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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. VIII.

OTTAWA, (CANADA,) TUESDAY, AUGUST 11, 1874.

No. 32

NEWS OF THE WEEK.

The fall wheat is being harvested through out the Ottawa Valley; and we are gratified to learn that it is a most abundant crop. There are no complaints of either fly or rust. The weather is very propitious for the safe gathering in of the crop.

At Concord N. H. on the 4th the mercury at five o'clock in the morning registered 46°. This is remarkably cold for the early part of August.

The Gathering of the Caladonia Clans, under the auspices of the St. Andrews Society of Ottawa, will be held in the Agriculture Show Grounds, on Thursday, 13th inst. \$400 in valuable Prizes and Purses will be awarded to the successful competitors in these sports.

The International Cricket match between England and America came off at Lord's (England) on the 4th, and resulted in a victory for the Americans, contrary to all expectation.

A Halifax paper says the Court Martial held on board H M S *Doris* on the conduct of the Captain, Officers and Crew of H M S *Niobe* for her loss at Miquelon, have "returned a verdict not only acquitting the accused from all blame, but highly complimenting them for their conduct during and after the disaster. The result of the investigation will give universal satisfaction."

Miss McPherson and another party of one hundred children left England, 30th July, and are expected here about August 13th.

The turning of the first sod of the Victoria Railway took place on the 5th inst., at Lindsay, and the ceremony passed off with great eclat.

Five hundred thousand tons of coal were taken out of the N. S. and C. B. mines the first six months of this year.

The tenders for the construction of the Trans-Continental Telegraph Line were opened on the 7th, but the work of tabulating and arranging them and calculating the figures, which is being conducted by Messrs. Trudeau, Braun, Sandford Fleming, has not yet been completed, and of course the result is not known.

We understand the Dominion Government have taken the necessary steps to repair the Government buildings and fortifications at Quebec and Kingston, and a considerable force will be employed in both places for this purpose during the remainder of the year.

1500 men are working on the North Shore Railway.

Adamson's elevator, Toronto, containing 26,000 bushels of grain, and a large quantity of flour was destroyed on the 6th. The fire extending, burned a large warehouse and a pile of wood stored near the wharf. The destruction of property is great, and the insurance very small.

The editor-in-chief of *Le National* Honorable Charles Joseph Laberge, one of the finest intellects that Canada has produced, died on Monday, August 3rd, in his 47th year.

The Prospect fishermen had a haul of 1,000 barrels of mackerel on Sunday the 5. Lieut. Governor Morris has returned to Fort Garry from the western portion of Manitoba, where he has been inspecting the damage done by grass-hoppers. It is satisfactory to learn that the former accounts were exaggerated.

There is a mystery attending the suicide of Lord Gordon, which the inquest has as yet failed to unravel. No money or securities have been found. It appears that the warrants were not altogether regular, and the whole affair bears the complexion of another attempt at kidnapping by the deceased's bailsmen in New York. The Chief Justice reprimanded the officials who effected the arrest.

The Washington authorities have issued instructions that all the goods from St. John, intended for Canada, must be landed at East Port, and shipped there. This will cause great delay and expense, and merchants here are very indignant.

The first train of the Kingston and Peterboro' Railway arrived at Harrowsmith on Wednesday, where the villagers gave it a demonstrative welcome. Yesterday the Directors, contractors and mill owners had an excursion over the line as far as it is laid.

Mr. J. Rochester, M. P., has sold a ship load of deals to be delivered in Montreal inside of twelve days. The shipment will be made direct to Brighton, England.

The British Steamship 'Corinth,' Captain Oder, which left New York, July 15th, for Liverpool, was lost off Galway, County Cork, Ireland, together with cargo. The crew was saved.

The *Cologne Gazette* says that the French Government have agreed to recall the war ship *Orenoque* from Civita Vecchia, and that vessel will probably quit that station before the 15th instant.

A Special despatch dated St. Louis, 4th to the *Globe* from Fort Gibson, says a band of Indians entered Fort Gibson last night, broke open the jail and liberated the Indian charged with the murder of a white man in the Indian territory, and confined by the

United States Marshal. In leaving they discharged their guns close to the commanding officer's quarters. They threaten, if any more Indians are confined, they will burn the town, and such things may be looked for at any time, there being only six or eight soldiers in the garrison.

A telegraph operator at Aurora, Indiana, reports that the steamer *Pat Rogers* was burned this morning, Tuesday 4th one mile below Aurora, and about twenty lives were lost, the victims being principally ladies.

The possible origin of the fire on the steamer *Rogers* is given as follows:—About two weeks ago a negro thief was detected by the watchman who fired at but missed him; this negro took passage on the *Rogers* on Tuesday, and was heard to say before starting that he would make it as hot as hell for that watchman before the boat reached Cincinnati. The opinion expressed is that the negro set fire to the boat and cut the tiller rope.

Further investigation has shed no additional light on the origin of the fire, except to dissipate the suspicion which rested on a negro discharged from the boat's employ. The number on board, all told, is supposed to have been from seventy two to seventy five persons, the exact list cannot be had. Reports of the lost have ranged from sixteen to twenty eight persons, probably twenty five is the number nearest the fact. At this time five persons are known to be unsaved.

The northwestern part of Minnesota was visited on the 5th by a hail storm, which did great damage to crops in Meeker County. At Pepin, the Baptist Church was struck by lightning and destroyed.

The immigration to New York City during the past nine months has been 100,000 persons less than during the corresponding period last year.

A Galveston special despatch from Dallas says Capt. Beall, just from Fort Worth, brings information that the Indiana had captured two mail stages going, and one coming between Wichita and Fort Sill. There were only three passengers, who with the drivers, were killed and scalped.

The Hamburg steamship *City of Gautemala* is ashore on Watling's Island, and will prove a total loss. The ship and cargo are valued at \$316,834. It is insured.

An earthquake of fully a minute's duration was felt at noon on the 8th inst., in the islands of the Kitts, St. Thomas and Antigua. No damage is reported, although movement sharp.

Hayti and Sandomingo at last advices were tranquil. In the latter country, the only cause of uneasiness was the plotting of few remaining adherents of Boas.

ANNUAL REPORT ON THE STATE OF
THE MILITIA FOR 1873.

'APPENDIX No. I

(Continued from Page. 363.)

MILITARY DISTRICT NO. 9

HEAD QUARTERS,
HALIFAX, N. S.,

January 1st, 1874.

Sir,—I have the honor to inform you that the quota of Active Militia required to be furnished from the district under my command, is 4,284. The total nominal strength of the force in the district, were the respective corps complete to their established strength, as authorized, would be 320 officers, and 4,505 men.

The total actual strength of the force who mustered at the annual drill for 1873 was 244 officers, 3,350 men.

Corps of the established strength 34 of officers and 550 men, have not as yet trained. If these muster at full strength, there would be 42 officers and 605 men wanting to complete.

The Active Militia in this district, consist of the following corps, which at the time of the annual training turned out as under:—

	Officers.	Men.
Halifax Light Battery.....	5	70
1st Halifax B. G. A.....	23	273
2nd " ".....	21	244
Lunenburg B., (not trained)	0	0
Mahone Bay " (not trained)	0	0
Digby " " (not trained)	0	0
63rd Rifles (Halifax).....	20	275
66th Battalion Infantry.....	28	423
68th " ".....	37	498
69th " ".....	34	461
72nd " ".....	23	302
No. 6 Company, 75th Batt.,..	3	41
78th Battalion (Highlanders)	20	304
Victoria Prov. Battalion....	17	265
Cumberland Prov. Battalion.	13	192

The annual drill was performed in accordance with General Orders (12) of 30th May, and (14) of 23rd June, 1873, as in documents (A.) (B.) herewith forwarded. Annual inspection reports, and district target practice returns are also enclosed.

I have the honor to be, Sir,
Your obedient servant,

J. W. LAURIE Lieut.-Colonel.

D. A. G., Commanding,
Military District, No. 9.

(A)

THE HALIFAX BRIGADE.

Consisting of:—

Halifax Light Battery.....	Captain Graham
1st Halifax B. G. A.,.....	Lt. Col. Mitchell
2nd " ".....	Capt. McPherson
63rd " Rifles.....	Lt. Col. Pallister
66th " Infantry.....	Bremner

Performed their annual drill at brigade head quarters. The whole brigade attended two brigade field days, at one of which they were formed in division, with a brigade of Her Majesty's regular troops, under Lieut.-General William O'Grady Haly, C. B.; and the force turned out two additional days.

The whole force also attended one evening brigade drill, drilling from 7.30 until about 10 o'clock in the long summer evening.

The Light Battery practised at 1,500 yards range with their 6-pounder Armstrongs, and made such excellent practice that the target was altogether shot to pieces.

The 1st and 2nd Halifax Brigades Garrison Artillery performed their annual shot and shell practice with 32 pounder guns, at ranges from 1,400 to 1,700 yards, from one of the Halifax harbor batteries kindly placed at my disposal by the Lieut. General Commanding the troops.

The Halifax City Brigade was inspected by me on the 10th October, 1873. The working of the brigade is very satisfactory; both officers and men take an interest in their work, and strive to attain efficiency. The manoeuvring is very fair, and the uniforms well put on, appointments, clean and tidy, and the men present a soldierlike appearance; and at the review in honor of the Governor General, earned high commendation from his Excellency, and also from the Lieut.-General Commanding the troops.

Great difficulty is experienced in horsing the Light Battery; a very large amount is annually contributed by the members of the battery to supplement the Government allowance for horses, which cannot be obtained for less than \$1.00 per hour.

The 68th Battalion went into camp at Kentville. As this was a regimental camp, I know nothing of how the camp economy was carried out, but in the few simple battalion movements performed, the men showed some knowledge of drill.

The 69th Battalion drill at company and battalion head-quarters, but it rained heavily during the inspection, held at Paradise, on 7th October, and I dismissed the men after a close muster and one or two simple battalion movements. In this batt. the belts had been pipe clayed, and there were evidences of a desire to be smart, both in drill and soldierlike appearance, Nos., 7, 8 and 9 companies of this corps were inspected at company head quarters (Bear River), on the 8th October, 1873, by Lieut.-Col. Milsom, B. M.

The 72nd Battalion also drilled at company head quarters. I inspected the battalion at Aylesford on the 6th October, 1873. The officers seem zealous and anxious to work up the battalion, but much remains to be done.

No. 6 company of 75th, performed training at company head quarters, and were inspected by Lieut.-Col. Milsom, on the 14th Oct. Col. Milsom reports favorable of their willingness and desire to learn.

No. 2 company, 78th Highlanders, was inspected by Lieut. Col. Sawyer, B. M., on the 13th November, 1873. Col. Sawyer reports them fairly drilled.

No. 4 company was inspected by me on the 30th October. This company drilled very creditably.

No. 5 company was inspected by me on the 27th October. This company is smart and well drilled, and does its captain great credit.

No. 6, 7 and 8 Pictou companies were inspected by me, on the 7th November. The day was bitterly cold, and men were under great disadvantages; men were fairly turned out, and officers who are zealous had worked hard at the drill.

Nos. 1, 2, 3, and 4 companies, Victoria Provisional Battalion, trained at company head quarters, and the battalion was inspected by Lieut.-Col. Read, B.M., at Baddeck, on the 15th August, 1873; and No. 5 company was inspected at Sydney, on the 22nd November, 1873. Col. Read reports that the ranks were filled with stout able

men, and not with mere lads, as in camp last year, and that there was a marked improvement in the drill, &c.

The Cumberland Provisional Battalion, also trained at company head-quarters, mustered at Amherst for my inspection. The companies of this battalion have greatly improved in appearance, belts being better cleaned, uniforms more carefully put on, and generally showing greater care in drill and turn out.

The remaining companies, 75th Battalion, as well as the Lunenburg and Mahone Bay Garrison Batteries, have not as yet performed training.

(B)

GENERAL REMARKS.

I may say of all the purely rural corps, that the men are much more careless of their appearance than the city and village corps. They have no pattern to form upon, no one to guide or advise them in military matters, and the presence of an instructor, who has had regular military training in the army, is much required: all ranks are most willing to be taught. The officers are generally in earnest, and do their best, and they mostly have a fair knowledge of drill, &c.; but they come to the annual training after a year's absence, they have no trained non-commissioned officers to assist them, many of their men are recruits, and the utter impossibility of doing everything themselves becomes at last so apparent, that they become discouraged, and find their best and only plan is to gloss over as much as possible, and "get through" the training. If the training is still to be confined to one term of 8 or 16 days annually, and entirely given up for the year, officers, non-commissioned officers, and recruits should have some preliminary drill, otherwise the full advantage of the training to the rest of the corps, cannot be obtained. If it be the intention of the authorities to deal with the volunteer militia as if they are regular soldiers, or on the same footing as the English militia, to be called away from home and avocation, and give up everything else whilst at training, the Government must then be prepared to enter the labour market, and pay the proper price for what it wants; but if the aim is, as I take it to be, to get a body of men who have a stake in the country, and who can be found when wanted at any time throughout the year, and who receive a small money payment more to cover actual outlay than to pay for lost time, more consideration must be given as to how this class can best acquire the greatest amount of training with the least sacrifice of time. Allowance must be made for the varying circumstances of different localities, and actual efficiency, to be shown at semi-annual inspections, should be the test, rather than the compulsory sacrifice of a certain number of days in camp.

UNIFORM.

I will again call attention to the unsuitability for any purpose either of appearance or comfort, of the forage cap still issued, and urge that a smarter and more comfortable head-dress be substituted.

J. WIMBURN LAURIE,

Lieut.-Colonel,

D. A. G., Mil. Dis. No. 9.

The Acting Adjt. General,
Ottawa.

(To be continued.)

THE CANADIAN TEAM.

SHOOTING AT ALTOAR—THE TEAM AT WIMBLEDON.

ALTOAR RANGES, HIGHTOWN, July 3.

The match between the Liverpool Rifle Brigade, the First administrative Brigade of Cheshire Volunteers, and the Team, came off this afternoon. Before commencing it was left to the Canadians to decide what position should be taken at 200 yards, and as it was blowing a gale they selected "any position." Some of the men were of opinion that as in Canada all the shooting at 200 yards was from the shoulder the chances of success would be better if that position were adhered to. Whether the result would have been different it is now impossible to say, but, as far as the Rifle Brigade were concerned, the battle was virtually won and lost there. The result was looked forward to with great interest, as, a few days previously the Brigade had been beaten by the Cheshire. Both sides, but more particularly the Rifles were in splendid form. They have never had so fine a team since the regiment was raised, and they have been practising persistently for months past, in anticipation of this match. Some idea may be formed of the amount of the shooting done, from the fact that 450,000 rounds have been used since the season opened, and although there are fifty five targets at the Range it is a difficult matter to find one disengaged, and more are to be added.

The Canadians were not at their best by any means, only about forty eight hours having elapsed since their arrival, and many of the men who had been well during the journey, felt the effects of the passage after landing. Mason and Hickey had both gone home sick from the range the day previous, and the former had not recovered himself when the match came on. In fact, all were more or less soedy. The result was therefore gratifying, as the Cheshire men were beaten by 49 points, and the Rifles, who obtained their lead at 200, were obliged to fight hard to keep it at 500, and were beaten at 600.

The markers are in mantelets, and when a competitor is so unfortunate as to have to hold on one of these in a wind, his score must necessarily be a fluke. It is impossible to hold a black sight against a black object and aim correctly. In this match there was twelve feet of wind from the right at 600 yards, and those who were on the left targets had to aim at the middle of the mantelet, and trust to the chapter of accidents for the rest. This will in some measure account for the great discrepancies in the scores.

Another match has been arranged to come off at Wimbledon, in which the Canadians are to fire against twenty men picked from all the Liverpool battalions.

The following are the scores of each team in the order of merit :—

LIVERPOOL RIFLE BRIGADE.

	200 yds.	500 yds.	600 yds.	T'l.
Pte Thos Holt.....	31	20	28	79
Colour-Sergt Spown....	22	28	25	75
Pte McCann.....	27	30	13	70
Pte Keogh.....	29	28	13	70
Pte R Wright.....	28	29	11	68
Lt Davison.....	28	23	15	66
Capt Cooper.....	31	23	12	66
Pte Sullivan.....	24	22	19	65
Pte Richardson.....	24	26	15	65
Pte Hooton.....	29	18	14	61
Sergt-Major Moynagh..	28	13	18	59
Sergt Alexander.....	27	17	14	58
Sergt Tarleton.....	24	19	13	56
Pte Cox.....	30	19	7	56
Lt Birch.....	21	18	12	51
Corp'l Crossan.....	29	17	5	51
Pte Ledley.....	26	6	19	51
Colour-Sergt Pattison.	25	13	11	49
Sergt Loyd.....	23	16	10	49
Capt Phillips.....	24	14	6	44

Total 1,209

CANADIANS.

	200 yds.	500 yds.	600 yds.	T'l.
Corp'l Hickie....	29	27	18	74
Pte Mitchell.....	23	22	21	71
Lt Whitman.....	28	20	19	67
Maj'or Gibson.....	23	29	14	66
Capt Yorgan.....	22	29	14	65
Colour-Sergt Baillie..	25	22	16	63
Corp'l Pallen.....	29	22	12	63
Lt McNachton.....	21	21	19	61
Sergt Major Wynne..	26	21	13	60
Corp'l Layton.....	22	27	11	60
Capt Arnold.....	23	18	13	59
Colour-Sergt Omand..	24	22	11	57
Sergt Sutherland.....	22	18	13	53
Sergt Brazeau.....	23	26	4	53
Corp'l Pain.....	24	12	15	51
Capt Church.....	23	11	16	50
Lt Wolfenden.....	28	13	8	49
Capt Macpherson.....	20	14	14	48
Capt Mason.....	23	6	19	48
Pte Disher.....	20	12	11	43

Total 1,161

FIRST ADMINISTRATIVE BRIGADE CHESHIRE

VOLUNTEERS.

	200 yds.	500 yds.	600 yds.	T'l.
Sergt Beazley.....	27	22	19	68
Lieut Hornblower....	30	23	14	67
Corp'l Fergusson....	25	29	11	65
Lt Anderson.....	25	18	20	63
Pte Benn.....	29	23	11	63
Pte G Williamson....	29	19	15	63
Sergt Ellidge.....	26	22	11	61
Pte M'Givering.....	28	16	16	60
Capt Wright.....	23	23	12	58
Lt Glen.....	25	25	7	57
Pte Thompson.....	25	21	11	57
Capt Cunningham....	26	19	11	56
Pte Preston.....	28	11	13	52
Pte Hasswell.....	27	14	11	52
Pte Davidson.....	29	15	7	51
Pte Duncalf.....	23	10	16	49
Pte Getley.....	25	13	10	48
Sergt Williams.....	20	19	6	45
Pte Wattleworth....	25	9	7	41
Corp'l Pink.....	22	12	5	39

Total 1,115

In the evening Mr. Thomas invited the Canadians into the parlour to have a "bit of harmony." His daughter sang some English songs in a very sweet voice, and a few

neighbours asked in for the occasion, assisted by some of the team, sang song after song until midnight.

SATURDAY, July 4th.

This morning at 8.35, a start was made for Wimbledon. At Liverpool, they were met by Mr. Haigh, Dominion Emigration Agent, who has been most kind since their arrival in England. On landing he met them at the pier, accompanied them to Altoar, visited them daily, supplied newspapers, and in every way exerted himself to make their stay as pleasant as possible. All feel deeply indebted to him for his kindness.

At Putney, Col. Gilmor met the men and all drove up in a large van to the Camping Ground. It is situated very near, but not quite on the same ground as last year. The tents occupy three sides of a square. On the right and left of the entrance are the marquees of the Colonel and Major, then come on either side the tents of the men, Commissionnaires, Orderly, &c. The grand marquee faces the entrance. It is 50 x 25, and is beautifully fitted up as a drawing-room and reception room for Col. Gzowski. In rear is his bedroom, and in rear again, and facing towards the other entrance is the reception-room of the team. The Dominion flag floats over the camp on its tall staff, and each marquee and tent is surmounted by a small flag. Beds of rare and beautiful flowers are planted in every direction, and thanks to the taste and generous expenditure of Col. Gzowski, the Canadian camp stands unrivalled.

Col. Gilmor having preceded the team to the camp, every arrangement was made for the comfort of the men. Each tent holds two and is furnished with an iron bedstead, straw mattress and pillow, two blankets, waterproof sheet for each man, with washstand, bath, looking glass, &c., in common. Two Commissionnaires are provided to look after the tents, bring water, blacken boots, sweep the camp, &c. The men have nothing to do but attend to their shooting, and if their record for this year is not a high one, it will not be for want of careful looking after on the part of their officers. All are in good spirits and good health and anxiously look forward for the commencement of the matches.

THE CAMP, WIMBLEDON, S. W., }
Monday, July 6. }

At 10 15 this morning the "Alfred" prize was shot for. One hundred and forty three prizes were given, of an aggregate value of £450. The terms of the competition were: "Seven rounds at 200 yards, with the three groove long Snider, bona fide Government pattern, and bearing the Government viewer's mark, and no ammunition allowed except that issued at the firing point. Position, standing." None of the team were fortunate enough to get in; 27 was the lowest score that took a prize. Gibson and O'rouh got 26 each, and Disher, Baillie, Pallen, and Layton 25 each.

The new targets worked very slowly and there was some grumbling among those who favoured the old system of iron targets. For my part, I highly approve of the change. It is very simple and easy, and almost impossible for mistakes to occur. The targets are arranged in sections of ten. Underneath and in front are open sunken butts, with a wooden box to the rear for the marker. The real and the dummy targets are arranged on a frame in such a manner that as one comes up the other goes down. Immediately after a shot is fired the marker hangs a large disc on the network with

which the dummy is covered, works a lever and up it comes. He then pastes a piece of paper over the hole, hangs a small diamond-shaped disc on the exact spot, again works the lever, and the real target returns to its place. The dummy is distinguished by having a red instead of a black bull's eye. This small disc, known as "Bland's, is not discernible without a glass. The rules against coaching are very strict and rigidly enforced, but a competitor is allowed to use a binocular, and thus can tell the exact position of his shot.

At 12.15 the first distance of the "Alexandra" was shot. In this competition there are two hundred and forty eight prizes, varying in value from £50 to £3, the aggregate being £1,000. The distances 500 and 600 yards. The team, as a whole, did very fairly, the average score being rather more than 24 points per man. McNachton got 29; Mason, Layton and Pain, 24; Disher and Omand, 27; Macpherson and Mitchell, 20. It will be seen by comparison with the scores of other shots that these are very good. Ferguson, the celebrated Scotch shot, only got 21, and I have been informed by a member of the London Scottish that none of their team got more than 24.

The so-called mirage was very troublesome all the afternoon, played the very mischief with the sighting, and some of the small shots came to utter grief. All manner of spectacles, coloured glasses, and shades are used to get over the difficulty, but I find that unless there are some defects of vision to be counteracted, or a very changeable light, the naked eye is the best, and I observe that Willows, Humphries, and other crack shots do not use them.

In the evening, at 6.30, the Snider extra prizes, 1st series, were fired. This is a competition for a number of articles, such as rifles, binoculars, coats, boots, cases of Scotch whiskey, &c., given by tradesmen of the metropolis. The terms are: "Snider rifle 200 yards, any position." The average shooting here was very high, being no less than 28.3 points per man. Sutherland made 32, and shot off his tie with seventeen others, and lost, making a centre, nine of the others making bull's eyes. Church and Wynne made 31, Whitman, McNaughton, Baillie, and Gibson, 30.

TUESDAY, July 7th.

At 9.15 the famous Queen's match was commenced. This year three hundred and sixty prizes are offered, as follows:—

First prize, (the N R A silver medal, the N. R. A. silver badge), and £60	£ 60
Fifty-nine N. R. A. badge and purse of £12	708
Three hundred prizes of £3	900
	<hr/>
	£1,668

At 200 yards the elevation was found, on account of the difference in the light, to be fifty yards higher than yesterday, and some of our fellows made a bad start in consequence. However, none broke down so badly as some of our neighbours, three representatives of a crack city regiment making only 9, 13 and 16. In fact, some of the team got in good scores. As it will be interesting to their friends in Canada, I give the full particulars of each man's shooting:

Baillie	27
Mitchell	27
Gibson	26
Pallen	26
Wynne	25

Hickey	25
Sutherland	24
Layton	23
Whitman	23
Morgan	22
Brazeau	21
Church	20
Macpherson	18
Arnold	17
Mason	16

In the afternoon the *Daily Telegraph* prize was shot for, and here the team commenced to show the material of which they are made. Fifty five prizes were offered running from £2 to £10, and aggregating £150, for the Snider rifle at 200 yards the highest possible score being 35. Baillie made 33; Church, 32; Wolfenden and Layton, 31; Sutherland, Mason and Wynne, 30; McNachton and Pallen, 29; Macpherson, Gibson and Mitchell, 28; and the average of the whole team was about 28 points or centres per man. Baillie and Church will have to fire off with those who have made similar scores for places in the prize list, and Wolfenden and Layton also fired off to decide if they will take a prize or not.

WEDNESDAY, July 8.

The shooting this morning commenced with the second range of the Queen's, and some of the men got in good scores. The wind was very baffling, and Gibson, after making 27 in splendid style, his last three shots being bull's eyes, was carried off to the right and made a miss.

The following are the particulars of the shooting at 500 yards.

Macpherson	29
Whitman	29
Mitchell	28
Gibson	27
Morgan	25
Pallen	24
Baillie	23
Disher	23
Wolfenden	22
Omand	21
Wynne	21
Sutherland	20
Pain	20
Layton	20
Hickey	20
Brazeau	19
Church	19
McNaughton	16
Arnold	14
Mason	10

In the evening the ties were fired off. Baillie beat his men in fine style and came in at the head of the 33rd squad, and now takes fourth prize. Church was not so fortunate, but still takes a prize. Wolfenden also won on the tie, so that the team has won three prizes in the *Daily Telegraph* match.

Earl Ducie asked Colonel Gilmor to day how many Canadians were entered for the Queen's prize. He answered, "Twenty-one," "Twenty-one," exclaimed the Earl, "and the entries amount to twenty-one hundred, your chances are just one in one hundred. It will be a splendid thing if you win."

To-night the Queen's will be decided. If any of our men win, it will be telegraphed, and I will send full particulars by Saturday's mail.

Colonel Gzowski has issued 750 invitations for a garden party on Friday. Their Royal Highnesses the Prince and Princess of Wales, the Duke of Cambridge, the Duke of Connaught, and others are among the invited.

The music will be furnished by the band of the Grenadier Guards.

TWO MORE DAYS' SHOOTING—CANADIAN ADDRESS TO GENERAL WOLSELEY.

The shooting for the first stage of the Queen's prize closed on Thursday, July 9, the Silver Medalist being Corporal Young of the 1st Herts. His score was 87 out of a possible 105 which is considered very fine shooting.

The Times of July 10 says:

"We are very glad to see by the score list of the first stage of the Queen's Prize that one of the Canadian team, Lieutenant Whitman, 60th Canada, whose score was 73, is among the tie for the winning 60, and may possibly shoot next week for the gold medal, and may win the N. R. A. badge and £12. It is very high spirited of the Dominion Volunteers to cross the water as they do, and the riflemen of the mother country would be very sorry indeed to see them go back empty-handed. This is not likely to happen, for they generally win some prizes, but they may do very well at the meeting, and yet not succeed in getting a man into the second stage of the Queen's. It is 20 rifles against 2,000, shooting for 60 places; a contest at long odds, and, therefore success would be all the more honorable. We understand that a question has arisen whether Colonial Volunteers shall be allowed to shoot for the St. George's Challenge Vase, which appears in tomorrow's programme. Turning to the prize list we find that the Challenge Vase is presented "to the Volunteer battalions of Great Britain by Lieut. Colonel the Hon. C. H. Lindsay, M. P., on behalf of the members of the St. George's Rifle." Canada and India are in the British Empire, but are certainly not in Great Britain. Neither, indeed, is Ireland. We are informed, however, that in former years Colonial riflemen have been allowed to compete for the Vase, and this we hold, materially alters the question. If Volunteers from Canada or India have been permitted to shoot for the prize at former meetings, it is certainly wrong to re-interpret the rules at a time when the Colonial riflemen have again crossed the sea, and the prohibitor should be put in force, if at all, at the next meeting, and not this year.

On Saturday the long ranges, A to H, will be allotted to practice shooting for the second stage of the Queen's, and then we shall hear no more of the great prize till Tuesday, when it will be finally decided. So far the shooting has been with Snider of Government pattern, though not necessarily of Government manufacture, but for the 800, 900 and 1,000 yards the conditions change, and the competitors shoot with Government Martini-Heary rifles, issued on loan. The Executive Committee of the National Rifle Association have very wisely resolved that the last stage of this great contest for the Queen's prize shall be more orderly conducted than has been the fashion of late years. It has been the custom for the friends of the competitors to crowd about the firing point, cheering on their favourite shots, and carrying the winner in triumph to the council tent before his rifle had been tested on his score verified. All this is manifestly improper, and it is very right to insist that the enthusiasm of the spectators shall be reserved till the shooting is over and the winner proclaimed.

Lieut. McNachton, of the Canadian Team, made four bull's eyes and a cen-

tre at 200 yards in the Curtis and Harvey shooting.

Colour. Sergt. Baillie, of the 47th, Canada, made 33 for the *Daily Telegraph* prize, the highest score being 34.

(From the Times, July 11.)

Notwithstanding some much-needed rain which fell on Thursday night, yesterday was oppressively hot and close, and the weather wise predicts a storm. The shooting goes on smoothly, and every day increases the satisfaction of the competitors with the new system of targets and marking. The St. George's Challenge Vase has now been shot for, and the details of this important contest will be found in the score list printed below. The winner of the Vase, it will be seen, made the highest possible score of 35. The event of the day in camp has been the presentation of an address to Sir Garnet Wolseley by the Canadian team. The Dominion forces take an especial pride in the African successes of their leader in the Red River expedition, and Colonel Wolseley, as he was in those days, was one of the most popular officers ever sent out to Canada. The address was more particularly from the Province of Ontario; but the Canadian team represents the length and breadth of British North America, bearing on its muster roll Captain and Adjutant Arnold, of a New Brunswick battalion, and Ensign Wolfenden, of No. 1 Company Rifles, Victoria, British Columbia. The team is under the command of Lieutenant-Colonel Gilmor, with Major Montezumbert as second in command. The latter officer wears an Artillery uniform very much resembling that of our own regular army, and it is gratifying to notice how even in clothing the troops of the Dominion Government imitates the military tailoring of the Mother Country, carefully eschewing American patterns. That word "American" reminds us to caution visitors to ask for the "Canadian" camp, a verbal distinction insisted on by the Dominion rifleman. The hour fixed for the presentation of the address was half-past one, at which hour the Canadian team paraded on the lead quarters lawn. The time chosen been during the dinner hour, there was no shooting going on, and a good crowd of Volunteers and others thronged outside the iron hurdles. Within the enclosure were Lord and Lady Ducie, the officers of the Association and Camp Staffs, and the usual gathering of guests reinforced every afternoon within these hospitable precincts. Sir Garnet Wolseley was in undress uniform, and was accompanied by Lady Wolseley, and many persons of distinction in society and the larger world were present; Lord Carnarvon, Lord Lisgar, Lord Eversley, Sir Stafford Northcote, and Mr. Gathorne Hardy being among those who visited the camp yesterday. His address, read to Sir Garnet by Colonel Gzowski, in his capacity of President of the Dominion Rifle Association, was as follows:

"To Major General Sir Garnet Joseph Wolseley, K. C. B., K. C. M. G., &c.

"Sir,—The chain of events which for so many years linked your fortunes with those of this country has not been severed with out leaving its traces upon our memories, our hearts, and our history. From the first day when, as a soldier, duty led you to our shores, you so thoroughly identified yourself with our feelings, showed such interest in our progress and lent such energetic aid to insure our peace and security, that we have ceased to view you as a stranger, and view your successes with the same pride as though they were achieved by a son of Can-

ada. It is, therefore, a matter of congratulation to us to be enabled by this address to convey our thanks, in which we are confident we convey the sentiment of the people of Ontario, for the manner in which you have vindicated the honour of our common flag in the wooded wilds of Africa, as you had previously done in the remote prairies of North America; and to assure you that the hearts of our people followed with anxious interest the footsteps of the gallant band who under your leadership, braved the perils of a deadly climate and the attacks of a treacherous foe in order to maintain the supremacy of the British flag. Now that you are permitted to tread once more the shores of your native land and to reap those well deserved honours which our sovereign and a grateful nation have conferred upon you in reward of your endurance, foresight, and gallantry, we desire to show you that our sympathies as Britons, though in a distant part of our great Empire, are not alienated by the expanse of waters which divides us from our mother land. Although our hearts have beat responsive to the shouts of welcome and congratulation which have re-echoed in every part of her Majesty's dominions, we wish, in addition, that you should know that we Canadians feel a fraternal interest in your success, and we trust that your future will be as glorious as your past career. That you may be long spared to add new lustre to the untarnished fame of the British arms and win fresh laurels when ever duty calls you to act in your country's defence, and that you may in health and prosperity enjoy the fruits of your success, is the earnest prayer of those who sign this Address of congratulation."

Sir Garnet then read the following reply:

"You have been good enough to present me with an address stating that my services in Canada are still remembered by its people. My long stay in British America teems with pleasant recollections, and it is an honour to find that you regard me as identified with your people; for if a love for a country and intense interest in everything that concerns it can entitle a man to claim it has his home, then, indeed, I am as much a Canadian as any man born in your Province. I can never forget the gallantry, the devotion to its sovereign and to duty displayed by that noble band of Canadians which I had the honour of leading through many miles of wilderness from Ontario to the Red River in 1870. I can never hope to be associated with better soldiers than with the militia regiments of that expeditionary force. They were well worthy of being brothers in arms of those men who lately fought their way so gloriously to Commaissie. I thank you most sincerely for your kind congratulations and good wishes, and I trust I may never forfeit in any way the good opinion of the people of Ontario, to whom I am bound by so many endearing ties."

We should add that the address presented to Sir Garnet Wolseley was accompanied by a beautifully made casket of Canadian woods.

The Canadian Team were also addressed by Lord Ducie, who welcomed them to England in a few words, and were afterwards greeted in their own camp by Lord Carnarvon, who eulogized the military spirit and loyalty of the Dominion, and dwelt upon the close and mutually advantageous nature of the connection existing between England and her Colonies. We are sorry to say that fortune has not favoured the Canadians in shooting off the ties for the first

stage of the Queen's yesterday afternoon. Seventeen competitors had to shoot five rounds each at 600 yards for a place among the 60 honours of next Tuesday. Nearly the whole of the squad missed the target altogether the first round; the end of it was that Lieutenant Whitman, of the 60th Quebec Battalion, did not hold his ground. However, Corporal Hickey, one of the Canadians, has done very well in the St. George's Vase, being tenth on the list, and winning the miniature jewel and £10. Yesterday afternoon, in addition to Lord and Lady Ducie's usual reception, there was an "at home" in the Canadian Camp. Colonel Gzowski had issued a number of cards, and entertained a stream of company, including those named above and many others, till late in the afternoon.

Alexandra prizes of £5 each were gained by the following of the Canadian team:—Captain Layton, 78th Regiment, 52; Lieutenant McNacton, Artillery, 51; Private Disher, 19th Regiment, 51; Captain Macpherson, Gov. General's Foot Guards, 51; Capt. Morgan, 8th Regiment, 51. The highest score made was 61.—*Toronto Mail*.

Bayonne advices state that the Carlists have received 6,000 Remington rifles which were landed on the sea coast. It is also said that 5,000 other rifles, destined for Carlists have fallen into the hands of the French police on the frontier.

The German Government has sent a note to Versailles protesting against Pyrene being made a Carlist Arsenal and declaring that unless France maintains neutrality in the Spanish question, Germany will ask other powers to interfere.

The Cologne *Gazette* publishes a telegram from Paris, stating that in the Superior Council of War, Gen. DeCissey, Minister of War, demanded an immediate credit of 4,000,000 francs, and an eventual credit of one million francs for army purposes.

A rumor is current here that Germany is negotiating with Spain for a cession of the town of Santona, of which it is proposed to make a second Gibraltar.

A circular note in relation to the Carlists insurrection has been sent to the different European powers by Senor Ulloa, Minister of Foreign Affairs as published to-day.

Ulloa says the Carlist under pretext of defending religion are guilty of incendiarism, assassination, and pillage, in support of his statements he instances the massacres at Luena and Otal.

Count Schondaloff has been appointed the new Ambassador at London by the Emperor of Russia.

During the discussion of the Public Worship Regulation Bill in the House of Commons, Mr. Disraeli referring to the strife between Church and State on the continent, expressed a conviction that however tranquil might be the general state of Europe, there were agencies at work preparing a period of great disturbance.

The House of Commons having receded from their position with respect to the amendment struck out by the House of Lords in the Public Worship Regulation Bill, the measure will no doubt become law.

A Vienna telegram says that the leading Austrian papers there speak with great satisfaction of the vote of the House of Commons on Home Rule, and congratulates Great Britain on escaping the experiment that proves so dangerous to Austria.

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The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

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

OTTAWA, TUESDAY, AUGUST 11, 1874.

TO CORRESPONDENTS.—Letters addressed to either the Editor or Publisher, as well as communications intended for publication, must, invariably, be *pre paid*. Correspondents will also bear in mind that one end of the envelope should be left open, and at the corner the words "Printer's copy" written and a two or five cent stamp (according to the weight of the communication) placed thereon will pay the postage.

LIEUT. J. B. VINTER, of Victoria, is our authorised Agent for Vancouver Island, British Columbia. As is also Captain H. V. EDMONDS for New Westminster and adjacent country.

Our last article on the "Hydraulics of Great Rivers" ended with the discovery so called of a new hydraulic law to which all previous experiments are opposed. M. REYR says the mean depth of a river depends on a direct relation to its surface velocity, and that the mean velocity of any stream is at half the depth of the water from the surface.

Now we know that the surface velocity of any stream at any cross section of its bed is no where equal in the middle, it is greater than at the sides, consequently the same law must be in operation in a greater degree on the surface in contact with the bottom of its bed. In any hydraulic survey it is therefore a prime or first necessity to ascertain the exact cross-section of a river at

its shallowest and narrowest reach—the exact inclination per mile of the bed of the stream, and then a well understood formula which may be briefly stated as follow: "Divide the sectional area by the border or surface in contact with the stream, the result will be the hydraulic mean depth which multiplied by twice the fall per mile, the square root of the product multiplied by .9166 will give the mean velocity of the stream per second," from which a simple calculation will deduce the discharge. The hydraulic engine is not dependent on mere mechanical appliances for deciding on the phenomena of a great or small river; the mistake made is to assume that water in larger quantities is governed by laws diverse from that in the smaller. Now let us see how this formula will act in the case of the only cross section given of the Parana by the Reviewer of M. REYR's book. It is stated to be 4,787 feet wide on the surface, to be 72 feet deep in the centre and to increase from the left shore for 3,687 feet quite gradually to that depth, from whence it rapidly shallows to 12ft. and then rises gradually to the right hand shore. A section of this description would have a surface at bottom in contact with the water of say 5,300 feet which divided into the area, as given in the *Edinburgh Review*, of 184,858 superficial feet will give an hydraulic mean depth of 34.89 feet, to this section, this would give a face of about eight feet per mile and a velocity of nearly 21 feet per second, or what the Reviewer claims for it over 14 miles per hour, equal to 1,265 feet per minute. We do not call in question the very great fall per mile which the figures furnished by the Review gives, although we know of no river that has such a velocity or fall throughout its course, but nothing less will harmonize with the data given. We cannot see in this case the direct connection between velocity and depth, but we will assume that 24 feet (the rise claimed for the Parana in extreme floods) has been added to the depth of the section below Rosario—that it has added one-third more to the perimeter and made that number 7,050 feet, and raised the sectional area to 337,026 square feet—the U. M. D. would be in this case 47.8 feet, the velocity being 26.6 feet per second, or considerably less than one third more than the preceding velocity while the U. M. D. or mean is not half the depth of the stream at any point. We will suppose the fall to be 16 feet per mile U. M. D., as in last example, and also area, the velocity in this case would be 37.74 feet per second which is a little over one third of the last, so that the intimate relation discovered by M. REYR does not exist; for it would amount in fact to the proposition that if the ratio of inclination is given all the other elements of the regime of a river may be determined, when it is evident that the aforesaid velocity depends on the inclination of the river bed. And this consideration brings us to the main pur-

pose we had in view—the necessity for correct hydrographic surveys—in every point of view, and what is meant by this term. It is quite clear M. REYR has not made a correct survey of the Parana or the other rivers, and this is to be attributed to what the Reviewer deems his peculiar claim on public attention—the novelty of the proceedings—the mode of survey was erroneous. First, the relative levels of the different reaches of the Parana, for the 852 miles of his run up that river; secondly, accurate cross sections of all its narrows; thirdly, soundings showing what the longitudinal section of its channel might be; and lastly, some idea of the area of its basin, probable rainfall, absorption and evaporation between Corrientes and Monte Video—then there would be data on which to base a calculation of the actual discharge of this great river.

Water has of itself no motion, its power of moving is organized from some other force—gravity—so that a consequence of its continuous flow it must have what is technically known as a head somewhere, in other words, it must move along an inclined plane however small the inclination may be, therefore, it is requisite in a thorough hydrographic survey to have exact longitudinal and lateral sections of levels of all river courses, with a closely detailed topographical survey of their catclinet basins and affluents—the rain fall—rate of evaporation and absorption, and such other statistical information as may enable the engineer to test the accuracy of calculations found on the operation on the main river. We have one special instance in Canada of how thoroughly hydraulic science was practically understood half a century ago. The Rideau Canal was constructed from the designs of the late JOHN BY, R.E., in 1827, though what was then as great a wilderness as the Parana basin is now, and far more difficult of access, the design of the navigation was to connect Lake Ontario with Quebec by an interior line for military purposes; but Colonel BY saw that by using the channels of the Rideau and Gananoque Rivers he could make it a fair commercial highway, as well as open to steam navigation then in its infancy, he planned a series of works which remains a monument of mechanical skill and adapted their capacity to that of the rivers to which they gave access, so that all the changes cultivation has wrought there is still a supply of water for the navigation without extraordinary surplus.

It is true the area of the catclinet basin was only some 1,500 miles; but the skill that could control, under the circumstances, the phenomena presented was of no ordinary order. And yet we have the *Edinburgh Review* telling us that Great Britain suffers for a want of hydraulic knowledge.

We shall remember M. REYR's book for

some time, and hopp his new discoveries may be available whenever he next surveys a great river, but we confess we have received no enlightenment from the perusal of the article on "The Hydraulics of Great Rivers" in the *Edinburgh Review*.

The following which is copied from the *United States Army and Navy Journal* of 15th June, exhibits a curious phase of the many problems to which the introduction of monster artillery have given rise.

From the experiments carried on it is evident that it will not be possible to fight guns in future in tiers—that there will be greater face development in batteries *en barbette*—in consequence such a system will be inapplicable for sea coast defence and that the cost of the construction of separate bomb proof casemates for each gun will prevent that system being largely resorted to—because if properly handled two ironclads would be more than a match for any weakly armed force on which XV inch guns would figure—and *en barbette* the evil would be greater.

It would seem then that the system of "separate gun pits," as recommended by Major MONCRIEF, as some modification of it, is likely to have a trial of it before long.

"The advance in size of our heavy ordnance, and the consequent increase in the size of the powder grains, has given rise to a problem of which the discussion has lately assumed quite a curious phase. It seems that the practice in our fortifications, using 15 inch guns, *en barbette*, has been, to place the guns in pairs, twenty five feet apart, pintle from pintle, separated by traverses, and that a doubt has arisen in the minds of our Engineers as to whether this was not too near to permit the guns to be fired simultaneously, at various angles to the crest of the parapet, without injury to the crew of the neighboring gun from the force of the blast, and the flying about of unburned pieces of mammoth powder, as large as a walnut. To determine the value of the force of the blast in such cases, General Humphreys, Chief of Engineers, ordered a series of experiments to be instituted by Lieutenant Colonel Newton and Major Gilmore of the Engineers, and the results of those experiments are before us in a neat pamphlet, with several large and elaborate diagrams annexed. The trials were had from Fort Richmond, Staten Island, and comprised charges of 50 and 75 pounds, fired with shot or blank, with various results. The sum total of the experiments is sufficiently startling, when only 75 pounds of powder were used. The report says: "The amount of pressure found at the place where men serving the neighboring gun would be likely to stand, seems to show that it would be impossible to manœuvre and load one of a pair of XV-inch guns while the other was being fired, especially as the pressure would have been proportionally greater if a full charge of 100 pounds of powder had been used instead of 75 pounds, as stated. The screen, a frame work of inch boards, five feet in height and 15 feet wide, resting on the ground, its top edge being 10 feet below the line of fire and about 54 feet from the muzzle, was struck and penetrated from one fourth inch to one half inch by 46 grains of unburned powder, which from their size,

would have weighed in the aggregate about one pound; one of those grains striking a man would disable and probably kill him." With regard to the use of batteries on the crest of a gentle slope, firing over the heads of other batteries below, the data show still more danger. Only a perpendicular descent, such as at the foot of a scarp wall, will protect from the effects of the blast at the upper battery, short of several hundred feet. Such a position would be the minimum distance possible for two batteries of fifteen inch guns, firing mammoth powder, without killing all their neighbors' gun crews.

The *United States Army and Navy Journal* of the 13th June, pays a high compliment to our system of military organization, shewing what we have repeatedly proved that we have got the best, most elastic and least cumbrous as well as least expensive system in the world. We have not the skeleton of a Regular Army to utilize as instructors, nor do we see what advantage could be derived from it looking at how many are capable of acquiring knowledge and how few are able to impart it, but our contemporary is in the main correct.

"Colonel Fletcher's report on West Point elsewhere referred to, seems to have excited interest and action in Canada. From the *St. John (N.B.) News*, of May 22nd, we learn that a bill has been introduced by the ministers to establish a Canadian College, on the model of West Point, or the English Sandhurst, to educate the officers of Canadian volunteers. The whole force of the latter will, in all probability, be put under the command of a major general of the British army. One of the ministers has stated that the Government have not as yet fully made up their minds as to the future management of the volunteers, but something will be done to improve the force before the close of the present session of Parliament. It seems that since the Fenian scare passed away, our Canadian cousins, like ourselves, have been falling asleep and neglecting their volunteer militia, to the grievous demoralization of the latter. Now they are waking up to the necessities of the case, and educating their officers. In this case they have both advantages and disadvantages as compared with us. They have little or no nucleus in a regular army, but they have a militia superior to ours in point of effective numbers. What officers from a Canadian West Point to lead these, there is no question that a far more formidable force can be raised, in proportion to wealth and population in Canada, than we can do in the United States, with our skeleton Regular Army. Sound military sense—a thing notoriously hard to beat into the brains of politicians—will in time possibly bring us to the true solution of our own military problem, as it has brought to Canada. That solution is the utilization of our Regular Army as a force of instruction, and the permanent employment of its valuable officers and non-commissioned officers to train a militia in all the States. By so doing we shall have a force of a million of men available at an expense little greater than we now pay for thirty thousand. It is far from improbable that we may yet have to go to school with Canada in future years, as she is now going to school with us. Prussia and France are a familiar instance of that sort of thing. In the meantime we watch our cousins' progress with great interest.

As we have kept the readers of the *Volunteer Review* posted on all subjects not confidential connected with torpedoes their place as warlike weapons and the precise value they are likely to render those trusting to their powers as offensive weapons, the following extracts will show how generally our opinion is shared by those competent to judge of what utility such machinery may be in a military point of view. The first is from one of the best conducted scientific journals in the world.

Alluding to "A Short Course on Electricity and Torpedoes, with Appendix, by Commander J. Fisher, R.N.," the *London Ion* says, "This is an Admiralty mare's nest, kept very 'confidentially' under lock and key, but being in a glass case we have been favored with a sight of it, though we do not belong to the 'Horse Marines.' It consists of an elementary course of electricity, culled from the ordinary manuals, and taught to the foremost seamen in H.M.'s ship *Vernon*, a school ship attached to the gunnery instruction ship *Excellent* at Portsmouth; together with gleanings on torpedoes from the Royal Engineers, and the Woolwich Laboratory, and from Barnes' 'Torpedo Warfare,' etc. The original part of the work, to which it probably owes its 'confidential' consists of detailed instruction for bungling up a rum cask, when gunpowder is substituted for strong liquors, and for anchoring it in positions where there is no current and no rising and fall of the tide. The naval torpedoes described are chiefly the Harvey, the outrigger, and the fish, of neither of which have the instructors of the school ships any practical experience by the *Lake Forchester* and the waters of Spithead, when smooth and placid. To make amends for this inexperience of the use of naval torpedoes, attention is devoted to military submarine mining, and attempts made to do with rougher means the work of the Royal Engineers. Countermining is also theoretically taught, and means are devised for steering boats from a limited distance by means of electricity which, in absence of foes and cross currents, might in fine weather be useful. An unlimited belief in mystery and electricity, both being unknown elements in the eyes of seamen, pervades the school and the school book, from neither of which is anything to be learnt by those have read Colonel Stotherd's 'confidential' book on 'Submarine Mines,' and Barnes' 'Torpedo Warfare,' always excepting the wonderful rum cask. It is as a sample of 'confidential' ignorance—mystery being substituted for experimental knowledge—that this very elementary book of some 400 pages is noteworthy. Electricity is not a secret which is the peculiar property of the Admiralty, whilst the use of torpedoes must be learnt and practised, under conditions analogous to actual warfare, before the speculations of a clever young officer there on can be worthy their lordships' confidence, much less their seal of mystery.

The next is from a practical seaman—it corroborates the opinions expressed by *Iron*, a little ludicrously, but nevertheless with striking power from the very cause.

"In a paper on "Naval Tactics," by Lieut. Bower, of the British Navy, published by the Junior Naval Professional Association, he has the following remarks on "torpedoes: I would add a word on the subject of the various Pneumatic and Fish torpedo.

I have not had an opportunity of seeing all these inventions nor half of them, but from a casual survey of the two or three I have seen and from a study of the description published of some others, I would strongly recommend them to the notice of the Directors of the Royal Polytechnic. Were a large tank placed in the centre hall it would form one of the principal attractions of that renowned institution, and the various torpedoes I have mentioned would be admirably suited for the amusement and instruction of country clergymen and their children in their periodical visits to town; at pic-nics to Richmond too, provided the conservator of the Thames did not object, they might be used to amuse the ladies of the party when the gentlemen's stock of small talk failed. I do not know that there is any other practical purpose to which they could be applied. After a careful consideration of every possible position in which a man-of-war could be placed during war time, I can imagine no possible contingency in which their services could be of any value to the vessel or her enemies. They do not profess to do anything at a greater distance than four hundred yards, and I would ask how it is possible to hoist one of these machines into the water and then direct it, all within four hundred yards of a ship's broad-side."

Our contemporary, the *United States Army and Navy Journal*, is half inclined to take a serious view of the question probably because a distinguished officer, whose bravery, talent, ability, and scientific attainments no one will venture to dispute, has been and is experimenting thereon. The following extracts are from its issue of 18th July.

"A newspaper despatch says: The new torpedo boat *Intrepid*, recently launched at Boston, will make a trial trip to Key West, where experiments as to her practical workings will be made. A number of officers have already been ordered to her, most of whom have been on duty at the torpedo station at Newport. This vessel is about 450 tons burden, and was designed by Naval Constructor Hanscom, chief of the Bureau of Construction. Admiral Porter's torpedo boat building in New York is smaller than the one just launched, being of 340 tons. No name has yet been fixed upon for that vessel, but it is proposed to call her the *Alarm*. The vessels are very different in design and finish. The one now being built in New York will be brought to the Washington Navy Yard shortly after being launched to receive her outfit, as well as the Fowler wheel. The boat designed by Admiral Porter will be armed with a 11-inch gun, but that designed by Mr. Hanscom will carry no guns."

The gallant Admiral with more practical knowledge than the civilian experimenter has armed his boat with a heavy gun—which will be found far more useful than "a pole with a powder bag at its extremity." Our last extract is from the editorial columns of the same issue, and I while we think the British authorities would do the *St. te a good* service by making Prince Bismarck a present not only of Abel's invention of gun cotton, but of the whole torpedo system as well, with the hope that in the next contest he provokes for the good of the "*Faderland*"

one or both of us would enable him to decide it in Kilkenny cat fashion, without leaving even a little bit of tail as an evidence of the contest.

"Under the heading, "International Courtesies," our English contemporary *Iron*, furnishes the following information: "The results of new inventions and experience made in the application of torpedoes, have been lately exchanged between the Governments of Germany and England. The importance of Professor Abel's discovery of gun cotton applied as explosive material has induced the German Government to introduce its manufacture on the Continent. During the last month Dr. Hertz, engineer of the torpedo department of the German Imperial Navy, has been deputed by his Government to study the details of the manufacturing process on the spot. The German Government has, in exchange, communicated to that of Great Britain the secret of the Hertz torpedo, of which mention has already been made in *Iron*, and the English Admiralty intends sending an officer to be present at the torpedo manoeuvres, which will take place this summer at Kiel and Wilhelmshafen. The introduction of the Hertz torpedo will simplify in a very great measure our coast defences, as the great number of electric cables indispensable for the English torpedo, as it exists at present, will become comparatively unnecessary."

"The proposed exchange exhibits such consummate tact on the part of the German Admiralty, that we suspect Prince Bismarck has directed the negotiation. The Imperial Navy parts with the American tubular cable system for the propulsion of torpedoes, and receives in return, the English secret of manufacturing gun cotton! It will thus be seen that by an admirably equitable arrangement, the great military empire, without expending time or treasure, has not only secured the most destructive explosive, but also the necessary means of conducting it under the bottoms of the ships of its opponents."

We see our military authorities are engaged in the preparation of a far more valuable and formidable weapon as much superior in every essential respect as any one can be to another—when the utility is all one-sided. It is evident that the successful solution of the question of range would make the rocket the most formidable of weapons, and with our mechanical appliances that cannot be an impossible matter.

"A number of huge rocks of an entirely novel character, says the *Army and Navy Gazette*, are in process of manufacture at Woolwich. For a length of time it has been in contemplation to introduce into the Service a 24-pounder rocket having a "carcase" head, which should be ignited by a percussion fuze upon impact with the object aimed at. This idea has, however, been abandoned at least for the present, and, instead of a carcase rocket of this nature, a 6-inch shell rocket of immense strength having a double head fitted with gun cotton has been designed. The means for projecting this rocket will be somewhat similar to that adopted for the already existing 24-pounder, viz., a stuffing of composition which ignites rapidly, and the gas from which rushes out of three vents in the base, inducing motion in a forward direction by pressure against the air, rotation being effected at the same time by its pressure upon three curved

shields, which prolong the vent upon one side only. This composition consists of charcoal, saltpetre and sulphur. The head of the new rocket is of stout Bessemer metal, and the cylindrical conoidal portion, which is separable from the other, but attached by crews, will be filled with dry gun cotton. The entire head is fifteen inches long, and a strong diaphragm separates its base from the body of the rocket, which is of proportionate length, and to which it is attached by a flange and screws. A tapped fuze hole to receive a fuze or detonator is contrived in a recess at the apex of the head. This will, doubtless, be of a percussion character, in order to explode the head of the rocket instantaneously on impact. At the same time an ordinary short time-fuze, could, of course, be employed, which might be bored to correspond with the period of light occupied by the rocket. But the uncertain duration of rocket ranges is so well known that it is doubtful whether any attempt will be made in this direction. The weight of the new projectile may be estimated at not less than from fifty to sixty pounds.

The *Ottawa Times* of Saturday says: "Tenders will be asked for by the Government immediately for the construction of the Pembina branch of the Pacific Railway, so as to allow of work being commenced upon it next month. Surveyors will be placed upon the road at once to locate it. It may be remarked in this connection that the country where the line is to be located presents no difficulties of any kind to surmount. There are one or two small rivers to bridge, but there are no grades of any consequence. In fact the grading may be said to be of the most favorable character, very little being necessary to be done except ditching and the like. The work will be just in time to afford employment and relief in the fall months to those who have been suffering from the grasshopper plague which has devastated the North West."

In our advertising columns will be found the Prospectus of a new Canadian Monthly Magazine, entitled "*The Northman and Canadian Magazine*," to be published on or about the 5th January, 1875. There is room for a first class literary publication, in Canada, and from the well known abilities of the projector, we have no doubt it will take rank second to none of the British and Foreign Magazines which now find so ready a sale in Canada. We understand that Mr. MAINTON has already secured the very best literary talent that the Dominion can boast of, it cannot therefore fail in meeting with a ready sale. Canada has amongst her sons some who have and are contributors to the English periodicals, and whose writings rank high in the literary world, these will be regular contributors to the new Magazine. Read the Prospectus, it speaks for itself.

A special to the *Daily News* reports that French authorities seized 32,000 cartridges on the Spanish frontier, destined for the Carlists.

CANADIAN WIMBLEDON TEAM, 1874.

The Team of this year has not been successful in winning the "Rajah of Kolapore" Cup, or getting into the second stage of the "Queen's Prize." This is not surprising when it is considered that the competition is out of all proportion, making the chances of the Canadian marksman so infinitesimally small that—getting into the second stage or winning the Cup—must be accompanied by a certain amount of good luck in addition to first class shooting. It was also observable that the good shooting made by Canadians had stimulated the English competitors, and their Teams are selected with great care in all competitions, with the view that they must not be beaten by Canadians.

The Canadian Team this year has won more prizes than ever before, no less than 36 in number. Their conduct and bearing during the meeting at Wimbledon has been most excellent and highly praised by every body. Kindness, courtesy, and attention the Team has received from every body—as well from executive officers and visitors—from the highest to the lowest—was most marked, and there can be no doubt that the expedition to Wimbledon, which is now looked upon as a regular annual event, has done, and is doing, an immense amount of good. The distribution of information and particulars about Canada through these periodical Wimbledon Teams do more real good than all the emigrant agents and pamphlets sent out. There is nothing like seeing and talking with a person from the country, and asking him no end of questions in reference to it.

Lieutenant-Colonel Gzowski, the President of the Dominion Rifle Association, has done good service to the country by the almost princely hospitality extended by him in the Canadian Camp at Wimbledon, and as a proof of the popularity of the expedition Lord CARMARVON and H. R. H. the Duke of CAMBRIDGE, addressed the Team in very cordial and complimentary terms.

IMPORTANT TO ALL.

We would call the attention of our readers to the advertisement to be found on our fourth page of the large well-known and enterprising firm of Clermont Daniels & Co., of Montreal, dealers in Dry Goods Groceries, Boots, and Shoes, Fancy Goods, Hardware, &c., &c.

This firm sells direct to consumers such goods as are constantly used in families at from fifty to one hundred and fifty per cent cheaper than the same goods can be bought for in the regular way, thus saving to consumers the profits of all middle men and retailers.

This firm buy and import immense stocks of Goods exclusively for cash, at the lowest possible figure, taking advantage of dull times, forced sales, discounts, &c., &c., which

cash buyers always enjoy over Wholesale Houses who buy and sell on time.

Their Goods are sold by Agents throughout the entire Dominion, who call at your Houses with Samples, take your orders for such Goods as you need in your families, which are sent you by Express, collect on delivery, and not to be paid for until you see and are satisfied with them. So if the Goods are not found as represented, you need not pay for them, in this way nothing could be fairer.

Their Goods have been received by many in this vicinity who express themselves immensely satisfied with the Goods, and this forms now an popular way of doing business.

We bespeak for them a big trade from this vicinity as soon as their agents re-appear here.

REVIEWS.

There is much in an artistic way in the August *Aldine* which will delight all lovers of the beautiful. Nothing more graceful or charming has ever been seen in an American magazine than the full page picture called The Village Beauty, drawn and engraved by the eminent French artist, C. Mettais. The flowers and shrubbery by which she is surrounded, the naturalness of the drapery in which she is clothed, the rustic path she treads, the innocent expression of her face, all combine to make a rare and lovely picture. Mr. J. D. Woodward contributes a series of grand and bold pictures of the Pallasades of the Hudson, some of the most striking scenery in America. The full page picture of the Pinnacles of the Pallasades is massive and solid in appearance and will give the reader a new idea of these great towers of stone. Two large pictures, contributed by Peter Moran, called The Shady Lane and The Sunny Slope, are sure to arrest the attention and please the eye. The cattle and sheep in the woods, or seeking the brook side for water, are true to life and full of the spirit of summer time. A picture, full page, remarkable for its light and shade, its rich foliage, and deep, clear waters, is from the pencil of Kruseman van Elten, and is a view on Esopus Creek, near Kingston, N. Y. The other illustrations in this number consist of three fine views of Westminster Abbey, a portrait of Augustin Daly and The Breakfast by Epp, a German artist. James Sutton & Co., publishers, 53 Maiden Lane, New York City.

In the *British Quarterly Review* for July, just reprinted by the Leonard Scott Publishing Company, New York, we find the following articles:

The Depths of the Sea, an account of recent deep-sea explorations, giving the latest theories about the Gulf Stream and other oceanic currents, and explaining the method of taking soundings and of finding the temperature of the water at different depths.

David Friedrich Strauss gives a slight sketch of his life, but treats more particularly of his mental development, his writings and the influences that induced his theories.

Lord Ellenborough's Indian Administration, a notice of Lord Ellenborough's trans-

actions in India during the short term of office, which lasted but little over two years. He was recalled because "within a twelve-month, he had engaged in two wars and fought four battles, and the court ceased to regard the empire as safe in his hands."

Justice, Philosophy and Religion, a review of Dr. Ulrich's *Gott and die Natur*, a work which makes an attempt to rest physical science on a metaphysical basis. The notice begins with some remarks on the relation of science to abstract thought, and then gives Dr. Ulrich's summary of data and the deduction derived therefrom.

Far Russia, an amusing description of the most Eastern part of Siberia; the climate, modes of travelling, and manners and customs of the people.

The Primæval Archaeology of Rome begins with an account of prehistoric Rome seen by the light of modern scientific research, and closes with a severe criticism on Mr. Parker's book on that subject.

The Tory Administration and Its Wing Admirers, is the title of this month's political article; and a chapter on Finger-Rings, and the usual notices of contemporary literature, complete the number.

We have received from the Publisher, Samuel R. Wells, 389 Broadway, New York, the *Phenological Journal* and the *Science of Health*, both for August. These Magazines are well conducted and the subjects they treat worthy of a careful perusal. No family should be without them. The publishing price of these Magazines is \$3 and \$2 per annum.

We have received the *New Dominion Monthly* for August, and on a casual perusal of its contents pronounce it a very good number indeed. It has for its frontispiece a portrait of Father Hyacintho and his baby, a capital likeness. The Rev. Father has a pleased and delighted look as he fondly dandles his first born child. The Magazine is for sale at all the book stores, price \$1 50 per annum—single numbers 15 cents each.

Quip for the month of August, is a first rate number, and we are pleased to observe a steady improvement not only in its cartooning, but also in its literary articles.

A Hong Kong letter states that the invasion of the Island of Formosa by Japanese is considered as but the opening of war, which will result in a struggle between China and Japan.

A recent traveller says: "What always impresses me more than anything else in Egypt and Palestine has been the entire absence of cheerful and invigorating music, especially from the children. You never hear them singing in the huts. I never heard a song that deserves the name in the streets or houses of Jerusalem. One heavy burden of voiceless sadness rests upon the forsaken land."

The French National Assembly on the 5th, voted the entire budget, and the President declares the session closed. A meeting of Deputies of the Left was resolved to agitate for a general election, because the present Government is Anti-Republican and does not represent the country. The Legists threaten new intrigues for a Monarchy.

There has been a terrible gale off the coast of Aberdeenshire, Scotland. Hundreds of fishing boats are over due, and it is feared many of them have been lost.

WHO SAYS THAT BRITAIN'S NOON IS
O'ER?

DEDICATED TO SIR GARNET WOLSELEY.

Who says that Britain's noon is o'er—
That British valour's fled?
Who says that Britain owns no more
Such blood as once she shed?
Let fools who bear our country ill
Defame her as they may,
But Britons now are Bre Britons still,
And shall be so for aye.
Then give a cheer for England,
For honest, valiant England;
So much she loves her ledger lore,
But oh, she loves her honour more.
Hurrah, hurrah for England, and
The flag we all adore.

Who says her knee has learned to bow
To every tyrant crew?
Who says her world may wrong her now,
Nor fear to meet its due?
The babe of war she nobly shuns,
For men and Him on high,
But rouse her—oh, the British guns
Shall thunder back the lie.
Then give a cheer for Scotland,
For brave, bonnie Scotland;
The land that bred a Bruce of yore,
That glorious Colin Campbell bore,
Hurrah, hurrah for Scotia, and
The flag we all adore.

The blood we shed, like heroes true,
In many a bright campaign—
At Lukermann, at Waterloo,
And 'mid the vales of Spain—
Such blood is yet in British hearts,
As proud, as brave as then;
Let honor call—the Lion starts,
And Britain's up again.
Then give a cheer for Erin,
For dear for dauntless Erin;
In many a gallant scene of yore
The foremost flag that Britain bore
Was carried by an Irish hand,
An Irish regiment o'er.

Who sees not in the little band
That pierced the Afric wild,
And, one to hundreds, hand to hand,
The dark marauders felled,
True British hearts, like those of old,
That stormed the world again;
True heroes that can still uphold
The glories of the slain.
Then give a cheer for Wolseley,
Our country's pride for Wolseley,
And one for all the valiant corps
That Britain's flag so bravely bore.
Three Irish cheers for Wolseley, and
The flag we all adore.

Belfast Weekly News.

J. L.

ARMY ORGANIZATION.

(By General George B. McClellan.)

(Continued from page 317.)

(SECOND PAPER.)

In the April number we described in a general way the composition and organization of the combatants proper as far up in the scale as the regiment. But in practice it is not enough to furnish men to do the fighting; means must also be provided to supply their wants in garrison and in the field. This is done through the non-combatants, or, as they are often well designated, the administrative branches of the service. But beyond this, something more is required, that is, a body of officers thoroughly instructed in all the details of all the arms of service, and in the working of the administrative branches, well versed in the theory and practice of war, of superior intelligence and activity, whose duty it is to assist the generals in the performance of their difficult duties, to act as their eyes and ears, to transmit their orders and watch over their execution, to relieve them from all matters of mere detail, and to enable them to co-ordinate and control the various elements of the great machine which constitutes a modern army. This body of men is usually designated in Europe as the *Caps of the General Staff*; they furnish the chiefs of staff

and their assistants, conduct reconnaissances and similar important work, and act as the immediate advisers of their chiefs; from among their number the generals are largely taken. The duties of these officers are essentially military, and of the highest order, and carry them into the most active participation in battles. Before we can proceed to put the regiments together into divisions and army corps, we must explain something of the organization and duties of the general staff corps and of the administrative branches, because they form essential portions of the larger units of force,

THE ADMINISTRATIVE BRANCHES.

We have already said that their duties is to furnish the combatants with such supplies and assistance as are necessary to enable them to perform their peculiar duties promptly and efficiently. These administrative duties naturally divide themselves into two classes, which differ widely, and require the application of very different arrangements.

1. In peace to supply current wants, and to lay up the reserves required upon the breaking out of war for an increased force and greater expenditure.

2. In war to supply the army from day to day, as it moves and fights.

In time of peace the current wants are in most services comparatively small, and the ordinary means of transportation of the country, such as railways and steamers, usually suffice for the delivery of supplies, which deliveries can then be made for several months or weeks at a time, and in the most convenient season. In time of war not only are the demands immensely increased, but special means of transportation and delivery must be arranged to accompany the troops on their daily marches. The peace organization must provide for all this, *z e*, it must be such as to permit a rapid increase of its *personnel*; measures must be arranged for the maintenance of the reserves of material; those reserves must be ample for the contingency of war; and all the means of rapid and sure transportation, except horses must be on hand.

No definite and invariable rule can be laid down for this, because the circumstances of the case vary exceedingly in different armies and in different countries. In our own service, for instance, the transportation and supplies for no small part of the army must always be essentially on the war footing, as so many of the troops are constantly in the field, and in regions so remote from the ordinary sources of supply. In a country abounding in large manufactories the reserves of material may naturally be less than in one destitute of such establishments. When an army in its movements can count upon the aid of railways and rivers, the number of wagons may be diminished. But whatever may be the details in any special case, it is a fixed principle that the organization and instruction of these branches of the service should be carefully arranged in time of peace; for discipline and good order are just as essential here as among the combatants, and it must not be forgotten that the duties of the non-combatants often carry them under heavy fire, when cool courage and discipline are indispensable. In some services the officers and employes of these branches are taken directly from civil life; in others to a large extent from the army, or at all events from among those who have served in the army. When circumstances permit, it is certainly well to follow the latter plan. Among the most important supplies are arms and ammunition, food, clothing,

equipments, camp and garrison equipage for the men, hospital and medical stores, horses, forage, harness, wagons, saddle equipments, and veterinary stores. The method of procuring these articles varies much in different countries, and even in the same country under different circumstances. In some countries the arms are constructed in the Government arsenals, in others by contract, and again in both ways. The Prussians manufacture their own powder, we procure it from private establishments. In some armies the clothing is all obtained, by contract, and the requisite alteration made by the company tailors; in many others the cloth alone is contracted for, while it is made up entirely by the troops. So with regard to other supplies. Experience seems to prove that the articles produced by government factories are of a better quality than those contracted for, and that, although the first cost may be larger, there is usually great economy in the end. On the other hand, when the government encourages private manufacturers, it is rather more certain of obtaining large supplies at short notice. In time of war not only must arrangements be made to supply the daily wants of the troops, but the transportation and care of the sick and wounded must also be provided for. It is not enough to furnish a sufficient amount of supplies, but it is imperative that they should be so well in hand that they can be delivered exactly at the right time and place, and that the trains should be under such perfect control as to interfere as little as possible with the movements of the troops. This implies the necessity of strict discipline and thorough organization, and proves that the European system of employing soldiers (men amenable to military law, disciplined, and instructed in their special duties) in the various duties of non-combatants is far superior to that in vogue with us, of hiring civilians for the duties of trainmasters, teamsters, etc., in the quartermasters' trains.

As in regard to the organization of the fighting portion of the army, so in respect of the administrative branches, the Prussian army presents the form best adapted to the explanation of the true principles involved, and we will, as before, make use chiefly of this system by way of illustration. In that service all the administrative branches are under the direct control of the Minister of War. The war ministry is made up of seven principal departments, most of which are again subdivided into sections, each having some particular duty assigned to it. Thus there is one department charged with the general correspondence; another, called the "General War Department," which has supervision of the purely military affairs of the army, such as organization, mobilization, recruiting, drills, etc., etc. There are special sections of this department in charge of the military schools, affairs of military justice, military church affairs, affairs of the artillery, engineers, etc. Another department has charge of the *personnel* of the army, regulating such matters as leaves of absence, transfers, dismissals, promotions, etc. Another department, called "the Department of Military Economy," and subdivided into some four sections, has charge of accounts, money affairs, purchases of forage, rations, wagons, harness, clothing, etc., etc. Another department has the care of the invalids (old soldiers) establishments; another of all things pertaining to the purchase and care of mount horses; another of medical affairs, including the *personnel* as well as the *material* of that department. In

addition to these main departments, the director of the great orphan asylum at Potsdam, the chief commission for the examination of employes of the intendancy, and the general military chest, are all under the direct control of the war ministry.

Under the direction of the Department of Military Economy there is in each army corps, and in each division, an *intendancy*, which has charge of all matters pertaining to provisions, forage, pay of the troops, garrison, hospital, and camp equipage and stores, transportation trains, equipments, reserves of clothing, etc., etc. Under the orders of the corps *intendant* is the train battalion, which will presently be described.

THE MEDICAL STAFF.

This is under the supervision of the medical department of the war ministry, at the head of which is the surgeon general. Each hospital is administered by a commission consisting of one officer of the line, a surgeon, and an inspector.

MILITARY JUSTICE.

The affairs of this department are under the direct supervision of the "General Auditoriat," which is itself immediately responsible to the second section of the General War Department, and has immediate control of the corps, division, garrison, regimental, and battalion auditors (judge advocates, very nearly), as well as of the various courts-martial and courts of honor.

MILITARY CHURCH AFFAIRS.

There is a Protestant and Catholic chaplain general, under whom are all the chaplains, and who are themselves responsible to the second section of the General War Department.

THE TRAIN BATTALIONS.

For each army corps there is a train battalion, which has the immediate charge of the main supply train, and other duties. In peace each battalion consists of 10 officers, 226 non commissioned officers and men, 121 horses, and 24 wagons. In war the strength is so much increased that as a minimum organization it consists of—

1. Five provision columns, each made up of 2 officers, 1 paymaster, 27 soldiers, 74 train soldiers and mechanics, 1 veterinary surgeon, 164 horses, 32 wagons.

2. Three sanitary detachments, including three detachments of men for carrying the wounded. Each sanitary detachment consists of three officers, 1 paymaster, 149 men, 7 surgeons, 45 other persons, 41 horses, 10 wagons, and 15 hand litter, and is organized in two sections, which can serve independently. One detachment is assigned to each division of infantry, and one to the corps of artillery. The men detailed to carry the wounded are infantry soldiers, who are instructed in their duties in time of peace.

3. A horse *dépôt*, with 2 officers, 31 men, 1 wagon, and 170 horses. The object of this *dépôt* is only to supply losses among the animals in use among the infantry, pioneers, administration, and head quarters. In an enemy's country the *dépôt* is kept up by requisitions. In the field all horses temporarily unserviceable, all supernumerary and captured animals, are turned over to the *dépôt*.

4. A field bakery column, consisting of 1 officer, 100 bakers, 12 men, 15 horses, and 2 wagons.

5. A train escort squadron, consisting of 6 officers, 116 men, 119 horses, and 1 wagon. The staff of the train battalion is at the

corps head quarters, and including this staff, the minimum war strength is 30 officers, 1455 men, 1257 horses, 195 wagons.

Under the commander of the train battalion of a corps are placed all the military *personnel* connected with the administration. In addition to the soldiers composing the train battalions, there are other train soldiers assigned to the troops, as drivers of baggage and ammunition wagons, etc. The average allowance of such wagons for a battalion of infantry is as follows, viz. :

1 Ammunition wagon, drawn by..	6 hor's
1 clothing wagon, drawn by.....	4 " "
1 Medicine cart, drawn by	2 " "
1 Officers' baggage wagon, drawn by 4	" "
With pack-saddles.....	4 " "

Total, 3 wagons, 1 cart, and.. 20 hor's.

The ammunition wagon carries about 18,000 cartridges, and to it are attached 5 picks, 12 axes, 10 spades, etc. The clothing wagon contains the battalion chest, the account books, some spare clothing, and tailors' and shoe makers' tools. The officers' baggage wagon contains the portmanteaus of the officers and employes (each lieutenant is allowed 42 pounds, each captain 51 pounds, the battalion commander 94 pounds), the mess apparatus of the staff, the adjutant's papers, and the armorer's tools. The pack horses—one for each company—carry the officers' mess apparatus and cloaks, 10 blankets for the sick, some tailors' and shoe makers' tools, the orderly sergeant's papers, and the company money; in all about 200 pounds.

For a battalion of files the arrangement is somewhat varied, horse carts being substituted for wagons, to enable them to accompany the command over bad roads and open ground. They have—

4 Ammunition carts, with.....	8 hor's.
4 Baggage carts, with.....	8 " "
1 Medicine cart, with.....	2 " "
1 Staff baggage cart, with.....	2 " "
Pack-horses.....	4 " "

Making 10 carts and..... 24 hor's.

Each ammunition cart carries 7840 cartridges. Including the drivers of the baggage wagons, etc., the total war strength of a battalion of infantry is 22 officers, 1028 men, 34 horses, 4 wagons and carts. Of a rifle battalion the strength is 22 officers, 1034 men, 40 horses, 10 carts. And the total war strength of a regiment of infantry is 69 officers, 3112 men, 121 horses, 16 wagons and carts.

The baggage of a cavalry regiment consists of—

1 Medicine cart, with.....	2 hor's.
1 Forge, with.....	2 " "
4 Baggage carts, with.....	8 " "
1 Officers' baggage cart, with.....	4 " "

Or 7 carts and wagons and 16 hor's.

Making the total strength of a cavalry regiment on the war footing 23 officers, 633 men, 705 horses, 7 wagons and carts.

(To be Continued).

TOWN OF MORRIS.

We have been shown a map of the above new town, recently surveyed into town lots by C. I. Brown Esq., F. L. S. of Winnipeg. We understand that Messrs. Kennedy, Mulvey & McMillen are the proprietors. On inspection of the map, as also that of the Province, and from its excellent capabilities the

town of Morris offers fair to become second only to Winnipeg in the course of a short time. It is situated at the confluence of Scratching River with Red River, in the parish of St. Agathe, and in the very centre of the extended county of Provencher, being forty miles distant from the city of Winnipeg, and twenty this side of Pembina. The stage road to Winnipeg passes through the centre of the town, and it has the advantage of Kattson's line of steamers which call regularly at the place. The large thriving settlements of the Boyne are only sixteen miles distant, and already Morris is made the base of supplies to all these thriving settlements as far as Pembina Mountains. On the East side of Red River, and a few miles distant, is the reservation set apart for the Mennonites and for the reception of the many hundreds already on their way, new buildings are in course of erection for their accommodation.

Any person acquainted with the excellent quality of the soil between Winnipeg and Pembina, and seeing the facilities for wood and water that exist, must confess that between Winnipeg and the boundary line at Pembina, is destined to become the most populous and flourishing part of the whole Province. Unlike new towns and villages west of us, Morris is destined to have the advantages of Railway accommodation at a very early day, as the line from Pembina will certainly pass on the opposite side of the river, if not through the place should it pass on the West side. There is a Bill through the Legislature, and passed through the 3rd reading, asking for a charter for the construction of a Railway from Fort Garry to Morris, and thence westerly to the western limit of the Province. The place already contains a large tavern, two stores, a post office, a school house, and steps are being taken for the erection of a tannery, tavern, and grist mill. Already, we are informed, that upwards of fifty lots have been disposed of at one hundred dollars each. Those wishing to purchase can inspect the plan, or procure any information desired, by calling at the office of Mr. Mulvey.

We congratulate the above gentlemen in their enterprise, and wish the town of Morris all the success which most assuredly awaits it.—The *Nor Wester*, July 20th.

Dr. Neumayer has recently exhibited before the Berlin Geographical Society a photographic apparatus designed for the determination of the temperature and of the currents at great depths in the ocean. The invention is composed of a copper box, hermetically sealed and furnished with an exterior appendix made like a rudder. In the interior is a mercury thermometer and a compass, each enclosed in a glass receptacle into which sro admitted traces of nitrogen gas. A small electric battery completes the apparatus. When the latter is allowed to descend attached to a sounding line, the action of the current on its rudder causes it to assume a parallel direction, thus indicating the set of the flow by the relative position of compass, needle, and rudder. The thermometer of course shows the surrounding temperature. In order to fix these indications, a piece of photographic paper is suitably disposed near the glass cases containing the instruments. Then at the proper time a current of electricity is established through the gas in the receptacles, causing an intense violet, capable of acting chemically upon the paper for a sufficient length of time to allow of the

THE LATEST CARLIST VICTORY.

PARTICULARS OF THE ROUTE OF THE REPUBLICAN GUNS—HOW CONCHA FELL.

Estella, Navarre, June 30.—I am able now to give the Carlist version of their latest victory. Before I begin this task I should say that before I left the Republican headquarters I ascertained that the Republican army in the three days battle were but little exaggerated by me when I stated them at 4,000 men. There were more than 3,500 men killed, wounded and prisoners, and a very large number of muskets and rifles were captured by the Carlists. The losses of the latter did not exceed 400 men; and this disproportion was due to the fact that the Carlists fought behind intrenchments. It is not true that Marshal Concha was killed while leading a charge, as some of his officers have said. He had been standing while the last charge was made, behind a stone fence about fifty yards in front of the village. As he saw his men for the last time driven helter skelter down the hill, the Carlists pursuing them, he mounted his horse and rode after them. A ball struck him in the chest, he fell and was carried to a cottage where, two hours afterwards, he died. I visited the cottage yesterday and saw the little room where he expired. The cottage is almost the only one left in the village which his troops, the same morning, had given to the flames in pure wantonness. They not only burned Abarzuza, but all the other villages which they had occupied the night before, and it was these outrages and others still worse which led to a terrible scene this morning. Among the prisoners were 192 men who were captured at or near Abarzuza on the night of the 27th. The people of the village declared that these men were those who had burned their houses, robbed them, murdered some old men, and ravished the unfortunate women who fell into their hands. A court-martial was held to examine into the truth of these awful charges, and they were found to be true. They were condemned to be shot as incendiaries and assassins, and the sentence was sent to Dorregaray for approval. Now Dorregaray, on the 16th June, had issued a proclamation, copies of which were sent to the republican army, warning them that at the first act of barbarity they committed he should give them no quarter. Here was an ample opportunity for carrying out his threat; but even Dorregaray shrank from ordering the execution of 192 men. At the last moment, when the prisoners were being confessed by the priests, and when all of them expected to be shot in a few moments, an officer arrived with an order from Dorregaray to spare the lives of all except a captain, a sergeant-major, two corporals, and nine privates. These men were picked out from their comrades and marched off together, while the rescued men were sent back under guard to their prison. They had been more guilty than their comrades, but all but two of them met their death bravely. The thirteen men were marched a short distance, and made to kneel in front of a stone wall. A firing party were drawn up there was a sharp volley, followed by two or three separate shots, and all was over.

The Carlists accounts of the great battle differ in some particulars from those received from the Republican officers. Estella itself lies in a hollow of the mountains. It has no fortifications of its own, but on the heights which circumvent it the Carlists had constructed numerous intrenchments, extending along a length of five leagues. It

was necessary for the republicans to carry these works in order to even come near enough to Estella to throw a shell into it. On the 25th and 26th Concha advanced towards this long line of entrenchments, the Carlists falling back from the villages and taking up their positions behind their works. On the morning of the 27th Concha opened fire with all his artillery along his whole line. For hours the valleys echoed the roar of more than seventy guns and the rattle of more than 30,000 rifles. As the day wore on Concha concentrated a part of his artillery upon the Carlist positions at Esaul, Echavarri, and Murregarren, and at 3 p.m. the division of General Echaque made its first attempt to carry these works by storm. They advanced gallantly enough in columns, the Carlists reserved their fire until the enemy had approached within 150 yards, and then they let them have it. The officers tell that the heaps of the enemy's columns literally melted away beneath the fire, and it was here that the Republicans suffered their greatest losses. They advanced again and again, as fast as one brigade was used up another was pushed forward to take its place. The Carlists fired with great precision and coolness, and many of the Republican officers fell. This murderous work continued until six o'clock. Occasionally the Republican infantry rested, while the artillery pounded away at the entrenchments, and then they would make another charge. You must understand that this went on at three different points, and that it lasted for three long hours. The ground in front of the intrenchments became slippery with blood, and strewn with the dead and wounded. Finally after a longer rest than usual, the columns were reformed and reinforced by the reserves, and then the supreme effort was made. It failed, as all the others had failed, and the men, at last disheartened, fairly turned their backs and began to run. The Carlists saw that the day was theirs. Giving a yell that rose above all the din of the conflict they leaped over their intrenchments and with fixed bayonets fell upon their flying foe. It was then that Concha was shot, and it was more by an accident than by skill that he did not fall into the hands of the victors. The cavalry of the republicans now was brought into requisition, but all that they could do was to cover the retreat of the infantry. By eight o'clock the republicans had been driven from all the positions which they had held in the morning. That night they occupied in retreating by their left through Villatuerto to Oteiza, and thence on to Larraga, Lerin, and Sifala. They left all their dead except Marshal Concha and 400 of their wounded. The Carlists hung upon their flank all the next day, continually harassing them. The victory was a complete one. Had the Carlists possessed a few squadrons of cavalry they would have captured the whole of the republican army artillery and all.

The *Daily Telegraph* Paris correspondent says he has reliable authority for stating that the secret convention was concluded three months ago between the Emperor and Marshal Serrano, by which Germany agreed, if necessary, to aid in the suppression of the Carlist insurrection, either with money or by means of armed intervention, and undertake to secure the recognition of the Spanish Republic by her allies. Serrano in return, pledged Spain to an alliance, offensive and defensive, with Germany. In the event of a war with France, Italy was to form the third party to the alliance.

PROROGATION OF PARLIAMENT.—THE QUEEN'S SPEECH.

London, Aug. 7.—Parliament was prorogued to-day by a message from the Queen, which was read by Royal Commission.

Her Majesty thanks both Houses for voting the annual grant to Prince Leopold.

She states that the relations with all foreign powers are friendly. She explains that England is represented in the Brussels conference, but has stipulated that there shall be no change in the recognized rules of international law, and that no restrictions shall be placed upon the conduct of naval operations, and reserves the right to accept or reject the recommendations of the Conference.

The message further says negotiations have been undertaken for the renewal of the Reciprocity Treaty formerly existing between Canada and the United States. Negotiations were commenced by the desire and in the interest of Canada. They have been temporarily suspended by the adjournment of the American Senate, they will be revived soon and I hope will lead to an increase of commercial intercourse between the two countries.

I deeply lament the condition of Spain and whilst earnestly desiring the restoration of order in that country I consider non-interference as most conducive thereto.

A treaty has been concluded with the Sultan of Zanzibar providing for the gradual stopping of the slave traffic.

I am thankful that the famine in India has not been attended with much mortality which is due to the timely and precautionary measures taken by my Government.

The Gold Coast is being gradually pacified and reorganized, and the King of Ashantee is discharging his obligations.

The message proceeds to congratulate Parliament upon its work, and expresses pleasure because of the reduction in taxation; at the passage of the Factory Act by which the health of women and children will be promoted; at the passage of the Act referring to Church Patronage in Scotland, which will conduce to the religious welfare of the people, because it removes the cause of controversy; and at the passage of the Public Worship Regulation Bill, which will settle the form of worship of the Established Church.

The message concludes with the invocation of the divine blessing.

It has been found, at the English War Office, so desirable to guard against publicity in the various experiments that are now being carried on by the Torpedo Committee, that the Secretary of State for War has resolved to have a specially trained body of Royal Engineer workmen, with a private workshop at the School of Military Engineering, to construct all that is thought necessary to keep secret, as well as generally to learn to construct these future fearful engines of war throughout. At present, nearly everything that is required is given to private firms, and the consequence of this is, that some delicate piece of mechanism, that embodied what almost amounted to an important invention, has been openly exhibited at a museum on the Continent, to the no small chagrin of the author.

Mr. Spurgeon celebrated his arrival at the age of forty years, at his tabernacle, the other day, in the presence of a congregation of nearly 6,000 devoted admirers.