38,538,000. This gives an increase of sixty-five per cent. in twenty years, and at the rate of about eighty two per cent. in twenty five years. The Civil War is referred to as the exceptional cause of this decline. Only to a limited extent can I admit this. First, the enormous additions of territory have been one element in her past increase—Louisiana (embracing an immense territory), Florida, Texas, California, with vast Mexican provinces intervening, Maine, etc. The second and chief cause of the great increase of the population has been immigration. For the ten years ending in 1860 she received three millions of immigrants. Deducting the influx of foreign population into the States between 1860 and 1870 even, the increase by births was only eleven per cent. Should immigration fail, fifty years hence, at this rate of increase, would find her with a population of only about sixty millions. Her natural increase, that by births, is very low, not more than half that of Canada. And as the new-comers have much the largest families, the natural increase, as immigration declines, would be much less—the old American families having but few children. Nations living in similar climates in the old world do not double their populations in even one hundred years, and the Americans are not likely to do any better.

"The Republic, having reached the western limits of arable land, except portions on the Pacific, cannot look, in the future, to immigration as the chief source of her increase in population. She now, too, has a heavy national debt, and taxation has become oppressive. Nor is she likely to add any more foreign territory, and by this means swell her population. The probabilities are more the other way, in the direction of disintegration. Canada, at this critical epoch in the fortunes of the Republic, comes in as a rival. We have, by all odds, the best part of the continent yet remaining unoccupied. One half of the Republic is a hopeless desert, and the wave of an incoming people must now turn from the desert areas west of the Mississippi to the north-westward into the vast and fertile regions of British America.

"I am not, like Mr. Childers, a prophet, but have taken some pains during fifty years' residence on the American continent to make myself acquainted with the climates and resources of the Republic and of Canada. First, one-half of the population of the United States is made up of immigrants and their immediate descendants. Secondly, the money value of these immigrants, (not including, of course, their descendants), as estimated by the Bureau of Statistics at Washington, (\$1,000 per head), equalled, in 1860, one half the entire value of the property of the Republic as given in their census, and the money borrowed abroad, with the money brought by the immigrants, is also equal to one half the value of the real estate of the Republic given in her census of that year. In other words, what she has got from Europe—chiefly from England—amounts in value, if estimated in dollars, to the whole money worth of the United States in 1860—her farms, houses, railways, canals, ships, docks, &c. And I take the entire

valuation from their own census and statistics. The people of the United States are not so wealth producing as the English or Germans. They have lived, if not chiefly, certainly to a greater extent than any other nation, on what they have borrowed. Borrowing must some day end, and pay-day must come."

Yours, J. H.

April 23. 1875.

The following paragraph taken from the official statistics of the United States strongly corroborates the views taken by J. H. of the political and financial position of that country, and shews conclusively the national development may be overdone:

"The aggregate debts of all the railways in the United States amounted on the 1st of January, 1875, to \$1,836,904,450, which is about half their cost. The payment of interest at 7 per cent. requires \$128,583,311, while the net earnings of the roads for 1874 amounted to \$183,810,562, leaving only \$55,227,251 for dividends after paying interest on debt. The railways in the South pay no dividends; those in the West pay a small percentage; the New England and Middle States do better, but in general the returns on railroad stock are small. They are an incalculable benefit to the community, but in the vast majority of cases very much the reverse to the shareholders. The same thing may be said of Canadian lines."

THE three articles from *Broad Arrow*, of 20th March, in our issue to day entitled, respectively, "Imperial Movements," "The Russian Forces in Asia," and "Russian Policy in Central Asia," points to a speedy development of that policy which prompted the "Brussels Conference"—and will render it a matter of necessity on the part of Great Britain to look well to her armaments and military organization.

THE Hon. the Minister of Militia and Defence and Lady, have gone to Halifax for a few weeks. The Hon. Gentleman since his advent to the Government has been unremitting in his attention to the duties of his Department, and requires a little rest.

COL. PANET, Deputy of the Minister of Militia and Defence, has gone to Quebec, to make preliminary arrangements for the payment of the pensions voted by Parliament, to those entitled to receive them in that Province, who took part in the war of 1812-14.

CORRESPONDENCE.

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

HALIFAX, June 5th, 1875.

To the Editor of the VOLUNTEER REVIEW.

DEAR SIR,—I am glad to see in your valued paper of 1st inst., the remarks made by Scabbard anent Major Macdonald's appointment, to which he was justly entitled as a reward for his faithful services to the late Administration. Let it be borne in mind that Major Macdonald is the sole *Nova Scotian* appointed to the Militia Department in this District, from the D. A. G. down to the stoker and messenger of the Department, and it is very likely that if any change were made the appointment would be given to some foreigner or other person who has no stake in the country. Yours,

CEASE FIRING,

IN MEMORIAM.

SIR HOPE GRANT, G. C. B.

SIR ARTHUR HELPS, K. C. B.

Born 1818, Born 1818.

DIED, MARCH 7, 1875.

So frequently falls the heavy hand of Death,
Time falls for wreathing each fresh funeral
crown;
Men, whose own hair is grey, read with drawn
breath
Of loved and honored suddenly struck down.

O, well for England that when living names
Pass to the death-roll in her Book of Gold,
'Tis rare that search finds stain to soil their
fame,
Proudly in that proud fellowship enrolled.

And ne'er were purer names writ in that book
Than these, whose record last by Death was
sealed,
The soldier, kind of heart and blithe of look,
Joyous in camp as grim on foughten field.

Who, patient, brooked neglect and bided time,
And lost no chance of laurels when it came;
And through sore stress of hot war and hard
clime,
For duty lived; nor cried or craved for fame.

One whose pure life had no need to divide
The Christian and the Captain—well-content
To pray with his own soldiers' side by side,
A yet boy for harmless sport and merriment.

Who lived full in the rude camp's watchful eye,
Unblamed, beloved, respected: who lay down
To well earned rest, as one to whom to die,
Is humbly to exchange life's cross for crown.

Nor less a type what scholar ought to be,
The sage, whose death-bell with the soldier's
blends;
Who in his office long and faithfully,
Gathered the lessons his books taught his
friends.

For all his readers grew his friends to be,
Won by that wise and working kindness,
Which without quest of cure no ill could see,
Yet knew not chafe of impotent distress.

Keeper of his Queen's secrets—trusted true,
Ruling with like discretion pen and tongue;
A friend of friends in council, whom none knew
Unless to love—high or low, old or young.

'Tis hard the loss of such lives to make good;
The good of such examples hard to shun;
Unkind to hold them still here if we could,
From that sweet sleep—the rest of duty done.

—Punch.

* Sir Hope Grant often attended the services in
the simple soldiers' Mission-house at the camp.

Imperial Movements.

If questions of European policy attracted only half the public attention in England that they do on the Continent, some interest, if not excitement, would have been felt before now relative to the movements of the three Emperors. The fact that Austria was drifting into an alliance that might be detrimental to England in some future emergency was suggested by her recent accord with Russia and Germany in the question that had arisen between the Principalities and Turkey, and this should have been the more noticeable, considering that the tendency of the joint action of the three Powers was to weaken still more the already weakened and tottering fabric of the Sultan's Empire. Now it seems settled that the Emperors of Germany and Austria are to visit the king of Italy, and the Emperor of Russia is to visit Berlin, their Majesties being accompanied in each case by their Foreign Secretaries. Afterwards, the three Emperors are to meet at Ems. These incidents may be explained away by imaginative politicians until they mean nothing more important than the meeting of the three tailors of Tooley Street, in the name of the people of England. The fact, however, will remain that for good or evil three of the greatest Powers of Europe are in close alliance, and that events are on the cards which it is impossible should not be

influenced by the *entente cordiale* they have established.

The fact that Austria has thrown in her lot with Russia and Germany is not a reassuring one, when we consider the possibilities of the immediate future. Austria is an old ally of England, and holding a fine strategical position in the East, her cordial alliance could not have been without its value in certain contingencies, as we may judge from a comparison with the situation in 1854, when her co-operation with Russia would have given a different turn to events in the Crimean campaign. It is true we are not assured, even at this moment, that Austria has broken with her old traditions, and this is a point on which it may not be easy to extract information from the Secretary of State for Foreign Affairs. It is certain, however, that the good understanding between her and the other two Powers, amounts to unusual cordiality, and if the rumours that reach us are well founded, this is solely owing to her despair of any similar understanding with our own Government. What we have reason to fear is, that in a certain conjuncture of events, the weight of Austria will be thrown into the adverse scale, whereas if our own Government had any policy worthy of the name, in dealing with events which are likely to arise—and which may arise any moment—her flag would have been planted by the side of that of England.

It is but right, perhaps, that the possibilities to which we are referring should not be allowed to influence the practical business of the Foreign Office; but it is too late in the day to treat as of slight significance the mighty armaments of the European Powers and the movements of Sovereigns who hold those armaments under their absolute control. It is very possible for a Government to be too amiably inclined; and this is precisely the danger we have to fear in the presence of armed hosts more numerous than those which followed Alaric and Attila. It was one of our great historians—we forget which—who said that Europe could never again be overrun by barbarians, for there was no place where they could come from. In these days they have sprung up in our midst, and Europe herself is arming the hosts which may ere long tread under foot the achievements of civilization and the hopes of the future with a ruthlessness that Alaric and Attila never exceeded. Our English homes, it is true, may not lie in the path of this invasion; but on the other hand, the calamity which should cut us off from communication with the East, and destroy the *prestige* of our commercial prosperity, would be no less disastrous to ourselves than to the populations who might be the first sufferers by it. Let us hope, therefore, that our Foreign Office is on the alert, and is watchful of the signs of the times. Lord Derby should be all eyes and ears; and Mr. Lord G. Hamilton has assured the House of Commons that the Indian Government "will give every consideration to any circumstances which may occur in the vicinity of Herat and Merv," so the Foreign Office, acting in the same spirit, should give every consideration to any circumstances that may occur in the vicinity of Ems.

The Russian Forces in Asia.

The *Cologne Gazette* of Wednesday prints an article from its well-known and well-informed military correspondent, reviewing the forces which Russia has disposable for war in Asia. The troops now stationed in

Asia are not nearly adequate to the great work which Russia appears to have before her, and to the accomplishment of which she may be called any day. They are few in number, armed with weapons of primitive construction, many of them irregularly organized, and scattered over the whole breadth of the occupied territory. It would require many months to concentrate them on a given spot. There are twenty-four battalions of infantry, viz., two in the Orenburg, four in the West Siberian, six in the East Siberian, and twelve in the Turkestan district. Moreover, four battalions of sharpshooters in Turkestan, thirty-five regiments of Cossacks, comprising six sotnias or squadrons each, two brigades of artillery, viz., one of four and the other of three batteries, one detached battery, six Cossack batteries, and a company of engineers. All in all, the army in Asia comprises twenty eight battalions, fourteen batteries, and 210 squadrons, numbering 60,800 men, 32,650 horses, and 112 guns. In addition twenty three battalions and sixty-eight sotnias of Cossack troops scattered over the Amoor, Sabaikal, Orenburg, and Astrakan districts, and numbering 25,740 men and 9650 horses, are available as reserves. If all these troops were ordered into the field for war service, twenty-seven battalions, twelve sotnias, and three and a half batteries, numbering altogether 30,850 men, 2750 horses, and twenty eight guns, would still remain disposable for garrison duty. Russia is thus shown to command in Asia a force of about 80,000 men available for war, and all in all, 110,000 men. But, as already observed, these troops are scattered far and wide over immeasurable tracks. Of the mounted force, looking so imposing on paper, all but the twelve regiments of Oural Cossacks are irregular levies. Only four battalions of sharpshooters are as yet armed with Berdan rifles; the others have the large bore Terry-Norman musket converted from old muzzle loaders. Two batteries of the artillery have bronze breech-loaders, a good many being not even rifled. The writer believes that from this evident lack of preparation for war, Russia may be inferred not to contemplate active hostilities. But it must be borne in mind that for such she has her excellent Caucasian Army near at hand, containing a numerically strong force, well equipped, well drilled, practised in practical warfare, and most of them picked men. Leaving out of account the depot troops and the garrison and local forces, the army comprises one division of grenadiers, five of infantry, that is, twenty-four regiments or ninety two battalions, moreover four battalions of rifles, sixteen squadrons of dragoons, twenty four batteries of field artillery, with eight guns apiece, and two battalions of sappers, altogether 149,472 men 18,268 horses, and 176 guns, which may in the event of war, be reinforced by the Cossack forces of Terck and Kuban, mustering 60,000 men, 32,000 horses, and fifty-six guns. Moreover, Russia is organizing a sixth division of infantry, the order for the formation of which has already been issued. Whatever improvements have been introduced into the Russian Army in the way of new weapons or equipments, have been first made available for these troops, on the efficiency of which Russia appears specially bent. The force reviewed would suffice, in case of war, to keep both Turkey and Persia completely in check, and still leave a contingent over to meet a British force, such as could be mustered in India on equal terms. The troops have shown what they can do in the Khivan campaign. Beyond the land force, Russia,

is well prepared at sea. The Black Sea, the Caspian, and Lake Aral are all of them well guarded by naval forces. The Black Sea squadron comprises five screw-corvettes and two yachts, of collectively 1864-horse power and 47 guns, with three iron clad vessels besides in building; the Caspian squadron consists of fourteen sailing vessels and seventeen steamers, being collectively 990-horsepower, and 5 guns; and the squadron of Lake Aral is made up of six steamers with 190-horsepower and 8 guns. Moreover, there is the Siberian coast fleet, consisting of thirty four steamers of 1820 horsepower and with 61 guns.

Russian Policy in Central Asia.

Dr. Arminius Vambéry, writing in the *Allgemeine Zeitung* on the policy of Russia in Central Asia, says that it is now abundantly evident that this policy, notwithstanding the constant endeavour to conceal its true nature and objects, is one of simple conquest. "It is, indeed, a little surprising," he observes, "that Russian politicians should allege such motives for their conduct as every one who knows Central Asia must regard as utterly inadequate and groundless. Russia wishes to persuade Europe, who has placed great faith in her of late, that in striving to open a road from Khiva to Astrabad she is prompted by commercial motives alone. To talk of commercial objects in a district where from time immemorial it has never been possible to establish a regular caravan traffic in itself sufficiently paradoxical, and the impracticability of realizing such a notion will be seen from the fact that the commercial roads from and through Central Asia have always taken a northerly, north-westerly, or southerly, but never a south westerly direction, and that the only traffic which is said to have existed between the Caspian and the Oxus dates from the time when the mouth of that river was in Balkan Bay. The warmest advocates of the 'civilizing mission' of Russia in Asia could not have failed to see that, completely ignoring the above facts, she began to penetrate the valleys of the Attrek and Ghurgan even before the conquest of Khiva. After the completion of the Khivan campaign this equivocal policy was naturally pursued with increased energy; the Transcaspian district was formed, and alliances were entered into with the Yomud Turcomans, though it might have been known beforehand that such alliances would lead to an incessant state of war, that the object of this new acquisition was neither pacification of the Khanate of Khiva nor the restoration of the power of its princes, and that peace would only be restored when the Russians reached the frontiers of a more stable government—namely, Persia or Afghanistan. All these sham commercial relations between Khiva and the south-westerly shores of the Caspian have hitherto resulted in two poor Khivan caravans, which the Russian papers represent in enthusiastic articles as the inauguration of a new triumph of commercial activity. The good traders of Khiva, however, true to their practice of centuries, were not to be induced to help the Russian plans, and the road from Khiva to Krasnorodsk has remained empty. In December last Colonel Goluchowski left Krasnovodsk at the head of a 'commercial caravan' in a south-easterly direction purposing to pass through the country of the Yomuds, the Goklans, and the Tekkes, to Meshed. . . . He of course know better than any one that it would be impossible under present

circumstances to cross the steppe in that direction. The caravan was prevented by Turcoman hordes from proceeding beyond the first stage of its journey, and a little expedition had to be sent, 'in the interests of trade,' to punish these Turcomans. . . . According to Russian accounts, which alone reach the European press, the expedition has erected a fort at Kuren, and garrisoned it with a sufficient force of infantry, cavalry, and artillery; but the news coming from the Turcoman steppes by way of Merv speaks not of one, but of three forts, and of a considerable contingent of Turcoman horsemen who have entered the Russian service." M. Vambéry adds that an agreement between Russia and England as to their policy in Asia has now become impossible. "The first footing effected by Russia at the mouths of the Attrek and Ghurgan must lead, as a necessary consequence, to the incorporation of Merv, and to the extension of the Russian frontier to the spurs of the Paropamisos. To remain stationary anywhere between these points is as impossible as it would be for Russia, if she had reached the vicinity of Herat, to refrain from pushing forward to the northern extremities of the Indian passes. . . . Nothing is more natural, under these circumstances, than that both in Afghanistan and on the northern frontier of Persia events should be advancing with unexpected rapidity towards a crisis. Even the most enlightened enemies of England must admit that, on the one hand, she is hardly in any way responsible for the approaching complications, and, on the other, that, however peacefully inclined she may be, she cannot continue to maintain a policy of indifference in presence of the conduct of Russia. If the politicians of St. Petersburg imagine that England will quietly look on while the influence of Russia—under the guise of civilization, trade, or humanity—goes on extending to the Bolan and the Khyber Pass, they are grievously in error."

The Cause of Droughts

In the older settled States of the Union the inhabitants are suffering from a scarcity of water more acutely even than are the people of Michigan. Scientists agree in attributing the cause to the reckless and improvident manner in which they have upset the routine of nature by destroying the agents she employed in the execution of her laws. It is believed that when the pine woods of Michigan have been entirely destroyed, and the growth of hard woods has been reduced by the demands of the agriculturalist for cleared land to the mere patches absolutely necessary for current use, that long continued droughts would be the rule, and those who succeed us will experience a difficulty in procuring water of which we little dream. Just now it looks as if the drought which will render winter of 1874-5 a memorable one in New England annals is over, but is not too late to consider its lesson. The *Boston Herald* says that, for six months, the people, of the Eastern States have been complaining of want of rain. Hardly a mill in New England has been obliged to shorten its working hours or perhaps shut down altogether. Hardly a city whose water supply has not been a source of anxiety for weeks, threatening to fail utterly if relief did not come from the clouds. Hardly a farmer whose cattle have not been saved from suffering by an extra amount of labour and expense in providing them with their daily drink. Water has been an article of

commerce in many of our towns, and the situation was growing worse day by day. There have been severe droughts in winter before, but not often one of such length, extent and far reaching influences. And we can blame only ourselves and ancestors for it. In old times a drought was the direct result of a limited rain-fall, but there has been so much less than usual this year as to cause all this trouble. In the last century new England was pretty well covered with trees, and the rain that fell soaked into the ground, ran slowly down the valleys and finally reached the ocean. Now the land is stripped of trees, the hills and mountain regions even, where the sources of our rivers are, have been bared to the scorching rays of the sun, and nearly two thirds of all the rain that falls evaporates before it reaches the seaboard. This has dried up the rivers into brooks, the brooks into mere rivulets, with dusty bottoms, for months. This has ruined many of our trout brooks. This, too, by causing the sudden departure of the snows in spring, causes many destructive freshets. In the thick Maine woods the gradual melting of the snow lasts for weeks and keeps the rivers at a high pitch, while the streams whose head waters flow from a country stripped of trees rise and fall with the suddenness of mountain brooks after a shower. The reckless improvidence, due to cupidity and carelessness, which has made so much of our territory a hideous expanse of ragged, rocky, worthless fields, is the cause of our droughts. Improvidence must bear the blame, not Providence.—*Maritime Trade Review.*

ANOTHER CHALLENGE.—Private Tammadge, holder of the 14th Challenge Cup, has received a challenge from Sergt. McColl, to shoot for its possession. It will be remembered that the Match of May 24th originated in a challenge from Sergt. McColl, who did not take part in the competition on that day. The reason for this seems to be that the letter fixing the date was taken out of the post office by another person of the same name, and was not handed to its rightful owner until the day after the match was shot. Consequently, McColl desires another chance. Mr. Tammadge, who is to sail for England with the Wimbledon team on the 19th, has fixed the date for Monday, 14th. He has already won the cup twice with the highest scores ever made on the range, and we cannot but hope that he will do so again, as the cup will then become his personal property. The competition will, however, be keen, as, in addition to Sergt. McColl, Major Hambly and Sergts. Bennet and Marsh have already announced their intention to compete.—*Belleisle Intelligencer.*

France now seems to be the reservoir into which the gold of the world is pouring. In the first three months of the present year the imports of the precious metals exceeded 350,000,000 francs, or seventy million dollars, and almost four fifths of the whole was in gold coin and bullion. The sources of this supply were much more various than may be supposed, for much less than one half was sent England. The United States contributed about ten million dollars, and vast sums were also received from Germany. By the last received report of the Bank of France the cash locked up in its vaults was 1,535,000,000 francs, or \$307,000,000, while the Bank of England at the same time held only \$103,000,000.

STATIONS OF THE BRITISH ARMY.

Table with columns: REGIMENTS, Head Quarters, Depot. Lists various regiments and their stations across the British Empire.

Table with columns: REGIMENTS, Head Quarters, Depot. Lists regiments and their stations, including Royal Artillery and Royal Army (Con d).

Table with columns: REGIMENTS, Head Quarters, Depot. Lists regiments and their stations, including Royal Artillery and Royal Army (Con d).

Table with columns: 6th Brigade, 7th Brigade, 8th Brigade, 9th Brigade, 10th Brigade, 11th Brigade, 12th Brigade, 13th Brigade, 14th Brigade, 15th Brigade, 16th Brigade, 17th Brigade, 18th Brigade, 19th Brigade, 20th Brigade, 21st Brigade, 22nd Brigade, 23rd Brigade, 24th Brigade, 25th Brigade, 26th Brigade, 27th Brigade, 28th Brigade, 29th Brigade, 30th Brigade, 31st Brigade, 32nd Brigade, 33rd Brigade, 34th Brigade, 35th Brigade, 36th Brigade, 37th Brigade, 38th Brigade, 39th Brigade, 40th Brigade, 41st Brigade, 42nd Brigade, 43rd Brigade, 44th Brigade, 45th Brigade, 46th Brigade, 47th Brigade, 48th Brigade, 49th Brigade, 50th Brigade, 51st Brigade, 52nd Brigade, 53rd Brigade, 54th Brigade, 55th Brigade, 56th Brigade, 57th Brigade, 58th Brigade, 59th Brigade, 60th Brigade, 61st Brigade, 62nd Brigade, 63rd Brigade, 64th Brigade, 65th Brigade, 66th Brigade, 67th Brigade, 68th Brigade, 69th Brigade, 70th Brigade, 71st Brigade, 72nd Brigade, 73rd Brigade, 74th Brigade, 75th Brigade, 76th Brigade, 77th Brigade, 78th Brigade, 79th Brigade, 80th Brigade, 81st Brigade, 82nd Brigade, 83rd Brigade, 84th Brigade, 85th Brigade, 86th Brigade, 87th Brigade, 88th Brigade, 89th Brigade, 90th Brigade, 91st Brigade, 92nd Brigade, 93rd Brigade, 94th Brigade, 95th Brigade, 96th Brigade, 97th Brigade, 98th Brigade, 99th Brigade, 100th Brigade.

Loss of the Vicksburg.

New York, June 10.—The steamer State of Georgia arrived at this city this morning. The Captain states they discovered a ship's boat with sails set on the port bow, which proved to be the boat No. 1 of the steamer Vicksburg, of Liverpool, belonging to the Dominion Line. There were 5 men in the boat in an exhausted state; they were taken on board and put under surgical treatment. Their names are James Crowley of London, T. O'Brien of Liverpool, P. Grogan of Liverpool, John Williams of Liverpool and James Wilkinson of Liverpool. They stated that the Vicksburg left Quebec, May 27th, with 60 of a crew, 8 saloon passengers and 20 steerage; May 31st they struck heavy ice and a hole was knocked in the vessel; she made water fast and on the Tuesday following they were forced to abandon her. They were then 120 miles from St. Johns, N.E. Boat No. 1 containing the rescued ones, was launched first with only five men in it; boat No. 2 next, with the chief officer and 30 others. She got clear and pulled to windward, the vessel soon went down, and the Captain and several others could be seen floating around on the wreckage; the second officer's boat was safely launched. Boat No. 1 kept in sight of the other boats about two hours, and then lost sight of them. The men think over forty individuals must have been lost when the vessel went down. They saw no holes in the other boats, although there were a number of them on board.

THE INSPECTOR OF ARTILLERY—Lieutenant Colonel Strange, has issued a circular making an appeal which we hope will meet with a hearty response. Napoleon said that modern battles were won by artillery—a dictum which has been universally accepted—and it is therefore important, if we engage in military training at all, that we should attend to its most important branch. It is therefore proposed to establish a Dominion Artillery Association, on a somewhat similar basis to the Dominion Rifle Association, and with a somewhat similar object for artillery to that so successfully accomplished for the infantry, i.e., the development of gunnery skill and the dissemination of artillery knowledge throughout the Dominion of Canada. The Governor General and the Lieutenant Governors, with the Minister of Militia and others, are to be patrons. The hope is expressed that, as in the Dominion Rifle Association, the sympathy and support of many of our countrymen who are not in the militia service will be freely accorded. We trust Colonel Strange will meet with a hearty response.—Toronto Globe.

The manufacture of alligator leather has now become an important branch of industry. The skins come chiefly from Florida and Louisiana, and the hunting and skinning of the animals are extensively pursued. About 20,000 skins are tanned every year. They are manufactured in the United States and exported to England and France. The French owing to their superior methods of tanning, are formidable competitors.

THE MARTINI-HENRI RIFLE.—Private Bowler, of the First 60th Royal Rifles, has proved himself the best shot for 1874 with the Martini-Henri rifles. It is very probable that he will be presented with a silver medal and a gratuity of \$10 sterling, by order of his royal Highness the Field Marshal Commander-in-Chief.

REVIEWS.

The Aldine for June is to hand. The illustrations are as usual first class, and the articles are written in a pleasing style of diction, and of a most interesting nature. The Mother's Darling is a splendid life-like picture; and the Publishers have fulfilled their promise in this number by commencing the publication of a series of views in Europe—the first of which is a waterfall in that classic region the Pyrenees—the "Heron's Rock" and the "Old Water Mill of Surmont," the two latter situated in the South of France. "The Helping Hand" and "Saved and Lost"—the first represents a female having hold of a cross and reaches a helping hand to another female struggling in the water which is madly rugging all around the cross—the other shows the first figure as still clinging to the cross, the one in the water having let go the hold of the first's hand is seen sinking. These pictures represent the world as a mad, raging sea, bursting in threatening fury upon and around those battling with it—and the Cross, (Christ) standing in the midst, as the one hope and refuge towards which all eyes should look and all arms should strain with full confidence that once fairly having laid hold upon it neither wind nor wave can thereafter have power to sweep away to destruction. The subscription price of the Aldine for one year, the Chromo and the Art Union is only \$6.00 per annum in advance. Address, The Aldine Company, 58 Maiden Lane, New York.



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 31st 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 23th, 1875. 18

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OF THE

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The political ferment among the European nations, the strife between Church and State, the discussion of Science in its relation to Theology, and the constant publication of new works on these and kindred topics, will give unusual interest to the leading foreign Reviews during 1875. No where else can the inquiring reader find in a condensed form, the facts and arguments necessary to guide him to a correct conclusion.

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