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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. VI.

OTTAWA, (CANADA,) MONDAY, SEPTEMBER 16, 1872.

No. 38.

NEWS OF THE WEEK.

The Autumn Manœuvres have been concluded in England. And the first trial of voting by ballot was attended with some queer results. Less than two-thirds of the electors exercised the franchise, and the proceedings were considerably delayed by the *red tapeism* of the proceeding in the case of illiterate voters who are put through a series of tedious processes.

The first election under the new law came off in the Borough of Pontefract, in Yorkshire: memorable in history as the castle at which Richard the Second was assassinated. Mr. Childers, the Government candidate, beating Lord Pollington, a representative of young England of no decided principles, but playing the role of Conservatism for the occasion by *eighty* votes. About 1100 out of over 1900 votes were polled, and if the Conservatives were organized or cared to carry in their man, they might have done so. He had, however, previously offered his services, whatever those were worth, to Mr. Gladstone, and no object could be attained by aiding a loose fish.

There appears to have been a total lack of interest in the proceedings which does not argue well for the welfare of the county, when the people will not take any part in selecting those who are to govern and legislate for the country, its affairs are very generally left to the mercy of doctrinaires; and England appears to be just now in that unenviable condition. Whether the experiment is a failure or otherwise, it is not yet possible to say; but it seems to have put a stop to rioting and disorder, leaving the course clear presumably for perjury and fraud. There can be little doubt that the tricks of New York State elections will find easy access to English electioneering practice, and stuffed ballot boxes be as common in Old as New York.

As might have been expected the International Congress has ended by forming itself into a political organization, so that the peace of the world is likely to be disturbed by the plottings of the offshootings of the population of Paris. It is said that the fear of Jesuits is a source of constant anxiety to more than one European Monarchy, but here

is an evil of a graver and more dangerous character than all the Jesuits since the days of Francis Loyalla, one more difficult to deal with and impossible to proscribe.

The fire at Canterbury Cathedral only injured the roof, luckily the main building escaped, and this venerable pile is spared from the ruin with which it was threatened. Culpable carelessness alone could have jeopardized it; and such monuments of art are safer from the ravages of time than from the stupidity of those engaged in their repair.

The English Volunteers proceeding to Belgium were denied the favor of having the Coldstream Guards' band, the Whig Radicals could send them *three thousand* miles away to a Yankee speculation at Boston, but would not so far encourage the military spirit of England as to countenance their appearance at the *Belgic Tir Nationale*.

The Geneva arbitrators appear to have kept their own council, the award being variously stated at from *three to thirty* million pounds sterling against Great Britain, of course it is all guess work, but we should be delighted if she had to pay the larger sum through the folly of her rulers.

President Tuilers proposes to move for the appointment of a Vice President when the French Assembly next meets. He is rapidly re-organizing the French Army, and supplying it with the best possible armament.

At Berlin there has been a meeting of the Emperors of Austria, Russia, and Germany, what the result of it all may be is a question time will answer, but those kindly re-unions invariably lead to bloodshed, and probably a re-construction of the map of Europe.

Russia has been fearfully scourged by cholera.

Land slides have occurred in Spain and the state of society there is not reassuring.

A great land slide has occurred at the entrance to the Mont Cevis tunnel, traffic on the railway has been interfered with for several days.

The breach between Cardinal Antonelli and the Pope has not yet been closed, the Cardinal, who is a good Statesman, disapproves of Pio Nono's opposition to the Secular Government

Pere Hyacinthe, the non-conforming priest

and the opponent of infallibility, demonstrated the truth of the principles on which his opposition was founded, by marrying a Yankee adventuress—a widow—and will probably figure in the Divorce Courts before many months, as the woman has a weakness that way.

The United States Mercantile Marine exhibits symptoms of revival, a new iron steamship has been launched at Philadelphia, and it is quite possible the rise in the price of iron and coal in Great Britain will have the tendency to give the manufacturing interests of the States a very decided impetus and we may hope again to see the Stars and Stripes floating over the ocean and to be found in every port.

The State of New York has acquired a Rifle range at Creedmore, in New Jersey, and we may hope to see an United States Wimbledon within a year or two. A very admirable Report of the Committee has appeared in the *United States Army and Navy Journal*.

Cuban affairs appear to be progressing in the usual style; the insurrection Brigandage, or whatever it is, keeps up an outside appearance, not creditable to any of the parties engaged; but it does not seem to possess any vital force, being more of a revolt against all authority rather than any definite purpose to separate the country from Spain.

Mexico is again in a state of revolution; the genius of the people seems to be decidedly against all steady constitutional rule, and they must be governed by the strong hand.

An attempted revolution in Peru has been put down by the people with great barbarity.

The elections have been concluded within the Provinces of Nova Scotia, New Brunswick, Quebec and Ontario. The Hon. the Minister of Finance has been returned by acclamation for Victoria, British Columbia; and no elections have yet taken place in Manitoba.

The annual Rifle Matches in Nova Scotia and Quebec have been concluded, and it is a good sign that a decided preference has been shewn for the military Rifle in all those trials of skill—fancy bores being evidently at a discount.

The Halifax Chamber of Commerce have affiliated with the Dominion Board of Trade.

The harvest prospects appear to be very good all over the Dominion, and the weather gives premonitory symptoms of the close of the season.

The working men of Montreal are about to present the Right Hon. Sir J. A. Macdonald, K.C.B. with a testimonial.

The *Great Eastern* is coming to Halifax with a new submarine cable.

A force of two hundred men, to replace those whose time has expired, will proceed to Fort Garry in a few days.

OUR COLONIAL FORCES.

In the "Army List" for the current month some additional information was given, which, though it appears several years after date, is none the less welcome. After a vast amount of discussion, and without understanding, opposition, it has been ruled that the forces of our colonies should be recognized in the pages of the "Army List," and the result is that at the end of the book about a dozen sheets are now devoted to a list of officers of the "Colonial Reserve Forces." Why this term has been applied to the Colonial troops it is difficult to understand, for the word "Reserve" implies the existence of other troops, to which the colonial corps would act as a support. As a matter of fact our colonies are now, almost without exception, left to their own military resources, and therefore Colonial Forces would seem to be at once a more simple and more correct description of the armies in question. This, however, is a point of detail, and could no doubt, if officially raised, be justified with equal official acumen by the competent authorities. The lists, however, speak for themselves, and convey to the British public a good deal of new and interesting information.

Arranged in alphabetical order the Militia of Antigua occupies the first place, and appears to consist only of Yeomanry Cavalry and a battery of Artillery. British Guiana, however, makes a better show, for in addition to a staff, in which an adjutant-general very properly occupies the first place, there are cavalry, artillery, rifles, and Line companies. The local forces at the Cape of Good Hope are out of proportion to the extent and importance of the colony. They consist exclusively of volunteers, and number but half a dozen companies. The sojourn, however of royalty at Cape Town has left its mark, for one corps boasts the title of "Prince Alfred's Own," while another, presumably of more recent existence, is designated by "Duke of Edinburgh's." Malta in addition to its Fencible Regiment, which ranks with the regulars, has a few Militia companies. Natal, which comes next on the list, has a somewhat pretentious force. There are regiments of Carbineers and Hussars, in addition to Yeomanry, Cavalry and Mounted Rifles, the Line Companies bearing the title of "New Germany Rifles." New South Wales seems to possess a considerable Volunteer Force, which, as far as it is possible to judge from its appearance on paper, would be carefully organized. The existence of a "Staff" and a "Volunteer Staff" would seem to imply the existence of a Militia; but of this latter service no mention is made.

It is, however, the army of New Zealand which takes the place of honour amongst the colonial forces whose existence is recorded in the monthly "Army List." Nor is it difficult to understand why New Zealand should possess a more considerable army than the other colonies. The island has unfortunately received a practical lesson in the art of self defence—and has evidently profited accordingly. The Militia of course comes first, and would really appear to be a very important force. The names of upwards of sixty field officers head the list, and there are two hundred captains, and twice as many more subalterns, all apparently available for "general service," for the list is not divided regimentally. The force moreover, possesses a sufficiently numerous medical staff, and some quartermasters also would appear to have served their apprenticeship in the Queen's Service. The

New Zealand Volunteers, however, are organized in the same manner seemingly as our own. About twenty troops of light horse head the list, and these are supplemented by a fair proportion of Artillery and Engineer corps, and at least seventy rifle companies. The administration of the volunteers would appear to be left to the Militia staff, for there is no Volunteer staff, and no officer of superior rank to that of major. Next in order and importance too, to the New Zealand force, comes that of Prince Edward Island, consisting of a few companies of "Militia Volunteers," and fifteen very substantial regiments of Militia. All of these are infantry battalions, however, and there is no Cavalry, Engineers or Artillery. St. Christopher has three troops of Militia, and St. Helena, both a Militia and a Volunteer corps; Singapore has a single company of Volunteers, and Turk's Island only a couple of officers. The Victoria force is evidently arranged on the same model as that of New South Wales, except that it is more split into companies; but it is numerically stronger, and the staff would seem to be more complete. Three companies of Western Australian Volunteers, under the command of a brigade Colonel, complete the Reserve Forces.

The first reflection, however, that occurs on looking through the list of our "Colonial Reserve Forces" is, what has become of the Canadian Militia, no mention of which is made? The omission, too, is the more remarkable, as the Canadian Militia ranks first in importance amongst Colonial armies—numbering in the ranks of the Active Militia, no less than 43,184 men, and in the Reserve Militia no less than 694,000 men. How is it that this body should be left out of the Army list, when the Volunteer companies of Turk's Island and Antigua are officially recognized, we are at a loss to understand. The ways of the authorities, however are inscrutable, and we will not attempt to solve the problem. But in the meantime we would point out that the ignoring of the Canadian Militia may tend to create some disappointment if no stronger feeling in the bosoms of the loyal inhabitants of the Dominion; and if we may presume to counsel the War Office, we cannot but suggest that it would have been better to defer all mention of Colonial Forces for another month rather than present an incomplete list to the public. It is indeed difficult in any reasonable way to describe a justification for what appears to be a very improper and unnecessary bungle, for Canada is but twelve days distant from Pall Mall, as against the twelve weeks which a letter takes to reach New Zealand; but we must conclude that the authorities have acted after mature consideration, and if it was intended to offer a deliberate insult to the Canadian Militia, there is reason to fear that they have but too successfully achieved their purpose.

It is not, however, to point out the deficiencies and absurdities in the arrangement of the "Army List" that we refer to the innovation in the August issue. Enough that we are glad to see the colonial forces properly recognized, and if the recognition is somewhat tardy, it is none the less acceptable alike to the colonist and British public. We shall, however be glad to see the list properly completed, more especially as in the case of the Canadian Militia the omission will not be probably regarded by the Canadians in its probably true light of a reprehensible clerical error, but as an unwarranted and impolitic snub on the part of the Imperial Government.

Perhaps we cannot do better, in order to

supply our readers with some idea of the patriotic exertions of the Canadians and of the military power they are capable of developing, than to print the two returns which appear in the "Report of the State of the Militia of the Dominion of Canada for the year 1871," lately presented to the Canadian Parliament. One of the men (see column 257) presents us with a tabular view of the strength and organization of the active Militia of Canada, on the 31st of Dec. 1871, and the other with a view of the Reserve Militia enrolment of 1871. The active Militia is shown to consist, including all ranks, of 43,174 officers and men. Out of this number 34,413 (officers and men) have performed the annual drill for the military year 1871-72, of which 22,544 (officers and men) with 1096 horses, were assembled at divisional or brigade camps of exercise, for sixteen days continuous drill, paid, supplied and maintained as if on actual service. 5210 (officers and men) with 319 horses, were assembled in camps which were only in operation for eight days, under the ordinary regulations, relative to pay and supply; the remainder of the active Militia, numbering 8,700 (officers and men) performed their annual drill either at the headquarters of corps or, as in the case of many batteries of Garrison Artillery, at certain forts where instruction in gunnery could be more advantageously afforded, and shot and shell practice properly carried out.

Three batteries of Garrison Artillery in the province of Ontario embarked in succession on board the gun boat *Prince Alfred* for eight days, and were practised at "gun drill," firing shot and shell, the vessel during the period cruising on Lakes Erie and Huron.

1180 cavalry and the whole of the Field Artillery (ten batteries, with 42 field guns) have performed their drill for 1871-72 in the different camps of exercise.

The second return alluded to is that which shows the result of the enrolment of 1871, of the Reserve Militia, in the nine military districts, comprising the four provinces of Ontario, Quebec, New Brunswick, and Nova Scotia—from which it will be seen, that in these four provinces alone there are nearly 700,000 men, within the fighting ages, liable by law to military service in defence of the Dominion; thus proving that there is in the country itself an ample supply of the most important element viz, *men*. By this return it will also be seen that there is a total increase of 38,942 men in the Reserve Militia since the first enrolment under the present law, a period of only two years:

The total number of Militiamen in all classes, according to Enrolment of 1871.....	694,008
Do do do do 1869.....	656,066

Total increase 1871..... 38,942

These figures will we trust tend to reassure those of our readers who might otherwise have been affected by the most dismal anticipations from the absence of all record of the Canadian Militia amongst the other colonial forces in the pages of our Imperial Army List. With seven hundred thousand fighting men capable of being placed in line of battle for the defence of their homes, Canada need have little fear of American annexation. On the other hand, what with the Chinese difficulty, the Negro difficulty, the Irish difficulty and the free trade and protection difficulty, the United States will for many a long day be more interested in suppressing difficulties at home than in creating them abroad; and if ever annexation

does occur, it is more likely, according to present prospects, that when the great crash in the great Republic does arrive, as come it must, the North East border States will rather seek to be annexed to Canada than that Canada should ever see its interest in annexation with a land of General Butler, Rowdy Fisk, and George Francis Train.

RIFLE MATCHES.

The annual meeting and match of the Nova Scotia Provincial Rifle Association was held on the 27th August and following days at Bedford.

On the 27th the firing commenced at 10, a. m. Major Yeoman's was in charge of the field, and remained in command throughout. The other range officers found good reasons for not attending, and made the duty very heavy for the Major; and unfortunately Col, Laurio was very unwell, and unable to attend and give assistance.

The short ranges of the first and second competitions were shot off before lunch, during which the targets were altered, and these competitions were finished in time to take the 6 p. m. train for town.

The average shooting throughout these competitions was very good, only 8 being ruled out in the first, and 4 in the second competition.

About 135 competitors were present, representing the Artillery, Infantry and Rifles of Halifax. The 78th Highlanders from Colchester and Hants, and the 68th King's County, and the Cumberland Provisional Battalion, Lunenburg, Annapolis, and Cape Breton, are, as usual, conspicuous by the absence of competitors.

The markers were kindly furnished by Sir Hastings Doyle from the 60th and 87th Regiments.

SECOND COMPETITION.

The Cogswell Challenge Cup. Cup to be won three times. Ranges 300, 400 and 600 yds. Five rounds at each range.

	Pts.
1st prize, cup and \$30, Gunner Shand,	
1st Halifax Gar. Art.....	55
2nd \$38, Corp'l. J. G. Stenshouse, 63rd..	49
3rd 25, Pte Merson, 63rd.....	49
4th 20, Sergt. H. G. Harris, H. G. A.	49
5th 15, Gunner W. A. Garrison, H. G. A. 48	
6th 5, Pte. J. E. Eaton, 78th	47
7th 5, Sergeant R. Christie, Cumber-	
land	47
8th 5, Ens. Fitch, 78th.....	47
9th 5, Sergt. W. Hardwick, 68th	47
10th 5, Lieut. J. L. Barnhill, 78th.....	47
11th 5, Sergt. J. C. Corbin, 63rd.....	47
12th 5, Pte. C. H. McLeod, 78th.....	46
13th 5, Capt. G. E. Church, Cumber-	
land.....	46
14th 5, Corp. P. Hickey, 63rd.....	46
15th 5, Sergt. P. Taple, 63rd.....	46
16th 5, Lieutenant W. Moffat, Cumber-	
land.....	45
17th 5, Gunner S. Marshall, 1st H. G. A. 45	

On Thursday the All Comers and Battalion matches will come off. For the latter Major Anderson has offered a croquet set as a prize to the best shot of the 63rd. In both these competitions the regulars will take

part; and our men will require to be right on the spot, for there are many crack shots in the Rifles and Fusiliers.

The Wimbledon men were on hand, and Gunner Shand carried off the Cogswell Cup, with the splendid score of 55 out of a possible 60, 6 points ahead of any previous winner.

On Wednesday the shooting was very poor, owing to the violence of the wind, which blew down the refreshment tent, erected by Beech, and scattered the contents, so that it was not worth while to erect it again.

The third, fourth, and seventh competitions were fired. The ground, owing to the heavy rain of the previous night and was very uncomfortable for competitors and spectators.

Gunner Shand also carried off the ladies' cup, but did not come up to his Wimbledon form, making only 47 points instead of 51 points.

The Martini Henry rifles presented by the City of London were also taken with lower scores than was anticipated. To the gratification of every competitor, Corporal Larkin carried off one, and a steady old shot Sergt. Beach of Cumberland, who travelled some 80 miles by bad roads to take the train for Bedford, took another.

THIRD COMPETITION.

	Pts.
1st. Lieut. Mumford, 63rd	33
2nd. Private J. R. Eaton, 68th	33
3rd. Serg Corbin, 63rd.....	33
4th. Corporal Larkin, 63rd.....	32
5th. Ensign McInnes, 63rd	32
6th. Lieut. J. L. Barnhill, 78th.....	31
7th. Gunner Marshall, H. G. A.	31
8th. Sergt. Bishop, 63rd.....	31
9th. Capt. G. A. Taylor, 78th.....	31
10th. Sergt. L. Keddy, 63th.....	30
11th. Corp. Stenshouse, 63rd.....	30
13th. Private A. Filmore, Cumberland..	30
13th. Pvt. Campbell, 63rd.....	30
14th. Corp. Bent, Cumberland.....	30

The long ranges of 4th and 7th Competitions are now being fired.

FOURTH COMPETITIONS

The ladies Cup. Open to all members of the Association. Cup to be won twice. Ranges 200, 500, and 600 yards, Five rounds at each range.

1st. prize Cup, and \$30, Gunner Shand,	
1st. H. G. A.	47
2nd. \$30, Sergt. R. Christie, Cumberland	45
3rd, 25. Pte. H. McKenzie, 63rd Halifax	43
4th. 20, Lieut Moffat, Cumberland..	43
5th. 15, Capt. J. E. Church Cumberland	42
6th. 10, Sergt. W. W. Motzler 1st H. G. A	40
7th. 5, Pte. J. F. Campbell, 63rd Halifax	40
8th. 5, Sergt. J. G. Corbin, 63rd Halifax	38
9th. 5, Corp. J. Larkin, 63rd Halifax.	37
10th. Sergt. P. Taple, 63rd Halifax.....	37
11th. 5, Ensign Mumford, 63rd Halifax.	37
12th. 5, Gunner A. Sleigh, 1st H. G. A. ...	37
13th. 5, Corp'l. Taylor, 68th King's.....	37
14th. 5, Capt. Bland, 1st H. G. A.	37
15th. 5, Corp. P. Hickey, 63rd Halifax	36
16th. 5 Sergt. Hardwicke, 68th King's..	36
17th. 5 Pte C. Church, Cumberland....	36
18th. 5 Sergt. Bishop, 63rd Halifax.....	36

SEVENTH COMPETITION.

This was for the Martini Henri Rifles, (3) and 500 rds. of ammunition with each—open only to officers and men of the Active Militia

who are now *bona fide* members of the force and have been so far at least one year previous to the last July, 1872, and who can be certified as having performed the annual drill for that year, and who have passed through the prescribed course of target practice. Also open to such as were *bona fide* members of the Active Militia in 1870, and since retired therefrom. Ranges, 200, 500 and 600 yards. Five rounds at each range.

Much interest was taken in this match, as many (if not all) the marksmen were anxious to possess one of the wonderful rifles. No one was displeased to find that Larkin, who had so far not done a great deal was "in" for one of the coveted prizes. The three were won as follows:

	Pts.
1st Sergt. M. Black, Cumberland.....	49
2nd Sergt. W. Harris, H. G. A.	48
3rd Corp. Larkin, 63rd	47

This concluded the firing for that day, and the competitors returned to town excepting those who had made their quarters at Bedford.

The principal event of the third day was the Battalion match for Col. Laurio's Challenge Cup.

The Battalion match was fired first. The following teams entered: 63rd Halifax; 68th Kings; 1st Halifax Garrison Artillery, Cumberland Battalion; 78th Provincial Battalion; Hants, Colchester and Pictou; 66th Halifax; 87th Royal Irish Fusiliers, of Her Majesty's Regular Army. The 87th team missed the early train from Halifax, and arrived at the range after the others had completed firing. A meeting of the council of the Association was held, and it was decided to allow the late comers to fire. The match was watched with much interest throughout, there being a keen rivalry between the city and country corps and between the volunteers generally and the regulars. The 63rd Halifax, as was generally expected proved the winners. The 68th Kings came next, winning the second prize, and the regulars stood last on the list. The following is the prize list and score.

SIXTH COMPETITION—BATTALION MATCH.

A silver Challenge Cup—presented by Col. J. W. Laurio. To be competed for annually by ten officers or men from each Battalion, Artillery brigade, or Field Battery of the Active Militia in Nova Scotia, and from each of Her Majesty's regiments or Artillery Brigades serving in this province. The Active Militia must be regularly enrolled members of their corps, and certified by their commanding officers as effective. Cup to be held by the commanding officer and to be used at the Officers Mess of the winning corps. Ranges 300 and 500 yards. Three rounds at each range. Entrance fee \$5.

Money prizes added by the Association.

First Prize	\$20.00
Second	10.00

63rd Halifax.

Sergt. Taple.....	16	18	35
Corp. J. Larkin	16	17	33
Ens. McInnes	17	15	32
Corp. P. Hickey.....	16	15	31
Sergt. Shephard.....	17	14	31

Sergt. J. G. Corbin.....	15	15	30
Capt. G. Piers.....	13	16	29
Private Merson.....	12	16	28
Sergt. W. Bishop.....	14	11	25
Corp. J. G. Stenhouse.....	16	6	22

Total..... 235

68th Kings.

Sergt. Hardwick.....	16	19	35
Pte. B. Berteaux.....	16	16	32
Ens. Walton.....	15	15	30
Ens. Ward.....	15	13	28
Sergt. Major Rand.....	13	15	28
Private J. E. Eaton.....	12	12	24
Private W. R. Bonnett.....	10	12	22
Sergt. Keddy.....	13	9	22
Corp. Taylor.....	13	9	22
Capt. Smith.....	13	3	16

Total..... 259

Halifax Garrison Art.

Sergt. H. J. Harris.....	14	18	32
Corp. Foster.....	13	18	31
Gunner S. Marshall.....	15	15	30
Gunner S. Shand.....	16	13	29
Bomb. Percy.....	12	14	26
Lieut. G. A. Sandford.....	19	10	26
Gunner Garrison.....	13	9	22
Capt. Bland.....	12	8	20
Gunner Metzler.....	15	4	19
Corp. Murray.....	11	7	18

Total..... 253

Cumberland Battalion.

Sergt. M. Black.....	13	15	28
Lieut. Moffat.....	14	14	28
Sergt. J. Moffat.....	13	14	27
Pte. W. Colburn.....	15	12	27
Pte. R. Church.....	7	18	25
Pte. D. R. McElmon.....	14	11	25
Pte. C. Bent.....	13	11	24
Capt. Church.....	13	10	23
Sergt. R. Christie.....	12	8	20
Pte. A. Filmore.....	12	5	17

Total..... 244

78th Battalion, Colchester and Hants & Pictou.

Capt. Layton.....	12	17	29
Lieut. J. H. Smith.....	14	15	29
Sergt. J. McKenzie.....	12	14	26
Pte. A. Soley.....	14	11	25
Lieut. T. McKay.....	10	14	24
Ens. Fitch.....	11	12	23
Pte. J. W. Smith.....	10	12	22
Lieut. I. L. Barnhill.....	11	10	21
Pte. C. H. Blanchard.....	14	7	21
Pte. C. H. McLeod.....	14	4	18

Total..... 238

66th Halifax.

Capt. R. Watt.....	14	19	33
Corp. Lockhart.....	13	15	28
Sergt. Langello.....	15	11	26
Asst. Surgeon Trenman.....	12	13	25
Pte. Fader.....	14	11	25
Pte. McDowell.....	10	11	21
Pte. Schrum.....	11	8	19
Lieut. Herbin.....	12	7	19
Sergt. O'Mally.....	15	3	18
Capt. Reeves.....	0	0	0

Total..... 212

87th Royal Irish Fusiliers.

Col. Sergt. Hall.....	13	15	28
Col. Sergt. Curren.....	14	11	25
Lance Sergt. Fleming.....	15	9	24
Sergt. M. S. Stockton.....	14	9	23
Sergt. Mitchell.....	14	6	20
Sergt. Long.....	13	5	18

Priv. Comber.....	7	10	17
Lance Sergt. Lockhart.....	9	7	16
Corp. Mills.....	11	0	11
Sergt. Fullard.....	4	3	7

Total..... 159

Prizes for highest Individual Scores.

1st prize, \$10, Sergt. W. Hardwick, 68th Kings.....	35
2nd, \$6, Sergt. Taple, 63rd Halifax.....	34
3rd, \$4, Capt. R. Watt, 66th ".....	33
4th, \$3, Corp. J. Larkin, 63rd Halifax.....	33
5th, \$3, Pte. D. Berteaux, 68th Kings.....	32
6th, \$2, Sergt. H. J. Harris, 1st H. G. A. 32	
7th, \$2, Ensign McLunes, 63rd Halifax.....	32

Extra Prizes.

Croquet set, value, \$40, presented by Major Anderson, 63rd Halifax, for the best score in the 63rd team—Sergt. P. Taple.

Pocket Rifle, value \$25, presented by Sergt. Egan, for the best score in the 66th team—Capt. R. Watt.

Our people as a rule, have not gone in for small bores, or, as they call them "fancy" or "toy" rifles. They believe that the weapon with which all are armed, and with which all can therefore enter a competition on equal terms, is the true weapon for these contests, besides which they hold that the weapon with which they are to fight, is the one to become masters of; and to their adherence to this, they ascribe great part of the success of the Canadian over the home team at Wimbledon; hence there was not much interest taken in the All Comers match. The score of the winners of the Ladies' prize was very good.

FIFTH COMPETITION—ALL COMERS MATCH.

All Comers' Prize, open to all with any rifle, excepting those with magnifying sights and hair triggers. Entrance fee for non-members of the Association \$1.00 Ranges 500, 600 yards. Five rounds at each Range.

Pts.

1st prize \$50, Capt Piers, 63rd Halifax.....	35
2nd, \$25, Gunner Shand, 1st H. G. A.....	34
3rd, 20, Corp. J. Larkin, 63rd Halifax.....	33
4th, 15, Capt. J. R. Graham, H. F. B.....	32
5th, 10, Bomb. Percy, 1st H. G. A.....	30
6th, 5, Private R. Power, 63rd Halifax.....	30
7th, 5, Sergt. J. G. Corbin, 63rd Halifax.....	28
8th, 5, Pte. Soley, 78th.....	28
9th, 5, Pte. J. E. Carter, Cumberland.....	27
10th, 5, Pte. A. Landels.....	26
11th, 5, Pte. Roscoe, 68th, Kings.....	25

The Ladies Prizes were next fired for. The following is the prize list and score:

LADIES' PRIZES.

To be competed for by members who have been nominated by ladies who are subscribers to this fund. No competitor can represent more than one lady, Range 500 yards, 5 rounds, 36 entries at \$1 each. The amount to be divided into six prizes.

1st prize, Capt. G. A. Elyton, 78th.....	19
2nd, Pte. C. H. McLeod, 78th.....	19
3rd, Ens. Mumford, 63rd Halifax.....	19
4th, Sergt. J. G. Corbin, 63rd Halifax.....	19
5th, Sergt. P. Taple, 63rd Halifax.....	18
6th, Sergt. J. McKenzie, 78th.....	18

On Friday, the competition for the very handsome prize of a gold watch and chain which is annually presented by Sir Fenwick Williams of Kars, to the Militia of his native province, was finished; and in spite of dull

misty weather and violent squalls the very good score of 38 was made by three competitors. The dull, dark weather was also very unfavourable to the long ranges of the competition for the Governor General's Cup, for which some very good scores were also made.

GENERAL WILLIAMS PRIZE, 5TH COMPETITION.

Gold Watch and Chain—presented by Sir F. Williams, Bart. G. O. B. Open to all members of the Association as in first competition. Ranges 400 and 500 yards. Five rounds each range.

Points.

1st Prize, Gold Watch and Chain, Pt. G. E. Stronach, 68th.....	19	19	38
2nd, \$25 Sergt R. Christie, Cum.....	20	18	38
3rd, 20 Corp. J. Larkin, 63rd.....	20	18	38
4th, 15, Pte. Soley, 78th.....	19	18	37
5th, 10, Sergt. Taple, 63rd.....	19	18	37

(Winners of \$5.)

1st, Capt. J. R. Graham, H. F. B.....	17	19	36
2nd, Capt. G. E. Church, Cum.....	18	17	35
3rd, Private J. W. Smith, 78th.....	18	17	35
4th, Bomb. Percy, H. G. A.....	19	16	35
5th, Corp. Taylor, 68th.....	16	18	34
6th, Corp. T. A. Bishop.....	17	17	34

BEDFORD RANGE, Aug. 30, 4 p. m.

NINTH COMPETITION—\$120.

Silver Cup—presented by His Excellency the Governor General. Open to all members of the Association as in first competition. Ranges 600, 700, and 800 yards. Five rounds at each range. Competitors not scoring 8 at the first range disqualified.

Prizo

Points.

1st, Cup, Pt. C. H. McLeod, 78th.....	17	16	10	42
2nd, \$25, Lieut. G. Sandford, H. G. A.....	15	10	16	41
3rd, \$20, Sergt. Taple, 63rd.....	16	14	10	40
4th, \$15, Lt. Col. Creighton, R.M.....	11	14	14	39
5th, \$10, Sergt. M. Black, Cum.....	12	16	11	39

(Winners of \$5)

6th, Sergt. W. Bishop, 63rd.....	12	16	10	38
7th, Pte. J. Copp, Cum.....	12	12	13	37
8th, Pte. C. Bent, Cum.....	11	17	9	37
9th, Corp. Larkin, 63rd.....	12	12	12	36
10th, Lieut. J. L. Barnhill 78th.....	17	13	6	36
11th, Capt. Piers, 63rd.....	15	6	14	35
12th, Sergt. R. Christie, Cum.....	12	10	13	35
13th, Sergt. McKenzie, 78th.....	14	14	7	35
14th, Pt. J. E. Campbell, 63rd.....	15	14	6	35
15th, Corp. P. Hickey, 63rd.....	13	8	13	34

The Nursery Prizo is now being fired.

Much attention had been called to the fact that the same men carried off the prizes year after year and the Council therefore increased the amount and number of prizes in the Nursery competitions.

In the consolation match some really good shooting was made. The time match was only shot when competitors were free from other calls; and as Major Yeomans lost no time between the competition, there was not as much done at the Time match as might have been.

NURSERY PRIZES.

Restricted to members of the Association qualified under rules 11 and 12, who have never taken a prize at the meetings of the Association. Range 400 yds. Seven rounds at each.

1st. prize, \$25, Corp. J. Forsyth, 66th Halifax.	19
2nd. \$20, Pte. E. R. McElmon, Cum.	18
3rd. 15, Sergt. J. C. Smith, 78th.	18
4th. 19, Gunner J. Smith, 1st H. G. A.	17
5th. 5, Pte. C. Donkin, Cumberland.	17
6th. 5, Pte. Arnold, 63rd Halifax.	17
7th. 5, Pte. W. Archibald, 78th.	17
8th. 5, Pte. A. Salter, 63rd Halifax.	17
9th. 5, Pte. E. W. Archibald, 78th.	17
10th. 4, Pte. Ring, 66th Halifax.	17
11th. 4, Sergt. J. Curtis, 7th.	17
12th. 4, Sergt. Birkenhead, 66th Hx.	17
13th. 4, Pte. Cassidy, 68th Kings.	16
14th. 4, Pte. G. McDowell, 66th Halifax.	15
15th. 4, Sergt. A. Bishop, 68th Kings.	15
16th. 4, Corp. Lookhart, 66th Halifax.	15
17th. 4, Pte. R. Chetwind,	15
18th. 4, Sergt. W. Salter,	15
19th. 4, Sergt. Webb, 78th Halifax.	15
20th. 4, Sergt. J. R. Moffat, Cum.	15

CONSOLATION PRIZES.

Open to all members of the Association who have not taken a prize during this meeting. Time and Battalion matches excepted. Range 300 yards. 3 rounds.

1st prize, \$20, Corp. J. Paulin, 63rd Hx.	11
2nd. \$15, Sergt. J. Langille, 66th Halifax	11
3rd. 10, Sergt. Colbourne, Cumberland,	11
4th. 5, Lieut. C. Tupper, 66th. Halifax	11
5th. 5, Ens. Walsh, 63rd Halifax.	11
6th. 5, Gun. H. Downey, 1st. H. G. A.	10
7th. 5, Pte. Eagan, 63rd Halifax.	10
8th. 5, Sergt. W. D. Scott, 63rd Halifax.	10
9th. 5, Sergt. T. Connors,	10
10th. 5, Pte. H. Lawrence, 78th.	10
11th. 5, Gunner Hardie, 1st H. G. A.	10
12th. 5, Lieut. T. McKay, 78th.	10
13th. 5, Lieut. Waugh, 66th Halifax.	10
14th. Pte. A. McIntosh, 66th Halifax.	10
15th. 4, Corp. Murray, 1st. H. G. A.	9
16th. 4, Corp. Morris, 63rd Hx.	9
17th. 4, Sergt. O'Mally, 66th. Hx.	9
18th. 4, Col. Sergt. Preston.	9
19th. 4, Ens. J. A. Ward, 68th Kings,	9
20th. 4, Pte. J. W. Bishop.	9
21st. 4, Corp. J. Wallace, 78th.	9
22nd. 4, Pte. W. R. Bennett, 68th. Kings	9
23rd. 4, Pte. G. Scrumam, 66th Halifax.	9

TIME MATH—OPEN TO ALL.

Distance, 200 yards. Target—2 ft. x 6ft., centre and bull's eye as on large target, Rifle—Snider Enfield long, or short. Time, —one minute from the command "present"

Position.—From shoulder, standing.

1st prize, \$25, (presented by the Secretary) Sergt. W. Bishop, 63rd Hx.	22
2nd \$20, * Gunner Shand, 1st H. G. A.	21
3rd, \$15, * Pte. W. Colburn, Cumberland	21
4th, \$10, † Sergt. W. Metzler, 1st H. G. A.	20
5th, \$5, † Sergt. J. R. Moffat, Cum.	20
6th, \$5, † Corp. J. G. Stenhouse, 63rd Hx	20
7th, \$5, Pte. J. Merson	19
8th, \$5, Ens. McInnes	18
9th, \$5, Capt. G. E. Church, Cumberland	17
10th, \$5, Pte. McIntosh, 66th Halifax.	17

(Note.—Those marked * and † are ties and will divide the money equally.)

The match was only concluded on Friday about 6, but Major Yeomans and Ritchie pushed for the train, and at 8 p. m. the Brigade of Halifax militia was formed up in the drill shed at Halifax, and the prizes were presented by the Chief Justice, who made appropriate and encouraging remarks, as the winners came up to receive their prizes; and calling off the Wimbledon men to the front, led off three hearty cheers in their honour. Colonel Laurie in his remarks, dwelt on

the necessity of "sticking" to the Snider, and ascribed our success at Wimbledon in a great measure to this. He contrasted the conduct of the citizens of London, who sent three prizes to Nova Scotia for our Militia, with that of the civilians of the City and Province who did nothing whatever to encourage the volunteers and commented on this in very strong terms, showing that all the prizes given outside of those offered by the Association, was given by members of the force. He concluded with a well deserved compliment to Majors Yeomans and Ritchie, to whose exertions, he said, the whole success of the match was due, and called for cheers for them, the Chief Justice, and the Queen.

Three hearty cheers were then given for Colonel Laurie, and the brigade was then dismissed.

The thanks of the press are due to the Secretary and council of the Association for courtesies extended to the representatives who were present during the week.

FIRST COMPETITION.

The Provincial Rifle Association Challenge. Gold Medal. Medal to be won twice. Ranges, 300, 500 and 600 yards. Five rounds at each range.

The following is the result of the first competition. Ranges, 300, 500 and 600 yds. 5 rounds at each range.

1st prize, Medal and \$25, Capt. G. Piers	14	17	18	49
2nd. \$20, Sergt. R. Christie, Cumberland.	16	16	14	46
3rd. 20, Sergt. Sheppard, 63rd	13	15	16	45
4th. 15, Corp. F. Brown, Cum.	13	17	64	44
5th. 10, Pte. D. Berteaux, 68th	16	14	15	44

(Winners of 5\$.)

6th. Sergt. W. Bishop, 63rd.	16	13	14	43
7th. Corp. J. Larkin, 63rd.	13	16	13	43
8th. Gun. J. Shand, 1st G. A.	15	15	13	43
9th. Corp. P. Hickey, 63rd.	13	18	12	43
10th. Corp. I. G. Stenhouse, 63rd	15	15	12	43
11th. Lt. G. A. Sandford 1st. H. G. A.	14	18	11	43
12th. Capt. G. A. Layton, 68th.	17	18	8	28
13th. Sergt. M. Clack, Cum.	15	9	18	42
14th. Pte. J. Smith, 70th.	12	14	16	42
15th. Pte. C. P. Blanchard, 78th.	14	17	11	42
16th. Pte. Watt, 68th.	17	15	10	42
17th. Lt Fultz, 73rd.	17	16	9	42

RIFLE SHOOTING.—The members of the 8th Battalion, met at the Beaufort Flats, on Saturday 7th inst. and competed for a silver Ink stand. It was won by Capt. Morgan, The ranges were 500 and 600 yards. Seven shots at each range.

The five highest scores made during the competition were as follows—

Capt. Morgan	49
Lieut. Wurtle	45
Corp. Argue	39
Sergt. Baxter	38
Capt. Patterson	37
Total	208

It will be remembered, that the 8th took the Provincial Cup at Montreal with a score of 176 points—at the same range, and the same number of rounds.

CANADIAN VOLUNTEERS.

(From the Times, Aug. 15.)
To the Editor of the Times.
SIR—Your readers will recollect that in the spring of 1872 a foul raid was made on the Dominion of Canada by a band of

Fenians, who were severely handled and repulsed by the Canadian volunteers. I had the honour at that time of being Lord Mayor. Many friends of the volunteers movement suggested that this was a really volunteer episode, which deserved to be marked by the citizens of London. Acting on this suggestion, an address was issued, a committee formed, and subscriptions received at the Mansion House; but just as the object of the subscriptions became known the late war broke out, and all our sympathies were enlisted for the aid of the sick and wounded. We received some two hundred and odd pounds. After consulting with the most influential members of the committee, it was agreed to order twenty of the best rifles which could be made on the Martini-Henry principle, with corresponding ammunition, and forward them to the Governor-General of the Dominion, for him to award as prizes for the volunteers of Canada. This will explain the following official letters, which come to hand by the last mail, and which I shall be obliged by your publishing for the satisfaction of those who contributed to the fund.

ROBERT BESLEY, Alderman,

"Canada, Riviere du Loup-en-Bas, July 29, 1872.

"Sir,—With reference to your letter of the 22nd of May last, and to Lord Lisgar's reply of June 7, I have the honour to enclose to you a copy of a letter from the Department of the Minister of Militia and Defence acknowledging the receipt of a case of rifles and five cases of ammunition, shipped by the *Sarmatian*, and conveying an expression of thanks to you and to the committee whom you represent for obtaining so handsome a mark of the feeling entertained in London towards the Volunteers of Canada.

"I hope in due course to communicate to you the results of the competition for the prizes.

"I have the honour to be,

"Sir,

"Your most obedient servant

"DUFFERIN.

"Robert Besley, Esq., Alderman,"
MR. FUTVOYE TO THE GOVERNOR'S SECRETARY.

"Department of Militia and Defence,"
Ottawa July 19, 1872:

"SIR.—With reference to the letter of Alderman Besley, addressed to His Excellency the Governor General on the 22nd of May last, and communicated to the hon. the Minister of Militia and Defence by His Lordship's Secretary on the 15th ult., I am desired to request that Alderman Besley may be informed that the case of rifles and five cases of ammunition, shipped by the steamer *Tarmation*, have been duly received and that the twenty rifles, and the 10,000 rounds of ammunition contained in these cases will be duly distributed for competition by the Active Militia of Canada, in such manner and under such regulations as will hereafter be made known to him.

The Minister of Militia and Defence respectfully requests that sincere thanks, both from himself and on the part of the Canadian Government, may be conveyed to the late Lord Mayor of London (Alderman Besley) for the exertions made by himself and the committee, in whose name he acted in obtaining so handsome a mark of the feelings entertained in London towards the Volunteers in Canada.

"GEORGE FUTVOYE,

"Minister of Militia and Defence."
"Lieut.-Col. Fletcher, Secretary."

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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, MONDAY, SEPTEMBER 16, 1872.

LIEUT.-COLONEL WAINWRIGHT GRIFFITHS, at present on a tour through British Columbia, has kindly consented to act as the Agent for the VOLUNTEER REVIEW in that Province.

TO CORRESPONDENTS.—Letters addressed to either the Editor or Publisher, as well as Communications intended for publication, must, invariably, be *pre-paid*. Correspondents will also bear in mind that one end of the envelope should be left open, and in 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.

In the construction of Ordnance there was very little improvement during the first half of the present century: the siege or Sebastopol in 1854 developed some new ideas on the power and capacity of the guns then in use and set the scientific and mechanical enterprise of Europe in motion.

A short time previously 68-pounder guns weighing 95 cwt. had been introduced on shipboard, and one battery manned by seamen was engaged in the operations of that memorable feat of arms. During its progress the first rifled piece of artillery made its appearance. It was a gun with an elliptical bore and an increasing twist, so that in reality it was a *two-grooved* rifle. It was not eminently

successful, having a tendency to blow off its own muzzle; it was called, after the inventor, the Lancaster system, and held the germs of the idea which led to the manufacture of all the rifled guns which have since been constructed.

During the same siege a monster mortar 36 inches in diameter was constructed by ROBERT MALLETT, Esq., of the Victoria Iron Works, Dublin. Its weight was reported to be *thirteen* tons, but it was built up of a series of rings connected by a number of screw bolts, and the breech alone being solid offered the only problem to transport. Its weight did not materially exceed that of artillery of its class then in use—about 3½ tons. It is not certain whether the mortar was used, but a large number were constructed; and as the whole question connected with this branch of ordnance has been overlooked in the *enger battle of the guns*, it is not improbable that the system may possess superior merit.

The Italian campaign of 1859 was the first occasion on which rifled artillery appears to have been used in the field. The French army are said to have owed their success in more than one action to the power of their field guns; and immediately afterwards, Sir WILLIAM ARMSTRONG introduced his system of built-up breech-loading rifled ordnance into the British service, his heaviest gun being a 100 pounder.

As this system has been abandoned, in the British service at least, for an alleged radical defect, and muzzle-loaders adopted in preference, it will be as well to consider the guns now in use as our system of rifled ordnance.

Under the old regime, the gun was known by the weight of shot it threw; under the new, there appears to be a disposition to describe it by the diameter of the bore itself. They range from

7 inch	115 pounder	of 7 tons.
8 "	180 "	12 "
9 "	250 "	18 "
10 "	400 "	25 "
12 "	600 "	30 "

to the Woolwich infant of 35 tons, throwing a solid shot of 700 lbs.

The smooth-bore ordnance being in all cases cast entire of iron or bronze, the rifled guns are built up of wrought iron either as rings shrunk on a central core manufactured from spiral coils or on a solid steel core.

With such powerful engines, demanding the utmost mechanical and scientific skill in construction and design, it would be supposed the results in action would be commensurate with the power and its advantages. Practically this is not so: the guns have failed most essentially in endurance, and in such a manner as to suggest grave doubts of the value of the system and the correctness of the theory on which it is established.

In smooth bored muzzle-loading ordnance—windage—a space between the shot and bore—is a necessity of the system. Practically this resulted in a loss of power and velocity

in the shot, from the fact that a good deal of the gas generated by the ignition of gun powder, and on which its force depends, escaped without exerting propelling power on the shot, while the latter moving at the first impulse a portion of the charge was thrown out without being ignited.

From the fact of the shot not fitting the bore tightly, its flight as a general rule was erratic—no certain direction could be given to it—and this constituted the chief fault of smooth-bored ordnance.

In order to remedy it, two conditions are apparently necessary: the shot should fill the bore of the piece, and its initial velocity should be retarded till the whole charge was ignited; but those conditions brought consequences which practically rendered their fulfillment impossible.

In order to fill the bore of the piece, the metal surface of the shot and of the gun should be in close contact; in fact, the former should slide over the latter with the facility of the valves of a steam engine sliding over the valve seat. For the first round this might have been eminently practicable; but after that the comparison ceases. The gun will foul rapidly; nay, even change form from heat, and in practice the shot could not be rammed home.

Sir WILLIAM ARMSTRONG tried to obviate this defect, by attaching a sabot of lead to his shot. The chamber being slightly larger than the bore, the softer metal was pressed into the grooves, and thus fulfilled in part the necessary conditions.

But a shot discharged from a rifled barrel, to have a true flight, must acquire a spinning motion around its own centre; and the value of the rifling is to impart that motion as well as to retard the bullet in the barrel till the charge is fully ignited: hence the value of the higher trajectory or flight of rifle bullets from small arms.

In the larger artillery, however, the rotatory motion had the effect of stripping the leaden coating from the shot; and as it accompanied the latter in its flight, it was generally scattered as langrago to the imminent danger of those engaged in operations under protection of its fire. It was this fault that caused the Armstrong system to be abandoned, after the British Government had expended over £1,000,000 in the manufacture of guns under it. Notwithstanding which, it may be questioned whether the defect could not have been remedied; and it is quite certain the system possessed far less radical defects than the muzzle-loaders which have been substituted therefor.

The theory of rifling great guns has been founded on the practical facts already noticed, and on the development of a mechanical law by which the greatest strain on a gun is at the breech, and therefore the twist of the rifling ought to increase towards the muzzle for the purpose of fulfilling the conditions of retardation. As the first effort of the ignition of gunpowder is imparted to the

shot in the shape of a blow, the object of retardation being to render the pressure equal.

Undoubtedly the great defect of smooth bore ordnance was the fact, that the centre of the shot and of the bore of the piece did not coincide; and the former left the gun by a series of rebounds, which eventually destroyed it. We have seen Sir W. ARMSTRONG'S method of obviating the difficulty involved, in remedying this defect in the existing artillery of the period, the failure of that method; and we have now to consider the effect produced by the new system introduced in its place.

In order to centre the shot, which is, as has been shown, the first condition of the success of rifling, the muzzle loading system introduced the practice of inserting into it a series of projecting studs of gun-metal fitting the grooves of the rifling, and thus holding the shot in its place, provided the motion given at the first impact was uniform throughout; in other words, that there would be pressure instead of a series of blows.

As the very first display of the energy of gunpowder is in the shape of a blow, the condition could not be complied with; and, as even with the studs, a certain amount of *windage* had to be left; the shot was jerked downwards, thrown upwards, and in most cases the studs over-rode the lands of the bore instead of keeping in the grooves; the result being either the breaking up of the shot in the gun, its uncertain flight, or the cracking of the inner tube, thus rendering it almost useless, and the liability of the shot to break up scattering the pieces far and wide in the event of striking.

These peculiarities were aggravated by the *gaining twist*, so that it is a question whether any portion of the splendid artillery recently manufactured at such great cost in England is really in a serviceable condition.

The speech of the leader of the great Tory party (Mr. D'ISRAELI), at the Crystal Palace, has awakened attention to the great political issues involved in the relations between Great Britain and her Colonies.

Already in Australia a movement has been made for the union of the Colonies in that great island *continent*, and having for its ultimate object a closer and more intimate relation with the Mother Country. It is strange too that the leader is an Irishman—one of those clever and talented men engaged in the attempted revolution of 1848—editor of the celebrated *Nation* newspaper—tried for *constructive* treason by a jury of *Orangemen*, and acquitted because they very properly refused to recognise a *constructive* crime. CHARLES GAVIN DUFFY is, therefore, no ordinary man; and on the principle that a converted rake makes a good husband, a repentant rebel will make something more than a good Tory. However that may be, in the whole miserable transaction he alone stood *sans puer sans reproche*, commanding

the respect as well as esteem of his opponents. Subsequently elected as member of Parliament for New Ross, he served with the extreme Irish section of the House of Commons. He finally emigrated to Australia, where his splendid natural abilities placed him at once in the foremost rank.

Such is a slight sketch of the career of the man who has made the attempt to establish in Australia a confederacy similar to that under which Canada has commenced her national career; and although his designs are frustrated for the moment, there can be no doubt they will succeed.

The general end and aim of all these movements in the Colonies is not to create a separate national existence, but to build up around the British throne that magic circle of gold that binds the Empire together—outlying bulwarks of rapidly increasing strength and power, sufficient to bid defiance to the attacks of the world in arms. Such is the Colonial idea of an United Empire, and the fault will not rest with Colonists if it is not carried out.

If our English brethren wonders why we are so enthusiastic in our loyalty, and why we desire a closer alliance, we can point to the experiment made on this continent one hundred years ago, and tell them that with the example of the revolted American Colonies before us, we turn with loathing and disgust from the travesties of liberty and political licentiousness which flourish under Republican institutions, and we are satisfied that our true interest is to remain an appendage of the Great Empire under whose institutions true liberty is to be found. Morally and materially such interests will be best served by a close alliance, in fact as well as in theory, in practice as well as in sentiment.

It is our conviction that if the closer union of the Colonies with Great Britain were effected, either by some Legislative arrangement, or simply by calling one or two prominent statesmen from each confederacy to serve in the British Privy Council, (as lately done in the case of the Right Hon. Sir J. A. MACDONALD, K.C.B.,) the immediate effect would be the diversion of English surplus capital for Colonial development from seeking investment as it now does in foreign securities, by which hostile powers are developed in every relation, to the interest of the money lenders and the country in which the capital is owned. That one effect alone would cover all others, whether of commerce or manufacturing supremacy, and would add double security to every interest concerned.

The magnitude of the Empire whose strength would be developed can be measured by the following list:

1. The British Isles.
2. The Dominion of Canada.
3. The West Indian Islands.
4. The Australian and South Sea Colonies.
5. The South African Colonies.
6. The Empire of Hindostan,

Such a confederacy should rule the world. War with any member meant war with all, and it would not be the subject for consideration whether Canada was interested in any row between Jamaica and the Yankees, but the fact that a single member of one of the States of the Empire had been injured, and it was the duty of all to protect its rights.

There is hardly any need to point to the condition of Canada (before and after confederation) as an illustration of the doctrines laid down; the facts are too notorious to be gainsaid or contradicted. Before, we, British North American Colonists, were poor, without an army or money, dependant on our neighbours for our ordinary commercial movements, now, we own a large commercial marine. Our army is quite equal to our own defence, and if occasion should arise we could send a contingent to aid the dear Mother Land. And to crown all, our people are prosperous.

What has happened here will as surely occur under similar conditions elsewhere, and it must be a series of criminal blunders that will prevent the union of Great Britain and her Colonies from being perpetual.

We republish in this issue from, *Broad Arrow*, an article on the forthcoming Gazette of the British Army, in which the various Colonial forces figure for the first time, as the Reserve Colonial forces of the Crown.

The kindly notice of our contemporary contains a large amount of statistical information new to most of our people and valuable as shewing that the military spirit of the English race is not extinct, that it morally requires a little common sense statesmanship to weld the outlying sections of the Empire and the mother country into the most powerful Monarchy the world has ever seen, and that the spontaneous military organizations springing up in all the colonies will furnish the necessary leverage for that purpose.

In common with the great mass of our people the conviction has been reluctantly forced on us, that as long as the English people will be governed by a lot of shallow doctrinaires, as her present rulers are, such a consummation need not be looked for, and we can assure our contemporary that any action of the Whig Radicals is viewed in Canada with contemptuous indifference, they could not insult us.

The omission of the Canadian military force from the Royal Gazette will be looked on with regret; our people know full well the source from which such a slight springs to feel the slightest anger at it, as in addition to his desire to serve his master's of the Manchester school, that great military reformer Mr. CARDWELL probably was moved by the amiable wish to save the British taxpayers £50 per annum in printing expenses, not deeming too much knowledge of what

his countrymen were doing on this side of the Atlantic good, for that patient representative of the tribe of Issachar.

There is, however, a good time coming, and we live in hopes to see the Canadian troops occupying their proper position in the *Royal Gazette*.

With reference to this whole matter, might it not be better to style the Colonial force *Royal*, instead of *Reserve*, the latter name being simply unmeaning. For instance: the Royal Canadian Army—the Royal Canadian Artillery—the Royal Canadian Engineers, would give a definite meaning and idea of existing facts, inasmuch as the Active Militia of Canada is as much an army as that of Great Britain, and is in no sense a Reserve force; because if engaged in its only possible contest it would form the first line of battle at once.

We thank the *Broad Arrow* for writing and thinking of our brave fellows, as an English military journal should think and write of English soldiers; and we can assure him that no offence will be taken at the partial postponement of a distinction to which our soldiers have always aspired, and to which they have been entitled from the very first—as its animus is thoroughly understood—and our gallant fellows are not the men to quarrel with a set of *Brunnagen* Quakers.

We are indebted to Lieut. CARROLL RYAN, of No. 4 Battery, Ottawa Brigade Garrison Artillery, for the very beautiful lines, and the introductory notice of *Abercrombie's Grave*, which will be found in the proper place in this issue.

Our readers will remember that Lieut. RYAN edited the *VOLUNTEER REVIEW* till quite a recent period. That he ranks deservedly high as a poet and literary man, and that his esteemed lady has acquired considerable fame in poetic literature is an admitted fact. We hear it as an *on dit* that the collected poetical works of Lieut. and Mrs. RYAN (*nee* Miss MARY ANN McIVER,) are to be published in one volume before the close of the year.

It is very pleasing to those who have labored to develop the details of our military system, to witness the conviction which has been forced on all outsiders who come in contact with it, that its provisions are those best adapted to secure an efficient military force from a whole population without compulsion of any kind.

In this issue of the *VOLUNTEER REVIEW* is published an article from the *United States Army and Navy Journal*, on the success of our Rifle Associations, and which is particularly valuable, because it places our military organization in its true aspect; shows the value of the Force and its efficiency, as well as the part it would be likely to play in any future contest.

Our contemporary does the people of Canada justice when it states that they do

not want to quarrel with their neighbours, and very many years indeed will elapse before they will be aggressors in any such quarrel; at the same time we willingly endorse the proposition that the examples of history prove no great nation can exist without war, and a contest between the two countries will occur sooner or later as the consequence of an universal law.

As a people, we do not pretend to superior wisdom, but we find a thoroughly military training tends to maintain social order; and the discipline of the camp is carried, in a manner, into private life. We are quite certain that the saving in the administration of justice alone, would be nearly equal to the whole cost of our military force, and that as an item alone, would be sufficient to justify our course in keeping it up, without looking to contingencies, which will not occur during the lifetime of the present generation.

There is no better guarantee for peace than that of being always prepared for war, and the consideration of the actual saving to the commercial interests of the country alone, by guarding it against panics and fluctuations in the money markets in consequence of political aberrations amongst our neighbours, furnishes another powerful argument for keeping up our military efficiency, as the credit of an armed nation is always good.

We are happy to be able to teach a nation of soldiers like our neighbours, the true method of training an army, and we feel proud of their good opinion; it is assuredly the best way to create mutual respect, and we are proud of the notice our contemporary has given our military force, as it is evident more is known of its efficiency at Washington than at London.

The article referred to is very flattering, and shows what may be achieved by a willing people and an intelligent Statesman, for it is to Sir G. E. CARTER, Bart., Canada owes her military system.

The following generous tribute to gallant seamen and soldiers is copied from the *United States Army and Navy Journal* for July 6th, 1872.

Our readers will find the official report of the officer commanding at the Battle of Plattsburg (Lieutenant General Sir George Prevost) in the Fourth Volume of the *VOLUNTEER REVIEW*, Page 556.

Wednesday last, 11th September, being the anniversary of that fight, which would have ended otherwise if the troops had been led by a man of steady purpose.

THE BRITISH DEAD AT PLATTSBURGH.

"On Fame's eternal camping-ground
Their silent tents are spread;
And glory guards with solemn round
The bivouac of the dead."

It was a pleasant afternoon in June when I climbed the fence that bounds the cemetery at Plattsburgh, in search of the graves of the officers who fell in the battle fought

here over fifty-six years ago. I had reached the place from the rear—that is from the direction of the position the English had occupied, with their batteries on the north bank of the river. This mode of ingress—most convenient at the moment, led me over rough fields under cultivation, and across ditches partly filled with stagnant, stagnant water. The tall grass, brambles, and rank weeds that lined the half-decayed, fencing, and through which I forced my way with difficulty, seemed very consistent with, if they did not actually suggest the idea that I was about to enter one of those, to me, always melancholy places, wherein the ruined tombstones and wild, neglected shrubbery, characteristic of the country grave yard, would meet me on every side.

But I was most agreeably disappointed. The spot, taken with its surroundings, was one of the rarest beauty; and the cemetery itself would have been an ornament to any city. The walks and burial lots were laid out with excellent taste; the hedges were neatly trimmed; and the lawn closely cut. There were wild flowers, it is true, but loving hands had trained them along the low, white railings, and above them rose a myriad of green cones of the graceful arbor vitae, contrasting beautifully with the marble shafts that glistened through their foliage. Around me in the distance, rose a glorious amphitheatre of mountains, shutting in, except on the northern side, a lovely, undulating valley through which wound the Sarano, almost at my feet.

To the east ward, looking over the river and the narrow plateau lying between it and the lake, I saw Cumberland Bay, where McDonough gained his victory. Farther on, Cumberland Head projected into the waters of Lake Champlain. These were hemmed in to the eastward by the *Green Mountains*, that seemed to rise as if from the very shore of the lake, a majestic mass of color of a darker blue than the sky, and with a clear, bold outline, whose highest point I knew was Mount Mansfield. From the lake away round to the extreme right circled the tumbled barrier of the mysterious Adirondacks, while beyond their purple sides, and blending almost imperceptibly with the sky, shot up the faint blue, spooks of Mount Marcy and White Face.

Over the whole scene, made up of the unruffled lake and the softened, sweeping lines of hills, melting into azure, on one side, and on the other the billowed masses of purplish brown crags, there rested that indescribable charm of harmony found in nature alone, and often born of the contrast between perfect repose and rugged sublimity.

Rocks, forests, water and sky may gladden the eye with their infinite variety of colors, but in this new world of ours, there is a freshness in the scenery not found in the old, where tradition, acting on the mind,

and through it on the eye, seems to tinge every mountain-side and valley with a kind of mystical light of other days; and this very freshness in most of the grandest scenery in our land is inseparable from a spirit of loneliness that broods over every scene where the sentiment has no play, because there is no past to be conjured up by the imagination. But this was not the case with the view before me. If those towering heights of the Adirondacks were the eldest on our continent, because the first to emerge from the flood, so too had our early history touched this grand picture with the hues of her romance; for this was the gateway of the North, and through it, time and again, have poured the conquering arms of France, led by a Champlain, a De Courcelles, a De Callieres, a St. Helene, or a De Frontenac, best and most chivalrous of all, Montcalm, the memory of whose name, cleared from the calumny once resting on it, lends an interest to every landmark in this romantic region. Then came another change; and along the same path-way, that localized the story of French conquest and bitter defeat, glistened the bayonets of the English. They in their turn, were rolled back; but once again, and for the last time, their banners fluttered for a few brief hours over the fields and waters that lay before me.

And there, around me, rested those who had gone down in the struggle! Could any thing be more appropriate than the memory of that defeat should be linked with that of the gallant men who fell on this field of honor, and that their graves, marking the line where the tide of invasion was arrested, should remain for all time pledges of their valor?

It was certainly a touching exhibition of a generous feeling for worthy foes that the bodies of the officers who fell on both sides were interred together and so arranged that each sleeps by the side of one against whom he fought his last fight. Nor did this tender care end with the burial; for long afterward on a certain anniversary of the battle, many who had participated in it came here, by invitation of the citizens of Plattsburgh and assisted them, with much ceremony, to place a stone alike over every friend and foe whose grave had not been previously marked.

The inscriptions of the British tombstones are as follows:

Sacred
to the memory of
GEORGE DOWNE Esq.
a Post Captain in the Royal Brit. Navy,
who gloriously fell on board H. B. M. S., the *Cumstance*
while leading the vessels under his command to
the attack of the American Flotilla,
at anchor in Cumberland Bay, off Plattsburgh,
on the 11th of September, 1814.

To mark the spot where the remains of a gallant officer and sincere friend were honorably interred, this stone has been erected by his affectionate sister-in-law,
Mary Downie.

Colonel Willington,
3rd Regiment, Buffs,
B. Army,
6th September, 1814.

Captain Purchase,
70th Regiment,
B. Army,
11th September, 1814.

Alex. Anderson, Captain Marines, B. Navy, 11th September, 1814.	Lieutenant R. Kingsbury, 3rd Buffs, B. Army, 6th September, 1814.
Acting Lieutenant William Paul, B. Navy, 11th September, 1814.	Ensign J. Chapman, 3d Buffs, B. Army, 6th September, 1814.
Midshepman William Gunn, B. Navy, 11th September, 1814.	Boatswain Charles Jackson, B. Navy, 11th September, 1814.

It has often been my fortune to stand by the graves of some of England's best and bravest. I remember one at Père LaChaise, where a hero is laid among the enemies he fought from boyhood to the close of a long and brilliant life. At such times a thought has occurred to me which my friend Colonel Raymond afterward put into words as, standing with me one day by the tree where Gen. Braddock's body was buried by his fugitive Army, he suddenly turned to me and asked, "Where has not the British soldier been?" It was certainly a coincidence that at the time the question was put we were hourly expecting the news of Napier's success in Abyssinia.

I cannot in justice to some generous men equally brave with those names I have cited above, close this article without adverting to a pleasing feature of the two decoration Days that have been celebrated here. In a former paper I have stated how a few enlisted men of the first regiment U. S. Artillery organized in this town a Post of the Grand army of the Republic, and how, assisted by the officers and the citizens, they went to the cemetery, last year and this, and strewed flowers on the graves of those who fell in the Great Rebellion. On both these occasions the tombs of the British Officers were not neglected. True, they had quarreled with us, but they were fair foes, and hostility was forgotten over the ashes that with the eloquence of silence won admiration for the self-devotion and valor which are the God like attributes that make brothers of the heroes of every land. Affection is grounded on esteem, and I am sure there was something more than tenderness in the expression on the faces of those who laid the evergreen crowns on the slab that covers Downie. Indeed, I can hardly believe it was mere fancy made me think that the very men, who in case of war with England, would in the nature of things, be the first called upon to fight, were the first to lay the fairest floral offerings on the graves of the British dead at Plattsburgh.

Macomb Place, June 25, 1872.

REGULAR.

REVIEWS.

We have to acknowledge the receipt of No. LXVII of the Journal of the *Royal United Science Institution*, the only scientific military journal accessible to the public and professional men published in the English language.

The subjects contained in the present number are:—

The Strategy of Invasion.
The Employment of Cavalry in war.
A Method of converting the Regulation Boll Tent into a Shelter Tent.
H. M. S. *Agincourt* "On" and "Off" the the Pearl Rook.
On the Geneva Convention of 1864.
The Autumn Manœuvres of England.
English and Foreign Maps and their use for Military purposes.
The Rule of the Road at Sea.
The Russian Army.
Campbell's Range Indicator. As indicated by the subjects, the present is a magnificent number of the Journal, and should be in the hands of every military and naval officer.

The *Royal United Service Institution* affords facilities for the acquisition of scientific professional knowledge unattainable under ordinary circumstances, and we should be well pleased that our Canadian Officers availed themselves of its advantages.

A yearly subscription of five dollars entitles the party to a copy of the Journal (which is issued quarterly) any one number of which is worth at least five times the money to any desirous of acquiring a thorough practical and scientific acquaintance with the subjects of which it treats.

INDIAN HOSTILITIES.

A despatch from James River, Dakota Territory, dated August 23rd, states:—
Crossing, James River, D. T.

August 23.

There are rumors here that hostile Sioux Indians, are showing themselves in all directions probably originating from the fact that *Colonel Baker, of the Pigan affair, is now commanding four companies of the second cavalry with the Northern Surveying Expedition. The entire escort comprises ten companies of troops, and left Fort Rice on July 26, under command of general Stanley. On the 19th inst., it appears, they were attacked by several hundreds of the Sioux warriors. The reports that have reached here are meagre, but sufficient to indicate the result of the fight in the abstract. The Indians were repulsed, with a considerable number killed and wounded. The loss among the United States troops was slight.*

There are many unfounded Indian rumors circulated by parties who would prejudice, it is believed, the interest of the Northern Pacific Railway.

A nine-pounder, breech-loading, rifled gun made of Whitworth metal, which is now being exhibited at the International Exhibition in London, is to be fired for experiment on the sands of Southport, Lancashire, at the latter end of September; and Sir John Whitworth has expressed his willingness to match the gun against any other, British or Foreign, of the same weight, for range, accuracy, penetration, and rapidity of firing. The weight of the gun is 8 cwt. 3 qrs. and that of the carriage 10 cwt. The inventor anticipates that it will achieve a range of 5,000 yards at an elevation of 10 degrees; at an extreme angle of elevation as much as 11,000 yards—more than six miles.

(For the REVIEW.)

ABERCROMBIE'S GRAVE.

[Sir Ralph Abercrombie's remains are buried in the angle of one of the bastions of the Castle of St. Elmo at Malta. A marble slab inserted in the opening of the vault recounts the history of the hero. A 110-pounder Armstrong Gun was mounted directly over the tomb when the writer visited the spot in 1863, and, from the cavalier of the work above, floats the British Ensign:]

No drooping willow weeps,
Where Abercrombie sleeps
On the bastion that towers o'er the sea
Where the billows evermore
Tell the echoes on the shore
Of him whose name was one with victory.

Near Abercrombie's grave,
Looking down across the vale
Is a sleepless, giant, iron sentinel
Crouching grim and silent there,
Like a lion in his lair,
The ashes of the hero guarding well.

When Abercrombie died,
Old England o'er the tide,
Sont this sentinel to guard his sacred tomb,
They are brothers—he who sleeps
And the giant one that keeps,
Endless vigil in the sunshine and the gloom.

Over Abercrombie's head
Floats a banner bloody red,
Victorious over sea and over land,
And the foe had need be brave,
Who on Abercrombie's grave
Would dare to lay a desecrating hand.

CARROLL RYAN.

THE TURKISH ARMAMENTS.

(From the London Naval and Military Gazette.)

There is perhaps no state in Europe which is generally regarded as so completely dependent on the forbearance and protection of its neighbours as the Ottoman Empire. We have heard so much of the Sick Man that we have almost begun to look upon his case as hopeless, and few persons are inclined to attach much importance to the armaments or the Turkish authorities by themselves. We are disposed to believe, however, that much of this feeling is due to the want of information on the subject which is to be found even in quarters where one would perhaps least expect it. Thus, when the Foreign Secretary some little time ago stated in the House of Lords that the Turkish fleet, far from being in an unsatisfactory condition, was in reality one of the most powerful and efficient in the world, many of his hearers indicated plainly enough their surprise and incredulity. Nevertheless this statement was correct. Not only is the fleet of Turkey one of the most powerful and efficient in the world, but there is every reason to believe that the position which that country has obtained among the maritime powers will be energetically preserved. Whether it is due to the enlightened character of the present Sultan, or to the ability and foresight of the late and of the present Grand Vizier, or to the energy of the foreign officers at present in the service of the Porte, certain it is that of late years both the military and naval service, but especially the latter, have received an impetus which has imparted a new life to them. It is probable that late events too have convinced the Turks that to maintain their position in Europe they must trust less to treaties and more to their own efforts. The Turkish navy at present consist of one hundred and eighty-five vessels, carrying two thousand three hundred and seventy guns, including

four line-of-battle ships, five first class mailed frigates, twelve corvettes, and five gun-boats of modern construction; and both the naval and military arsenals at Tophaneh and Haskeni are busily engaged in the construction and equipment of other first class vessels. The first iron-clad built in Turkey, the *Mukat-demiheigher*, has been on the stocks for fifteen months, and is now almost completed. It is built from the drawings of Mr. Reed, late chief constructor of the British navy, and is the sister ship of the *Fati Bulend*, constructed last year for the Turks at the Thames Iron Works. The vessel will be armed with twelve-and-a-half ton Armstrong guns, inclosed in a central box or battery, which projects two feet on each side, realizing the constructor's favorite theory of all-round fire. One great advantage which has also been secured is that she draws only seventeen feet of water. Vessels of this kind are unquestionably destined to play an important part in future warfare, and it is said that the Prussian Government has already ordered the construction of two on the plan of the *Mukat-demi-heigher*.

But it is not only to securing good vessels that the activity of the Turkish Government has recently been directed. In every department engaged in the production of war material the same energy is displayed; increased stores of arms being accumulated, of the newest and most improved patterns; and the best and most powerful machinery is being secured for the factories, the buildings of which are being permanently enlarged. Thus, at the Imperial Gun Factories at Tophaneh on the Bosphorus, an enormous new workshop is being constructed, and is, indeed, all but completed, which will probably be the finest thing of its kind in the world. Its length is something under 900 feet, and in width it measures more than 80 feet. It is intended for the manufactures of the largest guns, and the foundations for the machinery are laid upon solid rock conveniently found just below the surface of the soil. Some of the machinery is already in position, and the rest is ready to be put up. The old wooden gun-carriages and limbers too are definitely and entirely abandoned for the lighter, more durable and stronger ones of wrought iron, and this has necessitated the remodelling and enlargement of the carriage department. Tophaneh, in fact, to use the words of the excellent authority to which we are indebted for the facts mentioned in this article, is fast becoming the Woolwich of the Bosphorus.

An improvement in the system of manufacturing muzzle-loading guns on the Woolwich principle, which has been introduced by Halil Pasha is worthy of notice. These guns, made on central steel tubes, are strengthened at the breech-end by welded coils of wrought iron. Halil Pasha has substituted for these coils a jacket of cast bronze of similar shape and size. The advantages obtained by this improvement are that the danger of defects in the casting is considerably less than with wrought iron coils, the number of operations required in the manufacture fewer, and the amount of skilled labor less. The experiment made to test guns already made on this system, though nothing larger than a 63-pounder has yet been completed, have all been so thoroughly satisfactory that it has been determined to proceed at once to the manufacture of guns of the largest calibre. With regard to small arms, all the muzzle-loading rifles in store are being rapidly converted on the Snider principle, and a hundred machines for the manufacture of the metal parts of cartridges having been also erected at the disposal of the Turkish government are more

than enough to supply all possible requirements, the mills at Barout-haneh alone being large enough of themselves to supply double the quantity required, and they are now busily engaged in making pebble, bean, and prismatic powders.

But the most interesting portion of the works of Tophaneh is that devoted to the manufacture of torpedoes at Zeitoun-Bournou. The works here are under the direction of an able American officer (who we believe has patented the processes), and are making great progress. Accurate and detailed information with regard to this part of the factory operations is not at present attainable; the matter being kept as private as possible. But we believe that the extent and power of these sea defences of Constantinople will cause some surprise when they come to be fully known. From the admirable work on "Modern Turkey," which has just been published by Mr. Farley, and which is the most complete and authoritative book we have seen on almost all the subjects of which it treats, we learn that the factories at Zeitoun-Bournou have completed a large number of massive hemispherical iron tanks, each of which will contain seven thousand pounds of powder, and that it is intended to build two hundred of these tanks and sink them in suitable parts of the Dardanelles, the Sea of Marmora, at the mouth of the Black Sea, and in the Bosphorus. They are doubly rivetted, and made stronger than the strongest steam-boilers, as they will, when sunk, have to support a pressure of seventy pounds to the square inch. These are, in short, submarine mines, containing the most terribly destructive charges of powder, lying in the bed of the sea, and exploisible at will from the shore by electricity. They will be fitted with an apparatus very durable, but at the same time most delicate and unerring, which indicates at once to the operator at the electric battery on land the passage of any ship over the spot at which they are sunk. The explosion of one of them in the deep Bosphorus would utterly annihilate, within a radius of about two hundred yards, the largest iron clad ever built.

But the torpedo works are not limited to these machines, which are useful only for defensive purposes. They will be supplemented by a service of torpedo-rams for offensive operations. The immense service done by torpedoes during the American war will be remembered. It was the first occasion in which these machines were used as military engines on anything like a scientific and comprehensive scale; and during the struggle the Confederates succeeded in destroying by their agency a more powerful fleet than the Northerners possessed at first. Turkish waters are, as we have quoted from remarks, peculiarly adapted to this system of defence; and, as the kind of engine adopted by the Sultan's government is an immense improvement on those used in America, the arrangements now in progress in Zeitoun-Bournou will put Turkey in possession of the most extensive and complete system of torpedo defence in existence. All these works are at Tophaneh; but the naval arsenal, at Haskeni, is similarly active. Besides several new buildings, the whole of the boilers throughout the works have been renewed, a new smith's shop, to contain fifty fires, is in course of erection, and several large factories and foundries are to be constructed as shortly as possible. The prospect of the Turkish naval service is thus very encouraging. The fleet is in a state of thorough repair; the works now in operation, or in course of construction, will not only maintain the position now secured, but

may not unlikely prove of great value to the allies of the Porte in case of need; while, with first class vessels, good men, and a rising generation of well instructed officers, there is no danger but that Turkey will be quite able to hold her own, at least at sea, with any power with which she is likely to come into collision.

THE 400LBS. SHELL OF THE HERCULES.

There may now be seen at the south Kensington Museum a full size model of a 10 inch 400lb. common shell, similar to the one which recently disabled the 18-ton gun of the *Hercules*, but strengthened with five iron ribs, instead of being weakened with fourteen stud holes, each three tenths of an inch deep, and one and a half inch wide. To obviate the "oblique" movement of the axis which checks the exit of the shell, dislodges the fuse composition, and causes premature explosions, the model of the *Hercules* 400lb. shell has had substituted a total rotating bearing of 115 inches on strengthening ribs for the six inches on weakening studs now relied upon. The grooves in the gun, to receive these five iron ribs, would only be about one half the depth and one half the width of these in the *Hercules* 18-ton guns, and would necessitate the removal of only 14½ lbs of metal from the bore, instead of 61½ lbs., as at present. This system of long centering ribbed bearings gave higher velocities, and better endurance than the present service short stud bearings when tried against them in the heavy gun competition of 1865. On that occasion, the so-called "Woolwich" rifling, with increasing spiral, destroyed its 7-inch 7½ ton gun in 567 rounds, whilst the ribbed rifling left the lands and grooves unimpaired after 417 rounds. Moreover, the 110lbs. ribbed shot, though precisely similar in all respects, except the rifling, to the "Woolwich" one, struck a muzzle blow 133 foot-tons heavier than the latter, and was thrown at 2° of elevation to 1473 yards, with 5lbs. less powder charge than the "Woolwich" one took to reach the same distance. Thus, without any change, except in the rifling, a stronger shell is provided, with the effort of rotation diffused over nearly twenty times the surface, and a stronger gun is obtained with less strain upon it. The striking force, the powder capacity, and the endurance of the projectiles of the *Hercules*, would thus be greatly increased; whilst the Royal Arsenal authorities have certified that the strong ribbed shell would cost £77 per thousand less than the weak studded one and the rifling of the gun be done at one fifth less cost. As our heavy guns are occasionally injured by their own projectiles, even when firing deliberately at a target, a reconsideration of the mechanical principles involved may not be ill timed or unnecessary.—*Broad Arrow*.

(From the Army and Navy Journal.)

As the work of establishing a rifle range for the National Guard of New York progresses, evidence come in from all points not merely of the general interest felt in the Rifle Association and its work, which is of gratifying extent, but of the real importance and necessity of such an establishment in the military training of our citizens. The subject is one to engage the interest of the Army as well as that of volunteers and civilians generally. A dozen years of training has given the men who meet at Wimbledon a discipline and comprehension of a rifleman's duties which tells very perceptibly in the work at that range. More than that, it has

made the English Volunteers a body of marksmen of really remarkable efficiency. Each year improvement is shown either in the increased accuracy of crack shots or in a general advance of marksmanship down the whole score—a much more valuable fruit of experience than the improvement of a few wonderful shots. The truth is that for every shot fired on the range, many thousand have been fired during the year in private, or at weekly or monthly meetings at district ranges. It is this preliminary drill that is the most useful part of the system, for it is this in which the great mass of volunteers and civilians take part. The picked sixty and the special prize winners serve to call out more extended efforts, like those intense electric currents which give rise to much larger though less intense induced currents of electricity.

But we need not go so far as Wimbledon for proof of the great results which spring from a faithful system of rifle practice. The committee which, on behalf of our Rifle Association, visited Canada to inspect the ranges there, bring home information which we are sure will be surprising to most of our readers. The Dominion has no less than seventy six ranges for practice, one for each section of the country. Most of these are second rate, as might be expected in thinly settled parts of the country. By second rate, we mean that they do not include a 1,000 yards range, which requires an extent of ground and a supply of targets that must task a small community's resources. But these lesser ranges have facilities for shooting at two, four, six and some of them eight hundred yards. Compare that with the average distance in this country, where men meet to try conclusions harmlessly against a target. In the more thickly settled parts of the Dominion are a number of ranges which are of the first order, and at them the grand meetings of the year are held.

It is easy to ascertain the effect of the ten or eleven years of training which the Canadians have had. The country is full of men who can come down here and compete with our best men; and among them is a fair, or rather a large proportion of men who would be accounted crack shots in any company. At Montreal this year one man made four bull's-eyes out of five shots at 1 000 yards. At Wimbledon last July the Canadian team, made up of eight selected men, took the prize against eight selected Englishmen. The day was bad for shooting, the effects of a mirage being intensified by a peculiarly deceptive light; but the Canadians made an average of 66.5 against the 65.5 of the Englishmen. The result is all the more remarkable when we consider the vast preponderance of population, and especially of trained population, which England has over Canada.

The military preparation of Canada is of no slight importance. Forty thousand active militia are trained every year and with some thing more than a show encampment and target-excursion drill. They are placed in camp, learn the duties of the soldier, and this personal instruction is supplemented and made efficient by enforced practice with the rifle. Thus Canada accumulates a force which, when well trained, is a formidable army. Her men understand themselves, their officers have experience of command, and the force is effective in the best sense of the word. If the Canadians ever fight at all, they will probably fight us, for there does not appear to be any body else with whom they can seriously quarrel. That such a contest is likely to come for many years, we doubt. Both peoples, so far as we know them, are seriously inclined to peace. We

certainly have little care for Canada, in spite of the talk across the border and in England. Were it not for the frequently repeated lesson of history, that no nation can hope to exist very many years without a war, our neighbors might abandon their well arranged military system and keep their targets for peaceful practice. But if a war does arise between us, or between England and ourselves with Canada involved, the immediate consequences of meeting such well-drilled marksmen, unless we speedily emulate them in practice, will be unfortunate for us, whatever the result of the war may be.

We are glad that the military spirit, of which the Americans have proved themselves the possessors, is to have an opportunity to express itself in legitimate and honorable methods of acquiring a knowledge of the most important duties of war. The range at Creedmoor, established by our National Rifle Association, will, from the necessity of the case, be a first-class range, and to an unusual degree, for with the exception of a few short ranges, all the targets will be at 1,000 yards distance, and shorter distances will have to be shot on the same ranges. Everything will at the start be as complete as it is possible to make it, and when the experience of others has been culled to the best of the managers' ability, the future improvement of the range will be left to the criticism of use.

The steamship *Pennsylvania*, the first ship of the American Steamship Company's Philadelphia and Liverpool line, and the first American iron ocean steamer, was launched from the yard of William Cramp & Sons, in Philadelphia, August 14. The following are her principal dimensions. Length over all, 355 feet, length from forward part of stem to sternpost, 343 feet; from forward part of stem to propeller, 336 feet; beam extreme, 43 feet; depth of hold from top of floors to top of spar deck, 32 feet 6 inches; tonnage, old measurement, 5,016; capacity of coal-bunker, 720 tons; cargo space, 3,554 tons. Her draft will not exceed 20 feet 6 inches in fresh water, with coal-bunkers full, and a dead weight cargo of 1,740 tons (2,240 pounds), or a measurement cargo of 3,554 tons (forty cubic feet) also a full complement of saloon and steerage passengers, officers and crew, all necessary stores and outfit on board. Passenger accommodation is provided for 76 in the saloon; the steerage will afford accommodation for 554. The average contract speed is to be 11 1 2 knots on an average consumption of 40 tons (2,240 pounds) of coal in 24 hours. The *Pennsylvania* is brig-rigged, with masts 51 and 58 feet above spar deck, with topmasts 31, 16, and 10 feet; yards 63, 47, and 34 feet. All the standing rigging is of wire, of proper size; running rig of Manila, fitted with all suitable sails and tackling necessary for the North Atlantic service.

The *Superb*, the largest ironclad ship of any yet constructed, one of four new vessels to be built at Chatham dock yard, is ordered to be commenced on one of the large building slips at that establishment, and to be pushed forward to her construction, so that she may be ready for launching during the ensuing year.

The French Jockey Club has decided on placing in its library a marble slab, on which will be inscribed the names of such of its members as fell before the enemy in the late war.

THE INSTRUCTION CAMPAIGN.

The following revised rules for the umpire staff and troops during the autumn manoeuvres, dated Horse Guards, August 24, have been issued:—

RULES TO BE OBSERVED BY THE UMPIRE STAFF

1. The umpire in chief will be His Royal Highness the Field Marshal Commanding-in-Chief, or other general officer commanding in chief.
2. The umpire staff will be distinguished by a broad white band round the right arm, above the elbow.
3. All orders from the umpire staff are to be considered as directly emanating from the umpire in chief, and are to be carried out with alacrity.
4. No general or other officer commanding a brigade, regiment, or battery is on any account to enter into a discussion with the umpire.
5. The umpires may halt any body of troops, or order them to retire behind the first line or to any position indicated; and in case of collision, the umpire may decide whether a body of troops has become so non-effective from the fire of the enemy as to be withdrawn for a specified time from immediate action.
6. The umpires will decide on the actual present circumstances, without reference to their effect on the general course of the manoeuvres.

RULES TO BE OBSERVED BY THE TROOPS.

1. White bands, two inches wide, will be worn horizontally round the middle of the headpiece by the southern force.
2. The umpires are general umpires for all arms, and the umpire on the spot will decide all questions connected with artillery, cavalry or infantry.
3. The umpires shall take their posts between the opposing forces in the most advantageous position; they will be distributed, as nearly as possible, two in the centre, and two on each flank.
4. If no umpire is present when a doubtful point occurs, a general officer or brigadier may send for one, the troops remaining halted until he arrives.
5. No troops are to approach within 100 yards of an opposing force; as a general rule the weaker body should retire; if for any reason it does not do so before the limit laid down is attained, the opposing forces are to halt, order arms, return swords, and wait until the umpire decides which is to fall back.
6. Lines are not to exchange volleys near or than 250 yards.
7. Skirmishers are to cease firing when within 200 yards of opposing skirmishers.
8. Cavalry charges, to be considered effective by the umpires, must be delivered with proper energy; the charging forces must be halted when within 100 yards of the opposing body.
9. Cavalry and artillery are not to remain halted under effective fire of infantry or artillery.
10. Skirmishers and artillery are not to move across a plain commanded by enemy's cavalry, unless supported.
11. Guns limbered up, if unsupported or weakly protected, may be captured by cavalry or infantry skirmishers.
12. Beaten cavalry must retire at a trot. Victorious cavalry may follow at a walk 300 yards' distance.
13. A battalion in square (unshaken) cannot be attacked by single squadrons of cav-

alry. Three or four squadrons may attack, if the square is assailable from different sides.

14. When infantry are defeated by infantry (according to the umpire's decision), the victors may pursue at 300 yards' distance.

15. Obstructions are only to be considered tactical obstructions when they form actual natural obstructions or are on prescribed ground.

16. The "cease fire" and "halt" are on no account to be sounded by any regiment for the purpose of carrying out regimental details, but words of command only are to be issued.

17. Infantry will never fix bayonets, except when formed to receive cavalry.

18. Villages with troops formed in front of them are to be considered as occupied.

19. General officers will take care that all hurry and forced rate of marching are prevented; the movements should be made with the greatest deliberation, and order and regularity must be maintained. When troops are broken by circumstances of ground or otherwise, they should be reformed on the first opportunity.

20. The most economical use of ammunition is to be inculcated and enforced. Commanding officers will be held responsible that the troops do not commence the operations of the day with a larger amount of ammunition in their pouches than that fixed in the memorandum dated Horse Guards, July, 1872.

21. Railways are only to be crossed by the regular bridges and crossings.

22. Firing near buildings or stackyards should be avoided as much as possible, and every precaution taken to guard against fire.

23. Great vigilance is required to detect and not to give weight to "manœuvre tricks," such as too great extension of line, for the purpose of surrounding, or the renewed attacks of troops already beaten.

24. The probable effect of fire, especially of artillery, must be considered; also whether there is confusion or absence of confusion.

25. Repeated attacks by the same body of cavalry are absurd, and impracticable in real battle.

26. The supposed destruction of bridges may be indicated by a flag or by the occupation of the bridges by a party of Engineers. The umpires will determine how long it will require to repair the bridges.

27. When the "cease fire" and "halt," followed by "officers' call" are sounded, officers commanding divisions and brigades will repair to the umpire in chief, and the troops will encamp or wait for orders according to circumstances.

A COFFINED JUDGE.

(From the N. Y. Sun.)

Last Saturday a well-known ex-Judge entered the Park hospital in a state of partial intoxication. He spoke incoherently, and laughed when warned of the danger of imbibing too freely during the hot weather. On leaving the hospital the general warden Brown advised him to seek some shady retreat, else he would be certain to return on a stretcher. The Judge strolled over to Delmonico's and there invested a few dollars in S.O.P. brandy. He was found soon afterward by one of the Broadway squad at Broadway and Ready streets, unconscious.

To summon the ambulance from Park Hospital was the work of a few minutes.

"Another case of sunstroke," said the anxious patrolman. The surprise of Dr. Vandewater and Warden Brown may be imagined when they found their patient to be the ex-Judge. The usual restoratives were applied, and the case pronounced simple alcoholism.

The ex-Judge slept. His breathing indicated a drunken stupor. His snoring alarmed the other patients, but still he slept on. At length as the hour of midnight approached Warden Brown, who is an ardent temperance man conceived the idea of curing the Judge of his only infirmity. He sent for a coffin, packed it with ice, and then laid the Judge on the ice. The lights were turned down and only the pale gleams of the moon entered the room. A white cloth was thrown over the coffin, and one solitary attendant watched the corpse. The ice began to melt, and the Judge began to revive. A few muscular movements indicated returning consciousness. And the influence of the ice became more powerful; the contortions increased, and were soon followed by a violent torrent of oaths. They fell fast and thick, but still the semi-conscious occupant of the coffin failed to realize his position. At last he opened his eyes, looked and felt about him, experienced strange sensations, and at last took in the situation. "Great God!" he exclaimed, "they think I'm dead and are going to bury me."

To cry out for help was his first impulse. He yelled like a Comanche Indian. Warden Brown, the doctors, the orderlies and all the patients who could, rushed to the coffin. The corpse insisted that it was not dead, but it required a very careful examination and a serious consultation before Dr. Vandewater would express an opinion. He directed the Judge to leave the coffin and get into a bed. "No sir," exclaimed the thoroughly frightened man; "if I go to sleep you'll bury me, dead or alive. I'm going home."

And he did go home, vowing never to drink any more. So far he has kept his word.

RIFLING OF ORDNANCE.—In the Mechanical Section of the British Association on Monday week, the proceedings began by Mr H. Hope V.C., contributing a paper relating to the error in the flight of heavy projectiles due to the Woolwich system of rifling. He pointed out that in consequence of the projectile being allowed windage, it rotated in its flight in a line divergent from its own axis. In the rifling of big guns the Government officials were acting not only in violation of the plainest and most obvious teaching of science but also in defiance of common sense. Mr Found believed that the initial disturbance was not so permanent as Mr Hope suggested and that the projectile righted itself before leaving the gun. If the shot were tight there was greater chance of a foul. Mr T. Webster Q.C., agreed theoretically with the argument of the paper. The discussion was of an animated character, and was continued by Mr Chadwick, Professor Pole, Mr Fulcher, Merrifield, and the President.

It is estimated that 13,000 collisions have occurred at sea during the past six years—a sufficient argument for a clear understanding of the rule of the road at sea.

General Sherman will return to the United States in September.