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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 18, 1874.

No. 33

NEWS OF THE WEEK.

An old veteran of the war of 1812 named I. Lewis, aged 75, arrived in Ottawa on the 10th. Walked all the way from Greenwood on foot. He has been residing there for many years and has only lately been made aware that he is entitled to receive a pension. He on listed in 1808, in the 104 Regiment which was stationed at Halifax, and is as he says himself "a genuine blue nose." He got his discharge in 1817. He had Capt. MacKevett's name on a piece of paper and wouldn't dispose of it for \$100. If he draws his back-pay it will amount to about \$6,000.

As a result of the visit of the Premier, to Kingston a large amount of repairs and renovation is to be towed on the military buildings about the city. The Tete du Pont Barracks, Fort Frederick, the dockyard, and Fort Henry are to be put in good order, and the Market Battery and the military cottages at Point Frederick, visited by fire a few years since, are to be demolished.

The French frigate *La Magicienne*, 24 guns, carrying the flag of Admiral Thomasset, and the corvette *Adonis*, 4 guns, commanded by Capt. Hugman, arrived in Quebec late on Saturday, and at 8 a.m., on Sunday saluted the citadel flag, which was immediately returned by 21 guns from the Flag staff Battery. Admiral Thomasset is the first French Admiral who has visited this port since the cession of Canada to England.

The navvies working on the Intercolonial near Bathurst appear to be a savage set. For on Saturday last a constable assisting in the execution of a civil process was most cruelly assaulted.

The Hamilton Field Battery paid Toronto a visit on the 14th inst. in the steamer Osprey, and were met by the Toronto Field Battery, and escorted to the Queen's Park, where they were given a picnic.

The Nova Scotia and New Brunswick members of the Wimbledon team arrived by the *Caspian*.

The Labrador fisheries are now reported good.

An extensive fire occurred in Montreal on the 9th inst. It broke out on the canal bank in Henderson's saw mill, and burnt for five hours, destroying over \$250,000 worth of property, and the loss of one life. A drudge, a steamer, and a barge were also burnt. The watchman on the drudge, in his fright, jumped into the canal and was drowned. The insurances amount to about \$60,000. It is not known how the fire originated.

Among the passengers per the steamship *Scotia* to New York, was Mr. Sargeant, the successor of Mr. Brydges, as Manager of the G. T. R. of Canada.

Mr. Hazlewood, C. E., reports the line surveyed by him between French River and Pembroke to pass through an excellent country for settlement.

A Mr. Ruthven, of Point Lewis, is the inventor of an apparatus for the manufacture of gas, which if all that is said in its favour be true, will cause quite a revolution in the production of artificial light. By means of this invention, we are told, it is possible to light large establishments for a whole year with one or two gallons of petroleum. The light thus produced is said to be more beautiful than that of the gas now in use, without being subject to any of its inconveniences, such as offensive odour. The process of manufacture consists in converting the oil into an inflammable gas, as soon as it is introduced into the machine. The apparatus is described as extremely simple and susceptible of adjustment to the wants of any house.

There was great excitement in Paris over the escape of Marshal Bazaine from the island of Sainte Marguerite, where he was last December sentenced to an imprisonment of twenty years. The accounts vary of mode adopted for his escape from the island. One has it—"that the apartments occupied by the marshal opened upon a terrace which was built upon a lofty and precipitous cliff overhanging the sea. A sentry was posted on the terrace with orders to watch the prisoner's every movement. Sunday evening the Marshal walked upon the terrace with Colonel Villette his Aide Camp. At ten o'clock he remained as usual, apparently to sleep, but before daybreak he had effected his escape. He must have crossed the terrace in the dead of the night, and eluding the sentinel gained the edge of the precipice, thence by means of a rope to the sea. He evidently slipped during the descent and tore his hands, as the rope was found stained with blood in several places. Under the cliff, in a hired boat, were Bazaine's wife and cousin. They received him as he reached the water, and Madame Bazaine taking the oars herself rowed directly to a strange steamer which had been lying off the island since the previous evening. They reached the vessel in safety, were taken on board, and the steamer then put to sea. It is thought that they had landed at Genoa, as the steamer proceeded in that direction. The first news of the affair

came to Frisse, the nearest place on the coast, and the magistrates immediately sent officers in every direction to search for the fugitive. There was a great commotion in Marseilles when the facts became known. An investigation was opened, and Colonel Villette, who was walking with the Marshal, on the evening of his escape, was discovered there and imprisoned. The commandant of the Fort Ste. Marguerite was placed under arrest, and General Laval has gone to the island to investigate the affair.

Another account says—"It is reported that Bazaine landed at San Remo, and travelled via Turin to Basle. At the latter place he took train to Basle, where he arrived at 7 o'clock on Tuesday morning. It is believed here that the rope found on a cliff at the Isle of St. Marguerite was suspended there to mislead the authorities as to the manner of the Marshal's escape, which was effected in some other way, through the connivance of the guards. *Le Sieur* states that Bazaine had given his parole not to leave the island. Precutions were consequently relaxed. The sentry was withdrawn from the terrace every morning at 5 o'clock, it being considered unnecessary to keep him there after day light. Two soldiers belonging to the fort swear they saw the Marshal on the terrace at 5.30 on Monday morning."

And still another account says—"It is ascertained that the plan for Marshal Bazaine's escape from the island of St. Marguerite, was arranged six weeks ago and was entirely the work of Madame Bazaine. The Marshal refused to fly, but finally owing to the failure to obtain a mollification of the sentence, yielded. He sailed from the island in the yacht *Baron Nicotazo*, belonging to an Italian Company. The prisoner refused to employ a French vessel. He was accompanied in his flight by his wife and brother. His place of refuge is not known. Some persons say he is in Spain. The domestics at the fort where the Marshal was imprisoned, have been arrested."

At the speech of the Governor at the Cape of Good Hope, on the recent opening of Parliament, it was stated that the revenues of the colony are annually increasing, and that about 800 miles of railway will at once be built at a cost of from £4,000,000 to £5,000,000.

A Miss Richards has just completed the task which was first accomplished in 1809 by Capt. Barclay, in England, of walking a thousand miles in a thousand consecutive hours. The feat was performed at Stapleton, near Bristol. This is the second time it has been done by a woman—the first event having taken place at Melbourne, Australia, several years ago.

ANNUAL REPORT ON THE STATE OF
THE MILITIA FOR 1873.

APPENDIX No. 2

(Continued from Page. 374.)

REPORT ON "A" BATTERY, SCHOOL OF GUNNERY.

KINGSTON, ONTARIO,
November, 1873.

During the year ending 25th October, 1873, seven officers and 136 non com. officers and men joined this School. The numbers from each battery will be seen on reference to the subjoined list:—

Cops.	Offs.	N.-C.O. and Men.	Total
London Field Battery.....			7
Wollington Field Battery.....		7	7
Godolph Garrison Battery.....			
Sarnia do.....	2		2
Toronto Field Battery.....		9	9
Wolland do.....			
Hamilton do.....			
Toronto Garrison Battery.....	1	11	12
Collingwood do.....			
St. Catharines do.....		21	21
Kingston Field Battery.....		27	27
Durham do.....		2	2
Port Hope Garrison Battery.....			
Cobourg do.....			
Napanco do.....	1		1
Trenton do.....		1	1
Ottawa Field Battery.....		1	1
Gananoque do.....	2	5	7
Ottawa Brigade Garrison Artillery	1	47	48
Iroquois Garrison Artillery.....			
77th Battalion.....	1		1
1st Regiment of Cavalry.....	1		1

However well a man may drill, no certificates are given unless the individuals can write correctly from dictation, and keep ordinary accounts; although this rule apparently works rather hardly on some men, yet when it is considered that a certificate almost certifies to the effect that the recipient is fit to hold a commission, I consider that great caution should be exercised in their bestowal.

The following certificates have been issued during the past year—

	1st class.	2nd class.
Officers.....	7	0
Non Com. Officers & Men	8	6

Two officers and forty three non-com. officers and men volunteered, and were accepted for service with the Artillery in Manitoba, and eight non com. officers and men received their discharges from the School, for the purpose of engaging in the Mounted Police recently raised for service in the North-West Territories.

In all seven officers and 136 non com. officers and men (representing more than the full strength of A battery) have joined the school during the year.

I think it highly gratifying that this School of Gunnery has so well answered the expectations formed of it: there is scarcely a battery in the whole Province of Ontario that has not had one or more officers, non com. officers, or men instructed thereat. Some officers commanding batteries refuse to make their men non-com. officers till they have passed through the School, and if this excellent rule was more generally adopted, the effect on the Artillery of the Province would be most marked.

I recommend that a higher grade of certificate should be given to officers who pass through the long course creditably, viz, A 1 and A 2 (First and Second Class Artillery), I trust this may be approved of,

I would hope that as Government has obtained several officers well qualified to act as instructors, their services may be more fully utilized. I consider that if an officer, a sergeant and two or three gunners, were sent to such places as Toronto, Hamilton, London, Guelph, Ottawa, &c., for a few months at a time, volunteer classes would be formed for instruction, and those desirous of receiving certificates might readily find time to come to Kingston for three weeks or a month (for instruction in Interior Economy, &c.) Thus in a great measure meeting the cases of those who would not possibly leave their business for 3 months, as now necessary.

A great number of men have been instructed in riding, driving, harnessing and stable duties, but I regret the few horses allowed for the battery (eight only) have prevented almost entirely the carrying out of any instruction in field Artillery manoeuvres. This is a very serious drawback in a Province where there are so many Field Batteries, and I would recommend that during the ensuing spring, whilst the price of horses is low, twenty more be purchased. I would also advise that all officers desirous of bringing horses of their own to the Schools of Gunnery, be allowed forage there for, provided their horses are available for the public service when required.

I must also express my regret that no instruction in the formation of rafts, and military bridges could be carried on owing to the want of the necessary materials, requisitions for which were forwarded nearly a year ago. For the formation of batteries and field works there is only one piece of public property in the vicinity suitable. I was informed that as that was held on lease by a tenant it could not be handed over to the School of Gunnery; this is to be regretted, as I consider the practical formation of earthworks and batteries a most essential subject of instruction for an artillery officer.

I have much pleasure in informing you that the present state of the school is very satisfactory. It is at its full strength in officers, non-com. officers and men; there is a large staff of instructors, both of officers and non-com. officers, available for instruction at the school or at out stations. The officers and sergeants messes are creditably kept up, and are clear of debt; there is a tolerably good library and reading and recreation room for the non com. officers and men, and a good library of military books for the officers.

The canteen supplies groceries, vegetables, beer, butter, &c., at wholesale rates, and is in a flourishing condition. Bar stock and stock in trade paid for, and a considerable surplus in hand, the profits being applied from time to time for the general benefit of the men, such as prizes for shooting, prizes for athletic games, purchase of machine for sawing wood, &c. &c. There is also an excellent brass band, all the men composing it having in the first instance been thoroughly trained Artillery men.

The Government of the Dominion having done me the honor of appointing me Commissioner of the Mounted Police being raised for service in the North West Territories, my connection with this School must necessarily close in a few days, I trust I may be allowed this opportunity of placing on record my thanks to all those who have contributed, in their respective spheres, to make the School of Gunnery what it is. To Major Cotton, Captain Holmes and Sergt-Major John Mortimer, who have been with me

from its commencement, and my thanks more especially due, and as I think their services are entitled to some consideration on the part of the Government, I trust they will not be removed from positions which they have done, and are doing, such good service, unless such removal is consequent on promotion.

In conclusion, I beg to state that it affords me the greatest satisfaction to know that I shall be succeeded in the post of Commandant by an officer who will, I feel certain, raise the School of Gunnery to a higher standard of efficiency than it has yet attained.

G. A. FRENCH, Lt.-Col.
Commandant S. G.

KINGSTON Nov. 30th, 1873.

REPORT ON "B" BATTERY SCHOOL OF GUNNERY.

CITADEL, QUEBEC, 31st Dec. 1873.

Sir.—The accompanying return marked (C) shows the officers who during the current year have undergone long and short courses of instruction and examination, and obtained certificates. The subjects of instruction and the decimal proportion of credits gained are also shown.

I recommended last year (20th March, 1873) the enclosed form of certificates marked (D.) for the long course should be substituted for that in use, to suit the nature of instruction given, and a 3rd class certificate of proficiency in their drill, substituted for the "attendance certificate" for gunners who cannot write.

If the name of Artillery Schools was substituted for that of Gunnery, it would give a fairer idea of the subjects of instruction.

The examination questions of this year are appended.

Return (E.) shows the non-commissioned officers and gunners who have passed practical and written examinations, obtaining certificates during the current year. Return (F.) the number of all ranks who have entered the school during the present year, left it with or without certificates, and those who remain having been re-engaged left a further period of service and instruction, in consequence of ability and good character.

Since the issue of the liberal General Order (23rd May, 1873), which allows men to obtain their discharge on payment of the small sum of two dollars (\$2) per month of unexpired engagement, as a compensation to Government for the wear and tear of uniforms, &c., there is no excuse for the crime of desertion which is generally accompanied by the theft of uniforms and regimental necessaries. I would recommend a reward of ten dollars (\$10) to be paid for the apprehension of each deserter.

Since men have been apprehended by the Mounted Police, and tried by court martial, there has been no instance of desertion, but the long period that elapses before sanction for trial can be obtained, is productive of bad effects, and it is hard on men to be kept for months in confinement without trial.

Return (H) shows the several militia batteries to which the officers, non-commissioned officers and gunners of "B" Battery belong, or have been enrolled, but there is no adequate means of compelling men who leave the battery after a long course to turn out with the militia corps in which

they are enrolled, or to return to the district from which they came. This part of the original scheme seems to have failed in its object in the Province of Quebec; those who join a long course generally wish to follow a permanent military career, which the present system does not contemplate.

I would recommend the Gunnery Schools to be regarded as distinct corps of Canadian artillery embodied for duty, the care of forts, armament, &c., and to serve as instructors to the militia artillery, detachments of which should be attached as supernumeraries, especially during winter, when work and trade is dull. A good class of men would be procured for training who are not a floating population, and would return to their militia corps; no man in a good position can leave his work during the busy season for any lengthened period.

Officers and non-commissioned officers of the Gunnery School should, I think, be allowed to retain their militia rank, and be borne on the list of their corps (names in italics), returning to them during the drill season, to assist in training. They would be a reliable element of professional ability in case of need.

On the 4th and 5th of March, 1873, the services of "B" Battery were called for in conjunction with the 8th Battalion or "Stadacona" Rifles, and the Quebec Cavalry, to aid the civil power during the election for Quebec Centre.

The garrison duties, care of forts, armament, &c., at Quebec, Point Levis, and Montreal, which formerly devolved on three batteries of Royal Artillery, a company of Royal Engineers, an Imperial Regiment of Infantry, and the depot company of the 2nd Battalion Quebec Rifles at Montreal, have been a heavy task on a battery of 160 of all ranks, who have been at the same time instructing, and being instructed in the duties of both Field and Garrison Artillery, while a large proportion of officers, non-commissioned officers and men have been, in consequence of the short time of engagement, constantly changing.

A certain proportion of old non-commissioned officers and gunners from the Royal Artillery might with advantage be enlisted as permanent caretakers for the Levis forts, &c., and the towers of Abraham. These men should be supernumerary to the battery strength, as it interferes with the instruction of a soldier engaged for a short term when he is sent on detachment.

The Guard duty, though reduced to a minimum, is so onerous as to allow the men fewer number of nights in bed, than is considered consistent with the preservation of health by the Medical Officers of the British Army.

The shot, shell—10,000 rounds—and artillery stores, had to be moved from the whole of the town lines in consequence of intrusions received.

The amount of labor in removing 10,000 shot and shell, and the proportion of other artillery stores, can scarcely be realized, except by those engaged in the duty.

The annual gun practice was carried out partly on the ice of the St. Charles river, with smooth-bore 32-pounder guns, taken down from the town lines for that purpose; practice was also carried on from smooth-bore 32-pounder guns on sleighs, as well as from the 7-inch breech-loading rifle gun in the King's bastion.

The mortar practice, from the Lewis Curtain and from St. Helen's Island, Montreal,

The small sum recommended in my letter dated 25th March, 1873, to be allowed for the recovery of projectiles, as in the British service, would be a great saving to Government, especially when it is remembered that only 200 rounds per gun, for the sea front, and 100 for land, is all that was left by the Imperial Government, an utterly inadequate provision.

There are not, I am informed, any 24 pounder shot left in the reserve stores in this Province, though the principal part of the armament is of this caliber, the reserve warlike stores, not being in my charge and being directed not to inspect them unless specially ordered, I cannot report with certainty, though I believe it my duty to bring to your notice what I believe to be the fact.

The return of practice of "B" battery, bears favourable comparison with that carried out by the picked detachments of British Volunteer Artillery at Shoeburyness.

The usual prizes for good shooting were not provided for in the estimates for last year.

I would strongly recommend the formation of a Canadian Artillery Association, on something of the same principles as the national Artillery Association of England. I think it would contribute much to emulation among Volunteer Artillery, and conduce to efficiency, as the Dominion Rifle Association does so permanently, in the case of the Infantry, especially if picked gun detachments were sent home from the various Provinces to compete with the English Volunteer Artillery at Shoeburyness. If they accompanied the Dominion Rifle detachment, permission might be obtained for them, through the kindness of the War Department, to go through a short course at Woolwich Arsenal and Shoeburyness, during the interval between the Wimbledon and Shoeburyness competitions, while a few selected officers might be allowed to attend the Autumn Manœuvres, School of Musketry at Hythe, Cavalry at Maidstone, and Signalling and Siege Operations at Chatham.

Small Arm practice was carried out at the Engineer Park, Point Levis, in the month of July, 1873.

Winter marches on snow shoes, concluding with a bivouac in the woods beyond Charlesbourg, gave some little experience of the difficulties of winter operations in the coldest portion of Her Majesty's Dominions.

A Summer Camp of "B" battery for a week, was formed at Lake Beauport, where skirmishing in the woods, surveying, swimming, and athletic sports, were conducive to the instruction, health, and enjoyment of all ranks; no expense was incurred by Government, rations being brought out by the battery horse and forage wagons to the Summer Camp; provisions and camp kettles, &c., were drawn out to the winter bivouac on toboggans by the men themselves. The French Canadians were, of course, quite at home in the woods; the conduct of the men was excellent, and no complaints were made by the inhabitants of the neighborhood or the proprietors, Messrs. Getling and P. Pepin, who liberally gave permission to collect firewood, &c.

A Reconnaissance Report, and military sketch of the Kennebec Road towards the frontier, was executed by a party of officers, at their own expense.

I trust in any future organization, the desirability of giving a higher rate of pay to artillery and cavalry may not be lost sight

of in compensation for the greater amount of duty, in connection with horses, as well as more complicated drills and material to take charge of, if rates of pay are made the same for artillery and infantry (which is contrary to the custom of any army). The more hard worked service, in which intelligence and bodily strength are most needed, will suffer from the attraction of equal pay for less work in the other arms.

It would perhaps be beyond my province to comment upon the recommendation of schools for all arms, by the late Adjutant General, but I beg strongly to submit that the numerical strength of "B" Battery is utterly inadequate for the requirements of duty and artillery instruction.

The duties of garrison and field artillery being as distinct as those of cavalry and infantry, only each of the artillery branches is far more difficult, and takes much longer to learn.

I am of opinion that for each Gunnery School a Garrison Battery, and one of Field Artillery, with at least one captain and two subalterns, one sergeant major, one quarter-master sergeant, six sergeants, six corporals, six bombardiers, one trumpeter and 125 gunners or drivers is required for each battery. The captain would be much occupied with pay and discipline, but the subalterns, duly qualified in time, might each take a subject to teach as a speciality, such as surveying, or fortifications, or military law, &c.

The field battery should consist at least of four guns, four ammunition wagons, and forty horses with less than that number it would be impracticable to teach Field Battery movements. Mounted officers should be permitted to draw a forage ration for their private horses, used for Government purposes, as allowed at the cavalry school last year. Militia artillery officers non-commissioned officers and gunners should be attached, supernumerary for "short courses" to field or garrison batteries, as the case might be; their instruction being confined to their special arm.

At Quebec the present staff of one surgeon, one adjutant, one quarter-master one quarter-master sergeant, one office clerk, one hospital sergeant, one provost sergeant could perform the duties for a school of all arms, provided the artillery, cavalry and infantry were all in the citadel, which as accommodation for 600 men, but not for the proportion of officers—half of the officers' quarters and the mess room being occupied as a summer residence by His Excellency the Governor General.

The office clerk, provost, sergeant, hospital sergeant (who acts as pay sergeant) are not paid by Government for the performance of these duties, which they have been executing for two years, with the hope of recognition in the shape of pay and authorized rank.

The musicians of the band (20), though trained as garrison artillery, should be supernumerary to the strength of the established batteries, extra guards and duties are thrown on their comrades, and it is already extremely difficult and expensive to the officers to keep up a band in which it is not permitted to engage men for a longer period than 12 months. It takes at least that time to instruct a man, who then goes elsewhere where he can make more money.

A School master, with the rank and pay of lieutenant, is much required. Instruction has to be given in two languages at the Quebec School.

Master Gunner Donaldson, who in addition to his duties as Master Gunner and District Clerk, has assisted me in giving instructions to officers and others, in mathematics as applied to gunnery, surveying, &c., is well qualified for his post.

In concluding this report on the Gunnery School, I would beg again to submit for consideration, my proposal in last year's Militia Report, (page 31.) viz: that "The most obviously advantageous method of utilizing scientifically trained officers during peace, is that adopted in the United States, where a large proportion of those educated at West Point are employed on public works."

"The gigantic railroad, canal, and boundary surveys, undertaken by the Canadian Government, give amply scope for the employment, of assistant military surveyors and engineers, who would thus form the nucleus of a particularly scientific staff corps, whose intimate knowledge of the country, and the maps they would construct would be of incalculable value in the event of war, and useful in peace. These services are at present, in some instances, done for us (and I have no doubt with great ability) by foreigners, whose knowledge of our country might not always be to our advantage."

"It would be very desirable that a party from the Gunnery School should be attached as assistants to the Royal Engineers on the boundary survey. When the latter return to England, their Canadian assistants would have acquired sufficient skill to become the nucleus of a Canadian Staff Corps of Engineer Surveyors." To be employed under the Department of Public Works, if required.

I have the honor to be, Sir,
Your most obedient servant,
T. B. STRANGE, Lt. Col.,
Commandant "B" Battery,
School of Gunnery.

The Acting Adjt. General,
Ottawa.

(To be Continued.)

WILKES' TERMINATION LAND.

LIEUTENANT JOHN HYNES, R. N., writing on board H. M. S. *Challenger*, to Dr. Hynes, the Arctic explorer, gives some very interesting information regarding Wilkes' "Termination Land." He says:

You know the purposes of the *Challenger* expedition—deep sea explorations in all parts of the world, and running lines of soundings, which, besides their value in a scientific point of view, will be of great use when laying submarine telegraph cables in future times. We were also directed to examine Kerguelen, or Desolation Islands, as Captain Cook called it, and to select an observatory site for the Transit of Venus Expedition, which is expected to arrive there towards the end of this year. Heard or McDonald Island was also to be explored, and as we had to go so far south Captain Nares determined to go a little further, have a look at the ice and endeavor to settle the doubtful question as to the existence of Wilkes' "Termination Land." But we were in no way prepared to enter pack ice, as the ship was not strengthened for it, and

did not carry provisions sufficient to allow any risk of being frozen in. Ice anchors and chisels, a couple of whaleboats, extra stores and some warm clothing, all of which were obtained at the Cape, were the only thing taken outward for our Antarctic cruise. On the 16th of February we bore away along the edge of the pack ice to southwestward, and crossed the Antarctic circle in longitude 78 east. We reached within 1,400 miles of the South Pole and 120 miles to the southward of the position assigned by Captain Wilkes to Termination Land, but four hundred and seventy miles to the westward of it, so we stood to the eastward with the view of seeking for it in that direction. The icebergs which we passed were, I may say, innumerable, as many as eighty-seven being in sight at one time, nearly all flat topped, and evidently set adrift from the great southern ice barrier. The effect of a shot at a large one, over 200 feet high, astonished us all one day by the quantity of ice it brought down from nearly the whole length of the berg. The weather was now fine, tolerably clear, the nights never properly dark, bright flashes of aurora australis and a brilliant red light generally illuminating the western horizon, caused by the reflection of the sun on ice. There were a good deal of snow and sharp frost; the lower temperature was 22 deg. Fahrenheit, and that of the water 27 deg. when running through open "pack." Great numbers of whales were seen all the time we were near the ice. On some afternoons they were blowing around the ship in dozens. Many appeared to be "right whales" and spouted only one jet of water. Shoals of grampuses were also seen. The Roman would soon fill up if she ran down here for a month or two in the season. I had almost forgotten to say that when we gave up the search to the westward, on the 16th February, an open sea, almost free of bergs, was seen to the southwest and nothing to prevent a strengthened ship going on in that direction. On the 22nd of February we reached latitude 64 deg. 15 min. south, longitude 94 deg. 47 min. east, being within six miles of the supposed position of Wilkes' Termination Land, when pack ice was seen ahead, extending from west-south-west to south-southeast, and completely stopping us. We were also surrounded with bergs, eighty-eight being in sight. Soundings were obtained in one thousand three hundred fathoms. The sky was remarkably clear at the time, the range of vision being logged at between twenty five and thirty miles, but there was no appearance of land in any direction. The next morning the dredge was put over as close as we could get to the supposed position of the Antarctic Continent, but nothing was brought up which would show any light on the subject. The wind now freshened to a gale, with heavy squalls, snow and thick mists, so that it was scarcely possible to see a ship's length. In trying to make fast to an iceberg, an eddy current set us on to it, and the jibboom, dolphin striker, whisker and all the head gear were carried away. Shortly afterwards we were nearly foul of a large berg before it was seen. It was only the promptitude of the maintopman in letting fall the maintopsail, which was thrown aback, and by going astern full speed with the screw, that we cleared it, and thus probably escaped a rather untimely end to the cruise.

We should like to say the London *Iron*, to see an official, full, true, and particular account of the 15,000,000 of Boxer cartridges rumored to have been recently returned from India to the Arsenal, as having been destroyed in store by galvanic action, and the brass foil case eaten away and pitted with holes, as if it had been picked with pin-holes for the purposes of a riddle or sieve—a result which, we presume with the cognizance of the War Office officials, was foretold to the Indian authorities. We wonder whether any modern Amodeus entertained the Emperor of Russia, on his recent visit to Woolwich, with an instructive record of the Arsenal. An inspection of the cartridge machinery might have been fitly accompanied by an account of the original research by a Special Committee of the War Office, for an improved cartridge; and of the subsequent award of the premium of £400 to Mr. G. H. Dow. If sympathy for an inventor were to suggest congratulation on such a success, as conducting infallibly to fame and fortune, H. M. would learn that these things are managed differently in official England—and especially at Woolwich—and he would be taught to admire the happy thought whereby the inventor was left out in the cold, and the principles of his successful cartridge, and his special machinery for its manufacture, were adopted for the official cartridge. This not only weighs fourteen per cent. more than the original Daw cartridge, of which it is more verisimilitude, but in such an ingenious combination of copper, brass, iron and lead, with saltpeter, charcoal, and sulphur in its contents, that its excellent qualifications as a galvanic pile, under the influence of moisture and heat, easily prevailed over the protective powers of the varnish, on which fond reliance was placed—*teste* the 15,000,000 ball cartridges above mentioned. When H. M. came to reflect upon the rapid firing of the modern breech-loading rifled small arm, whereby, at ten rounds per minute, ten minutes' firing, mayhap in the smoke of battle, would exhaust the 100 rounds which constitute the service supply of ammunition for the infantry soldier; and further upon the importance, in actual service, of the question how soldiers may carry an adequate supply of serviceable ammunition, and how best to provide adequate means of transport for the conveyance and supply thereof to the troops; the merits of the system whereby the durability of the cartridge is impaired, and its weight and cost increased by 16½ per cent. or more, would meet with the appreciation and admiration they so well deserve.

REVIEWS.

The reprint of the *Westminster Review* for July has just been issued by the Leonard Scott Publishing Company of New York. The following are the contents: I. "Butler's Analogy—its Strength and Weakness." II. "Emigration." III. "Goethe and Mill: a Contrast." IV. "The Admiralty and the Navy." V. "Mr. Lewes and Metaphysics." VI. "The Emancipation of Women." VII. "Lamarck." VIII. "The Nationalization of the Established Church."

News from Sheridan's headquarters indicates the Cheyennes, Kiowas and Comanches, seeing formidable preparations made to punish them, are asking for peace. Orders, however, have been issued not to let them enter the reservations, but to follow and punish them wherever found.

THE VALUE OF WIMBLEDON.

(From the Daily News, July 27.)

Frankness compels the avowal that a glamour of illusion has gradually grown up around the annual gathering of Volunteers on the pleasant upland of Wimbledon Common. It has come to be the fashion to consider that the men who attend this great '74 National deserve well of their country, that the credit of a sort of modified heroism attaches to them, and that the camp is a useful preparatory school for the vicissitudes of real soldiering, if, unhappily, it should ever be necessary that our Volunteers should be called on to play a part in the lurid drama of actual warfare. Iconoclasm may be a thankless task, but it is only right that for once in a way, at least, a little plain speaking should come in as an interlude to what may fairly be designated as rhapsodical utterances.

It is impossible seriously to affirm that this fortnight's residence under canvas at Wimbledon can yield any experience of the slightest practical value in case Volunteers should be called upon to take the field in serious earnest. The conditions are so absolutely different, indeed, that there is some risk lest the Wimbledon lesson may be detrimental rather than serviceable. In the field, Volunteers could expect to fare no better than the regular soldiery; and a rough but effective contrast might have been found for himself by any one who took the trouble to make an inspection of the camp of the regulars at the lower end of the Common, after drinking champagne while seated in a luxurious chair in a boarding floored tent in one of the Volunteer regimental camps. In the field, Volunteers, like Regulars, who would have to sleep thirteen in a tent, so closely packed that when a man wanted to turn he would have to awaken all his comrades to perform the same evolution simultaneously. They would have to cook for themselves the coarse rations served out by the Commissariat, and occasionally experience the delights of going without any rations whatsoever when the Commissariat in that pleasant fashion so familiar to it in the field, was unable to issue supplies. Night duty would be a stern reality. A great coat on the bare ground, or, with industry, a few handfuls of heather, grass or straw, must then be the substitute for the comfortable mattresses on the iron camp beds on which the Volunteer visitors to Wimbledon repose. For them are none of the stern realities which we have faintly sketched. Three men in a tent is reckoned bumper measure at Wimbledon. Tommy Atkins, of the Guards, takes off his tunic with the Crimean medals on it, and contentedly does the cooking for the whole men Volunteers. His camp kitchen is not the hole made by a turned up turf; his *butlerie de cuisine* consists of something more complex than the camp kettle. Eatables and made dishes, ices and dessert, are served to the dilettanti campaigners on handsomely decorated tables, in a boarded marquee, around the open portals of which fragrant hedged plants are blossoming. Champagne merrily effervesces, and the "loving cup" goes round—a massive tankard charged with grateful nectar. Men have been heard to complain of having spent too much money on the Wimbledon campaign; but never of having undergone any hardship severer than a crumpled rose leaf. It may be said that although the dwellers under canvas at Wimbledon can make no pretensions to living as though en

rust campagne, yet there is some enforcement of discipline in the matter of compulsory extinguishment of lights at an appointed hour, and in the punishment of wanton offenders against the simple and by no means Draconian code of laws under which abide our Spartan-Sybarites. It may be replied, that in well regulated families the bedroom candles are taken with almost equal punctuality, and that the means for the enforcement of such rudimentary discipline as does exist in the camp are feeble in the extreme. Expulsion, or, rather, dismissal from camp, it is true, does follow on exceptional discreditable conduct, but the true effect of punishment, that of a warning to others, fails by reason of its studious withdrawal from publicity. In a sentence, the fortnight's residence under canvas at Wimbledon may be described as a long pleasant picnic, grateful to the subdued Bedouinism which is a characteristic of a muscular people for the most part engaged in sedentary avocations; and yet more grateful, in so far that it cheaply endears the campaigners, in the eyes of their acquaintances, and indeed of society at large, with the attribute of a gay and captivating disregard for the comforts of civilization.

Thus far as regards the "camp life" of the Wimbledon meeting. Let us glance at the alternative, or it may be collateral argument, that these meetings tend to the improvement of the marksmanship of the United Kingdom. This is undeniably true. Mr. Edward Ross won the Queen's Prize the first year of its institution with a score which would not now carry him into the ranks of the sixty, who, by their shooting in the first stage, gain the right to compete in the second. The man who to day has enough to do to win the paltry goblet, which may be the consolation prize in a battalion, wappen schaw, has cunning enough of eye and steadiness enough of hand to have won the blue ribbon of Wimbledon the first year it was offered for competition. But in the acknowledgment that the Wimbledon meeting and the shooting competitions which have sprung from its lions, have immensely improved their marksmanship, there is also the acknowledgment that the shooting zeal of our Volunteers scarcely spring from the most disinterested motives. The guerdons of straight shooting which with genial gracefulness the Princess Christian handed, on Saturday, to the men who had won them, are valuable in themselves and had further the adventitious value that they were distributed by a Princess in the sight of an acclaiming multitude. A cheque for two hundred and fifty pounds is a pretty return for the few pounds expended in railway fares and a fortnight's residence in the Associated Lines. And although the Queen's Prize is only for one, yet every man who chooses has his chance to win it; and it may be taken as a fact that, on the whole, attendance at Wimbledon is a paying adventure. It is indubitably true that patriotism and a liking for prize money may go together; and it may be said that the laborer is worthy of his hire. But the work of the laborer has been done when his wage is paid; whereas it is obvious that good shooting is merely a means toward an end—that end being the capacity of exterminating as many enemies as possible in the event of the said enemies presenting themselves for extermination. Now it by no means follows as a matter of course that the gentlemen who win the most cups and earn the greatest quantity of prize money would be among the readiest to turn

out in defence of the Fatherland in case of an invasion. We may assume that they would be no more backward than the man who cannot hit a haystack at ten yards, but there certainly is a weak link in the chain of reasoning. And further, it is not to be confidently taken for granted that the man who shoots straightest and furthest at Wimbledon, would do the same if his target were an armed foe instead of a passive square of canvas or iron. At Wimbledon everything is subordinated to the composure of the nervous system. The firing is deliberate, the marksmen are protected from distractions, all disturbing elements are industriously eliminated. It might be too much to ask that the nerves of a marksman should be tested, as they might be in actual warfare, by the explosion of a four pound shell between his legs just as he is on his shot; but when we find nerves giving way in the face of a cheer and counter cheer, of a well meant but ill timed whisper of advice, and of the mere excitement of the critical moment itself, we can hardly be deemed ungenerous if we decline to believe that exposure to a hostile fire, and the turmoil of battle would be likely to exercise any tranquillising influence.

Yet while much of the guilt with which the Wimbledon gingerbread has been so profusely beplastered peels off when exposed to dispassionate investigation, it would be unfair to deny to the great rifle tournament a certain amount of usefulness. Its tendency is to popularise the Volunteer movement; and it cannot well be questioned that the more Volunteers we have the stronger is our defensive attitude. It has been a useful stepping stone to the turning out of Volunteers for participation in the annual manoeuvres, where they do experience a modified approximation to real soldiering. And finally, it has the effect of causing an anxiety to shoot well to percolate through the great mass of the Volunteers of the kingdom.

General Chareton, says the *Army and Navy Gazette*, has not yet made his report on the French cadres, but it appears to have been decided that the artillery and engineer Staff are not to be touched, and that the lists of Generals is to be increased 25 per cent. It was supposed that serious reductions were contemplated in the upper ranks, but such is not the case, and France will, for instance, possess twice as many superior Staff Officers of artillery and engineers as are considered necessary in Germany. Writing on this matter we see that a French military critic makes the following observations:—"At an epoch when our resources were inexhaustible I was proud to see in a small town as many as five or six engineer officers drawing pay to the amount of from 25 to 30,000 francs a year, and superintending works of middling importance effected at a cost of 10,000 francs per annum. But to-day I thought we were going to be economical, and I regret to see that I have been mistaken." It seems that the French army is to possess regularly 300 Generals, also 200 superior officers of the permanent Staff, and 200 Captains. But the duties of this corps have yet to be described.

August returns to the Agricultural Bureau, Washington, give the following estimate of the average of Southern crops: Virginia, nine per cent; North Carolina, two; South Carolina, ninety seven; Georgia, ninety four; Florida, 102; Alabama, ninety; Mississippi, eighty nine; Louisiana, eighty three; Texas, 105; Arkansas, eighty seven; Tennessee, eighty three.

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The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

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

OTTAWA, TUESDAY, AUGUST 18, 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.

COMMODORE FOXHALL PARKER of the United States Navy is an officer whose scientific attainments and literary ability would do honor to any service, and whose valuable essays on Ancient Naval Tactics we have so often republished from the United States *Army and Navy Journal*, has lately read a most interesting paper before "the United States Naval Institution" on the celebrated historic and momentous action between the *Monitor* and the *Merrimac* as follows:—

At ten minutes before ten, on the morning of the thirtieth of January, 1862, an iron floating battery, designed for the Government of the United States by John Ericsson, and named, at his suggestion, the *Monitor* was launched at Greenpoint, Long Island, and at three p. m. on the twenty fifth of February, formally taken possession of by the Naval Department and put in commission at the Navy Yard New York.

On Thursday, the sixth of March, this novel float, concerning whose fate many gloomy predictions had been hazarded, left the Lower Bay, in tow of the steamer *Seth*

Low, and with a fair wind and smooth sea, steered for Hampton Roads. Her "muster roll" which may well be handed down, through all time, as a roll of honor, contained the following names:

John L. Worden, lieutenant commanding, Samuel D. Greene, lieutenant and executive officer; Louis M. Stodder, acting master; John J. N. Webber, acting master; George Fredrickson, acting master's mate; Daniel C. Lógué, acting assistant surgeon; W. F. Keeler, acting assistant surgeon; Albin C. Stimers, inspector of machinery; Isaac Newton, 1st assistant engineer; Albert B. Campbell, 2nd assistant engineer; R. W. Hanus, 3rd assistant engineer; M. T. Sanstrom, 3rd assistant engineer; Daniel Toffey, captain's clerk; Richard Angler, quartermaster; Hans Anderson, seaman; Dorrick Brinkman, carpenter's mate; Anton Bastón, seaman; William Bryan, yeoman; Joseph Crown, gunner's mate; David Gudderback, captain's steward; Thomas Carroll, 1st optician hold; John P. Cookling, quarter gunner; T. Carroll, 2d 1st class boy; A. Connelly, seaman; John Driscoll, 1st class fireman; Wm Durst, coal heaver; John Garrety, 1st class fireman; George S. Geer, 1st class fireman; R. K. Hubblell, ship's steward; Patrick Hannan, 1st class fireman; Jesse M. Jones, surgeon's steward; Thomas Joyce, 1st class fireman; Matthew Leonard, 1st class fireman; Thomas Loughran, seaman; Edward Moore, ward room cook; Lawrence Murray, ward room steward; Michael Mooney, coal heaver; John Mason, coal heaver; Wm Marston, seaman; William H. Nichols, landsman; Charles Peterson, seaman; Christy Price, coal heaver; Robert Quinn, coal heaver; John Rooney, master at arms; Wm. Richardson, 1st class fireman; Ellis Roberts, coal heaver; James Seavy, coal heaver; John Stocking boatswain's mate; Moses M. Stearns, quartermaster; Charles F. Sylvester, seaman; Peter Truscott, seaman; Abraham Testor, 1st class fireman; Thomas B. Viall, seaman; Peter Williams, quartermaster; Robert Williams, 1st class fireman; Daniel Welch, seaman.

About noon, on the seventh, the wind freshened, and the sea began to rise, and by four in the afternoon was making a clean breach over the *Monitor*, causing her to reel and stagger like a drunken man—now striking the pilot house with such fearful force as to drive the helmsman from the wheel—now raising its foaming crest far above the tops of the smoke and blower-pipes, and deluging with water the decks below. A little later, and the drenched blower-bands begin to slip—the draft grows feeble and the steam runs down—then, with a sudden snap, the blower-bands part, and, in an instant, the fire and engine rooms are filled with gas. In vain do the engineers and firemen, led by the executive officer, rush to the post of danger and endeavor to repair the damage. A poison more deadly than that from the Upas tree forbids approach to the severed bands. With heroism unequalled, each, in turn, essays to reach them, but one by one all fall senseless to the deck, and are borne on the shoulders of their sailor comrades to the upper air.

While this was being enacted in the engine room, the steam pumps had ceased to work, and the berth deck pump had been found to be useless, while the water driven through the hawse hole, through the lookout holes in the turret, and over the tops of the smoke and blower pipes, was gradually gaining upon the vessel and threatening to submerge her. Fortunately, however, the wind was off the land, and Worden, cool and collected amid the menaced danger, had ordered the

Seth Low to steer directly for the shore. By dark the sea became smooth, and at eight p. m., the engine being again in motion, and the steam pumps rapidly freeing the ship of water, the *Monitor* was a second time headed for Hampton Roads.

The first watch passed pleasantly away, under a serene sky, while the silver moon looked benignantly down upon a band of mariners as hardy and daring as that which, leaving the shores of Spain four centuries before, had braved the trackless ocean, in search of this very land, for whose defence these later mariners were now so resolutely pressing onward.

With the mid watch the sea again rose and dashed madly over pipes and turret, threatening a recurrence of the disaster of the previous day. The wheel ropes too, became jammed, so that no longer governed by the rudder, the vessel yawed wildly to and fro, bringing a fearful strain upon the hawsers by which she was towed, and upon which—how that her engine had nearly stopped—her safety mainly depended. To add to the horror of this anxious night, every few minutes, in response to the enquiries of the captain, came the dismal sound from below: "Blowers going slowly, sir, but can't hold out much longer!"

Ere the rising of the sun, however, the waves, had subsided, and when it set, the *Monitor* was inside of Cape Henry, heading for Fortress Monroe. Through the providence of God, her officers and men were saved from shipwreck; and well might the lovers of freedom, everywhere on the habitable globe, rejoice at their salvation. The Genius of the Republic had a great work for them to perform on the morrow; for which the severe trial to brain and nerve to which they had been subjected, on their adventurous passage, was doubtless designed as a grim preparation.

For never was brain and nerve more needed than now—never arrival more timely than this! The *Cumberland* sunk—the *Congress* in flames—several transports destroyed—the *Minnesota* aground! Such was the tale—alike piteous for those who told and listened to it—which startled the ears of the iron pioneers, as they entered the waters of the Chesapeake—a tale which flashed across the wires, caused apprehension in every loyal heart, from Maine to Virginia, from New York to California—for the safety of the Capital, of Baltimore, of McClellan's army! What mighty issues, then, now depended upon the untried *Monitor* and her glorious crew! Perchance, a nation's weal or woe, Liberty or Slavery, Republicanism or Tyranny! But God is just; and amply did the vessel sustain her country's honor, amply vindicate the judgment of the gifted Ericsson, in the conflict that ensued.

At nine o'clock that night, Lieutenant Commanding Worden reported his arrival at Hampton Roads to Captain Marston, the senior officer present, and, being directed to Newport News, for the protection of the *Minnesota*, he availed himself of the services, as pilot, of Acting Master Samuel Howard, an earnest volunteer for this duty, and, continuing onward, anchored in close proximity to the stranded vessel, a little after midnight. Just before he "came to," the *Congress* blew up, with a terrific report, and, as the blazing fragments were thrown high in the air, exhibited a spectacle of grandeur such as is rarely witnessed. The rebels greeted it with loud huzzas, but the Unionists beheld it with feelings of shame and humiliation, and a vague fear of some dread disaster in the future. On the *Monitor* not

a word was spoken; but each man registered a vow of vengeance, on the tablets of his heart, against the ruthless *Merrimac*.

Thus passed away the weary hours of the night, when day dawned all eyes were directed toward Sewell's Point, in an eager endeavor to discover the number, disposition and intention of the foe.

And first "loomed up" amid the mists of morning, the *Patrick Henry*, next the *Yorktown*, and finally, the ironplated ram herself, the formidable *Merrimac*, surrounded by several small tugs, and looking, with her arched back, like a huge tortoise. Her design was, evidently, to assume the offensive, and, about half-past seven, she was reported underway, with her consorts, steering for Newport News. At the same time, the drums of the *Minnesota* and *Monitor* were heard loudly boating the call to quarters; and the gallant Worden, lifting his anchor, stood boldly toward his enemies, with the intention of engaging them at as great a distance as possible from the noble frigate, in whose defence it became clearly necessary to give battle now.

As he approached the wooden vessels, scattering like a flock of frightend sea gulls, took refuge behind the defences at Sewell's Point, and, alone and unaided, the *Merrimac* sullenly confronted her tiny antagonist. Then, turning head to tide and slowing her engine, she triced up her ports and commenced firing, while her crew gave vent to their enthusiasm by cheer after cheer, as they demanded to be taken into close action with what they derisively styled "A Yankee cheese box upon a raft." And, in truth, the simile was not a bad one, nor was it to be wondered at, that, calling to mind the havoc made on the previous day by their mammoth vessel, the *Merrimac* should now look contemptuously down on the strange looking craft, which presumed to dispute their approach to what they had deemed their lawful prize, the helpless *Minnesota*.

On the other hand the crew of the *Monitor* felt entire confidence in their officers, their vessel, and themselves, and well-knew that, on this still Sabbath morning, from every temple throughout the North, every stately mansion, cot, and cottage—for the telegraph had spread far and wide the news of the impending battle—prayers were being offered for their welfare. The married men thought of their wives and children, the single of their mothers and sweethearts; and, if anything further was needed to stimulate their patriotism and courage, there were the stars and stripes floating just awash from the mizzen peak of the *Cumberland*, telling how brave men had died rather than surrender.

Worden now steadily steered for the starboard bow of the *Merrimac*, on a course at right angles to her keel, and when within a few yards of her put his helm hard-a-starboard, and, in a clear, ringing voice that was distinctly heard by the enemy, gave the command—fire!

Scarce had the word escaped his lips when the muzzle of a 11-inch Lahlgren was seen protruding from one of the ports of the turret, and in a second after, Green, who was deliberately sighting the piece, pulled the lock string. "It did our hearts good," who had escaped the carnage on board the *Congress*, and who with many of his shipmates, was an eye witness of the fight. "It did our hearts good to see its flash and hear the noise it made, and to know that the little water-tank was paying the rebs full interest on the debt we owed them."

The rebels were not slow, however, in responding both with great guns and musket-

ry—the latter aimed at the lookout holes in the pilot house with the view, no doubt, of disabling the commanding officer and helmsman, and the battle was thus fairly begun, each vessel as she passed close aboard of her antagonist, delivering her fire and receiving a tremendous fire in return. It was an anxious moment with both Union and rebel commander, the one apprehensive that his turret, which had been twice hit, might be so deranged as to cease revolving, the other dreading as he heard the huge missiles of his enemy rattling against the sides of his vessel, lest her armor should be pierced. As the ironclads drew clear of each other, however, it became apparent that neither was injured in the the least, and, as with confidence redoubled, Worden turned short round to renew the engagement, he found his adversary by no means disinclined to welcome him to close quarters. So at it again they went, side by side, and again the solid bolts glanced harmlessly from roof and tower and turret. For two hours the battle raged in this manner—the vessels almost touching each other, when the *Monitor* finding her supply of shot in the turret exhausted, hauled out of the action and ran into shoal water, where she remained while it was being replenished. This was a tedious operation, as each shot weighed one hundred and sixty eight pounds and had to be hoisted from below by hand, and occupied about twenty minutes, during all which time the rebels both afloat and ashore, believing the victory theirs, were loudly and wildly cheering.

Giving no heed, however, to their noisy vociferations, Worden coolly waited until his battery was reported "ready for action," when, observing that the *Merrimac* was bearing down upon the *Minnesota*, and had opened upon her with terrible effect, sending one shell through the boiler of a tug, lashed alongside of her, and another fore and aft of her berth deck, knocking four rooms into one and setting the ship on fire, he stood boldly across the assailant's bows—and the rebels found, to their chagrin, the despised Yankee cheese box intact, and once more interposed between the Confederate monster and its prey.

Judging the occasion favorable, Lieutenant Jones, the commanding officer of the *Merrimac*, determined to ram his saury opponent and, ordering four bells to be rung, dashed ahead at full speed, with the hope of hitting her amidships; but by a skilful movement of his helm, Worden avoided the direct blow, and the *Monitor* being struck obliquely on the starboard quarter, bounded away from her enemy without receiving the slightest injury.

The contact of the vessels was brief, but before they separated, Green had planted a shot full and fair in the roof of the *Merrimac*, which, "stripped off the iron freely," and, for a moment, it was thought by the officers and crew on the *Minnesota*—anxious spectators, as we may well conceive, of this novel combat upon whose issue the fate of their own ship depended—that the levian than had received her quietus; for she turned her head quickly toward Norfolk, while Worden, close at her heels, steered across her stern, and endeavored to cripple her screw.

The excitement now among the lookers-on at Newport News and Fortress Monroe, no language can describe. "She is whipped! she is whipped!" they cry. "Hurrah for the little *Monitor*." But suddenly their voices are hushed and each man holds his breath, for here the *Merrimac* comes once more—a goodly sight to see, with all her

banners flying—steering straight for the "little submerged propeller." Again the vessels graze each other in passing, again the eleven inch gun plays upon the *Merrimac*, while shot, shell and canister, in return, are concentrated upon the pilot house of the *Monitor*. Thus the fight continued for another hour, without any obvious advantage to either combatant, when a shell striking the pilot-house of the *Monitor*, fractured one of the great iron logs—nine by twelve inches—of which it was composed, and filling Worden's face and eyes with powder, utterly blinded and in a degree stunned him. Deprived of sight for ever, as he supposed and writhing in agony, this brave officer lost not his self-possession for an instant. His force of character and high professional training nobly sustained him; and like Regulus amid the tortures of the Carthaginians, his thoughts were not of himself but for his country. Believing his vessel seriously injured—for the top of the pilot house had been partially lifted off by the concussion—he ordered the helmsman to sh or off into shoal water, and then feeling faint, groped his way to the foot of the ladder leading to the berth-deck and sent for Lieutenant Greene. "I found him," says Greene in a letter written just after the action, "leaning against the ladder, as noble a specimen of a man as ever breathed. His face black with iron and powder, and his sight apparently gone. He told me in a calm quiet voice that the pilot-house was damaged, and that I must take command. I led him to his cabin and laid him down upon a sofa, and then hastened to take my place beside the helmsman, while the gun captains continued to fight the guns, under the supervision of Chief Engineer Stimers, who was revolving the turret."

Finding the injury to the vessel less severe than his commander had supposed, Lieut. Greene ordered her head to be again turned towards the *Merrimac*, which was now, for the second time, keeping up a deadly fire on the *Minnesota*. As the *Monitor* turned, however, so did the *Merrimac*, and, to the surprise of all not on board of her, she steamed at full speed for Norfolk. Yet, expecting her each instant to turn upon her pursuer, the Unionists were silent until they saw her wholly leaving the battle field and seeking shelter under the rebel batteries, thus, by all the laws of war, acknowledging herself vanquished. Then a shout of exultation arose, from sailor and soldier alike, extending from Fortress Monroe to Newport News, which shook the very heavens above. Right had, once more in the world's history, triumphed over wrong! And the dead of the *Congress* and *Cumberland*, whose bodies were lying stark and stiff upon the banks of the James river or in its bed, had not died in vain; for, to the injuries inflicted upon the *Merrimac* by their well directed broadsides, on the bloody 8th of March, was due, in some measure, it has been credibly asserted, to the great victory of the following day.

The political significance of this victory can hardly be over estimated. It produced an immediate and marked effect upon our diplomatic relations with England and Europe, whose rulers restored to their senses by this "latest Yankee notion," began now to look upon the United States as a formidable naval power. Its effect upon Earl Russell, in particular, was marvellous, transforming him from a seemingly bigoted monarchist into a most sincere and ardent admirer of Republican America.

What the wounds of the *Merrimac* really

were, we shall perhaps never know; but that they were serious, none can doubt. For Lieutenant Catesby Jones was an officer of acknowledged capacity, bravery, and experience, who must have well understood that faulty to the cause which he had espoused required him to retain the offensive as long as it was possible to do so. He would, therefore, never have retired from the fight while a hope remained to him of winning it.

As the little *Monitor*, very properly, gave up the pursuit of the foe—for with the vast interest depending upon her safety, her role was purely defensive—and with the proud banner of freedom flying from her flag staff, once more took her place alongside the *Minnesota*, all hearts were raised in thankfulness to God for his manifold and great mercies. And all over the land for many many months, the story was told of how Ericsson planned and how Wordon and his gallant men fought the famous *Monitor*. God's blessing on them all. May a grateful country never suffer their memories to grow cold, and may their names, inseparably connected with some of the darkest and yet most glorious days of the Republic be mentioned with reverence by our children's children.

CORRESPONDENCE.

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

CREEDMOOR—SELECTING THE AMERICAN TEAM—

NAMES AND SCORES OF THE BEST SHOTS.

(Correspondence of VOLUNTEER REVIEW) New York, Aug. 13, 1874.

After settling all the preliminaries for an International Rifle Match with the Irish Team the Amateur Rifle Club issued an invitation to marksmen throughout the United States to try their skill at Creedmoor, so that the best shots in the country could be selected to compete with the visitors. Many answers were received, some of them ludicrous in the extreme. A so called "Injun scout" offered to shoot at a 200 yard range while riding at full gallop and was prepared to back himself with an unlimited amount of greenbacks to beat "tarnation" out of the Irishmen. Another correspondent suggested bows and arrows as the only true test of marksmanship. Each one had some decidedly original suggestions, but not one outsider came forward to test his skill.

The public being apparently indifferent the onus of representing the United States had to be borne by the Amateurs. To determine who were the best shots in the Club and who were to compose the "team" five trial matches were held. The last of these took place on Saturday, but was interrupted by the rain. A supplementary match was therefore held yesterday. The following is the score:—

Distances.	Names.	Totals.
	L. L. Hepburn.	
800.....		54
900.....		48
1000.....		64
	J. S. B. Collins.	
800.....		51
900.....		44
1000.....		54

J. Trogesar.		
800.....	52	} 149
900.....	52	
1000.....	45	
A. Anderson.		
800.....	55	} 147
900.....	44	
1000.....	48	
E. H. Sanford.		
800.....	47	} 142
900.....	47	
1000.....	45	
L. M. Ballard.		
800.....	51	} 140
900.....	46	
1000.....	47	
J. S. Conlin.		
800.....	40	} 139
900.....	52	
1000.....	47	
F. S. Gardiner.		
800.....	48	} 139
900.....	44	
1000.....	41	
Gen. T. S. Dakin.		
800.....	40	} 125
900.....	44	
1000.....	41	
W. W. Skiddy.		
800.....	38	} 74
900.....	13	
1000.....	23	

The score speak for themselves, 160 points out of a possible 200 as made by Mr. Hepburn is remarkably good shooting, and 64 in twenty shots at 1000 yards has never been beaten in this country.

THE AMERICAN TEAM.

The International Match has been fixed for September 26th. The Team will be chosen from the following gentlemen who in the trial matches had out of a possible 800 points scored the totals opposite their names:—

Names.	Points.
H. Fulton.....	604
L. L. Hepburn.....	590
A. Anderson.....	583
J. S. Conlin.....	579
T. S. Dakin.....	570
G. W. Yale.....	561
J. S. B. Collins.....	555
L. M. Ballard.....	554
A. V. Canfield, Jr.....	546
F. S. Gardiner.....	546
E. H. Sanford.....	539
H. A. Gildersleeve.....	531

A DINNER FOR THE IRISH TEAM.

It has been decided that the cost of the International Match together with the entertainment of the Irish Team will be at least \$2000. The various manufacturers of American rifles have contributed towards the fund, and already enough has been subscribed to pay the expenses of getting the men out and the cost of the match. A subscription is now on foot towards giving the visiting rifle-men a public banquet after the match shall have been decided.

UNITED STATES V. CANADA.

One year ago the Creedmoor range had not been opened and the National Guard here and in Brooklyn were almost to a man ignorant of the first principles of the "aiming" drill. How the force has been benefited is proved from the score made by the different regiments at practice and in their regimental matches. I have compared the published scores of matches recently held in Canada, especially at Montreal, and find that the National Guard of New York and Brooklyn make as good averages whilst the score of some of the crack shots have never been beaten in Canada. Perhaps if the Canadian marksmen were to practice at Creed-

moor they might outdo any former effort, for a more perfect range up to 1000 yards it is difficult to imagine. The ground is as level as a billiard table and the greater distances can be used without any platforms or other artificial erections.

REGIMENTAL TEAMS AT WORK.

On Tuesday several regimental teams were out and made some remarkable good shooting. Private Murphy, 8th Regiment made 34 out of a possible 40, five shots each, 200 and 500. At same distances Lieut. Hoelle, 8th regiment, score 32, while Lieut. Heiznoan and Sergt. Wood, 12th regiment, scored 31 each. In a match for a badge Capt. Lindsay, 79th Regt. made 45 points and Capt. Clark made 43, out of a possible 56, seven shots each at 200 and 500 yards. In ten shots each at 200 and 500 yards Private Roux and Sergt. Treeman of 22nd regt. tied at 58, and Sergt. Magner and Pto. Ferris of the same regiment scored 57 points each.

RICOCHETS FROM THE RANGES.

Since my previous letter the ranges have been used nearly every day. Several regiments have in turn taken a day's shooting. Wednesdays and Saturdays have been devoted to Club matches. On Monday of last week the separate troops of cavalry were at practice. After firing at 100 and 300 yards the troop fell back to the 500 yard range, but had to return to the 300 as the Remington carbines, with which they were armed, could not carry the greater distance. A few days later a marker was shot by an impatient militiaman who would not wait until the trap of the sunken butt had been closed. On another occasion a German regiment became demoralized from too much lager and the men commenced firing two or three at a time and without giving the markers time to signal the shots; H.A.

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD QUARTERS,

Ottawa, 14th August, 1874.

GENERAL ORDERS (22).

No. 1.

ACTIVE MILITIA.

Equipment and Clothing to be returned into Armories.

In order to arrange for the better care and preservation of articles of Equipment and Clothing, issued for use by Corps of Active Militia, Officers commanding such corps will, immediately after the completion of the Annual Drills for the current year, see that all Armes, Accoutrements, Uniform Clothing, Great Coats and other articles of Equipment are returned into their respective Company or Battalion Armories, as the case may be, for safe keeping, and to insure proper equipment being available for use whenever occasion may require.

Any of the above articles in possession of the Officers or Men of any Corps not in

tending to perform the Annual Drill for the current year, are to be returned into their respective Armories without delay.

Deputy Adjutants General of Militia, will see that the above Order is carried into effect by Officers in their respective Districts.

ANNUAL DRILL.

According to No. 3 of General Orders (13) 2nd June, 1874, the following Corps are removed from the List of Corps not entitled to pay on completion of the Annual Drill for 1874-75.

- Mil. Dist.
- No. 1 Goderich Battery of Garrison Artillery, Captain Thompson.
- No. 5--No. 4 Co'y. (Durham) 50th Battalion. Capt. Cairns.
- " 2 " (Waterloo) 79th Battalion, Capt. Maynes.
- " 3 " (Waterloo) 79th Battalion, Capt. Cold.
- " 4 " (South Roxton) 79th Battalion, Capt. Galbraith
- " 5 " (Buxton Falls) 79th Battalion, Capt. Wood.
- " 6 " (North Ely) 79th Battalion Capt. Smith.
- " 7 " (Lawrenceville) 79th Battalion, Capt. Brown.
- " 8 " (Waterloo) 79th Battalion, Lieut. Brooks.

PROVINCE OF ONTARIO.

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

The resignations of Lieutenant John Hamilton Kane and Ensign George Leslie are hereby accepted.

26th "Middlesex" Battalion of Infantry.

To be Quarter Master : Lieutenant Jacob Christopher Beer, from No. 2 Company, vice Loftus Cuddy, whose resignation is hereby accepted.

No. 2 Company, Napier.

To be Lieutenant : Corporal James Buchanan, M.S., vice Beer, appointed Quarter Master.

27th "Lambton" Battalion of Infantry.

No. 5 Company.

The Head Quarters of this Company are hereby transferred from Mooretown to Wallaceburg.

29th "Waterloo" Battalion of Infantry.

The Head Quarters of this Battalion are hereby transferred from Galt to Berlin.

To be Surgeon: Assistant Surgeon William Hawkins Vardon, vice John Roy Philip, whose resignation is hereby accepted.

To be Assistant Surgeon. Robert McIntyre, Esquire, vice Vardon, promoted.

34th "Ontario" Battalion of Infantry.

To be Lieutenant Colonel : Lieutenant Colonel James Wallace, M. S., formerly in Command of this Battalion, vice William Warren, Junior, who is hereby permitted to retire retaining rank.

To be Assistant Surgeon ; Jonathan Robinson, Esquire, M D., vice Alexander Hancock, left limits.

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

No. 2 Company, Collingwood.

To be Captain : Ensign William Anderson Hamilton, M.S., vice McMillan, resigned.

To be Lieutenant, provisionally : Sergeant Alfred McDonald Knight, vice Creelman, resigned.

No. 5 Company, Barrie.

To be Lieutenant : Ensign James Warl, V.B., vice Russell, transferred to No 4 Company

No. 7 Company, Orillia.

To be Lieutenant : Ensign John Strathern, M.S., vice Dunn, resigned.

No. 10 Company, Wyebridge.

To be Lieutenant : Ensign David C. McIntosh, M.S

36th "Peel" Battalion of Infantry.

No. 4 Company, Albion.

Ensign George Duckrill, having left limits, his name is hereby removed from the List of Officers of the Active Militia.

37th "Haldimand" Battalion of Rifles.

Ensign and Adjutant John Tuck, M. S., to have the rank of Lieutenant.

41st "Brockville" Battalion of Rifles.

Erratum in G. O. (20) 24th July, 1874—read: "To be Quarter Master: Quarter Master Sergeant James Elkinah Kincaid," instead of "Elkinah-Kincaid."

BREVET.

To be Lieutenant Colonel: Major William George Wonham, V. B., 22nd Battalion, from 25th June, 1874.

CONFIRMATION OF RANK.

Captain John Mortor, V. B., No. 6 Company, 32nd Battalion, from 8th July, 1874.

PROVINCE OF QUEBEC.

17th "Levis" Battalion of Infantry.

To be Paymaster : George Vien, Esquire, vice Albert Vandon Heyden, left limits.

23rd "Beauce" Battalion of Infantry.

No 3 Company, St. Francois.

To be Captain, from 12th June, 1874: Gustave Olivier Tascheran, Esquire, M. S., vice Ephrem Bélanger, who is hereby permitted to retire retaining rank.

58th "Compton" Battalion of Infantry.

No 1 Company, Bury.

To be Captain : Assistant Surgeon James McNeece, M. S., vice Lockett, appointed Paymaster.

The resignation of Ensign Desmond John Fitzgerald is hereby accepted.

PROVINCE OF NOVA SCOTIA.

63rd Halifax Battalion of Rifles.

To be Majors : Captain John D. Cummins, V. B., vice Pallister, promoted.

Captain and Brevet Major Joseph Norman Ritchie, Q. F. O., vice Anderson, retired.

66th "Halifax" Battalion of Infantry.

To be Captain : Lieutenant Frank Graham, V. B., vice Frederic Mitchell, whose resignation is hereby accepted.

The resignation of Captain and Brevet Major John W. Watt, is hereby accepted.

No. 2.

CERTIFICATES GRANTED.

BOARDS OF EXAMINERS.

PROVINCE OF ONTARIO.

FIRST CLASS CERTIFICATES.

Captain John Biggar, No. 1 Company, 32nd Battalion.

Captain John Morton, No. 6 Company, 32nd Battalion.

SECOND CLASS CERTIFICATES.

Captain John Morton, No. 6 Company 32nd Battalion.

By Command of his Excellency the Governor General.

WALKER POWELL, Lieut. Col. Acting Adjutant General of Militia, Canada.

BEN BOBSTAY.

A NAUTICAL BALLAD.

Ben Bobstay he was a Mariner bold,
Or he might have been (if truth he told),
Provided he'd gone to sea,
No, history declares
He staid on land instead,
And he mended umbrellas and cane bottomed
chairs.
Like—an Admiral of the Red.

His trousers were wide and made of duck,
And his hat it was tarpaulin,
Like a seaman bold to his post he stuck
Whenever he was a squall in,
But he never was a squall in,
Which was I understand
To this fact mainly due,
He religiously preferred dry land
Like—an Admiral of the Blue

On the top of his head he always bore
A man of war three decked,
And a couple of wooden legs he wore,
For he lost his when he was wrecked;
But he was not exactly wrecked,
His accident came thus:
One day when he was tight
He fell under the wheels of a two penny bus
Like—an Admiral of the White.

So that was the way he became a tar
And talked in a nautical way,
He called each wooden member a spar,
And cried: Shiver my timbers belay!
But he didn't know how to belay.
And now so well he fares,
He's abedant umbrellas
And cane bottomed chairs,
Like—regular old Importer.

ARMY ORGANIZATION.

(By General George B. McClellan.)

(Continued from page 883.)

It has been already explained that each battery is provided with its own baggage and supply waggon; but, in addition to this, it is upon the artillery that the transportation and supply of ammunition for guns devolves, as well as for the infantry, beyond the amount carried by the men themselves (50 rounds per man), and that carried in the battalion ammunition wagons (about 25 rounds per man for the line regiments, and about 33 rounds per man for the rifle battalions). There is a regiment of field artillery for each army corps, and when the troops are placed on the war footing, each artillery regiment in addition to its three divisions of foot artillery and one of horse artillery, forms an ammunition division for the care and transportation of ammunition. This division consists of four infantry ammunition columns, and of five artillery ammunition columns, the whole division counting 20 officers, 1583 men, 1580 horses, 229 wagons. The amount of infantry ammunition carried by the ammunition columns is about 90 rounds per man. The artillery ammunition carried by the columns is about 220 rounds per gun, in addition to the 140 carried in the limbers and caissons of the batteries.

PIONEER TRAINS.

	Officers.	Men.	Horses.	Wagons.
The three field companies of each line, r. b. train have on the war footing	15	750	51	9
The light bridge train	2	51	57	14
Intrenching tool column	1	1	20	6
Total with each army corps.	17	778	108	28

The administration of the army corps on the war footing consists of—

1. The intendency, made up of (a) the corps intendency, 24 persons, 25 horses, 3

wagons; (b) four divisional intendancies, one for each infantry division, one for the corps artillery, and one for the cavalry division, each consisting of 14 persons, 15 horses, 2 wagons.

2. The corps military chest.
3. The subsistence service, made up of (a) the corps subsistence administration, (b) four divisional administrations of subsistence, (c) the administration of the field bakery.

4. The corps medical administration.
5. Twelve field hospitals, each capable of taking care of 200 sick or wounded.

6. Reserve of hospital attendants, etc.*

7. Reserve hospital depot.*

8. The field post service. *

9. The auditoriat, consisting of (a) the corps judge advocate (b) the divisional judge advocates and assistants.

10. The corps and divisional chaplains and assistants.

The total strength of the administration of an army corps, of course exclusive of the train battalion, is 12 officers, 1055 men, 548 horses, 104 wagons.

THE GENERAL STAFF CORPS.

There is no question that the Prussian general staff corps is the best in the world. It has been for many years under the absolute control of Von Moltke, who has had in his hands, entirely untrammelled its organization, the selection, instruction, and promotion of its members, and has brought it to its present perfection. To this perfection are due in no small degree the Prussian successes in recent years. To the relative inferiority of their general staff corps their antagonists may to a great extent attribute the disasters they have experienced. In our own last war infinite difficulty, not only in the organization, but also in the subsequent handling of the armies, arose from our lack of such a body of men. So absolutely certain is it that such a corps is of the first and most vital importance in modern war that we must, even if at some length, explain its organization, its duties, and the manner in which its members are selected and instructed. As promotions are practically made, it often happens that general officers, while possessing many of the essential qualifications for command, such as courage, energy, the ability to govern and inspire men, lack other equally important qualities of a more scientific nature, as well as the trained intellectual power necessary to enable them to determine what is best to be done in an emergency, and how to do it. One purpose of the set of men with whom we are now concerned is to supply this want. Again, even when a general possesses all the requisite qualifications for his post, he can not be every where at once, see every thing with his own eyes, or give every order in person, and he requires the assistance of his highly instructed corps to increase his powers of action, for he can see with their eyes, trust to their reports, and commit safely to them not only the delivery of his orders, but also the watching over their proper execution. To such men also he can often safely intrust the power of modifying his orders as circumstances change. Sometimes, also, it happens that a general has served in only one of the arms of service, and has only a general knowledge of the powers and necessities of the others. Here, too, the general staff corps comes to his aid.

It ought to follow from this, and in practice it often does, that the more perfect the general staff corps, the more frequently will general orders be selected from among their

number. In the Prussian army the great majority of the generals have passed through the admirable War Academy, and fully three fourths have served on the staff; but in most other armies a very large proportion of the generals come from the line of the army. In time of peace the duties of such a corps are twofold: First, to collect and keep in a perfectly convenient shape for immediate use all the information in the way of topography and statistics that, in the event of war, can be useful in arranging plans of campaign and conducting operations. Secondly, to train the members of the corps for the proper performance of the duties in war. The information referred to is so varied and extensive that we can only indicate a few of its main features by way of illustration. One of the most important points is the collection of the best possible maps of one's own and of all other countries where it is possible that campaigns may have to be conducted. These maps should go into every detail, and give ample information on all points that can affect the movements of troops, and must be supplemented by full information—obtained through reconnaissances or otherwise—as to the nature of roads, streams, forests, etc.; the geology of the country, its practicability at all seasons and in all weathers; the capacity of the towns and villages for defence, shelter, supplies, etc.; the nature and location of the defensive positions, and their approaches; similar information in relation to the permanent defences, the railways, etc., etc. Full information must also be procured in regard to the military resources of all possible antagonists; the organization and strength of their armies; their arrangements for recruiting, etc.; the nature and qualities of their weapons; the character and qualities of their different generals, etc. In regard to the other part of the work in peace, the first step is to select the members from among the most intelligent, active, energetic, ambitious, and high toned of the entire body of the officers of the army, to institute preliminary examinations into their qualifications, and unhesitatingly to remove from the corps any who at any subsequent period of their service prove to be in any way unsuited to the duties required of them. Next, in regard to their instruction, not only must this embrace all the higher scientific branches of the theory of war, but they must also have constant practice in the performance of their special duties, and serve so often and so long with troops of all arms of the service as never to lose the habit of command, the knowledge of the necessities and capacities of the men, the details of service with troops, and, more than all, never to cease to identify themselves in thought and feeling with the line of the army, nor become antagonistic to it, and mere office soldiers. It will now appear how under the master hand of the chief of staff of the German armies, all these conditions, and more, have been entirely fulfilled. First, let us say that the organization of the Prussian general is entirely flexible; its numbers are fixed by no rule—simply by the demands of the service; and its distribution is regulated by the nature of the duties at the moment. The body in question is divided into two portions:

1. The great General Staff, at Berlin.
2. The General Staff officers serving at the head quarters of armies, corps, divisions, and with the general inspection of the artillery

The whole are under the field marshal Von Moltke.

The Great General Staff is subdivided into (a) the General Staff proper, consisting of 3 chiefs of division, 6 field officers and 15 captains; (d) the Secondary General Staff, whose officers are intended for purely scientific purposes, and consists of 1 chief of division, 5 field officers, and 12 captains.

The first of these two categories is divided into three divisions, or "theatres of war," each under a chief, as follows:

1. The First Division, which occupies itself with all countries east of Germany, including Austria and Scandinavia.

2. The Second Division, with Germany, Switzerland, and Italy.

3. The Third Division, with all countries to the west of the Second Division.

In respect of the countries to which it is assigned, each division must always possess full information in regard to the organization, strength, and state of preparation of the armies, and all important military considerations, peculiarities as a theatre of war, etc., so that immediately upon the breaking out of a war a complete basis for a plan of operations may be ready.

The second category is organized in four divisions, each under a chief, viz.

4. The Division of Military History, which is occupied in working up the details of past campaigns, so as to make their experience available in the present and future.

5. The Division of Geography and Statistics, with the collection of maps.

6. The Topographical Division, for the survey of the country.

7. The Railway Division.

The number of the general staff officers at the head quarters of commands varies in peace and war. In war the number assigned to each army corps is as follows. 1 chief of staff, 1 field officer, 2 captains, 1 field officer or captain with each division.

The number and rank of those assigned to the head quarters of armies, and with the great general head quarters, vary according to circumstances.

The duties of the officers attached to head quarters are, on the one hand, to assist their generals in drawing up and carrying out orders, and on the other, to perform certain office duties.

In addition to the officers proper of the general staff corps, every year some forty officers of the line are detailed for one or two years' service with the staff corps, in order to fit them for the performance of duty as aids de camp with the generals.

We can not fully explain the manner in which the candidates for the general staff corps are selected without first alluding to that admirable institution, the War Academy at Berlin. Any lieutenant in the army who has served three years with his regiment as a commissioned officer may present himself as a candidate for admission into the academy. About one hundred and fifty annually offer themselves as candidates, and of this number about fifty are admitted, after a very searching examination. This academy is undoubtedly the best institution of the kind in the world, and is intended to give officers of marked ability and ambition the most thorough instruction in all the higher branches of their profession, and thus fit them for service in the staff corps as aids de camp and as generals. Among the branches taught are tactics, strategy, military history, fortification, attack and defence, topography, the duties of the administrative branches, staff service; and in connection with, or preparatory for, these subjects, pure mathematics, mechanics, chemistry, geology, natural philosophy, general history and literature,

and the Russian, French and English languages. The course lasts three years.

In each year the lectures continue from the beginning of October to the end of June. During the vacations at the close of the first and second years the students return to their regiments to take part in the autumn manoeuvres. Toward the end of the second year's course they have several weeks' exercise in practical surveying. At the close of the third year's course they take part with the professors in a "general staff tour," the object of which is to give them practice in making reconnaissances, executing topographical sketches, selecting sites for encampments, positions for troops, etc. They are now all returned to their regiments. From among the graduates some twelve or fifteen of the most able and industrious are usually selected candidates for the general staff corps. During the year succeeding their exit from the War Academy these do duty for about eight months with arms of service different from that to which they originally belonged. Those of the number who acquit themselves satisfactorily under this further test are now ordered to the head quarters of the staff corps at Berlin, where they remain for some two years longer, under the immediate orders and instruction of Von Moltke. During this time they are constantly being taught not only the current duties of the various divisions into which the head-quarters are separated, but they receive lectures from the chief himself, are required to prepare for him reports on various subjects, and accompany him on annual tours for field practice—in short they still remain at school. They are now again sent back to their regiments, and it is only after the lapse of some months that those finally selected by Von Moltke are definitely appointed captains in the general staff corps, and become members thereof, entitled to wear its uniform. These captains are now assigned to various duties, according to the wants of the service and their respective peculiar qualifications. Most of them are sent to the head quarters of troops; others go to Berlin. They serve about two and a half years as captains in the staff, and are then returned to duty with the line, receiving command of a battery, squadron, or company, but never with their old regiments. They serve in this way about two years longer, always varying the arm of service. When they are promoted by selection to the rank of major in the staff corps, and resume the duties and uniform thereof. Should any of these staff corps captains during these two years' service with the line manifest any lack of zeal, or in any manner show that the original estimate formed of them was too high, they are quietly left in the line, and lose all opportunity of further employment on the staff. When a major in the staff corps is about to become entitled to his promotion as lieutenant colonel, before receiving it he must serve at least one year in command of a complete battalion, or of several squadrons, or of several batteries. So, also, before he can be promoted as colonel in the staff, he must command an entire regiment for at least one year.

In addition to the means just described for securing competent officers for the staff, still another method is pursued. The commanders of regiments report to the chief of the general staff whenever they have under their command any subalterns of such superior zeal and intelligence as to render them promising candidates for the general staff corps. To the

officers thus indicated the chief of general staff sends military questions and problems to be worked out, and if the replies are such as to indicate that they really possess the requisite qualifications, they are ordered to report at Berlin, and are there placed on probation. If satisfied of their ability and acquirements, he appoints them on the staff, if otherwise, they return to their regiments. The duties assigned to the officers of the general staff corps are not general, all such work being to the greatest possible extent performed by non-commissioned officers and soldiers. In addition to their current and ordinary duties, military questions are constantly given them to study, and every year the staff of each army corps performs a staff "tour" under the direction of its own chief, to keep them in constant practice, and to increase their knowledge of their profession. The officers of the corps at Berlin also make every year, under the personal supervision of the chief himself, a tour of some weeks in the different provinces of the Empire. From among the officers of the general staff corps, but more generally from among the other graduates of the War Academy, and from among those who are detailed every year for staff instruction, are selected the aids de camp of the generals.

It is difficult to imagine a system which will more effectually carry out the great object in view, which is to select for the staff the very best and most highly instructed of all the officers of the army; and the uniform testimony of those who have enjoyed the opportunities of judging is to the effect that in the Prussian army this object has been most fully accomplished.

We are now ready to describe the composition of the divisions, army corps, etc., but before doing so it is proper to allude to—1st, the four field railway divisions, which are made up to a great extent from the pioneers, and consist each of 1 officer, 230 men, 16 horses, and 2 wagons; these are formed when the army is mobilized for war, and their chief purpose is to repair promptly such railways as may have been rendered impassible in the course of operations; 2nd, the four field telegraph divisions, which are also chiefly made up from the pioneers and train soldiers, and consist each of 4 officers, 143 men, 72 horses, and 13 wagons; each division carries some twenty miles of wire, and can prepare for use about one mile of telegraph per hour. The duty of these divisions, aided by other smaller divisions, is to connect the important head quarters with each other, with important positions, and with the existing telegraph lines, as well as to repair broken lines.

THE BRIGADE.

As heretofore stated, the Prussian infantry brigade consists of two regiments, or six battalions. It is commanded by a major-general or colonel, with a lieutenant as aid de camp and adjutant general. The full war strength of the brigade is 140 officers, 624 non-commissioned officers and men, 250 horses, and 34 wagons. The rifle battalions are not usually brigaded, but are attached to the army corps, under the direct orders of the corps commander, although sometimes attached to one of the divisions. The cavalry brigade usually consists of three regiments, one of which in time of war is assigned to an infantry division. The brigade staff is the same as for the infantry brigade. In time of peace the artillery brigade consists of the regiment of field artillery and the regiment of fortress artillery.

belonging to the same army corps, and is commanded by a major general or colonel, with a lieutenant or third class captain as aide-de-camp. In time of war the brigade commander is the corps chief of artillery, while the corps reserve artillery, including the ammunition column division is commanded by the colonel of the field artillery regiment. The brigade staff is increased by an additional lieutenant and has charge of the spare ammunition for all the troops of the army corps. It may be stated here, once for all, that in time of war the staff of each general commanding troops, whether a brigade, division, corps, or army, is increased beyond the regulation allowance by the detail of orderly officers or acting aids-de-camp, usually cavalry officers, according to the necessities of the case.

THE DIVISION.

The normal composition of the division in time of peace is two brigades of infantry and one of cavalry; in war artillery is assigned to it, usually one division of four batteries, or 24 guns, of which 12 are light and 12 heavy. The division staff on the war footing consists of lieutenant general or major general as commander, 1 field officer or captain of the general staff corps as divisional chief of staff, 2 captains or lieutenants as aids de camp, 2 judge advocates, 2 chaplains, and 1 inferior officer of the intendants as divisional chief of that branch. In recent wars the practice seems to have been rather to diminish the amount of cavalry assigned to the infantry divisions, and with the surplus thus gained to form cavalry divisions, which either acted as independent divisions, or were combined as cavalry corps. The composition and staff of a cavalry division do not differ very materially from those of the infantry division. It will thus be seen that the infantry division contains within itself the means of independent action on a respectable scale, made up as it is of the three arms of service in just proportions, and having an administrative service of its own. Its full war strength is about 12,800 infantry, 2000 cavalry, and some 600 artillerymen with 24 guns, or in all somewhat more than 15,000 officers and men, with 24 guns. This force sometimes acts independently, but in the large armies of modern times it almost always forms part an army corps.

(To be Continued.)

RIFLE COMPETITION.

THE CANADIAN TEAM.

The Cunard mail on the 30th ult., brought papers and letters with accounts of the remaining shooting—that of July 17 and 18. On the first of those, the Rajah of Kolapore's prize was among those contested, and was won by the Home Team, the Canadian and Indian being oromatched. The Canadians, however, achieved several successes. Sergt. Major Wynne, of the Montreal Garrison Artillery, Captain Macpherson of the Governor General's Foot Guards, and Captain Arnold, of the 74th Battalion each gained one of the Canadian prizes of a telescope by Dillon. Sergeant-Major Wynne also carried off the chief of the Curtis and Harvey prizes, £25. Lieutenant McNachton gained a prize of £4 in the same match. A third time on this

day Sergeant Major Wynne distinguished himself and gained a Bass prize of £3. Pto. Brazeau, of the 3rd Battalion, won a Walter Scott prize of a sporting carbine. It may be added that Colonel Gzowski acted as umpire in the Elcho Shield competition in which Scotland was victorious.

On Friday, July 18, Sergeant Sutherland came third in a long list of winners of the consolation prizes, obtaining £4. The Times of the 18th sums up the doings of the Canadians to that date by saying:—

"Though the Canadian Team missed winning the Kolapore Cup on Thursday, and though they did not succeed in getting a man into the second stage of the Queen's, they have done marvellously well, when it is remembered that their twenty rifles were matched against the picked shots of the three kingdoms. They have a good list to show on their return home, and have deserved well of their country. In the first stage of the Queen's they won five prizes of £3 each, in the Prince of Wales two of £5, in the Martins Cup one of £5, in the Windmill two of £2, and in the Alexandra five of £5 and four of £3. They have also won Daily Telegraph prizes, £5, £3, £1, Graphic, £5, Albert, £5; Rifle Works, £2; extra prizes £20; Curtis and Harvey 4l. and 2l., Bass, 5l. and 2l.; Walter Scott, 20l., also a binocular and telescope—33 prizes in all, good work indeed against such odds."

The Times adds:

"Last night the London Scottish gave their usual farewell dinner. Major Lumston was in the chair, and was supported by Captains Mackenzie, Campbell, Sutherland, Trotman, Fisher, Puckle, and some 50 members of the corps. Everything was done in true Scottish style, and the baggis, which came from Edinburgh was brought in state at the heels of a piper in full blast. Quartermaster Strachan carrying the sacred bottle of whiskey. In returning thanks for his health, Colonel Gilmor, of the Canadian team, mentioned that when he went to meet the Fenians at the memorable 'invasion' of the Volunteer force under his orders was joined by a London Scottish man in the uniform of the corps, who so behaved himself that he was specially praised in the report of the day's proceedings."

The following were the scores by the Canadian team in two of the matches already spoken of in The Mail. In the "Queen's Prize" match their score stood:

	Yds.	Yds.	Yards.
	500.	500.	600 T'l.
Whitman.....	23	29	21-73
Mitchell.....	27	23	16-71
Macpherson.....	18	29	19-66
Baillie.....	27	23	15-65
Gibson.....	26	27	11-64
Pallen.....	26	24	13-63
Morgan.....	22	25	13-60
Layton.....	23	20	16-59
McNachton.....	19	16	54-59
Wynne.....	25	21	12-58
Sutherland.....	24	20	13-57
Disher.....	19	23	15-57
Omand.....	21	21	13-55
Wolfenden.....	18	22	13-53
Pain.....	20	20	10-50
Brazeau.....	21	19	9-49
Hickey.....	25	20	2-47
Church.....	20	19	8-47
Arnold.....	17	14	13-44
Mason.....	16	10	8-34

The scores at the two ranges of the "Alexandra" were:

	Yards.	Yards.	T'l.
	500.	600.	
Layton.....	28	24	52
Macpherson.....	26	25	51
McNachton.....	29	22	51
Disher.....	27	24	51
Morgan.....	25	26	51
Mason.....	28	17	45
Omand.....	27	18	44
Whitman.....	24	20	44
Pain.....	18	16	41
Gibson.....	25	18	41
Baillie.....	23	19	42
Hickey.....	24	18	42
Mitchell.....	26	16	42
Walter Scott.....	20	21	41
Brazeau.....	25	13	38
Arnold.....	21	15	36
Wynne.....	24	11	35
Church.....	19	15	34
Pallen.....	19	12	31
Sutherland.....	15	14	29

A propos of an offer made by the London Swimming Club to provide duly qualified instructors of swimming wherever required, a correspondent of the Broad Arrow suggests that it would be very desirable to give more encouragement to soldiers of all arms to acquire proficiency in this useful art. The scenes on the banks of the swollen Doh, during the return march from Coomasie, as depicted by the newspaper correspondents, were certainly not in keeping with our national predilections for cold water and aquatic pursuits, although just what might have been expected from the prevailing ignorance of natation amongst the Englishmen of all classes. Our Cavalry regiments might, perhaps, learn something from the practice the Scots Greys of a hundred and twenty years ago. A London paper of 23rd May, 1758, speaking of the light troop of the Greys, under Captain Lindsay, quartered at Maidenhead, says:— "They have been practicing the new Prussian Hussar exercise, and for some days past have been digging large trenches and leaping over them, also leaping high hedges with broad ditches on either side. Their Captain, on Saturday last, swam his horse across the Thames, and the whole troop was made to swim the river yesterday."

The Allgemeine Militar Zeitung says relative to the construction of railways for military purposes: At the present moment the experience gained in the war of 1870-71, is being utilized in order to get the greatest possible results out of these means of communication, so important in war time. Hence, revictualing stations are being established in a permanent manner in the most favorable positions, and their accommodation is so increased, that in case of war the military trains will be able to find at them all the necessary means of revictualing. Staff officers of high rank will be employed annually to inspect the railways, the material, the roadway, the stations, the warehouses, etc. Special branch lines will be made to all the strong places and points of importance in the country, and wherever space admits it, large military stations will be erected, capable of embarking an entire division at once. One will be made at Berlin, and others at Cologne, Mayence, and Strasbourg. The rolling stock is to be increased, so that when time admits of it the field army will be carried in third and fourth class carriages, and thus only horses, artillery, and material will be carried in the baggage wagons, open wagons, or trucks. Similar measures will be carried out in Bavaria.