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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. X. OTTAWA, (CANADA,) TUESDAY, FEBRUARY 22, 1876 No. 7

The Volunteer Review
Published EVERY TUESDAY MORNING, at
OTTAWA, Dominion of Canada, by DAWSON
BARR, Proprietor, to whom all Business Corre-
spondences should be addressed.
TERMS—TWO DOLLARS per annum, strictly
in advance.

TO CORRESPONDENTS.
All communications regarding the Militia or
Volunteer movement, or for the Editorial De-
partment, should be addressed to the Editor of
THE VOLUNTEER REVIEW, Ottawa.
Communications intended for insertion should
be written on one side of the paper only.
We cannot undertake to re-
ject communications. Correspondents must invariably
be used confidentially, their names and addresses.
Letters must be Post-paid, or they will not
be taken out of the Post Office.

Adjutants and Officers of Companies throughout the
Provinces are particularly requested to favor us
regularly with weekly information concerning
movements and doings of their respective
Companies, including the fixtures for drill, marching
and rifle practice, &c.
We shall feel obliged to such correspondents to forward all in-
formation of this kind as early as possible, so that we
may reach our readers in time for publication.

TERMS OF ADVERTISING:
First insertion, measured by solid nonpareil type, 10cts. per line.
Subsequent insertions, 5cts. per line.
Obsequial Card six lines or under, \$6 per year; over six lines and under fifteen, \$10 per year.
Announcements or Notices of a personal or business nature, in the Editorial, Local or Correspondence columns, Twenty-Five Cents a line for the first insertion and 12 1/2 Cents for each subsequent insertion.
Advertisements of Situations Wanted, Fifty Cents the first insertion, and Twenty-Five Cents each subsequent insertion.
Circular arrangements of an advantageous character made up with Merchants for the Year, Half or Quarter.

PROSPECTUS FOR 1876 OF THE "WITNESS."

THE friends of healthy literature have, by persevering diligence, placed the *Montreal Witness* in the very first rank of newspapers. The rapid growth of trashy reading, and of what is lively, vile, stimulating food, and of what is more nest efforts than ever to fill every household with sound mental food. A clergyman has lately declared his intention to make this one of his first duties in his present and every future life of labor, as he holds that by no other means could he do so much for the future of a neighborhood as by placing good reading in every family.
Successive attacks upon the *Witness* during the last three years, culminating in what has been called "The Ban" of the Roman Catholic Bishop of Montreal; although not otherwise desirable circumstances, have done a great deal to concentrate and intensify the zeal of the friends of Temperance and religious liberty in

favor of the *Witness*. Indeed, the fact that the last assault has been followed up for six months with the most untiring efforts to break down the paper on the part of the most powerful moral opposition that could be organized on earth, and has resulted in cutting us off from some, at least, of those Roman Catholic readers whose good will we formerly enjoyed and highly prized, give us perhaps, some claim on the kind offices of those who value free speech and freedom of religious belief. The actual diminution of the circulation of the *Daily Witness* is, of course, comparatively small, amounting to about 500 out of 13,000, or less than four per cent., and does not affect us peculiarly, as we can still claim a circulation equal in volume to that of all the rest of the daily city press, probably the majority of our old Roman Catholic reading being such still.

The progress of the paper may be gathered approximately from the following figures:

	Clr. Daily.	Clr. Semi-Weekly	Ir. Weekly
1st Sept.			
1871,	16,700	8,000	8,000
1872,	10,000	4,000	8,000
1873,	11,000	3,500	10,750
1874,	12,900	3,500	17,000
1875,	12,499	3,200	19,700

We have good reasons to be especially desirous to reach the whole country this winter, and have the *Witness* presented earnestly to the notice of every family. To this end we have determined to depart from the usual course of allowing our publications to commend themselves on their merits alone, and to inaugurate on a large scale a competitive effort on the part of all our subscribers to increase the subscription list. This competition will last during the month of October, and will be open to all. The list of prizes will be found below.

If this comes to any who are not familiar with the *Witness*, we may say that for twenty-nine years it has labored for the promotion of evangelical truth, and for the suppression of the liquor traffic. Our effort is to produce a *Christian Temperance Newspaper*, unattached to any political party or religious denomination, seeking only to witness fearlessly for the truth and against evil doing under all circumstances, and to keep its readers abreast with the news and the knowledge of the day. It devotes much space to Social, Agricultural and Sanitary matters, and is especially, all the paper for the home circle. It is freely embellished with engravings.

The *Weekly Witness* has never enlarged twice, and nearly doubled within four years, and is the very most that can be given for the price—\$1.10 per annum.

The *Montreal Witness* (Tri-Weekly), gives the news three times a week, and all the reading of the *Daily Witness* for \$2.00 per annum.

The *Daily Witness* is in every respect a first class daily containing much more reading matter than the papers which cost twice as much, for \$3.00 per annum.

All of course, are post-paid by Publishers. Subscribers remitting new subscriptions besides their own are entitled to the following discounts on such subscriptions:
Daily Witness 50c.
Tri-Weekly 35c.
Weekly 25c.

PROSPECTUS FOR 1876 OF THE "CANADIAN MESSENGER."

THE PIONEER PAPER.
The *Messenger* is designed to supply the homes of the Sunday School scholars of America with family reading of the most useful and interesting sort at the lowest possible cost. It consists of eight pages of four columns each, and contains a Temperance department, a Scientific department, a Sanitary department, and an Agricultural department. Two pages are given to family reading, two to tales in large type for children, and

one to the Sunday School lessons of the International Series, and a children's column. The paper is magnificently illustrated. There has been a very rapid increase in its circulation during the past year, namely, from 16,000 to 20,000, and the ratio of increase rises so rapidly that the proprietors have sanguine hopes of doubling the latter figure before the end of next year. This has been, as a result of this prosperity, some improvement in the style of the paper, and it will, of course, be possible to introduce more and more improvements as circulation grows. Most of the growth of the *Messenger* has been by the voluntary recommendation of it by friends who have formed their own opinion of its worth, and the introduction of it into Sunday Schools. Your correspondents say that their Sunday Schools are more interesting and better attended since it has been introduced.

The following are the prices of the *Messenger*:

1 copy	\$ 0 20
10 copies	2 50
25 copies	6 00
50 copies	11 50
100 copies	22 00
1,000 copies	200 00

Surplus copies for distribution as tracts, twelve dozen for \$1.

PROSPECTUS FOR 1876 OF THE "NADIAN MONTHLY."

In general style and appearance the *Canadian* has, during the last few months, very considerably improved, and it is intended to improve the present as much as the present is an improvement on the past, and the *Magazine* next year will be read with an ease and pleasure greater than hitherto. When we say that the improvements are not to be marked by an change of price, we refer to the full price of \$1. per annum. Hitherto the *Dominion* has been clubbed with the "Weekly *Witness*" at \$1.00 which will be simply impossible to continue now that one fifth has been added to its bulk along with better paper and printing. The *Dominion* is henceforth to be clubbed with the "Witness" at \$1.25, and is better worth its cost than ever before. Twenty-five cents, instead of fifty will be the discount allowed to friends obtaining for us new subscribers at full rates, the inducements to subscribers being now put into the magazine itself. The object of the publishers of the *Dominion* is to develop a native Canadian literature, and very much has been accomplished in this way during its history of nine years, the age of the magazine being that of the Dominion of Canada. Those interested in the same object will not, we think, waste their efforts if they do what they can to make the magazine a peculiar success, what we presume no magazine in Canada has ever yet been for any length of time.

LIST OF PRIZES.

1. To the person sending the largest amount of money on or before 1st Nov., as payment in advance for our publications. \$50.00
 2. To the person sending 2nd largest amount. 40.00
 3. " " 3rd " " 30.00
 4. " " 4th " " 20.00
 5. " " 5th " " 15.00
 6. " " 6th " " 10.00
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- Five prizes of \$5 each for the next largest amounts 20.00

JOHN DOU ALL & SON,
Publishers, Montreal.

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AN INDUSTRIAL EXHIBITION BOND.

WHOLE BONDS, \$20 EACH.
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Portions of Bonds receive their proper proportion.

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If it draws less than \$5, Company will take it back as \$5 in the purchase of a whole bond of the Industrial Exhibition Co. of New York.

195,000. The DAILY and WEEKLY Editions of the **MONTREAL STAR**

have now (it is estimated) an audience of One Hundred and Ninety-five Thousand Readers, which makes them the most widely circulated and influential newspapers published in Canada.

BOYNTON'S PATENT LIGHTNING SAW.

\$500 CHALLENGE,
That it is the **FASTEST-CUTTING SAW** in the world.

In order to introduce my unrivalled Cross-Cut Saws to the Canadian market, I will send my best saws to any address at 50 cts. per foot for cash in advance for one month. This is one-half my list price. Perfect quality guaranteed. Agents wanted.

13-1 E. M. BOYNTON,
80 Beckman St., N. Y.

DR. WARNER'S SANITARY CORSET,
With Skirt-Supporter and Self-Adjusting Pads.



Patented Sept. 25th, 1875.

Secures health and comfort of body, with grace and beauty of form.

We would particularly call attention to the following advantages:

- 1st. It affords a convenient and efficient support for the underclothing.
 - 2d. The Self Adjusting Pads are the delight of every lady. They give elegance to the form, and are not in any way injurious or objectionable.
 - 3d. It combines three garments in one—a corset, a skirt supporter, and self-adjusting pads—and yet costs no more than an ordinary corset.
- In ordering, give size of waist instead of number of corset usually worn.
Price in London Corset, \$2.00, Satteen, \$1.75; Misses' Corsets, \$1.25; Children's Corset-waist with stocking supporter, \$1.50. Samples sent by mail, on receipt of price.
25 cts. will be allowed for this advertisement, if it is cut out and sent with the order.
Great inducements to good Agents.
Address: WARNER BROS., 763 Broadway, N. Y.

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THE WEEKLY SUN.
1776. New York. 1876.

Eighteen hundred and seventy-six is the Centennial year. It is also the year in which an Opposition House of Representatives, the first since the war, will be in power at Washington, and the year of the twenty-third election of a President of the United States. All of these events are sure to be of great interest and importance, especially the two latter; and all of them and everything connected with them will be fully and freshly reported and expounded in THE SUN.

The Opposition House of Representatives, taking up the line of inquiry opened years ago by THE SUN, will sternly and diligently investigate the corruptions and misdeeds of GRANT'S administration; and will, it is to be hoped, lay the foundation for a new and better period in our national history. Of all this THE SUN will contain complete and accurate accounts, furnishing its readers with early and trustworthy information upon these absorbing topics.

The twenty-third Presidential election, with the preparations for it, will be memorable as deciding upon GRANT'S aspirations for a third term of power and plunder, and still more as deciding who shall be the candidate of the party of Reform, and as electing that candidate. Concerning all these subjects, those who read THE SUN will have the constant means of being thoroughly well informed.

The WEEKLY SUN, which has attained a circulation of over eighty thousand copies, already

has its readers in every State and Territory, and we trust that the year 1876 will see their numbers doubled. It will continue to be a thorough newspaper. All the general 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, and we shall continue to give in its columns a large amount of miscellaneous reading, such as stories, tales, poems, scientific intelligence and agricultural information, for which we are not able to make room in our daily edition. The agricultural department especially is one of its prominent features. The fashions are also regularly reported in its columns; and so are the markets of every kind.

The WEEKLY SUN, eight pages with fifty-six broad columns is only \$1.25 a year postage prepaid. As this price barely repays the cost of the paper, no discount can be made from this rate to clubs, agents, Postmasters, or anyone.

The DAILY SUN, a large four page newspaper of twenty-eight columns, gives all the news for two cents a copy. Subscriptions, postage prepaid, 65c. a month or \$6.50 a year. SUNDAY edition extra, \$1.10 per year. We have no travelling agents.
Address,
THE SUN, New York City.

TASTELESS MEDICINES.

A prominent New York physician lately complained to DUNDAS DICK & CO. about their SANDALWOOD OIL CAPSULES, stating that sometimes they cured miraculously, but that a patient of his had taken them without effect. On being informed that several imitations were sold, he inquired and found his patient had not been taking DUNDAS DICK & CO'S.

What happened to this physician may have happened to others, and DUNDAS DICK & CO. take this method of protecting physicians, druggists and themselves, and preventing OIL OF SANDALWOOD from coming into disrepute.

PHYSICIANS who once prescribe the Capsules will continue to do so, for they contain the pure OIL in the best and cheapest form.

DUNDAS DICK & CO. use more OIL of Sandalwood than all the Wholesale and Retail Druggists and Perfumers in the United States combined, and this is the sole reason why the pure OIL is sold cheaper in their Capsules than in any other form.

OIL OF SANDALWOOD is fast superseding every other remedy, sixty Capsules only being required to insure a safe and certain cure in six or eight days. From no other medicine can this result be had.

DUNDAS DICK & CO'S. SOFT CAPSULES solve the problem, long considered by eminent physicians, of how to avoid the nausea and disgust experienced in swallowing, which are well known to detract from, if not destroy, the good effects of many valuable remedies.

Soft Capsules are put up in tin-foil and neat boxes, thirty in each, and are the only Capsules prescribed by physicians.

TASTELESS MEDICINES.—Castor Oil and many other nauseous medicines can be taken easily and safely in Dundas Dick & Co's Soft Capsules. No Taste. No Smell.

These were the only Capsules admitted to the last Paris Exposition.
Send for Circular to 35 Wooster street, N. Y.

Sold at all Drug Stores Here.

Price, Twenty five Cents.

NEWSPAPER ADVERTISING.

NINETY EIGHTH EDITION.

Containing a complete list of all the towns in the United States, the Territories and the Dominion of Canada, having a population greater than 5,000 according to the last census, together with the names of the newspapers having the largest local circulation in each of the places named. Also, a catalogue of newspapers which are recommended to advertisers as giving greatest value in proportion to prices charged. Also, all newspapers in the United States and Canada printing over 5,000 copies each issue. Also, all the Religious, Agricultural, Scientific and Mechanical, Medical, Masonic, Juvenile, Educational, Commercial, Insurance, Real Estate, Law, Sporting, Musical, Fashion and other special class journals, very complete lists. Together with a complete list of over 300 German papers printed in the United States. Also, an essay upon advertising; many tables of rates, showing the cost of advertising in various newspapers, and everything which a beginner in advertising would like to know.

Address GEO. P. ROWELL & CO., 41 Park Row, New York



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. X

OTTAWA, (CANADA,) TUESDAY, FEBRUARY 22, 1876.

No. 7.

NEWS OF THE WEEK.

The Toronto city Council has voted \$5,000 for the erection of a drill shed on the condition that the Government will contribute a similar sum.

The following gentlemen have been appointed the Central Board of Examiners of the papers of the candidates for admission to the military College at Kingston:—Messrs. J. Thorburn, M. A., J. A. McCabe, of the Ottawa Normal school, and the Rev. T. D. Phillips, M. A. Mr. Thorburn is to be President of the Board.

The Eight Battalion volunteer Corps, under command of Col. Alleyn, is now undergoing its annual 16 days' drill. It musters, in full force, 110 men have been supplied with new uniforms.

A London special despatch says: At the annual dinner of the Associated Chambers of Commerce, Gen. Schenck, the American Minister, in response to the toast, said 'that American trade with England was more than a third of her whole trade with the world, and, reckoning the trade with England and other British dependencies, her British trade amounted to half the whole trade of the United States. It was no wonder, therefore, on that account alone, if no other, that the United States felt more closely linked to England than any other nation.'

Mr. Disraeli was introduced a bill into the House of Commons, enabling the Queen to take the title of Empress of India.

Negotiations are progressing favorably between Count Andrássy and the Porte for assuring a safe conduct to Bosnians and Herzegovinians who have taken refuge on Austrian territory. It is said that the prospect is that a speedy and satisfactory conclusion will be arrived at.

The *Wiener Presse* (Vienna) reports that an English vessel has landed at Gravosa 14,000 breech-loading rifles and two field pieces for the Herzegovinians.

The morning *Standard* says that telegraphic instructions have been sent to Mr. Wade, the British Minister to China, to support Germany's claim against China for plundering the German schooner *Anna*, last September. A portion of the detached squadron has been ordered to China for the purpose of strengthening Mr. Wade's position, but there is no reason to believe than any cause for hostile demonstration will arise.

Petitions have been presented to the Prussian Parliament asking the Government to secure to the working classes their Sunday for rest.

General Budritzki, who commanded the Guards at the battle of Lebourget, is dead.

The Insurgents surprised the Turks on Tuesday, near Uauskoje, killing 13 and wounding 50 after ten hours fighting.

The *Times'* Rome special says the Pope has made a remarkable exception to the rule, never before broken during his pontificate, by granting a dispensation for the celebration of the marriage here, on the 9th of February, between the daughter of the sculptor Story, a Protestant, and a Catholic Commendatore Peruzzi, a brother of the Syndic of Florence. Some of the extreme Ultramontanes are highly displeased at the Pope's concession.

The Spanish Cortes was opened by the King in person on the 15th. The King, addressing the senators and deputies from the throne, said: "The ill advised Prince, who is waging civil war, has been reduced to powerlessness and can obtain no advantages. I shall speedily proceed north to contribute to the restoration of peace. My relations with foreign powers are friendly negotiations are being carried on with the United States in a friendly spirit, and they afford reason to hope for a prompt and satisfactory settlement."

It would appear that women have always had a legal right to obtain a diploma from the Royal College of Surgeons authorizing them to practice in midwifery. The College has been advised that a clause in its charter was expressly drawn to admit women, the word "persons" being employed instead of "men," and the Council has decided on submission.

The *London World* describes a new device for burying the dead, as follows:—"You are placed in a glass box, to the top of which is a metal rod. As soon as the earth is filled in a battery is connected with the rod, and an electric shock shatters the coffin into a thousand pieces, thus allowing the earth to press upon the dear departed, and allowing him to return to dust even quicker than in one of Mr. Seymour Haden's wicker baskets."

An article in the *Cologne Gazette* draws attention to the fact that the Russian press is continually instigating the insurgents, in Servia and Montenegro, against the Porte. The *Gazette* declares that the Russian Government is responsible for the alarming demeanor of the press, consequently it can not be surprising that the people believe in the existence of a secret agreement by which Austria is to be allowed to annex Bosnia; Russia retaking the Bessarabian Territory, which was ceded in 1856.

Philadelphia is making preparations to lodge and feed "all the world and his wife," who are expected at the Centennial this year. One restaurant promises to provide 50,000 meals a day, and others have

pledged themselves for 150,000 more. It is said one company has invested \$200,000 in poultry, to be packed frozen in a White Mountain storehouse, and to be forwarded in refrigerators next summer. Another firm has 150,000 home in store for Centennial visitors. And so on.

The steamship *Franconia* ran into the steamer *Strath Clyde*, of Glasgow, off Dover on Thursday afternoon. The boiler of the *Strath Clyde* burst, and she sank immediately. Fifty two of her passengers were drowned, five have been landed at Dover, and four others are reported to have been saved.

Last September, a Scotch sailor named Anderson performed one of the most perilous feats on record. He climbed the summit of the South Half Dome, in the Yosemite Valley, a distance of 1,300 feet, by means of spikes and ropes. After him a few other tourists reached the dizzy height.

Mr. Plimsoll has secured immortality already, whether he ever has a monument or not. A short, yellow band, painted amidships, about six inches below that which has always been regarded as the ship's water line, which is being put upon British ships by order of the Board of Admiralty is called by the sailors, "Plimsoll's mark." It will make considerable difference in the amount of cargo which it will be lawful for the ship to carry.

The idea which is being worked out in Paris of testing proposed alterations in the formation and manœuvring of infantry by practising them with a battalion made up to a war strength, would seem to be a good one, and one which might be introduced by ourselves with advantage at Aldershot, thus rendering the camp a real school of instruction even in the piping time when autumn manœuvres and summer drills have ceased. From exercises recently carried out on the Champs de Mars, with a battalion made up to a strength of 960 rank-and-file by drafting into it detachments from other regiments, and from the Marine Infantry, the following deductions have been arrived at:—That it is extremely difficult, if not absolutely impossible, for the officer commanding the battalion to manœuvre by his voice so large a body of men; that a captain on foot cannot properly control and direct a company of 120 files; that when manœuvring in the present formations the adjutant is of very little use, and that it is difficult to deploy a column of four large companies into line by the diagonal march, while it is found that the extra length of time required to deploy by rectangular movements is hardly appreciable, and the men arrive in their place in the alignment in a much more orderly manner.

The Dearth of Artillery.

DEAR SIR,—Although the so called "Army Mobilisation Scheme," just produced appears to be pretty much an instance of *parturient montes, nascitur ridiculus mus*—a case of what is called in soldiers' dialect, "as you was"—still its tendency is in the right direction, and considering it merely as adumbrating dimly shadowing forth, what may become the nucleus of an effective system of complete and practically moveable army corps, it may be worth while to look for a remedy for its great deficiency of so serious a nature, that in point of fact it renders the whole scheme nugatory until it is provided for. I refer to the deficiency of field artillery. An army without a thoroughly good and sufficient field artillery is, in the present day, simply no effective army at all—a mere easy prey to any enemy which is superior in amount and efficiency of what has of late years more than ever become, without prejudice to the value and necessity of the other branches of a field force—the "principal arm."

In my own opinion the keeping up of a regular garrison artillery at all at present is an error; the officers and men attached to that branch are actually set to skirmish (with carbines of 500 yards range) on field days—even before His Royal Highness the Commander in Chief! If a real war came upon us, we needs must employ our whole regular garrison artillery with field guns—with what results, after the "separation" of field and garrison artillery, instituted of late years in deference to the views of pamphleteer, gunners, it is not difficult for those who remember the Crimea or who served in the 1st Brigade a few years ago, to estimate. This, however, is not essential to what I desire at present to call your attention to, though I may return to it on another occasion. Neither does it come within my present design to point out the great waste of men and horses, and the other injuries to a really efficient artillery, entailed by keeping up what is called "horse artillery"—an arm which was very useful in old times, when it could gallop up close to a square and annihilate it at short range, but which has been rendered obsolete by long range rifles and rifle instruction. Our pamphleteers and Prussianisers seldom remind the public that there is no "horse artillery" in the German army. They know best why.

But the point I wish to lay stress on is this. In our field batteries at present the six wagons are horsed and equipped to accompany and to drill with the guns. This is not only unnecessary, but wrong; every field artillery officer who has seen service elsewhere than on Woolwich Common knows that his ammunition wagons, if he must have such, must keep well away in rear, and never, if possible, at all near his guns or under fire. It would seem, then, that these wagons might be suppressed in a nucleus army. Of course, it would be better to have them always at hand, but that cannot be done with our present stock of men and horses, and is by no means necessary. The men and horses now attached to the wagons might be formed into nucleus six gun batteries, which would just double the field artillery of our nucleus army corps, at no expense. No increase of officers would be required; give the nucleus field batteries a major and two lieutenants, which would be ample for peace time and not insufficient for war if kept up; and officer the "garrison" batteries, if such are to be retained, with the captains and two lieutenants each, which would be quite enough also—only that they must be in the flesh, not on paper

as at present; very many of the present garrison batteries have only one, many actually no, subaltern with them!

This would also afford useful commands, or rather supervision posts, for the present plethora of lieutenant colonels and colonels. At a station I lately visited there was a colonel or lieutenant colonel present for every battery of a considerable artillery force! Of course they had nothing to do but to worry and interfere with the majors, to the destruction of all real discipline and efficiency. My scheme would provide real work suited to their rank for many of these officers. Many more, of higher qualifications, might be employed very usefully in an intelligence department, the present one being only rudimental, not a tenth of what is required: and not at all necessarily, at any increased expense. But this again is a digression into another question of the future.

It will be observed that what I now actually propose is—in peace time the nucleus horse and field artillery battery should consist of six horsed guns only, with a major and two lieutenants. This would double our nucleus field artillery; the expansion in war time by adding the necessary wagons would be infinitely easier than the sudden improvisation of batteries, cadres and extension, out of nothing.

Very possibly you and your readers may disagree with me, partially or completely but the question is worth discussion.

Yours truly,

SWINGLETREE

Junior United Service Club,
Dec. 9, 1875.

DEARTH OF ARTILLERY.—NO. 2.

DEAR SIR,—In your issue of the 11th inst., you kindly permitted me to call attention to the great deficiency of field artillery which at present exists, and to suggest, as the most possible and practicable mode of remedying it, and of making a sufficient and efficient nucleus field artillery at the least expense, that the men and horses attached to the wagons of the present field batteries should be attached to guns instead; that each of these nucleus batteries should have attached to them a major and two lieutenants, leaving a captain and one lieutenant for the "garrison" batteries, thus requiring no additional officers, and doubling our field artillery in a manner which in peace time would entail no additional expense whatever, and in war time would admit of completion and expansion in the easiest and most feasible way, and would besides damage no "vested interests" of any kind.

The authorities have since, following the lead of the Press and the public as usual, also admitted that our field artillery is insufficient; and it is intended in consequence to raise two new field brigades.

This, if it could be done, would give at most sixteen new field batteries—nothing like enough; for it must be recollected that if we had to take part in a serious war, not only could we not remove one battery from India or Ireland, where most of our field artillery is at present, but, on the contrary, we must necessarily send more to both stations. But besides this there are four reasons against it, any one of which is sufficient to condemn it in the eyes of practical and experienced English soldiers; though not, most likely, in the eyes of the Prussianisers, pamphleteers, and essay writers, who are blowing our weak authorities about in so many different directions at present.

1st. This mode of increasing the artillery entails most expense with least result; requiring the appointment and payment of a large "brigade" staff, which, except for routing purposes is really only a useless encumbrance; and further diverts a number of officers from the proper military work. Of course, it increases patronage—whether this is an advantage, objectively or subjectively, thinking men will seriously doubt.

2nd. It perpetuates the brigade system, which some seventeen years' bitter experience has proved to be the worst conceivable organisation for artillery—a view held by every artillery officer I have ever heard speak of it, always excepting the staff at home clique at Woolwich, and the expectants, *fautores atque assentatores* of the Horse Guards.

3rd. It still further increases the number of lieutenant colonels, already much too large. That an effective system of promotion—or what comes to the same thing, of retirement—is sadly wanted in the artillery, is evident from a glance at the Army List, where there are still some dozen captains of near nineteen, and more than two dozen lieutenants of thirteen, years' service, a state of things which is not merely personal to the sufferers, but is injurious to the Service in many ways not at first obvious. But increase of senior officers will help this but very slightly; and further only for a time, as the present relative proportion of officers of higher ranks in the artillery will certainly not be permitted to exist once it is seen and understood by the public. The present immense supply of colonels and lieutenant colonels in the R. A., which gives one to each battery at most large stations (ridiculous as this may seem) necessarily implies interference with the majors (the proper "battery fathers"), fidget and worry and trouble of all kinds, and has a good deal to do with the present unpopularity of the artillery and impossibility of obtaining sufficient recruits of a good class.

4th. I have reserved the strongest reason for the last—two new brigades may be raised on paper, and the cry for artillery thus be diverted; and officers can be got for them, but *men cannot*. The present brigades are notoriously very short of their establishments, even though recruits "of all sorts" are taken; how then are two new brigades to be manned? It simply cannot be done, and the proposition is merely a sop to Cerberus, with the extra advantage of creating more patronage, which seems to be the real "final cause" of a deal of our late so called army reform.

It is time something real was done towards making an efficient English army. Multiplication of titles and appointments won't make good officers; depreciations of regimental work and exaltation of staff and departments won't improve the morale of the army; and, *pace* H. R. H. the Commander in Chief, mere money won't get recruits till the Service is rendered more respectable, less irksome, less slavish, and the everlasting interference and worry, which was suited to the times of the crimp and press gang, but is not suited to a people becoming, thank God, every day more educated and enlightened, is abolished and replaced by a more considerate and liberal system, which is perfectly compatible with even greater strictness in things essential than now exists.

Yours truly,

SWINGLETREE.

Junior United Service Club,
London, S. W.

DEARTH OF ARTILLERY.—NO. 3.

Sir,—Since you kindly published my second letter a fortnight ago, it is rumoured that the authorities—still adhering, unfortunately, to the universally condemned, but large patronage giving, brigade system, and to their idea of supplying to some slight extent our admitted dearth of artillery by raising two new field brigades—have partially adopted a portion of my suggestion, and intend to obtain men and horses for this purpose by reducing three wagons in each field battery. This is a half hearted and totally inadequate step, such as mediocrities in a difficulty delight to adopt as a stop gap, or rather stop criticism. It will, however, give us a few additional weak batteries—not a tenth what is required, but no doubt better than nothing. Unluckily, it will cost a disproportionately large sum of money, much of which would be wasted on useless, or worse than useless, appointments and “brigade staff.” My suggestions, if adopted, would, on the contrary, at no expense, effect six or seven times as much—that is, it would add ninety or a hundred cardo batteries of six guns each, while the two new brigades would contain at most sixteen such batteries; probably only fourteen. My scheme further requires no new officers at present, the Government plan necessitates the addition of sixty or eighty, of whom about fifty will be lieutenants. Here is another difficulty! The *Pall Mall Gazette* lately called attention to the serious and undeniable fact that, for the present organisation, there are not enough of Artillery subalterns to be got! Reference to the Regimental Lists will show that a considerable number of batteries have no lieutenant doing actual duty with them, while a large number have only one each, who is often away with a detachment! Of course it is mere departmental mismanagement that any one battery should have no lieutenant, while another has two or three, but the difficulty still remains that there are not enough of them, and that Woolwich cannot supply them fast enough. The *Pall Mall Gazette* suggest such an “appeal” to the Universities as was made in 1855, but I doubt that this would succeed to any extent. Times have changed, the men who at that time gave up their originally intended professions to join the army, did so under the stimulus of a great war excitement, with all its prospects and enticements; there is now only the bright and glowing look out of being fourteen years subalterns, and of being paid less than infantry captains and majors when they attain these ranks, to tempt them! Further, I was told yesterday by one of these very officers, that the studied neglect with which the military authorities have persistently treated the University men, “porsons” as they were called, is well known at Oxford and Cambridge, and has had such a bad effect that any informant doubted if a dozen candidates worth having could now be got from his University. If such is the case it is greatly to be lamented, and is one more of the long series of stupid blunders to which we owe the present depressed and unsatisfactory state of our army; but it adds all the more weight to my suggestion for the increase of the Artillery, which, as I have said, requires no new officers at present, and would leave time for Woolwich to develop her resources to an adequate extent. No doubt the whole question of the supply of Artillery officers is one which sadly wants examination and public criticism; the present mode is frightfully expensive, cumbersome, slow, unattractive, and comparatively inefficient. I purpose on a future occasion

to ask you for a hearing on this subject also; but at this moment the (to use official language) “most pressing and very urgent” necessity is to get together, to man and mobilise a sufficient number of field guns to at least make a stand against an enemy, and to that I will confine myself at present. While I write an officer informs me that the necessary gunners for the two new brigades are, it is believed, to be got by extensive drafts from the garrison brigades, which themselves have none too many men! This may be merely a “club shave,” but it is very probable, as men are so scarce, and would be a striking instance of good administration, robbing Peter to pay Paul. denuding one portion of the “mobilised army,” ludicrously so called, to supply another!

To show the wretched insufficiency of our field artillery at present—there are altogether on home service about 350 horsed field guns, ready to move more or less completely. A large proportion of these must of necessity be kept in Ireland, and many places in England also cannot be left without guns. So that, if we could after much difficulty and delay, assemble two hundred field guns, of five different natures and equipments, to oppose an invading army, it would probably be the utmost we could do. The Germans sent fifteen hundred field guns into France, retaining a considerable force at home also. So that as the matter stands, we really should not be justified in ever hoping to defend ourselves; much less to adopt what is really the best defence, if there is only ability to carry it out—viz., to take the initiative. Worse still, if a paper by Lieutenant Pratt, in a late number of the *Woolwich proceedings* is correct, the Germans have adopted a field gun which could simply, gun for gun, beat ours out of the field; a glorious result of the eternal self laudation of the *Woolwich clique* of pamphleteers! Yes, and still more; Archdeacon Wright's letters to the *Times* point to the growing discontent, not without some cause, among the men and, if possible, worse than all, among the non commissioned officers. The whole prospect is really the reverse of pleasant to any Englishman who loves his country, and adds new force to what I hinted in my last letter, that a total change of system, and perhaps of men, in military places is required; no amount of good intentions or devotion to duty can compensate for want of practical ability and broad views in our authorities; but, on the other hand, essay and pamphlet writing, and translating of foreign essays and pamphlets, must not be mistaken for military talent, power of organising and leading men—a tendency somewhat observable in some exalted quarters just now.

The urgency of the case will be my excuse for repetition; something must be done to increase our artillery at once, and that largely. The Duke of Cambridge states we might find ourselves at war in a few days—how are we prepared for it? If the war was a popular one, our Infantry would be to a considerable extent recruited by men from the Militia and Volunteers, already to a great extent drilled, and to some extent disciplined. Our fortresses could be manned by the Artillery, Militia and Volunteers—no contemptible garrison—though their artillery training has been shamefully neglected. But nothing can improvise field artillery, there is no reserve for it. Imagine the difficulty, the impossibility of mobilising four or five hundred new field guns in a hurry, and what their value would be at work which requires more practice and training than any other. We cannot keep up at full strength all the artillery we may need, the expense

would be too great, and the already heavily taxed taxpayers would not submit to the burden; and I do not say they are wrong. But I say, that we can do what is essential at no expense. We have the guns and carriages—at least we are told we have, and we trust we are told correctly. We reduce the wagons of all our field (and horse) artillery, and appropriate their horses, drivers, and gunners to the new batteries. These batteries would have each six guns, the limbers could be made to carry about forty rounds each. By appropriating the majors to the mounted batteries, with two lieutenants to each, quite sufficient officers for the reduced work would be given; the quartermaster sergeants would not be necessary for such small equipments, and could act as sergeant majors of the new batteries; at present simply no expenditure is required to give an enormous increase to our moveable artillery. There are plenty of lieutenant colonels and colonels at present for a greatly increased artillery, plenty of adjutants and staffs, not one new “appointment” need be made. Every practical artilleryist knows how very much easier it would be, in case of necessity, to expand these nucleus batteries to any given establishment, than to undertake the impossible task of creating eighty or a hundred new batteries, and even if unexpanded, a field artillery of such dimensions would be no despicable arm. Nor does this scheme neglect the garrison artillery; one captain and one lieutenant could well carry on their instruction and duties, especially as it would probably be necessary to reduce their establishment to say a hundred men—if only they are allowed to do their own work, not employed marching past and skirmishing, as, I am ashamed to say, they are at present, and not prevented from working by the enormous host of commanding officers who are at present clashing with each other at every large artillery station. I am free to confess that I am of opinion that all our artillery should be field or moveable, while the Militia artillery should occupy and man our fortresses; that every field artilleryman should be trained as gunner and driver, as in old times; that the expansion and demoralising toy of horse artillery as a separate corps—no prejudice to light field batteries if required—should be suppressed; that majors of batteries should be in command of and absolutely responsible for the discipline of their batteries, leaving the colonels for more important work than “training prisoners,” that sergeant majors should be “warrant officers,” with other desiderata, all now in the dim future, but which I am convinced I shall see tried out some day when the light of criticism has shone more directly on the army. But at present my object is to show how we can get some six or seven hundred field guns on foot, and to that I confine myself.

I forgot to mention that the field artillery cannot at present be effectively supplemented from the garrison artillery; the latter, thanks to the magnificent projects of the scribblers and idealists, are not now taught even elementary field gun drill. It is hard to believe, but so it is.

Yours truly,

SWINGLETREE.

Junior United Service Club, Jan. 5.

—Broad Arrow,

The *Echo* says the Scottish Rifle Club has duly considered the proposal of Sir Henry Halford for sending a combined British team to Philadelphia, and resolved not to accept but send a team of its own.

The Royal Colonial Institute.

From "The Empire," Jan. 22, 1876.

The Royal Colonial Institute provides an admirable platform for colonists and their friends who, being at home, are laudably willing to enlighten British darkness on colonial questions. Selecting a goodly number of the long evenings of winter and spring, the Institute throws open the doors of the assembly rooms at the Pall Mall Restaurant, erects a stage, invites an audience, having previously selected a lecturer, a chairman, and two or three debaters to start a discussion. The whole machinery is excellent, and the Colonies owe a debt to the Institute which some day, it is to be hoped, they will pay. On Tuesday last, a large number of ladies and gentlemen met to hear Lieutenant General Bisset read a paper on the South African Colonies. The Duke of Manchester was in the chair; some official and public men, associated in one way or another with the Colonies, were present; the paper bristled with facts and figures, and was warm and interesting with personal experience; the debate was continued to a late hour with animation, and was adjourned. The evening was a success, and South Africa is under an obligation to the Institute for the opportunity which General Bisset, Dr. Atherstone, Mr. Campbell Johnstone, and Mr. Thomas Watson, so ably used. But every British Colony has in its turn the advantage which on Tuesday last the Institute gave to the Cape, Canadians, Australians, West Indians, West Africans, New Zealanders, and men at home from Fiji, Singapore, Hong Kong, or Mauritius, can always be sure that the Royal Colonial Institute will find a speaking place for them and ears to hear what they may have to say. Nor does the society's help end when the paper reading session ends. It keeps its rooms in the Strand open all the year round for the accommodation of colonists; presents thus a centre for union and a chance for intercourse between those whom it is important on many grounds to bring together; and by providing a table for topographical photographs, a wall for maps, and cases for specimens, suggests the formation of a British Colonial Museum. Beyond this the Institute offers an organisation for dealing effectively with such colonial questions as may be practically mooted in England. It arranges for committees and deputations, the publication of pamphlets, and interviews with members of Parliament. It is indeed an institution with great capacity for usefulness, and as such has a claim on those communities to whose interests it is devoted.

And yet the Colonies have done nothing for the Institute, which subsists upon the subscriptions of those who have been, rather than upon those who still are, colonists. Probably the question of maintaining in London an institution which would in all respects worthily represent them has not been seriously put to the great Dependencies. They have, very likely, never been asked to materially assist in placing the Royal Colonial Institute in a position of some importance not to say splendour. If what we venture to suppose is really the case, then Mr. Young, the honorary Secretary of the Institute, has an opportunity which his zeal will scarcely allow him to lose. It is hardly to be supposed that the Colonies of England would not be glad to respond to a large proposal for the erection in the metropolis of the Empire of a really adequate building for the use and dignity of the only society which represents them and works for them in England. At present the In-

stitute hires for its office an obscure room above a shop, and when it gives a lecture it has to resort to hire again. The colonies need only to know this to be anxious to alter arrangements which cast upon them a certain measure of disgrace. The idea of having a Royal Colonial Institute suitably housed on a fair site in London would find favour all the world over, wherever two or three Englishmen abroad are gathered together.

Undoubtedly a suitable mode of representing the scheme would have to be made. The Institute itself would be the best centre of operations, and the assistance of all colonists at home could be claimed. A well considered plan having been adopted and promoted in London, suitable agencies would be required for the colonies. Probably, in order to rapid success, the work would have to be taken up by one or two men capable of enthusiasm. Almost all important undertakings need a man at the head of them. As a rule they succeed only under that condition.

We hesitate to say what such a building, with its adequate furniture, appliances and offices, should cost. Not a small sum surely. The present unsuitable hired apartments on a first floor would be better than a mean structure entitled to call itself by a great name and at the same time shaming it. The cost would be regulated by the plan and the value of the site. But, while avoiding estimates, we may show what figures belong to the scheme. In the Canadian Dominion, the Australians, New Zealand, the Cape, Natal, West Indies, and the Mauritius there is at least a population of twelve millions. Now that number of sixpences would make £300,000. This is only a sum, but the factors are not altogether out of the case, nor is the total result ridiculous if looked at by the light of averages. Something less than £300,000 might possibly be sufficient; but more than that would not be out of proportion to the purpose of a suitable habitation for an Institute, once Royal and Colonial. It is, probably, unlikely that the Colonial Parliaments would vote public moneys for the object we have thought it well to suggest, unless, indeed, the plan could be made to include offices for the different colonial emigration and other agents. It would be a most desirable thing of itself were the official representatives of the colonies brought together in one place. Were this to come into the plan, the Governments would readily vote an annual allowance for rent. But, for the funds for the main building, the colonists' personal munificence must be looked to, and there is such a thing as personal munificence in the colonies. We are aware that the plan involves considerations as to trusteeship and other legal questions; and, of course, provision would have to be made for maintenance. But these are difficulties which are common to all undertakings in which societies and property are included. That any difficulties can be allowed to prevent the colonies from having an adequate monumental and institutional representation in London is not to be believed by those who know the spirit of those great communities.

The Chinese Army.

Some interesting particulars with regard to the organisation and present condition of the Chinese Army are given by a correspondent:—

"The present army of China consists of two great divisions. Under the first are included the Manchu, Mongol, and Chinese Bannermen, distributed in permanent gar-

risons over the great cities of the empire, while the second is made up of Chinese troops. The Manchu Tartars (the present dynasty) when they conquered China in 1644, divided their army into four corps, distinguished as being under *hite*, *blue*, *red*, and *yellow* banners. Four bordered banners of the same colours were subsequently added, and in course of time there were added to these eight similar corps of Mongols and eight of Chinese, who had cast in their lot with the invaders. The chief command of these corps (which exist to the present day, and are of a mixed civil and military organisation, all being liable to bear arms, but by no means all being paid as soldiers) is vested in high officers of the three nationalities, the Manchu, on the whole, predominating. The governor-general and governors have each a small force at their disposal, but they do not command the military or naval forces of the province. Permanent Manchu garrisons under Manchu officers are established, as I have said, in the great cities on the coast and along the frontier. The Chinese Army is altogether distinct from this force, and is under a separate general officer, below whom is a series of subordinates of a number and denomination corresponding to those of our own army, if we count from ensign to major general. These all draw pay, nevertheless the troops assigned to them exist, to some extent, only on paper. Were the naval and military services of China as real and effective as the civil service of the country, foreign Governments would have to deal with one of the greatest Powers in the world.

"The civil competitive examinations held under Government secure to the poorest students of the land the certainty of promotion by merit to the most lucrative posts in the Empire. Under the present dynasty military examinations are periodically held among the troops, but the competitors are men of property, who supply their own weapons and accoutrements, and not the rank and file of the army. Military rank is conferred not for personal bravery and talent, but for prowess in raising heavy weights, wielding enormous swords and bending bows, as well as for skill in horsemanship and archery. Although the list for military preferments are open to all who are eligible for the Civil Service, few engage in the contests, as the posts obtainable are in every respect inferior to those of the administrative departments of Government. Few men of genuine talent, therefore, are to be found among the officers of the Chinese Army, and probably none who have deemed it worth their while to acquire a knowledge of military engineering, fortifications, and all that constitutes the science of modern warfare. It must, however, be said, in justice to the Chinese Government, that they are not altogether ignorant of the defects in their system. Within the last ten years great efforts have been made to introduce a certain measure of reform. Formerly officers of the navy were chosen from the land forces, not that they knew the bow from the sternpost of a vessel, but because they were big and blustering men, whose appearance would strike terror into the hearts of an enemy. Schools have been established for the training of naval cadets under the European system, some of whom now hold commissions in the gunboats and corvettes of the modern Chinese Navy. Li Hing-Chang has introduced foreign drill and arms and is doing his best to promote discipline and to strengthen the army. He would introduce other and more sweeping innovations had he not to contend against the jealousy and suspicion of the Central Govern-

mont. Li's last scheme, the centralisation of the army, was viewed unfavourable by the mandarins, as, backed by the power of the army, he might at once ascend the Dragon Throne.

"The real army of the Empire is mainly composed of natives of China. How far this army may be considered effective, and what may be its numerical strength, are questions which cannot be answered with any degree of certainty. It suits the purposes of the Central Government to have it broken up into a multitude of camps widely distributed over the Empire, each province having probably from 20,000 to 100,000 men during time of war. But the standing Chinese Army is seldom much larger than what is required to act as a sort of constabulary, resident in guard stations and camps in the various departments of the Empire. The number of officers in active service can always be ascertained by reference to the quarterly Army and Navy returns published in Peking, while the actual number of men in the Services can only, like the population of China, be approximately estimated.

"Military roads such as would be available for a thoroughly equipped transport corps can hardly be said to exist in any part of China. The rivers and watercourses to a great extent supply the place of roads, and form a network of intercommunication all over the land. Many of these waterways could be used for the transport of troops and baggage by such appliances as the Chinese themselves possess—boats especially adapted for the navigation of shallow lakes, lagoons, and streams.

"What we understand by a properly equipped transport service accompanying an invading force would prove almost useless in such a country as China, where there are extensive tracts of land subject to annual inundation; where there are few roads other than the footpaths along the banks of irrigated fields; where in fact, a foreign army would require either to make roads or entrust its stores and baggage to a contingent force in the shape of a Chinese transport coolie corps, armed with nothing more formidable than their bamboo carrying poles."

Three Wants of the British Army.

(From Toronto Mail.)

An army chaplain writes to the London *Times*, making forcible statement of three things that in his opinion the British army requires to make it what it should be: They are quiet, money well spent, and a grateful care of old and deserving soldiers. At the present moment the whole army, from the commanding officer of a regiment down to the last recruit, is in a state of unrest. Popular orators and politicians are demanding radical changes in the country's military system, with a zeal and energy too frequently in inverse proportion to their knowledge of actual facts. One prominent army reformer, Mr. Helms, M. P., has for his favourite cry, "Prussia's mighty army for a mere song, England's few soldiers at an enormous cost!" To which the army chaplain has the following rather telling reply:

"That bold assertion takes with the uninformed and does immense harm, because it is, I hold, utterly without foundation. I know Prussia well, and only this last summer I wandered over it from the Rhine to the Baltic. Why, so far from Prussia having a cheap army, it is the most expensive army in the world; while ours, considering what it does and what it secures to us, is the very cheapest. Taking thousands of her able bodied men yearly from their ordinary em-

ployment to become non producers is in itself a vast cost to Prussia. The disturbance of trade and commerce caused by it must be a tremendous sacrifice of money. But that is not all. By far the most serious expense is the loss incurred by the nation through forced emigration. Prussians, the strong men remember, not the feeble, in order to escape the conscription, leave their country by shoals. They are to be found all over Europe, and in America whole towns are German. Has Mr. Helms ever estimated what all this outlay amounts to? If not, let him do so, and he will never again tell of a cheap Prussian army."

While the present disquiet and agitation concerning the army continues, the country's military service will not be chosen by the class of men that it is most desirable to secure. Young men who think of enlisting have no certainty to which they can look forward with satisfaction, that is, in case of their surviving after some time spent in the service. With some saying "do this," with the army, and others saying "do that," the classes from which the rank and file are drawn, and whose information as to parliamentary probabilities is not of the best, are utterly bewildered, and know not what they can depend upon should they become soldiers. Good promise of rest and quiet, and of something permanent that may be depended upon, is absolutely necessary for the contentment of the soldiers we have already, and for the obtaining of more.

"Money well spent" is the next requisite. The British nation is wealthy beyond any other in the world. It must have an army and a navy to guard its wealth, and for these means of national safety it must pay the price. A commission of leading military officers, backed by the judgment of medical men, has declared that the three quarters of a pound of meat per day now given to the British soldier is insufficient. The Commander in Chief would gladly add another quarter of a pound of meat to the daily ration, but that for the whole army would cost £250,000. Parliament will not vote the money, and the Minister of War, who knows this, fears to ask for it. The regulation of "lights out" at nine o'clock, when the soldier would fain be allowed to sit up till ten, gives him a sense of oppression, and makes him sigh for the liberty of the civilian. Again, he is frequently given clothing partly worn out by somebody before him, just as if he were a criminal or a pauper, and he is not conciliated by this disregard of his feelings. If the objection be made that it is wrong to tax the working classes to keep up a too well fed and too much pampered army, the ready reply is—"ask the workmen to leave their trades and become soldiers, and try whether you can induce them to make the change."

"Grateful care of good old soldiers" is the third and last of the true army reforms on which the army chaplain insists. Though he does not mention it, the fate of the Crimean hero, Fitzpatrick, left by an ungrateful country to die of starvation and neglect, will occur to many readers of the papers. The soldier, he says, is a civilian improved—in other words, a civilian trained to arms, order, and obedience. Only added to that intelligence and sobriety, and we have in the trained soldier a candidate possessing the highest qualifications for public employment in subordinate position. But for discharged soldiers scarcely any such opening is now available. The most powerful means of rewarding the faithful soldier and encouraging recruiting is to do justice to the heroes of whom we, as a nation, profess to be proud. When the soldier is made contented, and

when he can see before him such a future as an honest, well doing man may be satisfied with, there will be little more need of the recruiting sergeant.

Of course when Europe ceases to be a camp of armed nations and when the millions of soldiers now maintained are disbanded, the keeping of a comparatively small army need give England very little trouble. But as that time has not yet arrived; as indeed all the Powers are increasing instead of reducing their military strength, it is clear that England cannot run the tremendous risk of allowing hers to go down and become inefficient. This being the case, the counsel given by the army chaplain in the columns of the *Times* appears wise and judicious.

The Suez Canal and the Khedive.

The *Al Fawâib* (a Constantinople paper), commenting on the sale of his Suez Canal shares by the Khedive, regards the transaction as reflecting the highest credit on his administrative sagacity and foresight. The Khedive, it says, perceived that the question of the canal as it had hitherto stood was most unsatisfactory to Egyptian interests. As an instance in point, it will be remembered that as recently as last year he was obliged to send vessels of war to seize the canal, and that if the company had not then recognised his rights over it, or if the French had still exercised their former influence in the East, the company would have taken possession of a large extent of territory bordering on the canal. This difficulty, which might have recurred at any moment, originated in the privileges accorded to the company by the late Saïd Pasha, to the prospective injury of Egyptian interests. When the present Viceroy succeeded to the Government, one of his first cares was to settle the canal question, and to secure a modification of the privileges which had been granted to the company; and, notwithstanding the fact that France at that period still exerted a preponderating influence in the East, he succeeded, at the cost of five millions sterling, in effecting his object. This circumstances alone of his having preferred to burden the resources of his country rather than allow any of its territory to remain within the grasp of foreigners entitles the Khedive (*Al Fawâib* says) to the gratitude of his people. And now, being persuaded that the time had come for settling the question, and for preventing the canal in future from being appropriated by any one Government or nation to the exclusion of others, his highness decided that all should participate in it alike; for the copartnership of England in the canal involves no danger whatever to Egypt. On the contrary, it will serve to prevent the exorbitant demands of foreigners and their claims to ascendancy in that direction.

The reason why the sun never sets upon the Queen's dominions has been discerned for the first time by the American officers at the Delhi Camp. "God Almighty knows better," they have pointed out, "than to trust Britishers in the dark." The joke, at all events, is put down to the Americans by a correspondent. Yankee humour seems to flourish under the Indian sun. On an evening lately, when a good many tumblers had been emptied by a party breaking up in the hills, an American of the number looked gravely at his empty glass for a few moments, and then flung it contemptuously into the fire. "Darned thing," he explained, "looks at the top."

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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, FEBRUARY 22, 1870.

RESPONDENTS—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. No communication, however, will be inserted unless the writer's name is given, not necessarily for publication, but that we may know from whom it is sent.

We have for the past nine years endeavored to furnish the Volunteer Force of Canada with a paper worthy of their support, but, we regret to say, have not met with that tangible encouragement which we confidently expected when we undertook the publication of a paper wholly devoted to their interests. We now appeal to their chivalry and ask each of our subscribers to procure another, or to a person sending us the names of four or five new subscribers and the money—will be entitled to receive one copy for the year *free*. A little exertion on the part of our friends would materially assist us, besides extending the usefulness of the paper among the Force—keeping them thoroughly posted in all the changes and improvements in the art of war so essential for a military man to know. Our ambition is to improve the *Volunteer Review* in every respect, so as to make it second to none. Will our friends help us to do it? Premiums will be given to those getting up the largest lists. The *Review* being the only military paper published in Canada, it ought to be liberally supported by the officers, non-commissioned officers, and men of each Battalion.

In another page will be found three letters addressed to the Editor of *Broad Arrow* on the "Dearth of Artillery" in the British service, which we republish because, the writer, under the *nom de plume* of "Swingletree," is evidently an experienced Artillery Officer and thoroughly understands the practical bearing of the subject he discusses, and because our own military organization labours under a similar disadvantage, we have

not enough of Field Artillery even for our present Active Force, and we have made no provision whatever for its sudden expansion.

As "Swingletree" says, we have trained a large amount of so called "Garrison Artillery" as infantry soldiers, but hardly one man in ten of the force has had experimental training with the obsolete 32 pounder, not to talk of the heavy guns with which forts are now armed in these days—in fact we have not got beyond infantry organization—in any case, and our trouble appears to be that "improvement," and not development, is the leading idea in the minds of our military authorities.

The present session of Parliament will no doubt enable us to know what is designed to be done relative to the future development of our military organization. It has been hinted by the press that retrenchment will be the order of the day, and that changes in the "District Staff" system are imminent, as that system was founded on the "decentralization" theory, and as it is true in practice as well as principle, we cannot contemplate anything more fatal to the interests of the active volunteer force than such a measure.

Our military organization has been founded on the principle of "defence," the main feature of which is that a sufficient force could be always concentrated on the threatened points, and this cannot be done under any other system.

We have had repeatedly to refer to the spectacle which the English "War Office" afforded during the late Fenian troubles in Ireland—how it took nearly three months to organize a flying column for service under Lord STRAIGHTENAVEN, and how one battalion at least, had to bivouac on the beach at Portsmouth in a storm, because somebody who should countersign an order was at a ball and could not be found.

It is not the interest of this country which will be consulted in any vital change or any movement leading thereto takes place—our troops maintained in a state of efficiency is the direct pledge to the public creditors that their investments in Canada are safe—and true policy will point out the wisdom of letting well enough alone. What is wanted is not "improvement" in the revolutionary sense, but development on the tried basis of the "Militia Bill."

There can be no doubt whatever what line that development should take it—should consist of the augmentation of Field Artillery, the organization of our Engineer and Staff Corps, and the regulation of regimental commands in such a manner as to train with the present force and cost the greatest possible number of Field Officers.

Under the present depressed state of commercial and financial matters an increase of expenditure is out of the question and should be carefully avoided, but none of the plans specified involves any present outlay, nor indeed future, except the artillery; and

while the necessity for organization is imminent, that for outlay can be well postponed. In the case of the Engineer and Staff Corps no expenditure whatever need be incurred except that of printing the necessary Gazettes.

The cost of our whole force is about *twenty-five cents per capita* of population, and it would be certainly absurd to break up an efficient organization in order to economize on such a paltry sum.

The following article on "Tactics," as far as they relate to "Infantry Skirmishing," is copied for the benefit of our readers from *Broad Arrow* of 15th January.

It is as well to remark that *hard and fast* rules on this subject cannot be laid down—only general ideas inasmuch as all *tactical manoeuvres* must be adapted to the topography of the district over which operations are in progress.

"At the present moment, when military tactics are attracting so much general public attention throughout Europe, the following original and well considered suggestions by a staff officer of distinction, are worthy of attention, as bearing upon more than one tactical problem, in the formation of order of battle, under the altered conditions of modern warfare.

The system advocated by the officer referred to, is described as 'Memorandum on two orders of battle, for the Infantry of a Division to show a method of skirmishing.' We give the details *in extenso* :—

The Division to contain three infantry brigades, each of four battalions.

Orders of Battle.—A. One brigade skirmishing, with one brigade in line supporting, and one brigade in column as reserve.—B. Where lateral extension is required—three brigades, each with two battalions skirmishing, and each with two battalions in line supporting.

Battalions to skirmish, would form in line; at twelve paces interval, each battalion having one company, at thirty paces, in rear of the flank which is not that of *appui*.

Advancing from the halt to skirmish, three (or more) lines at intervals between files, would be formed on the following principle:

The right files of each section throughout the skirmishing brigades to march straight to the front, to be followed at 200 yards, or required interval, by the second and third files, and subsequently by the remainder, each line being allowed to divide between the files, the length of the battalion front, but to be prepared to take the proper formation, if closed.

An officer to be on each battalion flank, and with each line to prevent overlapping, and also to maintain distance and direction; and a suitable proportion of officers and non-commissioned officers to be with each portion of their companies.

The rear company to follow in slightly open order if under fire.

Assuming the strength of battalions to be 400 files the first formation would cover 1030 yards, the thinner order 1450 yards, giving respectively nine men, and five men to defend each yard.

The infantry of the division would stand;

1st. One line of their skirmishers.

2nd. At 200 yards, a moderately thick line of skirmishers.

3rd. At 200 yards, a dense line of skirmishers.

4th. At thirty yards, one company of each battalion.

5th. At 1000 yards, battalions in line.

6th. In the formation A at 1000 yards, columns of battalion in reserve.

The advantages of this system are thought to be:

1st. Simplicity in advance or retreat, each skirmisher moving straight to his front, or, if driven back, straight to his rear.

2nd. Advance or retreat would not destroy the integral formation of battalions.

3rd. Reinforcement of any line would be a step towards the re-formation, and when fully carried out would result in the re-formation of the battalions in line.

4th. Retrogression of the leading lines upon the rear would place each skirmisher in the primary formation next his comrade.

5th. Each battalion commander would have his command concentrated as regards his position to the enemy; and, in the second order, the brigade would be concentrated as regards command. The attention of the enemy and his heaviest fire would be probably directed on the first skirmishing line, and the others (except perhaps the second), would be under full control.

6th. When the three (or more) skirmishing lines are within the zone of small arm fire, the extended order would lessen danger—show no groupings—and pretty equally distribute the points at which an enemy would aim, over a considerable and unusually large area. This chequered order would, moreover, distribute aimed fire, instead of inviting its direction on one line of skirmishers and supports in dense order.

7th. Echelons of skirmishers, on the system of alternate support, could, with much facility, be employed; and skirmishers of one battalion in line, with the 'two deep' line formation of another, could be used in combination.

8th. The attention of the enemy being more or less occupied, as regards its skirmishing fire, by the first line, the second (to a certain extent masked by smoke) would join it, and intensify the fire which would preponderate over one uniformly maintained by troops not successively reinforced. When this preponderance was obtained, further advance in denser formation might be attempted.

9th. Attack or defence demands 'two deep' battalion lines, at the point of collision with the bayonet; and it is assumed that this system would solve, to some extent, the problem of being so placed, with a minimum of exposure, until the moment of contact, and at that moment joining battalions together, fairly formed, and, without the lateral movement necessary in skirmishing lines, covering more than a battalion front.

10th. The decrease in density of the lines, towards the enemy, may be considered proportionate to the danger of each, under musketry fire.

11. The distance traversed by the skirmishers would be less than where they radiate from special battalions employed to cover a brigade or division: the avoidance of doubling towards, or from a flank would save time, and that hurried breathing, with its attendant bad shooting; there would also be less risk of misconception in selecting positions, or confusion, and perhaps a loss of moral effect—for a tactical requirement would be fulfilled by each section, company, battalion, and brigade, being led by its own component parts.

12th. The detached company in rear of each skirmishing battalion, would be employed to fill up any gaps which might occur in the brigade, on its reaching its forward position, attenuated."

"This issue last autumn of the 'provisionally approved' instructions on infantry piquets, drawn up by Major-General Lysons, was clearly an acknowledgment of the inadequacy of our regulations on outpost duty. The recent withdrawal of the provisionally approved pamphlet, therefore, relegates us to our former state of being confessedly without sufficient instructions for the performance of this immensely important operation of war, and it is to be presumed that the deficiency of our field exercise book in this particular will be shortly made good. Meanwhile, it is interesting to note the deductions which the French have drawn on this point from the lessons taught by the late war, since it is universally admitted, and by none more readily than by the French themselves, that more than one of the most disastrous reverses which befell their arms during the campaign of 1870, was directly attributable to the inefficiency of their outpost system. Consequently, as might naturally be expected, we find a large portion of the recently published 'Instruction pratique sur le Service de l'Infanterie en Campagne,' devoted to a consideration of this subject. The partition of outposts laid down in this work consists, as in the Prussian system, of sentries, pickets, supports and reserve being thus directly in opposition to the arrangement proposed by General Lysons, which, discarding supports as useless and prejudicial, divided the force on duty simply into sentries and pickets, an organization which probably, because of the assertion that such a disposition was based on the experience of the Peninsular war, was praised with somewhat extravagant adulation by more than one of our contemporaries only a few weeks before it was officially annulled. As a normal distance the reserve is to be posted from 1000 to 1200 metres in advance of the main body, the supports 600 to 800 metres in front of the reserve, the pickets 400 to 500 metres yet further to the front, and the sentries from 200 to 300 yards before the pickets. With regard to the vexed question of the position of the sentries at night, the French instructions are particularly valuable, pointing out how great a mistake is committed in withdrawing sentries from the crest of a hill into the low ground, since thereby not only is ground surrendered to the approach of the enemy, but the men are deprived of the advantage which, being stationed on high ground, it affords them of hearing the sounds of an advance of the enemy. If being on the skyline renders the sentries too conspicuous, the disadvantage may be easily remedied by advancing them a few paces down the slope. The danger incurred by a too rigid adherence to the rule that sentries should never be placed near a wood is also forcibly pointed out, and it is shown that many of the surprises which precluded defeats were owing to the horror which French officers had of placing sentries near such cover, thereby leaving it available for concealing the advance of the enemy."

The above from *Broad Arrow* of 15th January shows that Major-General Lysons has acted with commendable foresight in withdrawing the 'pamphlet' on "Infantry piquets" as cast iron rules in this case are of no use.

A vigilant Commander-in-Chief in the field will arrange his "outpost duty" so as to throw as little as possible of its harrassing details on his infantry which he will adapt it to the topographical features of the district in which he is operating. The cause of

Prussian success during the late contest was not materially helped by the clumsy manner in which their outpost duty was performed, but by the total absence of anything like vigilance on the part of their opponents. Indeed, an active and daring adversary would have made the Prussian system of outpost duty the means of harrassing their whole force so that its mobility would be seriously compromised, and it is well known what would then happen.

"An ingenious and simple arrangement for improving the back sight for rifles has been invented by Mr. S. Hill, of New Street, Borough Road. Its object is to do away with the haphazard or uncertain aim, and blur from the effects of sun, strong light, and most especially from wind, the sighting bar being extra and traversing on front of old or other ordinary sliding sighting bar. The top of the same having a reversed V thus Δ to aim through, this peculiar shape prevents, to a great extent, the sun and light from affecting the aim. This bar is also made to traverse, by means of a screw, either right or left, thus giving a wind gauge on the ordinary or back sight slip that is sufficiently open. With this apparatus, we are assured, the firer will get as true a wind gauge as can possibly be had, and can always aim dead on his object, at the same time retaining all the advantages of the ordinary open bar and fixed foresight, and is most especially adapted for the Martini rifle, but can be used on any rifle. With the Martini, for example, the ordinary sliding bar would be marked with and to a scale which shows the degrees the moment the screw is turned. To move the new traversing or sighting bar this scale is arranged so that each will direct the line of fire off the object aimed at. Mr. Hill has supplied a need which riflemen have long felt."

The above is copied from *Broad Arrow* of 15th January for the benefit of our marksmen. It appears to be a very simple arrangement, but only practical experience can show how far it is applicable to military weapons and use. We are no admirers of fine shooting, knowing full well its value in practical warfare.

CORRESPONDENCE.

The Editor does not hold himself responsible for individual expressions of opinion in communications addressed to the VOLUNTEER REVIEW. The real name of the writer must invariably accompany each communication to insure insertion, but not for publication.

To the Editor of the VOLUNTEER REVIEW.

Sir.—The most important session of our Local Parliament closed at noon on Friday last, with most of the ceremonies and military display usual on such occasions. The Guard of honor furnished by the companies at present on Active Service here looked and marched well, and the great improvement manifested by them in their general appearance and steadiness in the ranks since their last public parade was the subject of considerable remark. For some reason the Artillery portion of the Garrison did not carry out their portion of the programme, for when the time came to fire "the salute"

in honor of the Lieut. Governor's approach, the guns (the two splendid new 9-pounder rifle guns which were only issued out of store last fall) were found to be "not in a serviceable condition," and therefore the usual, and some people say, *necessary salute* was not fired, and the guns had to be "limbered up" and taken home. It is said that when the order to "load" was given, the guns were found to be stopped up, that hot water was procured, the sponge wet and rammed home, where it froze fast, and that the sponge handle was broken in attempting to withdraw it. If this is true, and I have every reason to believe it is, it is really too bad that guns of any kind, let alone such beautiful and effective pieces of field artillery as these, should be so kept that such an accident as the foregoing, should be a possibility. And people here who have had in times past something to do with artillery both in camp and in armoury are asking where were their aprons and their tompons, and how and where have the guns been kept. Were they in "gun sheds" duly locked and secured and subject to frequent inspection, or were they packed under the eye and constant view of the guard? And surely this last would not be too much to expect even if they are exposed to all the changes of the weather in this place of extremes in temperature. I write at full on this unpleasant subject because of the sneers which have been flung indiscriminately at the whole Volunteer Force of the Province, and in order if possible, to hinder a repetition of such an occurrence, and thus save the Force from being charged with inefficiency and neglect of duty. I see that questions are being asked in our local papers in regard to this matter, and if the authorities should answer in any way I will let you know.

We are now (as people say) paying up for the mild weather which we had in the early part of the season—our thermometers going as low as 43 below zero.

There is as yet no signs of a change in the way of dealing with the Provincial Militia, the same neglect &c., &c., which has prevailed for the last four years still prevails and has almost killed the "military spirit" here. Why this difference between our treatment and that of British Columbia?

I remain,
E. J. O.

Winnipeg, 7th February, 1876.

We have no doubt when this comes under the notice of the Major General commanding that proper enquiry will be instituted in regard to this matter.—Ed. Vol. Rev.

We are glad that the General Commanding our Canadian Army, has deemed it advisable to issue a general order regarding dress regulations—wearing of badges &c., &c., as there has been such a diversity of opinion existing amongst officers of the Force in

regard to it. We regret that it is out of our power to publish it in this number of the Review, owing to its length and the late hour it reached us, it will however appear in our next.

Russia and Turkey.

The following exposition of the views of Russia with regard to Turkey, which is given by a Constantinople correspondent, is interesting at the present time. He writes:—

"Whatever might be the drift of Russian policy in former ages, the Russians say it is inconceivable that sound-minded politicians should take no account of altered circumstances, and should not see that, if the aggrandisement of their Empire at the expense of Turkey was ever contemplated by their rulers, such a scheme has now necessarily and irrevocably been abandoned. Turkey may have been to Russia what Cuba was to the United States of America. So long as the American Union was a slave holding community, Cuba, as the only slave market, would have been, to the Washington Cabinet, a priceless acquisition: but since the triumph of the cause of abolitionism at the end of the civil war that island with its half million of slaves would be a burden and a cause of strife to the Americans, who now would never take it were it offered to them as a gift by Spain herself and with the world's consent. Upon the same ground, the Russians reason, the Government of St. Petersburg, whatever may have been its former views, would now for its own sake, shrink from the responsibility of subjecting to its sway twenty millions of subjects of various races, creeds, and language, discordant on every subject except on the one of the antipathy which all of them—Roumans, Greeks, and Slavs—cherish and openly evince towards Russia. Were she bent on crossing the Danube and overrunning the Balkan Peninsula, she would have to reckon on the enmity not only of the Ottomans, but also of those Principalities of Moldavia, Wallachia, Servia, and Montenegro which, 'out of pure Christian and human zeal,' she herself most powerfully contributed to withdraw from the unbearable Mussulman yoke; and she has work enough in hand in her endeavour to achieve the subjugation of wild hordes in Asia, without taking upon herself the government of European tribes, bearing the brunt both of their hostility and of that of their many and powerful sympathisers. That Russia feels cramped and stifled in her inland position, and that she might wish, for some better outlet than the Baltic, and for an access to the Mediterranean through the Bosphorus and the Hellespont, no man could deny, but she feels that the possession of Constantinople and the Straits would involve a necessity for a conquest of the whole of Roumelia and part of Anatolia, compelling her thus to swallow much more than she could digest.

"Moreover, granting even that Russia might have both the wish and the power to occupy Constantinople, when she had achieved so great a conquest, what would she do with it? Would she find the organization and administration of Provinces inhabited by half-civilized and yet corrupt, discordant, and seditious races as easy a task as their subjugation? Could Constantinople and Pera and Galata and the Fanariotes, and the Slavs, and the Armenians, and the rest, be governed from St. Petersburg? Would not Russian colonization become the necessary consequence of a Russian occupation? Or can any sane man imagine that the Emperor

Alexander would follow the example of Constantine, and transfer the seat of the Empire from the Neva to the Bosphorus? Can it be supposed that the Muscovite, who is now awakening to a proud sense of his nationality, would abandon the bracing climate, the hardy yet fertile soil of 'Holy Russia,' wherein lies the compact strength of his colossal state, to expose himself to the enervating influence of southern regions? Would he not answer in the words of Frederick Barbarossa, when the Romans tempted him to exchange the deep flowing Rhine for the creeping waters of the shallow Tiber? The Russian feels that his snow and ice are his proper element, and that Byzantium would offer to the Northern Eagle as unsafe a perch as it proved to the too grasping Roman bird. On the other hand, could Constantinople be reduced to the condition of a provincial town? Or would it be practicable to give the Russian Empire two centres, and make experiment of that dualism which answered so indifferently at Rome, and which is as yet on its trial at Vienna?

"Still, if Russia either does not covet Turkey or looks upon it as 'sour grapes,' what projects does she entertain with respect to the solution of the Eastern Question, and in what sense is she exercising the influence which she doubtless possesses over the Porte, and upon which her adversaries put so sinister a construction? The policy of Russia in Turkey, the Russians say, is twofold. She endeavours to keep the Ottoman Empire together as long as it will hold, and she lays the basis of the new edifice which may at some future time rise on its ruins. In pursuit of the first object she suggests to the Porte such broad measures of reform as may establish a *modus vivendi* suitable to the various races and creeds subject to its sway. With a view to future contingencies she sanctions, if she does not encourage, the development of self-government in those provinces which, like Roumania or Servia, are no longer amenable to Ottoman rule, and whose aspirations to independence can no longer be curbed. Were the period for the dissolution of the Turkish Empire and for the expulsion of the Mussulman from Europe to arrive, Russia's scheme would be, in the opinion of the Russians, to establish a confederacy of states in the Balkan Peninsula, possibly also including the Asiatic Provinces on the Straits and the Propontis, which might have its centre on the Bosphorus, where Stamboul, Galata, and Scutari would be raised to the rank of a free city, or perhaps of three free cities, the whole community being erected with the sanction and placed under the joint protection of all the European Powers.

"There is, in my opinion, not a little that sounds specious and plausible in all this alleged apology and revelation of Russian policy. I do not, however, take upon myself to vouch upon its sincerity, or to judge of its practicability, I limit myself to a plain statement. Only, in reference to the execution of the first and immediate part of the programme, I must state the common belief that the scheme of administrative, judicial, and financial reforms which the Porte will, tomorrow or next day, send in, as a circular, to all the diplomatic representatives of the foreign Powers, has certainly been drawn up by the Grand Vizier, Mahmood Pasha, upon the 'disinterested and benevolent' advice of Russian agents, and that, such as the reforms are, they will in all probability be scouted and scorned, not only by Russophobian Levantines, but also by some Turks of an independent mind and especially by Mithad Pasha, who left the Cabinet because he thought that the

DEEP SEA SOUNDINGS.

Mariner, what of the deep?

This of the deep—
Twilight is there, and solemn, changeless calm,
Beauty is there, and tender, healing balm—
Balm with no root in earth, or air, or sea;
Poised by the finger of God, it floateth free,
And, as it treadeth the waves, the sound doth

rise.
Hither shall come no further sacrifice;
Never again the anguish elude, at life,
Never again great Love and Death at strife,
He who hath suffered all need fear no more,
Quiet his portion now for evermore.

Mariner, what of the deep?

This of the deep—
Solitude dwells not there, though silence reign;
Mighty the brotherhood of loss and pain;
There is communion past the need of speech,
There is love no words of love can reach;
Heavy the waves that superincumbent press,
But as we labour here with constant stress,
Hand doth hold out to hand not help alone,
But the deep bliss of being fully known,
There is no kindred like the kin of sorrow,
There is no hope like theirs who fear no morrow.

Mariner, what of the deep?

This of the deep—
Though we have travelled past the line of day,
Glory of night doth light us on our way;
Happiness that comes we know not how or whence,
Rainbows without the rain, past-diller sense,
Music of hidden reef and waves long past,
Thunderous organ-tones from far-off blast,
Harmonious victrix clothed in state sublime,
Crouched on the wrecks begemmed with pearls
of time:

Never a wreck but brings some beauty here;
Down where the waves are stilled, the seashines
clear;
Deeper than life the plan of life doth lie,
He who knows all fears naught. Great death
shall die.

"England Without a Navy."

The title of our article is not ours. We borrow it from a sensational pamphlet in circulation, and not because we believe in the pamphlet, but because we intend to make a few remarks upon it. And by way of a preliminary, we may observe, that the use of the pamphlet, as a vehicle of attack, has gone out of fashion of late, in spite of its undoubted advantages. Write an article in a newspaper and it is easy for anybody to send a letter in reply to it, and the editor's honour is to some extent called in question if he does not insert it. But when you have written and published your pamphlet, concealing your name, the responsibility connected with an answer is shifted on to the shoulders of the man who writes it, and perhaps the expense will deter, or the thing may hardly seem worth while. Pamphleteering preceded decent journalism, and it now figures as what is called a "survival," though perhaps not of the "fittest." As a method of irresponsible attack, the pamphlet holds its ground, and is often useful. But it should not be rashly employed, and when it undertakes to be rational care should be taken to provide against the reasoning being that for which madmen are conspicuous, in that, as Locke says, they reason correctly but from wrong, often purely imaginary, premises.

The pamphlet we have before us deserves attention, not for any merits of its own, but by reason of the endless fascination connected with all naval questions. We have no wish to be severe, but we have no hesitation in saying that this alarmist production is either the work of a very young man, or a very old one. There is a certain delusive juvenility about it, either based upon absolute ignorance, or that kind of superiority to whatever exists characteristic of age, the sort of age which would say, "The Navy is going to the dogs," and expect to be regarded as quite Solomon in so saying. We have had the patience to read it, and we are quite sure that more than eighteenth century take it will lay it down again without

being able to say as much. Why, then, do we refer to it at all? Because it has a delusive title, because we desire to stand up for the Navy against sweeping attacks, and because, whilst we do not consider the Navy perfect and have not spared our criticism, we cannot consent to see it served like a policeman in a barlequinade, for the amusement of gods, grandmothers, and grandchildren. Further, we distinctly affirm that it was possible to have rendered some service to our fleet by a judicious series of criticism, based upon facts, instead of doing as the writer of this blue covered pamphlet has done, namely, struck wildly out, missed a good opportunity, and heaped ridicule upon what does not deserve it.

It will be observed that we are considering the effusion in a serious light. We may be mistaken in so doing. The writer may have intended it as a sort of seasonable joke, a pantomime, and he may laugh at us for not seeing his wit. Perhaps we are thick-headed, or thin-skinned, but when a man solemnly undertakes to prove that we have no Navy it would be unfair to consider him buffooning, unless he somewhere lets us into the secret of his mirth. If there had been a note at the end, even in pearl type, saying, "The preceding is intended as a *jeu d'esprit*," we could have laughed over it, even as a poor joke. But the writer is grim in his seriousness, he displays his little chapters in the middle of ample pages, until they look like awkward squads in a drill ground; and he ventures upon suggestions that make us start as patriots and shriek as taxpayers. He declares that "England has not a Navy," that he has long known it, that he has kept the secret, but that now our enemies know it, and the danger is great, he is bound to speak. Indeed, he seems to suggest that we have had no navy ever since the Crimean War, when we set about creating one. Since that time, he says, "England has paid £100,000,000 for creating a Navy (which does not exist), and England has also paid £100,000,000 for the maintenance of a Navy which does not exist." This 31-ton gun blank cartridge makes a great noise and splutter, but it is really very harmless. This is how the writer gets over a difficulty. Granted that one hundred millions have been spent upon the Navy since the Crimean War, what ought we to show for them? The reasonable method would be for the writer to take the list of ironclads and unarmored gun vessels built since that date, and give their names, their tonnage and their armaments. He would find that more than sixty ironclads had been built between 1855 and 1875, to say nothing of unarmored corvettes and others, useful for particular service. But this is a specimen of this ratiocination. "How many large fleets could be constructed with £100,000,000 sterling? Answer—200 of the finest men of war! Where are they? Where! What, then, has become of the money?" The cost of his finest men of war (one man of war, by the way, is not "a fleet") would be £500,000. Now the *Achilles* cost £470,330, the *Black Prince*, £378,310; the *Agincourt*, £455,038; and the *Hinolulu*, £378,555. These figures it is to be understood, do not include everything, as establishment charges at the dockyards, excess of cost over estimate, and so on. We doubt whether every one of the vessels we have named cost a farthing less than £600,000. Then some margin for experiments in plating, guns, and gear must be left by any honest mind. The method of division adopted looks effective, but it is unfair. The same may be said of the pretended account of the expenditure

of the other one hundred millions in repairs, dockyard work, pay, and establishment and administrative charges. If we had set out, in 1855, to build two hundred first class men of war in twenty years, our naval charges would have been double what they were during that period. We could not build two hundred *Warriors* for £100,000,000 at the present time were we to try. The expenditure of the twenty years' money shows what we have done. The returns are accessible, and we shall not insult the common sense of our readers by going into details. We will, however, allow the author of this amazing pamphlet to give his own version of historic fact. "Where is this fleet now? It is there in the Navy List. All right! Twenty or thirty ships 'On paper' all right! In plain truth 'all rotte—worthless—as a fleet non-existent. Not one in every ten ships could be used tomorrow to fight an enemy! All those millions spent in worthless make believe! Our £200,000,000 has therefore brought us two fleets—the rotten fleet' (meaning, we suppose, the wooden armoured ships) "and the rammed fleet, the former unfit to fight, the latter quite fit to go to the bottom." Words, wild words like these, are easy to write, and unworthy of serious refutation. The writer was unconscious of thinking of his 200 ships built at the rate of ten per year. What a fleet it would have been! What a puissant, invincible Navy! What a collection of obsolete types and bloody-eyed sea-dogs!

But let us give our pamphleteer the benefit of his creative ideas. A man may wish to bring down what he attacks with trumpet-blasts, as the walls of Jericho fell, disdaining sap and battering ram and the usual science of assault. He may be impatient to begin the construction of his own bold ideas. Let us follow the writer a little further, and repress, if we can, the smile that is not without an element of pity in it, when having demolished our fleet by a little verbiage and tall talking, he asks us if we want such a thing as a navy. Of course, if we do, he is the guiding star which will lead us into the right path, the Pygmalion who will infuse a soul into the dead marble, the patriotic genius who will inspire us, give us a plan, and make taxpaying a fine art. We are told to beware of men who are about to make revelations. Let our readers nerve themselves and get ready to mutter the right charm—*Broad Arrow*—in case they should find themselves in the middle of some Walpurgis dance of demons and witches, with rope-ends for broomsticks. Ahem! Enter the author. "The creation of an effective fleet implies the immediate outlay of fifty millions sterling. For that sum in cash, voted at once, England can have a fleet—not otherwise. £50,000,000 cash!" We hope the revelation is sufficiently startling. Our quotation is just one half of chapter XI., and the blank space beneath, some two and a-half inches deep, fitly represents the amused bewilderment of reader. These huge blanks are obviously designed for the comments of the reader, for we cannot for a moment suppose they represent the blanks in the mind of the writer. Now, while the author is amusing himself with chapters about peace and war, and such obvious child's puzzles as the query, "What is a British man-of-war?" we will consider what he could do with his fifty millions. On his own scale of cost, he could build 100 men-of-war. It would take five years to do the work, using all our resources, royal and private dockyards, and in the ten years after they were launched they would be out of date, or to be classed

by some future pamphleteer as "rotten" or "rammed." Building war vessels in the mass, like this, is about the best way we know of to ensure having little for your money, rotten timbers, defective plates, useless engines, and old fashioned guns. A steady, quiet progress, is the only one that can make a Navy.

The plan demands a few more words. We want six fleets, says our sage: one for the East coast, the West coast, the Channel, the Mediterranean, the Atlantic, and the Eastern Seas. Perhaps we have one, and so there would be five to build. Here is his table of contents and prices for each fleet:—

10 sail of the line.....	£5,000,000
10 frigates	2,500,000
10 sloops	1,250,000
100 gunvessels, &c	1,250,000

£10,000,000

Who is to build the five new fleets? Form a special body, says our author, if we think the ordinary Admiralty cannot do it properly. Find "two Statesmen acquainted with naval affairs," two admirals, two shipbuilders, place them in connection with an *ex officio* Lord of the Admiralty, and the Chancellor of the Exchequer, "to settle once for all What our fleet is to be?—How is it to be constructed—What it will cost—and How to find the funds." What a charming solution of a gigantic problem! And what serene trust the writer displays in the new Naval Board! Six men to make a navy, a fleet apiece, out of £50,000,000 cash. Why, gelatine is less easy to extract from old boots. When would it be ready? When would it be out of date? How long would it be before another fifty millions would be wanted? What will the taxpayer say? How is Parliament to keep its hands off a long string of First Lords? But, why need we ask such ridiculous questions. The pamphlet before us is a joke, and we may hear before long that Mr. Ward Hunt knows the author of it.

The Oboukofsloi Steelworks.

The General and I had discovered each other in St. Petersburg, and having combined our forces, were "doing" the many interesting sights which the Russian capital affords. Having seen all the greatest hone in the city, we concluded to take a trip to the Oboukofsloi steelworks and examine the great guns. This is a foundry owned by civilians, but, being engaged in manufacture of arms for the government, is under the supervision of an officer of artillery who has to assist him one or two subalterns of the same arm. These officers were fitted for their duty by nearly a year's study in the great Krupp works in Prussia.

So one pleasant morning, being provided with letters of introduction to the commandant, and an interpreter, we stepped into a carriage and sallied out. . . . We were finally landed in front of a sombre brick guard house, ornamented by one sentinel and a half dozen sallow orderlies. Sending in our letters, we were shortly conducted to a rather pleasant office, when we were welcomed in a very cordial manner by the captain in command. Upon our expressing a desire to see the works, he immediately offered to guide us in person, an overture which we accepted the more gladly as he spoke English with perfect fluency.

We walked first to the stone wharf with its mammoth Fairbairn craue, used in

hoisting the guns into the lighters which float them down to Cronstadt to be tested. On the Wharf are piled large numbers of shot and shell, which have been picked up on the ice after winter, tests, and returned to this place to be refitted with leaden jackets. Next we passed into the furnace room, where the raw material is worked up in preparation for casting. After the puddling process the steel is cast into ingots, which are then drawn out into long square bars, 1½ inch in thickness. These are then cut into cubes, and pass into crucibles for melting. After examining the puddling furnaces, and admiring the apparent ease with which the bars were cut up by the guillotine like machine used for that purpose, we passed into the moulding department. This was an extensive building shaped somewhat like a double cross, the space between the two cross galleries being filled by a double row of furnaces. Midway of the main hall was the mould, the top flush with the floor, and above this a system of troughs to receive and conduct the molten metal when poured from the crucibles. At each of the furnaces we saw a crucible covered by a loosely fitting lid of iron. Some of these were opened for our inspection, and we could observe the blue flames playing over the surface of the molten contents. There were altogether 400 crucibles, each holding about 200 pounds, in tending which 600 men are constantly employed. We regretted our not being able to wait for a few hours, as they were preparing to make a casting later in the Evening. Under ordinary circumstances they can turn out a casting of 45 tons; but the largest actually made has been 42 tons, this being for the breech half of the 51 ton gun now in process of construction.

Next we visited the hammer shop, a long roomy building with a high arched roof, and a series of steam hammers extending down the centre. Opposite each hammer was the furnace for heating the article to be worked. These hammers weighed respectively 3, 4, 10, 15 and 50 tons. The latter was a monster, and we had the good fortune to see it in operation. It was erected some years ago by Krupp, being the counter part of the one in his works at Essing. The arched support of the hammer is 25 feet in height, and the instrument is handled by an engine of 350 horse power, with a piston stroke of 12 feet. The foundation, which is in all 75 feet deep, consists of an iron cylinder, 50 feet in depth, and 25 feet in diameter, filled with concrete. On top of this are placed three cylindrical masses of iron, weighing 160 tons each, the upper one having a diameter of about 10 feet. On this bed is placed the anvil, a heavy mass of iron hollowed at the top to receive the gun to be worked.

The tall iron doors of the furnace were thrown open and an 11 inch gun at a white heat swung out and placed on the anvil, being moved and revolved between the blows by means of chain slings. The massive hammer was manoeuvred with astonishing ease and smoothness, but the effect of its descent was that of a young earthquake.

Having been duly hammered, and then gradually cooled in sand, the piece passes into a shop where the waste is cut from the muzzle, a transverse boring made in the breech, and the mass prepared for the finishing room in which it next passes. The hoops which are to be shrunk on pass through the same process as the body of the gun, and in this room there is cut from each a ring, to be afterwards rested.

In the finishing room we found pieces of various calibres in every stage of develop-

ment, from the rough mass just run in to the finished gun mounted on its carriage and ready for transportation. In this department the gun is first subjected to the turning operations, by which it is reduced to the condition proper for the reception of the steel hoops. It is then placed on a long carriage and the bore started, by a drill which cuts out a solid core several inches in diameter. The gun then passes back to the furnaces, where the hoops are shrunk on. These hoops are from ten to eighteen inches in width and about two inches in thickness; the trunnions being on one of somewhat greater dimensions. We saw guns which had from 15 to 20 of these hoops, having in certain parts 2 and 3 sets, one over the other. This operation being completed, the gun returns to the turning room, when the bore is enlarged and rifled, the aperture for the breech mechanism completed, the breech block adjusted, and the whole painted. We had explained to us very minutely the two systems of breech loaders that were being manufactured—the Krupp and the French system. In the former the breech block traverses perpendicularly to the axis of the piece. In the latter, it is drawn out at the breech, being locked in by interrupted screw threads which fit into the interior of the chamber upon the block being revolved 90 deg. This system is used only for mortars. In all of the pieces a smoke ring of American invention is used. We observed two field pieces, but were told that such were seldom made here, the large 9 and 11 inch naval guns being turned out at the rate of one every second day. In a store room near the finishing department we were shown specimens of various guns made in the experiments which resulted in the present system.

The 51 ton gun to which I have referred, was commenced some time later than the English piece of the same weight, and will differ from it in this respect, that while the latter is a muzzle loader, the Russian will be charged at the breech.

We visited the gun carriage department where iron carriages are constructed for the monsters. Then the cabinet shop, where wood is worked for whatever furniture is needed in the foundry, and thence passed into the small arms division, where a small number of musket barrels are partially built, to be finished at the Imperial small arm factory at Tula. They were at this time making short rifles of the Berdan pattern for the dragons.

Near the office are the laboratories. From different parts of the core taken out by the boring machine are cut spikes, which, being properly marked, are sent to the chemist. Similar spikes are cut from the waste of the muzzle, and from each ring of the hoops before referred to. After being chemically analyzed these samples are marked with specific gravity and composition. Their counterparts are tested in the mechanical room for elasticity and tensile strength. For the latter operations several ingenious instruments of Russian invention are used.

The final test of the completed piece by firing is given at the batteries of Cronstadt. Thus for many of these guns have burst, and this system of breech loading for heavy guns is by no means an assured success. An incident occurred some time ago which demonstrates their unreliability. A 11 inch gun had successfully undergone the trial of a fixed number of rounds, and being almost the first that had done so, was to be exhibited to the emperor and his suite. Just before the time for their arrival, the contractor concluded to fire one round, in order

to assure himself that everything was in working order. That shot burst the gun, killing a number of the people about. How ever, since that time, many have stood the test, and have been accepted.

In order to economize the time of workmen when not employed on the guns, and also to put to use the large amount of scrap-steel, car wheels and axles are manufactured on quite an extensive scale. The wheels are not made solid as with us, but in this manner: The scrap is worked up in reverberatory furnaces, cast in ingots, and the ingots drawn out into bars about 2½ inches wide by ¾ inch thick. These having been cut to the proper length, are bent into a triangular shape, the two ends being separated somewhat at the vertex, and the base curved. A number of these triangles are then laid together with the open vertices toward the centre. The two adjacent sides of contiguous triangles being welded together form the spokes, the free ends being let into the hub, and a heavy flanged tire is then shrunk on about the curved bases.

Having occupied several hours in examining the different shops, we returned to the office and took leave of the polite commandant, much impressed with the extent of the works, and also with the kindness and courtesy that we had experienced, and which is certainly shown everywhere in Russia to an American officer.

The Fighting in Abyssinia.

An Alexandria correspondent, who believes he is in possession of the main facts, gives the following account of the dispute between Egypt and Abyssinia, and of the fighting which up to the present has been so disastrous for the latter country: "The dispute about the frontier line between Abyssinia and Egypt had already caused fighting on a small scale, and the Khedive, in order to end the matter, sent some two months ago what he considered a force sufficiently strong to protect his rights and bring Abyssinia to reason. An army of 2,000 men, armed with the Remington rifle, and commanded by Colonel Arendroop, a Danish officer in the Egyptian service, much esteemed for his military capacity, was landed at Massowah, at the entrance of the Red Sea, and ordered to march into the interior. Rakel Bey, the governor of Massowah, and Nephew of Nubar Pasha, commanded the rearguard, Colonel Arendroop, the leader of the expedition having charge of the main body; while Count Zichy, an Austrian officer, the nephew of the Austrian ambassador at Constantinople, who accompanied the expedition as a volunteer, led the van. They reached Gundet, ten days' march from Massowah, without difficulty, and there they received orders to march on Asawa, in the interior of Abyssinia. On the way they encountered the whole Abyssinian army, stated to consist of 30,000 men, armed, many of them with the Snider rifle, and led by King John in person, who was accompanied by his English General Kirkham, an English non-commissioned officer who fought under Gordon in China, and subsequently, having come to Abyssinia with the English, remained behind after the taking of Magdala. The Egyptian vanguard was first attacked. Colonel Arendroop pushed forward with two companions to their assistance, but he could not make head against the superior numbers, and fell back, followed by the enemy. The fighting was severe, and when with difficulty he reached his main body he had only five men

left. The case was now desperate. Rakel Bey, in the rear, was attacked, and fell fighting bravely at the head of his men. But Arendroop, with the remainder, had no thought of surrender. He formed in square, and, though there could be only one result, the Egyptians held their own as long as their ammunition lasted. The enemy was well armed, and the carnage was great. Poor Arendroop fell shot dead in the breast. Even the loss of their gallant leader did not shake the Egyptian troops. They still stood firm, and at last, when the cartridges were all expended, an Arab colonel, though already wounded, led them on against the enemy in a final bayonet charge, and was killed at the head of his men. They were almost all shot down or cut to pieces. It was a long, stubborn fight. The enemy suffered severely, and had the numbers been at all equal Egypt must have won the day. As it was, they fought without hope from early morn to afternoon, and only a mere handful were taken prisoners. These, with unusual magnanimity, were sent to Massowah to tell the tale by way of warning.

"Egypt suffers almost more by the loss of officers than by the loss of troops. Egyptians, like all partially civilized races, can fight only when well led, and good leaders are hard to find in this country. Rakel Bey was one of the most promising of the younger generation of Egyptian officials. He was a man of education, a clever member of a clever family, and possessed of great courage and determination. Colonel Arendroop was a man of great capacity. He had a thorough military training as an engineer in Denmark, and, having come to winter in Egypt for his health five years ago, he was induced to enter the Egyptian service. His military training and capacity at once secured him the confidence of the government, who showed the trust they placed in his powers by giving him the command of the troops in this unfortunate expedition, and the noble gallantry he displayed proved the confidence was not misplaced. Colonel Arendroop was a very popular man; his high moral and intellectual character had won the esteem of the European community, and his fine soldierly figure and pleasant face will be greatly missed at many a house in Cairo.

"Of course, this massacre does not end the strife. The Khedive realizes that his opponent must not be despised—that he is in fact, formidable, both by his army and his geographical position. Great efforts are therefore, being made to concentrate all available troops at the seat of war. Five thousand men left Suez, with some elephants recently imported from India, three days ago, and more are leaving every day. Generals Loring and Reynolds, men who made a name and learnt how to handle armies in the American war, go in command. A proper commissariat is in course of organization. But the victory will not come without struggle. The strife is now bittered by religious hatred. It is Christian against Moslem, and the Abyssinian, who has no superstitious dread of the Egyptian as he had of the Englishman, means to fight. The result will be very anxiously expected here. Although there is a general feeling that Egypt mistakes her true policy in extended conquests, the desire is nevertheless universal here that the only civilized power in Africa should be victorious in this unfortunate strife."

The Cavalry Brigadier General, Zoroodo, was captured by the Alfonsoists in the battle of the 13th February.

LONG SERVICE PRESENTATION.—After the Halifax Field Battery, under the command of Capt. J. R. Graham, had fired the customary salute yesterday afternoon at the opening of the Legislature, the captain called Sergeant Jeromish Barnstead to the front, and presented him with a medal which has been designed to decorate those who have served twenty-one years in the Battery, and for good deportment, and of which Quarter master Harry Artz was last year a recipient. Sergt. Barnstead completed his 21st year of service in November last. A similar medal was ready for presentation to Sergt. James Carr, (who has likewise completed the term) but who was absent on account of a death in his family. The medals are of silver with a gold monogram space for the name of the Battery, and containing an inscription setting forth the presentation, date, etc., the whole the neat workmanship of Bennett Bros. In this connection, it may be noticed that nobody can on parade day glance at the fine physique of the men without reflecting that such pursuits to occupy leisure time are calculated to be very much more advantageous than the way in which spare moments are spent in the large majority of instances.—*Acadian Recorder.*

The *Naval and Military Gazette* informs its readers that, as torpedoes, both offensive and defensive, are being extensively introduced into the Naval Service, it has been resolved to manufacture not only them but the galvanic batteries and other apparatus to form the torpedo equipment. This manufacture is to be carried on at the Royal Laboratory, Woolwich. At first the electric appliances were furnished by private makers, but Colonel Fraser, R. A., the superintendent of the department, has in conjunction with Professor Abel and the officers of the Chemical Establishment, arranged a system of manufacture under his own supervision which will be of material advantage to the Service. The torpedoes and their accessories form a conspicuous part of the special display which the department is now making in honour of the Christmas visitors.—*Broad Arrow.*

DEATH OF A VOLUNTEER.—An affair happened on the 2nd inst., at Big Sandy, Benton County, Tennessee, which resulted in the death of a young man, a native of Montreal, named Peter Taylor, who met his death by being run over by a train of cars. He was once a member of the Victoria, and was one of the gallant volunteers who accompanied General Wolsey in the first expedition to Manitoba. After his return home his health failed him, and he went south for its recovery, when he met with the lamentable accident which caused his early decease. He was a son of Mr. John Taylor, of Montcalm street, and his untimely end will be regretted by a large circle of friends.—*Evening Star.*

The *Post's* Washington special says: "There is considerable excitement among naval officers over an order issued by the Secretary of the Navy yesterday, directing the United States steamer *Despatch* to proceed to sea to-morrow, with sealed orders. This steamer is the fastest vessel in the Navy, and was ordered here from Baltimore a few days ago for repairs; and it is not believed that she would be sent to sea now under sealed orders, unless in some unexpected emergency. Naval officers are of opinion that her destination has some connection with Cuban matters.

A gun carriage is manufacturing at Woolwich, is designed with a view to its "recoiling under cover" when the gun is fired, by the application of a curved and slightly inclined series of rails forming the quadrant of a circle, behind the emplacement, around which the carriage would sweep backwards and upwards, eventually attaining complete shelter behind the solid parapet of the fort or earthwork. When in this position, it was to be caught and secured. After being reloaded, it would, by its own gravity, descend into position again. The trucks of the carriages are to be constructed with deep flanges, so as to keep the rails while rushing round the curve. The object of this design was to afford perfect cover to the party working the gun, and to the gun and carriage themselves whilst being handled. A modification of this principal has been in course of development for a considerable length of time at the proof butts in the Plumstead Marshes, the *Army and Navy Gazette* states, and it has been found that little or no injury has resulted to the proof carriages, which have been fitted with ordinary railway wheels, so as to recoil up an inclined railway when the guns are fired. The 81-ton gun was fired in this manner from its "hogie" wheeled proof carriage. In point of fact, considerable wear and tear is avoided, as by the old arrangement of a huge wooden carriage recoiling up a steep platform the friction and consequent damage was enormous. The result of any experimental gun carriage intended "to recoil under cover" have not as yet transpired. "It is somewhat singular," it adds, "that a system which was adopted in a modified shape by the Chinese at the Taku Forts should be under consideration by us. It is, of course, only another form of application of the same power—the recoil. The Chinese attached their gun carriages to a cable wound round a revolving post firmly secured in a deep socket. By this means the recoil was checked, and a linked gun carriage was brought up into position. But no attempt was made by the celestial gunner to hide himself or his gun by any mechanical means dependent on the recoil. Hence the most important attribute of the power was lost sight of.

A singular difficulty has arisen at a court-martial in Aldershot Camp, England. An officer of the Twenty first Hussars reported himself ill to the court, but was told by the military surgeon major that he was not sick. The officer applied to three civilian physicians, who each granted a certificate of sickness and inability to attend the court martial. The issue of this medico military conflict is looked forward to with interest.

The material out of which the fabric known as Chinese of Indian grass cloth is manufactured is likely, it is said, either to be substituted for, or used in combination with cotton, flax, hemp, jute, wool, or silk, and to be valuable also in the manufacture of paper. But a more important fact is that this fibre or grass is three times stronger than the best Russian hemp, while it is much lighter, and, in addition to the great strength, it has a remarkable power of resistance to moisture. It is represented as being of as fine texture as flax, and exhibits a glossy lustre resembling silk.

The Russian Government is about to print a fac-simile in photo-lithography of the famous Babylonian codex, now in the Imperial Library at St. Petersburg, which contains all the latter prophets in the original Hebrew.

CIRCULAR No. 6.

QUEBEC, 31st January, 1876.

With the sanction of the MAJOR-GENERAL COMMANDING, a General Meeting of the Dominion Artillery Association, will be held at

OTTAWA, on the 2nd FEBRUARY, 1876.

The undermentioned have kindly signified their intention of honoring the Association by their patronage.

PATRONS.

- His Excellency, The EARL of DUFFERIN, Governor-General, etc. etc.
- His Honor, The Hon. R. E. CARON, Lieut.-Governor of the Province of Quebec.
- His Honor, The Hon. A. G. ARCHIBALD, P. C., Lieut.-Governor of the Province of Nova Scotia.
- His Honor, The Hon. S. L. TILLEY, P. C., C. B., Lieut.-Governor of the Province of New Brunswick.
- His Honor, Sir ROBERT HODGSON, Kt., Lieut.-Governor of the Province of Prince Edward Island.
- His Honor, The Hon. J. W. TRUTCH, Lieut.-Governor of the Province of British Columbia.
- The Honorable the Minister of Militia.
- The Honorable, the Deputy-Minister of Militia.

PRESIDENT—

MAJOR-GENERAL SELBY SMYTH, Commanding Canadian Militia.

VICE-PRESIDENT—

COLONEL WALKER POWELL, Adjutant-General.

The following have accepted the undermentioned offices:—

PRESIDENT OF COUNCIL—

Lt.-Col. T. BLAND STRANGE, Inspector of Artillery.

VICE-PRESIDENTS OF COUNCIL—

- Lt. Col. DE LA C. IRWIN, Inspector of Artillery.
- Lt. Col. DARRELL JAGO, Ass't. Inspector of Artillery.

MEMBERS OF COUNCIL—

- Lt.-Col. The Hon. LITTLETON, Grenadier Guards, Mil'y Sec'y to H. E., the Gov't. General.
- Lt.-Col. HEWETT, R. E., Com d't Mil'y College, Staff of Military Districts.
- Lieut.-Colonels Commanding Artillery Corps.
- The Director of Stores.
- Presidents of Rifle Association.
- T. BLAND STRANGE, Lt.-Col., Insp'r of Artillery.

Department of Militia and Defence.

SEALED Tenders will be received by the undersigned up to noon of the 29th day of February next for the manufacture of the following articles, viz:—

- 1,000 Tent Poles,
- 100 Mallets, square, large,
- 1,200 do Tent, small,
- 600 Tent Pins, Marquee, large,
- 1,500 do do medium,
- 75,000 do Tent, small,
- 200 Handspikes, 8 feet,
- 100 do 7 do

The Tent poles are to be of the best Red Pine, Malles of Hickory or Oak. Tent Pins of Hickory, Oak or Hard Maple. Handspikes of Hickory.

Samples of any of the above articles may be seen on application to the Militia Storekeepers at Toronto, Ottawa, Montreal or Quebec, at either of which places delivery must be made after inspection on or before the 1st June next.

"Tenders for Camp Equipment" to be written on the upper left hand corner of the envelope containing the tender.

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1776.

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