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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. V.

OTTAWA, CANADA, MONDAY, FEBRUARY 20, 1871.

No. 8.

ORGANIZATION OF THE PRUSSIAN ARMY

By C. V. H.

From the U. S. Army and Navy Journal.

III.—NON-COMMISSIONED OFFICERS.

The value of good non-commissioned officers being acknowledged in all armies, different inducements are offered to efficient men to fill such positions. The French army avails itself of the institution of "substitutes" for this purpose. A Frenchman who has got money enough to pay somebody to fight for him is not called upon to furnish his substitute himself; he simply pays the amount. The government takes another man down the list, and gives the money to a non-commissioned officer as a bounty for re-enlistment. In Prussia any non-commissioned officer who has served twelve years in the line is rewarded by a preference over any competitor who has not served, granted to him for all positions under government which his education and ability may make him fit for; and the greatest number of subordinate clerkships, for instance, are filled by former non-commissioned officers of the army. Schools are established in each battalion for the non-commissioned officers, where the officers teach all branches which are likely to be examined into, as penmanship, accounts, geography, etc.

Non-commissioned officers are appointed by the colonel, but they cannot be reduced except by sentence of court-martial. Their authority is earnestly protected, and no difference made whether an act of insubordination be committed against an officer or a corporal.

IV.—OFFICERS.

A part of the Prussian officers are educated in a corps of cadets, with several preparatory schools. In the first place, the sons of officers who died on the battlefield are entitled to a place there free of charge. Officers serving in the army are entitled next to avail themselves of these schools for their sons, in consideration of a moderate payment, which is regulated in accordance with their own rank and pay. Finally, every citizen may send his son to such a school if he pays the tuition for which generals have to pay. Boys enter the preparatory school at 9 years old; but even then the aspirant must show a certain degree of efficiency, of course very limited. After four years the boys are transferred to the corps of cadets, where they remain three years. They undergo their examination, and those who pass are

assigned to regiments as ensigns. About thirty every year, the most proficient, would say the graduates, remain one year longer, and after a last examination get assigned as lieutenants. The number of cadets however being limited, any boy of the age of seventeen may enter the army as a private, with a view of obtaining a commission, if he is a graduate of a "gymnasium," as they call high schools which prepare students for the universities. He then serves nine months as a private, gets his ensigncy, and joins for one year the cadets of the same rank in a school established within the limits of each army corps. The course of studies there is limited to what are considered the professional branches—mathematics, fortification, artillery, tactics, etc., and proficiency having been proved by an examination, they return to their regiments, to be promoted as soon as vacancies occur. Though the number of officers for the field army is mostly complete in peace, there are so many more officers needed in war for extraordinary duties, in depots with the Landwehr and elsewhere, that provision has to be made for a great increase in case of war. Any young man who is a graduate of a high school, and possesses the means of maintaining himself, is permitted to complete his duty as a soldier in the line by serving one year instead of three. It is considered that a young man of education should be able to learn a soldier's duties in a shorter period.

Poor young men are sometimes excused from maintaining themselves, but the condition of being possessed of this education is never dispensed with. Such young men, after having served one year—the choice of the regiment having been left to them—are then transferred to the reserve, like any other soldier. In their turn, they are called in for the first regular fall exercises, and if they pass an examination on the merely practical duties of an officer in the field, they are promoted to commissions, and, in case of war, join the army as officers. No civilian can ever get a commission in the army, except by one of these three procedures. Nobody receives his commission (and this rule is general, too) except upon recommendation of his captain and colonel, and with the consent of the corps of officers of his regiment—the latter consent being especially required as a test of the young man's qualification as a gentleman. If a majority of the officers object, not even the reasons for their dissent need be given.

It is obvious that all the officers must be men of a sound education. Everybody has to serve, but to every educated man the way is open to obtain a commission by virtue of

knowledge and gentlemanlike conduct. That the positions as officers are filled by the nobility exclusively is simply not the fact. That the sons of the landed nobility like to serve as officers in the army is a fact, but they enjoy no privileges whatever.

It would be a poor lookout, however, if the military knowledge so obtained by the officers of the army were all that the army possessed. Two great military academies exist in Prussia for the two-fold purpose of instructing officers of the special arms, and imparting the higher branches of military science to officers especially fit and ambitious to obtain such instruction. One is the school for artillery officers and engineers, the other the so-called military academy. They correspond to the universities. All officers of artillery and engineers have to go through a course of three years in the first mentioned school, which commences after they have been one year at least with their regiments. About fifty officers besides of all arms enter the military academy every year for three years, after three years' duty with the troops. These enter voluntarily and upon the merits of an examination, a much greater number always making a strong competition.

The studies in the academy embrace higher mathematics (calculus and mechanics), surveying, geodesy, strategy, and history of war, staff duties, foreign languages, etc. They are educated on the plan of the German universities, by lecturing, and at the end of each term the writing of essays upon given subjects stands in lieu of any verbal examination. They do not believe in Prussia that it is possible to finish the higher education of an officer in a cadet school, and they seem to believe that service with the troops is an indispensable preparation for the study of some of the branches of military science. On the other hand, they do not think that the knowledge of calculus, for instance, is indispensable to every officer, nor that it can be expected from a great number of young men that they will in fact and reality master the calculus.

Promotion goes, as a rule, by seniority among the lieutenants of a regiment. Captains get their promotion to field officers' rank in accordance with seniority obtained in each arm of the service and in each corps d'armée. Field officers are advanced in each arm of the service separately—generals through the army. Should an officer be overlooked, he takes it as a hint to apply for permission to retire upon such pension as his rank and length of service entitle him to. Extraordinary promotion can be obtained in peace time—the princes of the

royal family alone excepted—only by showing special qualifications for staff corps; and never, even in war, could a major get promoted to be a colonel without first having been a lieutenant colonel.

Field Marshals or the senior generals command an army, generals an army corps, lieutenant generals a division, major-generals a brigade; but it happens that an officer may obtain the higher command before he has made the corresponding steps in rank.

(To be continued.)

CORRESPONDENCE.

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

FROM BROCKVILLE.

BY OUR OWN CORRESPONDENT.

This town has improved very much during the past year; about forty new buildings have been erected and a large number repaired, but, notwithstanding this, there is not a vacant house to be procured. The large work shops of the Grand Trunk Railway, as well as freight sheds which were erected during the year, indicate the large increase of traffic at this station, which is, I believe, one of the second largest on the line. The large "Union Depot," which is in contemplation to be erected next summer, for the use of this road as well as the Brockville and Ottawa Railway, and which is estimated to cost about twenty thousand dollars has now apparently become necessary to make sufficient accommodation for the large number of passengers constantly arriving at and departing from this place, and which have been largely augmented by the connecting of Ottawa by the "Canada Central," and when the Morristown and Black River road is completed (the shortest route by ninety-six miles between Ottawa and New York city) a very large increase of passenger traffic, as well as shipment of sawn lumber from the north must naturally pass over this line. The contemplated Brockville and Westport Railway, which is to be pushed on at once, will be another artery to draw trade and travel here, and instead of the population of the town remaining at five or six thousand, it must, in the course of a few years reach to that of a Canadian city.

Lieut.-Colonel Skinner, Captain of the proposed Ontario team for Wimbledon, paid us a flying visit last Friday in order to ascertain what prospects there were for raising funds to assist in defraying the expenses. At his suggestion a meeting of the rifle club was called on Saturday evening at the Brigade Office, when a committee, consisting of non-members as well as members were appointed, and requested to use their influence and collect subscriptions in this section; I have no doubt a few hundred dollars will be raised.

Many Volunteers think that they should be provided with a waterproof sheet or an extra blanket during the annual encampments. Members of Parliament would do

well to vote the supplies for so necessary an object.

To the Editor of the VOLUNTEER REVIEW.

SIR:—As the new issue of clothing to the Volunteer Force will probably be made soon, as the five years which the uniforms are supposed to last will expire this summer, I would take the liberty of suggesting that the Militia Department should (as I think a former correspondent of the Review recommended) have the shoulder straps of the tunics marked with the numbers of the battalion to which they are to be issued, as is done in the regular army. Distinctions of this kind though they may appear trivial do a great deal towards creating an *esprit de corps* which should be encouraged in every way.

The facings of the new rifle tunic are, I think, too conspicuous, there being much more scarlet visible than in that of H.M. 60th. which it is supposed to imitate. This could easily be remedied by sewing a black braid on the collar and on each side of the shoulder strap.

It is to be hoped that the quality of the tunic will be as good as that of the last issue which is certainly a credit to the contractor, but it is unreasonable to expect clothing to last five years: four years is as long as it can be expected to be serviceable, and in case of active service a month of continuous service should be considered as equivalent to a year's wear.

Yours truly,

VOLUNTEER.

[The number of the Battalion on the shoulder strap was suggested by our esteemed correspondent "G.W." and undoubtedly would be an improvement.—Ed. Vol. Rev.]

THE GOVERNOR GENERAL'S SPEECH.

On Wednesday the 15th inst. at three o'clock His Excellency the Governor General went to the Senate, and with the usual Stendant surroundings read the following speech—

*Honourable Gentlemen of the Senate;
Gentlemen of the House of Commons:*

I have much satisfaction in meeting you at this, the usual and most convenient season of the year, and under the present auspicious circumstances of the country.

The hope I was sanguine enough to express at the close of the last Session, that no further attempt would be made to disturb our frontier was doomed to early disappointment. The Session had scarcely closed when lawless bands assembled within the United States in great numbers, and renewed the menace of invasion. They ventured to cross the border at two points, but were promptly met and repelled. So complete and humiliating was the repulse that the invader lost heart and hope, threw away quantities of arms, and fell back to encumber the villages in their rear with their starving and demoralized masses. Our Militia rallied at the first call to arms with praiseworthy alacrity, and the spirit which pervades the country swelled their numbers with Volunteers from all quarters. The gallantry displayed and the success achieved, have been

duly recognized by the highest military authority, and honored, in gratifying terms of appreciation, by Her Most Gracious Majesty. In maintaining the Militia on active duty the Government incurred an outlay to a considerable amount beyond what was provided by the votes last session. The accounts of the entire expenditure for the defence of the frontier will be laid before you, and I feel confident that you will pass a bill to indemnify the Government.

My anticipations of success in regard to the Act passed for the Government of Manitoba, and the North West Territories, and in regard to the Military Expedition, which it was necessary to despatch, have been fortunately realized. The troops surmounted the difficulties of the long and toilsome route with endurance and intelligence. They encountered no armed opposition, and their arrival at the Red River was cordially welcomed by the inhabitants. The people of the new Province have, under the Constitution accorded to them last year, assumed all the duties of self-government, and every appearance warrants the hope that they are entering steadily upon a career of peace and prosperity.

The Legislature of British Columbia has passed an Address to Her Majesty, praying for admission into the Union, on the terms and conditions therein stated. All the papers on this important subject will be submitted, and your earnest attention is invited to them. I hope you will think the terms are so fair as to justify you in passing a similar Address, so that the boundaries of Canada may, at an early day, be extended from the shores of the Atlantic Ocean on the one side, to the shores of the Pacific on the other.

Should such an address be adopted, it will be necessary for you to take steps to secure the early exploration and survey of a route for an Inter-oceanic railway with a view to its construction in accordance with the terms of Union.

The acquisition of the North West Territories throws upon the Government and Parliament of the Dominion the duty of promoting their early settlement by the encouragement of immigration. This duty can be best discharged by a liberal land policy, and by opening up communications through our own country to Manitoba. The means proposed for accomplishing these purposes will be submitted for your consideration.

Her Majesty's Government has decided upon referring the Fishery question, along with other questions pending between the two countries, to a Joint Commission to be named by Her Majesty's Government and the Government of the United States. On this Commission Canada will be represented. This mode of dealing with the various matters in controversy will, I trust, lead to their satisfactory adjustment. Canada urges no demand beyond those to which she is plainly entitled by Treaty and the law of nations. She has pushed no claim to an extreme assertion, and only sought to maintain the rights of her own people fairly and firmly, but in a friendly and considerate spirit and with all due respect to foreign powers and international obligations. The thanks of the country are due to the Admiral on the station and those under his command, for the valuable and efficient aid which they rendered to our cruisers during the past season in maintaining order and protecting the inshore Fisheries from encroachment.

The prospect of the adoption of International Currency seems, in the present state of Europe, to be so remote, that I recommend you to consider the propriety of as-

simulating the currency of the Dominion without further delay.

The extension to Manitoba of the Militia and other Laws of the Dominion, and their adoption to the present circumstances of that young Province will require your attention.

The decennial census will be taken on the third day of April next, and it is believed that a more thorough and accurate system has been adopted than any that has hitherto been obtained. It may be necessary to amend the Act of last Session in some particulars.

Among other measures Bills will be presented to you relating to Parliamentary Elections, Weights and Measures, Insurance Companies, Savings Banks, and for the consolidation and amendment of the inspection Laws.

Gentlemen of the House of Commons :

I have given directions that the Public Accounts shall be laid before you. You will learn with satisfaction that the revenue for the present year was in excess of what was estimated, and that the prospects for the current year are so encouraging that, notwithstanding the extensive public improvements which are contemplated, you will probably be able to diminish the taxation of the country.

The Estimates for the ensuing year will be submitted to you, and I feel assured that you will be of opinion that the supplies which you will be asked to vote can be granted without inconvenience to the people.

Honorable Gentlemen of the Senate :

Gentlemen of the House of Commons.

I lay these various and weighty matters before you in full confidence that they will engage your mature attention, and I pray that the result of your deliberations may, with the Divine blessing, prove conducive in all respects to the advancement and happiness of the country.

Count von Moltke does not think much of modern American generalship, if we may believe the following story which is given in a letter from Versailles:—

"General von Moltke was appealed to by some gentleman in society the other evening to settle some disputed point in connection with the history of the American civil war. 'I know nothing about the American civil war,' was the quiet reply, at which more than one in the room expressed surprise. 'No,' said the great strategist, 'I have purposely kept myself in ignorance upon that subject, because there was nothing to be learned from it. War is a science and any record of the mere scrambling of two armed mobs can only produce confusion in the mind.'

A RESOLUTION to grant \$100 to aid in paying the expenses of the Wimbledon team, was voted down in the Ontario County Council last week. One of the Reeves called them "a lazy set of men, going on a pleasure trip." Mr. Galloway, Reeve of Scott—evidently a loyal old brick—defended the volunteers and when the adverse vote was recorded, he gave \$5 to be forwarded to Col Skinner as his share of the sum refused by his colleagues. That act should cover a multitude of errors in the minds of ratepayers of Scott.—*Orilla Packet.*

A young lady of Kingston says the reason she wears her corset so tight is to show the gentlemen how much squeezing she can bear.

AN AFRICAN BISMARCK.

A Bonny Correspondent of the Liverpool *Courier* gives some particulars of the progress of the war between Oko Jumbo and Ja ja. The latter is reported as showing a great talent for Bismarcking neighbouring niggers and drawing them into the war on his side. The Kings of Andomy and the King of Eboe, with other niggers of less consequence, have joined him. At the latest dates the town of Obeta had been skillfully captured by Ja ja—in fact a sort of African Sedan has been accomplished. The combined forces attacked Obeta, and under a fierce fire of cannister and grapeshot a large body of men effected a lodgement in the town. Then fresh men being thrown in the war canoes swept the rest of the town, the open beach and adjacent bush, thus driving Oko Jumbo's men out. This being accomplished a body of men were sent outside the town, under a heavy fire from the war canoes, to cut all the bush down for a long distance from the town. While doing so they captured some prisoners and a large number of breech-loading rifles and a quantity of cartridges. The heavy guns at Obeta had already been taken. All this was effected with slight loss. In the meantime a large body of men had landed about two miles in the rear of Obeta advancing in extended order through the bush, cut off the only line of retreat open to the Ekreeka country, or the Bonny men entrenched themselves in the bush. Since then Oko Jumbo's men have made repeated attempts to cut their way through but without success, and every day batches of prisoners are brought to Opobo. Four days ago 20 were decapitated the heads being boiled till the flesh peeled off, and then hung up to dry—a decided improvement on the European mode of starving prisoners of war to death. There seems to be no escape for the Bonny men Ja ja is in possession of a number of Blakely guns, with which his capital Opobo is strongly fortified.

A DEAD HORSE—IS HE WORTH MORE THAN THE LIVING ANIMAL?—The *Scientific American* recently contained an article on the uses to which dead horses can be applied, in the course of which it is remarked that the animal must be a remarkably good one if he is worth as much when alive as he is to the retorts and kettles of the chemist. As soon as the horse is dead his blood is sought by the manufacturers of albumen, and by sugar refiners and the burners of lampblack. Not a drop is allowed to go to waste. The mane and tail are wanted for hair cloth, sieves, bow strings and brushes. The skin is converted into leather for cart harness, for boots and shoes and strong collars. The hoofs are used for combs, horn work glue, and in old times were the chief source of hartshorn, now obtained from the gas house. The flesh is boiled down in the rendering vat, and much oil and fat is obtained from it. Some of the choice bits may find their way into cheap restaurants and play the part of beefsteak, or help to enrich the hasty plates of soup of these establishments. The flesh left after all has been extracted from it that is of any service, is sometimes burned to be used as manure, or is worked up into nitrogenous compounds, such as the cyanides, to be used by the photographer in taking our pictures. The stomach and intestines make valuable strings and cords for musical instruments, and out of the bones so many useful articles are manufactured that it is almost impossible to make out a complete list of them. Among them are buttons, toys, tweezers, knife-handles, rulers, caps,

dominoes, balls and the residue from all these things is burnt into bone black to be used by the sugar refiner, who puts in a second claim on the dead horse; and some part of the backbone is burned white to be used by assayer in testing gold, and when the assayer and refiner have finished with it, it is converted into super phosphate to serve as a valuable manure on our land. The teeth are used as substitutes for ivory, and the iron shoes, if not nailed over the door to insure good fortune to the household, are worked up into excellent wrought metal. Some portion of the back bone is converted into phosphorous for the manufacture of matches, and lately a valuable bread preparation is made of the phosphate, and medicines are prepared for the cure of consumptives.

"Two Uhans" have become historical in this war, but it was reserved to the British service to produce one infantryman who served as support to a body of cavalry. The feat is an illustration of the advantages which result from the improvements in modern arms, for it would have been impossible without a breech-loader. This brilliant action consisted in the defeat of ninety to one hundred Waziris in the Girnee Pass on the Punjab frontier, India. There appear to have been two parties of Waziris, one of whom came on in front, and the other endeavoured to get round so as to attack in the rear. On being challenged by Lieut. Norman's messenger they not only fired at him, but gave him "personal abuse as well." (N. B. The French complain that the Germans call names before firing.) On their opening fire on the picket at the mouth of the pass, and on the challenger being fired on, Lieut. Norman resolved to attack. Accordingly he detached his cavalry—a mique and four sabres!—to ride straight at the Waziris on the plain, under cover of his Henry-Martini rifles with which he opened fire at 400 yards. The first shot was a miss, the second smashed a musket, the third wounded a man of note, chief of the Adool Rahman Khey, and the fourth killed Kashum Khan, the leader of the party, who had thus the honor of being the first man shot by a Henry-Martini. Thereupon the Waziris made off, not liking the complexion of the arm against which they had to contend.

THE YANKEES AND THE BEAR.—Two Yankees, strolling in the woods, without any arms in their possession, observed a bear climbing a tree, with his paws clasped around the trunk. One of them ran forward and caught the bear's paws one in each hand. He then called to his comrade, "Jonathan, run home and bring me something to kill the varmint; and mind don't stay, or I'm in a fix."

Jonathan ran off, but stayed a long time. During the interval, the bear made several desperate attempts to bite the hand of him who held it. At length Jonathan came back.

"Hallo, what kept you so long?"

"Well, I'll tell you. When I got home breakfast was ready: so I stayed to eat."

"Well," said his comrade, "come now, hold the critter till I kill it."

Jonathan seized the bear's paws and held the animal.

"Well, have you hold of him?"

"I guess I have."

"Very well, then, hold fast; I'm off for dinner."

NARRATIVE OF THE RED RIVER EXPEDITION.—PART II.

BY AN OFFICER OF THE EXPEDITIONARY FORCE.

(From *Hackwood for Jan.*)

[CONTINUED.]

The construction of this road was under the superintendence of the Public Works Department, the gentleman representing which in the Ministry was a French Canadian and known to be heart and soul with the priestly party in Quebec, and therefore most favourably inclined to Riel. Men of a suspicious turn of mind began to say that the fact of there being no road ready for our advance was part and parcel of a political scheme whereby the departure of the Expedition might be stopped altogether. Fortunately those who had charge of its management were not men to be turned from their plans by any ordinary difficulties; and as the promised road was not likely to be ready in time, another route to Shebandowan Lake was sought out and utilized for the conveyance of the boats, &c., &c.

A large-sized river flows out of that lake, and being joined by two others of about equal magnitude, empties itself into Thunder Bay; it is known for the greater part of its course as the Kaministiquia River. The difference of level between Shebandowan Lake and Thunder Bay is more than 800 feet; and in descending from that great height the water passes over some very fine falls, one of which is about 120 feet high, being one of the most picturesque spots in British North America.

The officials of the Public Works Department who had been employed for several years exploring, surveying and road making in that district, had impressed upon the military authorities, when the plan of operations for the Expedition was being decided upon, that this river could not be made use of owing to the dangerous nature of its rapids and the magnitude of its falls. However, when it was found that the road could not possibly be ready in time, an exploring party of one company, under Captain Young, 60th Rifles, was sent up in boats to ascertain the practicability of using it for the conveyance of boats and stores. The weather was most unpropitious; it poured continuously; the men were never dry, having constantly to work up to their waists in water; the labour was excessive, but the perseverance of the above mentioned officer, capable of overcoming any difficulties, was duly rewarded. This discovery was a happy event, as it rendered us independent of the road.

As numerous portages have to be got over before we land the reader in the Province of Manitoba, it is perhaps better to describe here the mode of crossing one, the work on all being alike in character, and only varying in amount according to the distance to be traversed and the nature of the intervening ground. The bulkiest articles taken with us were the boats, which were all about 30 feet long, and made in proportion. They were built with keels, and in form very much like those used in our navy. Each boat carried eight or nine soldiers, and two or three Indians, or civilians, who had been especially engaged as skilled in managing boats in rapid water. The stores were sixty days' provisions for all embarked, consisting of salt pork, beans, preserved potatoes, flour, biscuit, pepper, salt tea and sugar. The heaviest of these articles was the pork, which was packed in small barrels, weighing 20 lbs. each, the others being in much

lighter and much handier packages. Besides food there was ammunition, intrenching-tools, camp equipment, cooking utensils, waterproof sheets, blankets, &c., &c.; and with the artillery, two 7-pounder bronze guns, and their ammunition, material, &c.

The boats were distributed into brigades of six, to each of which a company was allotted. With each brigade were boat builders tools, and all sorts of stuff for repairs, besides spare oars, sails, &c., &c. Once started, it was known that we should have to rely upon ourselves and the stores we took with us; for such was the utter barrenness of the wilderness through which we were about to penetrate, that nothing but wood, stones and water were to be had there.

Every probable, indeed almost every possible contingency had to be thought of and provided for; and it may be confidently asserted that no expedition has ever started more thoroughly complete or better prepared for its work.

The brigades of boats were to move singly or in groups of two or three, according to circumstances; but three was the largest number that could work together on a portage, two being the best. When one of these detachments reached a portage—which it generally did before the one immediately in front of it had got all its stores, &c., over and had again started—the boats were at once drawn into the shore as close as possible and unloaded, the stores belonging to each boat being put in a separate pile. These were covered over with tarpaulins if the hour was too late for work, or if—as was always the case with the leading detachment, consisting of three brigades—the road over the portage had to be opened out, and rollers for the boats laid down upon it. At other times the men began to carry over the stores without delay, piling them in heaps, one for each boat, at the far end of the road. The ordinary method in vogue with Indians and the regular North American voyageurs for carrying loads is by means of a long strap about three inches wide in the centre, where it is passed across the forehead, but tapering off to an inch in width at the ends, which are fastened round the barrel or parcel to be portaged.

Men accustomed to this work will thus carry weights of 400 lb., and some 500 lb. across the longest portage, the loads resting on the upper part of the back and kept there by the strap going round the forehead. The great strain is thus upon the neck, which has to be kept very rigid, whilst the body is bent well forward.

As it could not be expected that soldiers untrained to such labour would be able to carry loads in that manner, short pieces of rope with a loop at each end were supplied to the boats, by means of which two short poles—cut in the woods at the portages as required—were easily converted into a very efficient hand barrow, of just the dimensions required for the conveyance of the small barrels in which our pork and flour were packed.

After, however, a little practice, a large proportion of the men soon learned to use the common portage strap, their officers setting them the example by themselves carrying heavy loads with it. As soon as all the stores had been conveyed across the portage the boats were hauled ashore and dragged over their keels resting on small trees felled across the path to act as rollers. The labour involved by hauling a heavy boat up a very steep incline, to a height of about a hundred feet, is no child's play. In each boat there was a strong painter and a towing-line by means of which and the leather

portage straps a sort of man harness was formed when required, so that forty or fifty men could haul together. Say the portage was a mile long (some were more), and that each man had to make ten trips across it before all the stores of his brigade were got over, he would have walked nineteen miles during the operation, being heavily laden for ten of them. At some portages considerable engineering ingenuity was required—small streams had to be bridged and marshy spots to be corduroyed over. By this time our men returned many of them were expert axemen, and all were more or less skilled in the craft of the *voyageur* and American woodsman.

The country between Prince Arthur's Landing and Shebandowan Lake is wild and rugged. The road between those two places runs W.N.W., and may, for purposes of description, be divided into three sections—the first extending to Strawberry Creek, about eighteen miles; the second to the Matawan River, about eight miles further on, and the third from thence to Shebandowan Lake, about twenty-two miles more.

The first section is very hilly, the soil near the bay being sandy, with a surface covering at most places of from six to twenty-nine inches of peaty mould. In the valleys between the hills are deep swamps over which roads can only be made with considerable labour. The timber has been entirely destroyed in some places by fires, so that every now and then the road emerges from the thick forest into clear open spaces sometimes of many hundreds of acres in extent, where the ground is covered with the burnt trunks of fallen trees, piled up at places one over the other like spilkings, an occasional pine of great height being left standing as it were to show the traveller the vastness of the destruction. These places are called *brûlées* in the language of the country, and in a few years after the fire has passed over them, are so thickly covered by raspberry and rose bushes that it is difficult and trying to cross them on foot. The timber consists of white and red spruce, pitch pine, balsam, cedar, tamarack, white birch and poplar, the latter being at some places along the road in large quantities and of a great size. The rocks are trappean, a hard compact slate, with numerous veins of amethystine quartz and jasper, and jasper conglomerate, running through them in irregular directions. Many silver mines have been discovered in the neighbourhood, and galena, plumbago, and copper in several forms are known to abound; so that no prophetic powers are necessary to foretell the great importance that this country will assume ere long from the development of its mineral resources. About midway in this section is the most rocky district traversed by the road, where it ascends through a rugged and hilly country to a height of many hundred feet above Thunder Bay. This region is also heavily wooded, so road making through it was no easy matter. At many places large sized boulders had to be removed from the road, and at others where great rough rocks cropped up in the way, they were broken up by lighting huge fires around them and by throwing water over them when thoroughly heated. This caused them to split up into pieces, reminding one of the method said to have been adopted by Hannibal in crossing the Alps.

Some half-dozen emigrants had settled along this first section of the road, the *brûlées* enabling them to establish themselves without the labour of felling timber; and their little shanties were, when we arrived, already surrounded by potato gardens, whilst here and there the rich greenness of a

patch of oats gave an air of civilization to the scene. Numerous small rivulets are crossed in this section, over which bridges and culverts were constructed; also two streams, one about 30 and the other about 40 yards wide, requiring more substantial work in carrying the road over them.

As you approach Strawberry Creek, which separates the first from the second of the three sections, the general aspect of the country changes completely, and a red clay soil takes the place of the sand, rock and peat, passed over up to that point. The whole of the second section is composed of hills formed by this red clay, which, altho' admirably adapted for bricks and pottery, is extremely bad for road-making. When hard and dry it was good for traffic; but after a shower of rain it became so slippery that horses had much difficulty in keeping their feet, and a regularly wet day caused the wheels to sink so deep, that the horses struggled through it with difficulty, losing shoes at every stride. A few days' rain renders it impassable for wheeled transport, so that during the operation of forwarding stores over it in waggons, all traffic was stopped several times for days together.

The valley of the Kaministiquia, where the road crosses it, is extremely pretty; the hills around are sufficiently rugged to be picturesque; whilst fires have for generations back so frequently swept over them that their surface is tolerably open, with rocks cropping up here and there, as if to give shadows to the picture, clumps of willows are scattered at places, whilst the river's edge is fringed with bushes and stunted trees. The river is about 107 yards in width and unfordable. The Matawan falls into it about half a mile above the bridge; above that again is a succession of heavy and imposing looking rapids, over which our boats were tracked with difficulty, and with trying labour to the men.

The second section ends where the road crosses the Matawan by a bridge about 70 yards in length, constructed, like the previous one during the preceding winter. The distance between the two bridges is about five miles, the road running through some deep valleys and along the sides of rounded hills of red clay, the timber of which lay about in decaying logs, bearing witness to the many fires that have swept over the districts at various remote periods.

As the road descends into the valley of the Matawan and enters the third section, the character of the soil and scenery again changes—the red clay is left behind, and one enters a rolling country of rich clayey loam, with sandy rises here and there, all thickly wooded over. Two unfordable streams, one of 24 the other of 33 yards in width had to be bridged over in this section. As already stated nearly the whole of the last eighteen miles of road, including these two bridges, had to be made after our arrival, which retarded our progress to an extent that had not been anticipated.

The road is much more level in this section than in the other two; but at many places the natural drainage is so bad, that even up to the date when the force had finally embarked at Shebandowan, the track cut through the forest was useless as a highway for constant and heavy traffic. Had it not been discovered in time, as already detailed, that the river could be made available, particularly along parts of this third section, for the transport of our boats and stores, we should have been delayed a month or six weeks still further than we were, and could not possibly have reached Fort Garry in time to have fitted up barrack accommoda-

tion for the troops before the winter set in, or to have brought them back before the frost had closed the rivers and small lakes to be passed on the higher portions of the route.

It was the knowledge of these facts, and the consciousness of the emergency, that justified those responsible for the success of the Expedition in calling upon the men to undergo the unceasing labour that was entailed upon them. "Sunday shone no Sabbath-day for them." From the time the troops began to advance, "push on, push on," was the hourly cry of the officers; and every one, down to the youngest soldier, being taken into the leader's confidence regarding the necessity for haste, recognized the urgency of the case, and put his shoulder to the wheel with a will and a cheery energy that bid defiance to all obstacles. We treated our men not as machines, but as reasoning beings having all feelings in common with ourselves; and they responded to our appeals as British soldiers ever will when under men in whom they have unbounded confidence.

Before a start could be made it was essential that at least two months' supplies for the whole force should be collected at Shebandowan Lake.

Our transport horses were very fat when they landed and had to begin work at once, so that, although allowed to eat as much oats and hay as they could, they quickly fell off dreadfully in condition. The badness of the roads rendered the work very severe upon them and a large proportion were soon unfit for draught, owing to sore shoulders. Two causes contributed chiefly to this: first, the badness of the collars, and secondly, the carelessness of the drivers.

The harness had been provided by the Canadian Government, and, like all the military stores supplied by it for this expedition was of an inferior description obtained by contract. The military forces in Canada was to be reduced in the summer of 1870; and orders had been received by the general commanding, desiring him to dispose of, on the spot, or to send home to England—according as he might think best for the public interest—all the military stores, giving the Dominion Government the option of buying at a valuation all or any portion of them. We had in store plenty of harness and every description of article required for the equipment of the force, the regulation prices of which were considerably below what similar but vastly inferior articles could be obtained for in the open market.

It did not, however, suit the Ottawa Ministers whose province it was to obtain the required stores, to get them from our magazines; they preferred purchasing the inferior and dearer articles through their own agents from their own political friends and supporters. When money is to be spent in Canada, the opportunity is seldom lost for furthering party objects. As a stronger illustration of this, we may here mention that the boots supplied to the regiments were so utterly worthless after a few weeks wear, that upon arriving at Thunder Bay, it was found necessary to send back to Canada for new ones from our stores—so that the country had to pay for two pairs per man instead of one.

The men for the land transport service were especially engaged for this duty by the militia department; and with some exceptions, a more worthless set as drivers and horse-keepers is scarcely possible to imagine. Men of all sorts of callings, except those accustomed to the care of horses

were enlisted, so that some of them did not even know how to put a set of harness together. As soon as those men got clear of a station on the road, and out of view of the transport officers, they played all sorts of pranks, and instead of going at a steady walk chose their own pace, sometimes amusing themselves by racing. It was found necessary to make some examples amongst the worst behaved before anything like discipline could be maintained amongst them.

As a protection for the horse against the heavy rains, ranges of rough stables were erected at several places along the 48 miles of road between Prince Arthur's Landing and the lake—the planks for those at the former place being brought from Collingwood in steamers, those used elsewhere being sawn from trees cut down where required. The Canadian axeman is very handy at constructing shelter for either cattle or stores; the bark of trees particularly of birch and tamarack, is largely used instead of planking. A roof is also quickly and efficiently made with troughs hewn from logs of American poplar, placed as tiles are in rows alternately convex and concave, each trough being cut of sufficient length to reach from the apex to the eave of the roof; and one large one cut from a tree of greater diameter, being placed longitudinally at the top, along the ridge, so as to cover up the ends of the troughs of both sides of the roof where they meet above.

During the month of June, and half the month of July, the work on the road went on unremittingly, "corduroying" being alone attempted; ditches were made at points only where they were essential to prevent flooding. As few of our readers have ever seen a corduroy road—may none of them ever have to drive over one!—a few lines describing its construction may not be out of place. The course to be followed through the forest having been marked out by "blazing" a line of trees, the required breadth of road is cleared of timber and all serious obstructions, and partially levelled. Logs of from six to nine inches in diameter are then cut ten feet long, and laid close together side by side, small branches and sand or earth being strewn over them to fill up the unavoidable interstices. Such was the rough method pursued by us; but in Canada more careful labour is bestowed upon roads of this description when they are intended for more permanent use.

(To be continued.)

INDIA EAGER FOR WAR.—The rumor of a possible conflict between England and Russia was welcomed when it reached India. The preparations for all contingencies are on such a huge scale in that part of the Empire, there are such multitudes of warlike tribes who would be charmed to take service under England and such an abundance of light cavalry far superior to the Cossacks, that military men look forward with eagerness to a brush with the Muscovite. The railway system of India has been constructed with a view to ulterior military operations, and the facilities England possesses of massing armies at any menaced point enables her to laugh to scorn all attempts to invade her northern provinces. The coast line of India is unassailable while on her land side no force that Russia could march so far would affect her hold on the country. England lavishes her care on India while she treats us with chilling neglect.

A great drinker being at table, they offered him some grapes at dessert. "Thank you," said he pushing back the plate; "I don't take my wine in pills."

NEWS OF THE WEEK.

The Vice-Admiralty Court at Halifax has condemned, as forfeited, the American fishing schooners *A. J. Franklin* and *A. H. Wagon*, arrested for violating the law.

The Bey of Tunis, apparently alarmed at the firm and ever warlike attitude of Italy, has sent an envoy to Florence with instructions to settle the questions in dispute. Hessian Bey is the personage charged with this duty.

Royal honors and a body guard have been assigned to Pius XI. by the Italian Chamber of Deputies, but it is not certain that His Holiness will accept such favours and compliments from the Legislatures of the kingdom aggrandized at his expence as a temporal sovereign. The Chamber has also adopted a bill providing for the establishment of a fund for the support of his Holiness.

Judging from the reports from Washington and New York there is a general feeling of satisfaction in the States at the prospect of a settlement of the difficulties with England, and the President has been successful in his choice of Commissioners, as the names mentioned are approved by the public and by the Senate. The *London Times*, in commenting upon that portion of the Queen's speech, having reference to the Joint High Commission, believes that the *Alabama* claims will mainly engage the attention of the Commission, though it is apparently secondary to the fisheries; but asserts that the Commission will not lead to the abandonment of England's position, or admission of liability with respect to the *Alabama* claims. The *Standard* thinks it would have been more interesting if the basis upon which the Commission is to work had been made public.

The proceedings in the House of Lords on Tuesday, after Her Majesty's speech had been read, were merely of a formal character. In the House of Commons, Mr. Gladstone gave notice of a bill altering religious tests, and Mr. Cardwell, of a measure for re-organizing the army. Major Hamilton and Mr. Samuel Morley moved and seconded the address in reply to the speech from the Throne. As was expected, Mr. D'Israeli at once addressed himself to the task of severely criticising the foreign policy of the Government, especially in connection with the Franco-Prussian war, which, he believed England could have prevented had the Government adopted a more decided course. He had equal blame for the conduct of the Government in dealing with the Black Sea question; and urged forbearance and contempt as the treatment for Senator Sumner and others in the United States, but hoped all difficulties between the two countries would be amicably settled. In view of all the circumstances connected with England's foreign relations he expressed his approval of the proposition to increase the military forces of the country, Mr. Gladstone re-

plied to Mr. D'Israeli's adverse criticisms, and defended the policy of the Government. Non intervention he considered the best and wisest course for England in foreign affairs; and he recommended the observance of neutral rights and obligations and the study of domestic questions. The House agreed to the address, and adjourned.

The bankers of Paris are said to be fully provided with means to loan the city the two hundred millions of francs needed for the payment of its war contributions. The French have proposed a prolongation of the armistice. Favre is expected at Versailles. The Emperor will go to Berlin at the beginning of March to open the sessions of the Reichstadt.

The Versailles correspondent of the *London Times* telegraphs that a portion of the Paris contribution has been paid, viz: £2,000,000 in bills on London; £100,000 in notes of the Bank of France, and £1,000,000 in specie.

It is said Paris is tranquil; the disarmament is proceeding and is nearly completed. If peace is made on fair terms it is probable the Germans will not enter Paris, but the 24th is considered the probable day of entry in case one is decided upon. It is also said a second ballot will be required in Paris to determine the election of Favre. Ulrich, Foville, Faidherbe, Cochon, and Gambien, who have not obtained the requisite majorities.

It is reported that everything has been arranged at Bordeaux. A committee to negotiate the treaty of peace has been selected and the draft of the treaty has been approved by Bismarck and Moltke. The treaty is to be signed immediately, and the German troops will then march through Paris to the Strasburg station and there take the train for home. Trains will follow each other as rapidly as possible. The Assembly will then adjourn to Paris and proceed with the reorganization of France.

The departments not occupied by the Germans are said to be ravaged by bands of Franc-tireurs, who are pillaging travellers and houses. Terror reigns in those departments.

Discreditable revelations are making concerning the Provisional Government. It is said that members hold immense sums made out of contracts, that they secretly disposed of the stores of provisions, and that in the Hotel de Ville 43,000 bottles of wine were drunk. Provisions are pouring in and prices are low.

A special from Versailles to the *New York Worlds* says: A strong belief prevails at the Prussian headquarters that the French Assembly will frame a Provisional Government with the Count de Paris as President, and provide for a future plebiscite on the question of the restoration of the Orleanists or the establishment of a Republic. The Duke d'Aumal has less chance than his nephew. At a caucus held on the evening of the 15th at Bordeaux, composed of a majority of

delegates, it was concluded to establish a Provisional Government with Fliers as President Favre as Premier, and the Duke de Cases as Minister of Foreign Affairs. The other members are to be Simon, Ricord, Buffet and Barthay. On the conclusion of peace their convention will adjourn to Paris, and will submit the future form of Government. It is stated that a settled purpose is manifest among the deputies now here to accomplish two things, viz., the overthrow of violent republicans and the removal of the future seat of Government from Paris, in order that the country will be no longer at the mercy of the mobs of the capital. They are making earnest appeals and violent speeches among the people, but unmeaning cries for a prolongation of the war and no surrender have lost their force. The conservatives are quiet and confident. There is a strong under current in favor of the Orleanists.

The *London Times* of the 14th inst. says: The private engagements of Sir John Rose prevent his acceptance of his position as a member of the High Commission for the adjustment of all questions at issue with the United States, and that it has been tendered to Sir Stafford Northcote. The latter has accepted it and will sail during the present week for the United States. Sir Stafford is probably more intimately acquainted with all the considerations arising out of the *Alabama* claims than any other person who could have been selected for the position.

In the House of Lords, on the 15th, the Earl of Granville said that the High Commission which was about to meet in Washington is without power to settle the question of the fisheries, but it is only authorized to frame a plan of adjustment, on which the decision of the members is to be unanimous, for submission to their respective Governments.

Mr. Gladstone made some further explanations on Thursday in regard to the Anglo-American Commission. He said it was empowered to discuss amicably all differences. Any difficulties arising were to be referred to the Home Government by cable, and instructions would be returned the same way.

In the Royal Artillery it appears to be almost settled, says the *Army and Navy Gazette*, that the first captains are to be converted into majors, a reduction being made at the same time in the proportion of regimental lieutenant colonels, which are now considerably in excess of the actual requirements of the service. There can be no doubt of the propriety of this change, the command of a field battery being at least equal in responsibility to that of the functions performed by a major of either cavalry or infantry. When this change is carried out it may be presumed that the grade of lieutenant-colonel on major's pay will be abolished. A similar change will, of course, be made at the same time in the corps of Royal Engineers, in which the grade of first captain is perhaps even more inappropriate to the duties to be performed than in the artillery. In each regiment the present second captains will then be styled simply captains.

A SINGULAR FISH.—The Stickleback is one of the smallest of Fresh water fishes. It is a bold lively little creature, scarcely knowing fear, and pugnacious to an absurd degree. It is very voracious, and so fearless that it is easily caught by the most inexpert angler. The most interesting fact connected with the Stickleback is, that it builds nests for the protection of its young. Although Aristotle asserts that some species of fish made nests for the reception of their spawn, the fact was not generally accepted by naturalists until within the last thirty years. The Stickleback breeds in summer, and may be conveniently watched in equarium, making and guarding its nest, and protecting the young fry. The nest is made of delicate vegetable fibres matted into an irregular circular mass, cemented by mucus from the body, an inch or more in diameter. The male is the builder, and when the nest is prepared the female is enticed or driven in, and there deposits her eggs, which are fecundated by the male. The latter remains constantly on guard swimming in the neighbourhood, and driving away intruders with great ferocity, frequently putting in his head to see if all is right, and fanning the water with the pectoral and caudal fins, to secure free circulation and ventilation for the eggs. It is frequently seen shaking up the eggs and carrying away impurities in its mouth. The young are hatched in two or three weeks; if any one of the small fry get outside the nest they are instantly seized in the mouth of the parent and put back: there are about forty young to a nest. This fish takes as good care of its young as does the hen of her chickens. It is the most combative of creatures especially during the breeding season, when every adult Stickleback challenges every other of its own sex, and they do little but fight from morning to night.—*Appleton's Journal.*

The other day a New Orleans detective arrested a man on suspicion of having stolen a valuable diamond pin. Being hard pressed, the thief owned up, and surrendered the jewel to the officer, who placed it in his shirt bosom. On the way to the lock up the officer and prisoner got on board a horse-car, and in doing so the former was considerably jostled by a crowd on the platform. Just then the prisoner whispered in his ear. "Look out Captain! that was a thief who passed you just now." the officer glanced hurriedly at his shirt front. *The pin was gone.* He sprung from the car and started in pursuit of the imaginary thief. It is needless to say he was not to be found; and, when he returned his former prisoner was missing also. The next day the vigilant detective had his already overwrought feelings lacerated anew by the receipt of a pencil line saying, "Captain I'm gone. I take the pin with me. It was too nice to give up."

INSPECTION.—Col Moffat, Brigade-Major of Military District No. 1, has been on a tour of inspection in the County of Oxford, and closed his duties at Woodstock on Tuesday evening. The presence there of that efficient member of the staff of the district was seized upon by the company officers of the town and neighbourhood, and the hospitalities of the place extended. In addition to a representation of the 22nd, Mr. Oliver, M. P., the Mayor of Woodstock, Mr. Grey, Mr. Dunlop of Crnigowan, and others, were present, and a very pleasant evening passed.—*Woodstock Times.*

When a gentleman visits a young lady, why does she not like him to come with a knock at the door?—Because she had rather he had come with a ring."

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD QUARTERS,

Ottawa, 17th February, 1871.

GENERAL ORDERS, (5.)

No. 1.

HIS EXCELLENCY THE GOVERNOR GENERAL has been pleased to appoint Major Eugene Arthur Taschereau, 17th Battalion of Infantry, Active militia, to be an extra Aide-de-Camp to his Excellency.

No. 2.

STAFF.

To be Inspector of Artillery and Warlike Stores, with the rank of Lieutenant. Colonel in the Militia, from 1st December, 1870:

Lieutenant George Arthur French, Royal Artillery, Inspector of Warlike Stores and Fire Master, Quebec:

Captain Romuald St. Jacques, M. S. St. Hyacinthe Infantry Company to act temporarily until further orders, as Brigade Major for the 6th Brigade Division. Military District No. 6 vice A. Audet dismissed.

ACTIVE MILITIA.

PROVINCE OF ONTARIO.

Toronto Field Battery.

The resignation of Surgeon John Widmer Rolph, is hereby accepted.

Ottawa Brigade of Garrison Artillery.

Captain and Adjutant Albert Parsons, is hereby permitted to retire retaining the rank of Captain.

No. 2 Battery, Ottawa.

To be 1st. Lieutenant:

2nd Lieutenant John Cotton, M.S., G. S., vice C. Lyon-Fellowes, left limits.

No. 4 Battery, Ottawa.

To be 2nd Lieutenant, provisionally:

Sergeant James Grant, vice W. H. Easton, left limits.

No. 5 Battery, Nepean.

To be 1st Lieutenant:

2nd Lieutenant John Alexander Gemmill, M.S., vice Spragge, resigned.

To be 2nd Lieutenant, provisionally:

Sergeant Major George Boyce, vice Gemmill, promoted.

41st "Brockville" Battalion of Rifles.

Lieutenant-Colonel James Crawford is hereby permitted to retire retaining rank.

42nd "Brockville" Battalion of Infantry.

No. 2 Company, Brockville.

To be Captain:

Lieutenant Thomas Wilkinson, V.B. vice George Redmond, who is hereby permitted to retire retaining rank.

PROVINCE OF QUEBEC.

4th Battalion "Chasseurs Canadiens."

Lieutenant Colonel Alphonse Audet, is hereby dismissed the service.

PROVINCE OF NEW BRUNSWICK.

62nd "The St. John" Battalion.

To be Adjutant with rank of Captain:

Lieutenant Arthur Wellesley Lovett, V.B., M.S., vice Thomas McKenzie, who is hereby permitted to retire retaining rank.

To be Lieutenants:

Ensign Francis McLaughlin, M.S., vice Lovett, appointed Adjutant.

Ensign Joseph B. Stubbs, M. S., vice Thompson, removed.

Ensign Warren F. Hatheway, M.S.

To be Ensign, provisionally:

Fran'k B. Hazen, Gentleman, vice McLaughlin, promoted.

PROVINCE OF NOVA SCOTIA.

1st "Halifax" Brigade of Garrison Artillery.

ERRATUM—In General Order (2) 13th January, 1871, read "To be Captain: Captain L. J. Bland, from Purcell's Cove Battery, formerly of the Royal Artillery," instead of "To be Captain, provisionally: Captain L. J. Bland."

63rd "Halifax" Battalion of Rifles.

To be Captains:

Lieutenant John M. Hay, Q.F.O., vice W. S. Symonds, retired.

Lieutenant William D. Harrington, Q.F.O., vice J. Maloney, retired.

The resignation of Lieutenant Patrick Healy O'Donnell is hereby accepted.

By command of His Excellency the

Governor General—

P. ROBERTSON-ROSS, Colonel,

Adjutant General of Militia,

Canada.

BREAKFAST.—EPPS'S COCOA.—GRATEFUL AND COMFORTING.—The very agreeable character of this preparation has rendered it a general favorite. The CIVIL SERVICE GAZETTE remarks:—"The singular success which Mr. Epps attained by his homœopathic preparation of cocoa has never been surpassed by any experimentalist. By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well selected cocoa, Mr. Epps has provided our breakfast tables with a delicately flavoured beverage which saves us many heavy doctors' bills." Made simply with boiling water or milk. Sold by the Trade only in 1lb., 1/2 lb., and 1/4 lb. tin-lined packets, labelled—JAMES EPPS & Co., Homœopathic Chemists, London, England.

THE
VOLUNTEER REVIEW
And Military and Naval Gazette.
VOLUME V
1871.

THE VOLUNTEER REVIEW enters on the fifth year of its existence. When it was first projected fears were entertained for its ultimate success, as two efforts of a similar kind had been made and failed for want of support; but we are happy to say these fears were groundless, and that the VOLUNTEER REVIEW may now be said to be firmly established, thanks to the support it has met with from the hands of the Volunteer Force of the Dominion. It now circulates largely through Ontario, Quebec, New Brunswick, Nova Scotia, and even the new Province of Manitoba has extended its generous support. Nor is it confined to these Provinces only, but in the Mother Country, and even the United States it has subscribers and supporters. No other journal in the Dominion has so wide and extended a circulation as the VOLUNTEER REVIEW, and therefore it offers unparalleled facilities to general advertisers. Our terms for advertising will be found liberal on application, either personally, or by letter post paid.

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CLUBS of Ten and upwards at the same rate, the getter up of the Club to receive one copy free for one year. Payment strictly in advance.

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Full and reliable reports of RIFLE MATCHES, INSPECTIONS, and other matters connected with the Force appear regularly in our Columns.

AGENTS.

Liberal terms will be offered to Adjutants, Instructors, and others who act as agents for us in their several corps.

LT.-COL. R. LOVELACE, is our General Agent for the Provinces of Ontario and Quebec.

MR. ROGER HUNTER, for that of New Brunswick and Nova Scotia.

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REMITTANCES should be addressed to DAWSON KERR, Proprietor VOLUNTEER REVIEW, Ottawa.

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TO CORRESPONDENTS

All Communications regarding the Militia or Volunteer movement, or for the Editorial Department, should be addressed to the Editor of THE VOLUNTEER REVIEW, Ottawa.

Communications intended for insertion should be written on one side of the paper only.

We cannot undertake to return rejected communications. Correspondents must invariably send us confidentially, their name and address.

All letters must be Post-paid, or they will not be taken out of the Post Office.

Adjutants and Officers of Corps throughout the Provinces are particularly requested to favor us regularly with weekly information concerning the movements and doings of their respective Corps, including the fixtures for drill, marching out, rifle practice, &c.

We shall be obliged to such to forward all the material of this kind as early as possible, so that we may reach us in time for publication.

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The Volunteer Review,

AND MILITARY AND NAVAL GAZETTE.

"Unbridled, unthought, our swords we draw,
To guard the monarch, fence the law."

OTTAWA, MONDAY, FEBRUARY 20, 1871.

WE would again remind our Subscribers in Ontario that our Agent Lt.-Col. LOVELACE is now on a collecting tour through that Province, and would feel obliged by their promptly paying up to him their individual indebtedness to this office.

A MEETING of delegates from the various Boards of Trade in Canada, for the purpose of organizing a Dominion Board of Trade, was recently held in Ottawa. The principles on which this body was provisionally constructed unfortunately intensified the local sectional feelings of its members, and the great questions affecting the present as well as the future of Canada were not approached with that spirit of liberality or fairness by which their merits might have been determined. Prominently amongst those matters stood the great question of the *internal water communication* of the Dominion, and any one who reads the paper submitted to the meeting on that subject by the President, must rest satisfied that its direct object was to throw the control of the trade of the St. Lawrence and its tributaries into the hands of the people of the United States. In order to counteract the fallacy of the

views put forth on that occasion, and to bring the whole question in its entirety before the people of British North America, we have published to-day the first of a series of articles devoted to the consideration of the *natural and artificial navigation* of our internal waters—their commercial, political, and military relations to the development of the resources of the Dominion.

THE RIVERS AND CANALS OF BRITISH NORTH AMERICA.

I.

The speedy and profitable development of the resources of any country depends, in a great degree, upon the disposition of the rivers and streams by which its natural drainage is effected, because by such means access from the seaboard is most easily and cheaply secured and the great emporiums of trade and centres of distribution are to be found on or close to the *embouchures* of the great rivers.

As a general rule the produce of the field, the forest and the mine, can be more cheaply and conveniently transported by water than by any other mode of conveyance, and those sources of national wealth are more rapidly developed and more valuable the closer their proximity to the river or lake.

Artificial navigation, as defined by the formation of *Canals*, between *separate river systems*, is hardly developed in British North America; indeed, it only exists in one instance, and there it is less than *one mile* in length.

With a territory of over 3,000,000 square miles in area, extending from the Atlantic Ocean in the East to the Pacific Ocean in the West, with resources varied as the zones through which it passes the Dominion of Canada possesses a system of *waterways*, natural and artificial, unequalled for the facilities of development afforded by those of any other country.

The southern frontier of the British North American Provinces are covered by a series of fresh water seas and their outlet, extending from West to East for *nineteen hundred* miles, through *twenty-five* degrees of longitude, and with comparatively trifling obstructions, affording access from the seaboard for vessels of a far larger class than those navigating the internal waters of any other nation. With the mechanical appliances and scientific knowledge of the age, *natural obstructions to national development* will not be allowed to exist, and while the energy, capital and enterprise of the mercantile speculator is employed in the extension of railway communication, the attention of the statesman and politician will be directed to the improvement of the natural waterways of the country.

Already the Canadian Government have, with that enlightened appreciation of the interests of the Dominion which has so eminently distinguished them, directed their

attention to the subject of the canal system of British North America and appointed a commission to report thereon.

Pending its action, a consideration of the whole subject, which has hitherto attracted very little general attention, will be advisable, and it will facilitate a due appreciation thereof if the navigation of the St. Lawrence and Great Lakes with their connections are first considered. The area drained by the great lakes through the St. Lawrence River, falls very little short of 800,000 (eight hundred thousand) square miles, of this not more than 300,000 belong to the United States and fully 500,000 to Canada; in addition to this the newly acquired territory of Rupert's Land will give at least 500,000 (five hundred thousand) square miles, whose commerce must pass down what will for all practical purposes be its natural highway.

Point des Monts, in north latitude $49^{\circ} 18'$, west long. $67^{\circ} 13'$, at the head of the Gulf, may be said to be at the mouth of the river St. Lawrence. The distance from that point to Kingston, at the foot of Lake Ontario in north lat. $44^{\circ} 13'$, west lon. $76^{\circ} 22'$, is 610 (six hundred and ten) miles, and this is the length of the river, its width varying from one mile to thirty. Of this length about forty-four miles are wholly or partially obstructed, requiring an elaborate system of canals and the excavation through Lake St. Peter of a length of $11\frac{1}{2}$ (eleven and one-half) miles additional partially obstructed.

Lake Ontario is 180 (one hundred and eighty) miles in length, 58 (fifty-eight) miles in greatest width; its greatest depth is 600 (six hundred) feet and it is 234 feet above the level of the sea, it covers an area of 8,000 (eight thousand two hundred) square miles. The most westerly point of this lake is in $43^{\circ} 20'$ north lat. and $79^{\circ} 52'$ west long. It is joined to, or rather receives the surplus water from the upper lakes, through Lake Erie by the Niagara River on which the magnificent falls of the same name are situated, and which render it unnavigable. Its length is thirty-two miles and its width varies from two miles to eight hundred and fifty feet.

Lake Erie has its eastern extremity in north latitude $41^{\circ} 50'$ and west longitude $78^{\circ} 50'$; its western in north latitude $41^{\circ} 41'$ and west longitude $83^{\circ} 32'$. It is 250 (two hundred and fifty) miles in length, 60 (sixty) miles in width, has a depth of 254 (two hundred and fifty-four) feet, is 569 feet above the level of the sea, covering an area of 11,800 (eleven thousand eight hundred) square miles and is joined to Lake St. Claire by the Detroit River, twenty-four miles in length and from one and one-half miles to twenty-six hundred feet in width.

Lake St. Clair is the smallest and shallowest of the great lakes; it is properly only an expansion of the river connecting lakes Huron and Erie. It lies nearly north and south, it is only twenty miles in length by twenty-five miles in its greatest width, with

a depth of from eight to twenty feet. It covers an area 392 (three hundred and ninety-two) square miles. Its southern end is in north latitude $42^{\circ} 25'$, west longitude $82^{\circ} 20'$, its northern or upper end is in north latitude $42^{\circ} 55'$ and west longitude $82^{\circ} 20'$. The river St. Clair flows into it from Lake Huron with a length of twenty-eight miles, and an average width of one mile.

Lake Huron lies nearly north and south. It is divided into two parts by the Manitoulin Islands, the eastern division is the smallest and known as the Georgian Bay. The whole lake has an area of 23,500 (twenty eight thousand five hundred) square miles. It is 260 (two hundred and sixty) miles in length and 166 (one hundred and sixty-six) miles in width; its greatest depth is 705 feet. The Straits of Mackinaw connect it with Lake Michigan in $45^{\circ} 50'$ north latitude, $84^{\circ} 48'$ west longitude; the southern end of Lake Huron is in $43^{\circ} 00'$ north latitude, $82^{\circ} 25'$ west longitude.

Lake Michigan lies parallel to Lake Huron. Its general course lies N.N.E. and S.S.W., its southern end is in north latitude $41^{\circ} 37'$, west longitude $86^{\circ} 40'$. It is 230 miles in length, 82 miles in width, with a maximum depth of 900 feet. It is nearly on the same level as Lake Huron, the latter being 572 feet above the level of the sea while Lake Michigan is 574 feet above the same. Its area is twenty-one thousand two hundred square miles.

Lake Superior, the largest of all the lakes, has a length of 420 (four hundred and twenty) miles with a width of 160 (one hundred and sixty) miles, its greatest depth is 1000 (one thousand) feet, its level is six hundred feet above the sea and its area is 52,000 square miles.

The St. Mary's River flowing from this lake into Lake Huron is forty-five miles in length, with a width of over one mile. Its navigation is obstructed by rapids known as the Sault Ste. Marie,—those occur at the head of the river, and are passed by the largest canal on the continent. It is in the territory of the United States, with a length of one mile. The size of its locks are three hundred and fifty feet in length, seventy-five feet in width between the gate posts or quoins, with twelve feet depth of water on the sills. Vessels of 2,000 tons burthen can pass this channel—it is now being enlarged to fifteen feet depth of water.

The western extremity of Lake Superior is in north latitude $46^{\circ} 40'$, and west longitude $92^{\circ} 20'$, and the eastern in north latitude $46^{\circ} 23'$, west longitude $84^{\circ} 32'$. From the extreme western prolongation of this lake to navigable water on the Red River at Georgetown, in the State of Minnesota, is a distance of 254 miles, across a comparatively level prairie. A railway is now in process of construction between those two points, and will be completed in August next. Red River is navigable from Georgetown to Lake Winnipeg for over 220 days in

each year, so that a line of communication may be said to extend from Pont des Monts, at the head of the Gulf of St. Lawrence to Lake Winnipeg, a distance of at least 2,500 miles. About 404 miles of this line, including the railway are in the United States, consequently in a foreign territory. Northwards of it the boundary between Canada and the United States passes along a chain of waterways reaching within forty-one miles of Thunder Bay on Lake Superior, and passing by the Winnipeg River into the Lake of that name the surplus waters of the intervening country. As the latter river is very much obstructed, its consideration as a means of communication must be postponed till the surrounding country is filled with a population whose trade will demand an outlet by it. But the chain of waters from the north-west angle of the Lake of the Woods to the head of Lake Shobandowan will require two short lines of railway, one between the latter lake and Thunder Bay of forty one miles in length, another between the north west angle and Red River at Fort Garry of ninety-seven miles to render it available as a line of communication through British territory. The improvement of the water ways between those places is not of sufficient moment to require present consideration, especially as the Canadian Government are rendering the line available by temporary appliances.

The present condition of the navigation on the eastern division of this great chain would be as follows:—From Point des Monts to Montreal, vessels drawing twenty feet of water can navigate the lower St. Lawrence throughout the season, which may be taken at 220 days in each year; between the level of tide waters at Three Rivers, and Lake Ontario, a height of two hundred and thirty-three feet has to be overcome. Two hundred and eight feet of it is concentrated in the one hundred and six miles which intervene between the foot of theachine Rapids at Montreal and the head of the Galops Rapids. In this distance there are seven distinct canals—the first of the number, known as theachine Canal, overcomes the obstacles to navigation imposed by the "Sault St. Louis," known as theachine Rapids. The canal is eight and a-half miles in length, having five locks, each two hundred feet in length by forty-five feet in width between the quoins, with a depth of water of nine feet on the sills of the locks. The height of lift to be overcome is forty-four feet nine inches. The dimensions of those locks are the same as the remainder of the series, known as the St. Lawrence canals. Twenty-four miles above Montreal the Beauharnois Canal, of eleven and one-fourth miles in length with nine locks, overcomes a lift of eighty-two feet six inches; it enables the following rapids to be passed—the Cascades, the Cedars, and the Côteau. Sixty-seven and one-half miles above Montreal the Cornwall Canal overcomes the Long Sault Rapids by a lockage lift of forty-eight feet—

it has seven locks. Eighty-four miles above Montreal the Farran's Point Canal overcomes a small rapid by one lock, with a lift of four feet; the canal is three-fourths of a mile in length. In going down the St. Lawrence vessels do not enter the canal but run the rapid with perfect safety. The Rapid Platte Canal is ninety-five miles from Montreal; it has two locks and overcomes a fall of eleven and a-half feet in four miles; it enables vessels ascending to avoid the "Rapid Platte" rapids, which are descended with safety. Ninety-nine miles above Montreal the Point Iroquois Canal, three miles in length, and with one lock, of six and a-half feet lift overcomes the rapids of the same name; this canal is joined to the Galops Canal by a recently constructed link two and five-eighths miles in length, without locks. The Galops Canal is two miles in length, has nine feet of lift, and two locks. The link described and the last named canal enables the Point Cardinal and Galops Rapids to be passed, and the unobstructed river course to be attained at one hundred and six miles above Montreal.

The total length of those canals would be thus forty three and five-eighths miles; number of locks, twenty-seven; total lift, two hundred and six feet six inches.

At the foot of the Lachine Canal the surface of the river is twelve feet nine inches above the tidal water which reaches Three Rivers, ninety miles below, while fifteen feet is due to the natural inclination in the surface of the river in the sixty miles which intervene between Kingston and the head of the Galops Canal, or about three inches per mile.

At Twelve Mile Creek (nearly that distance east of the mouth of the Niagara River, the Welland Canal, with a length of twenty-seven and one-half miles, and twenty-seven lift locks, facilitates the communication between Lakes Ontario and Erie, overcoming the obstructions to the navigation of 334 feet, caused by the Niagara Falls,—the locks practically 150 feet long by twenty-six and one-half feet wide, with ten feet of water on the sills of the locks.

A channel has been dredged through Lake St. Clair of a depth of twelve feet at low water, and this depth limits the draught of vessels engaged in the lake trade practically for the present to eleven feet.

The Sault Ste. Marie Canal has been already described—to overcome the obstructions to navigation between tide water and the head of Lake Superior, seventy-two miles of canal, with five locks, having an ascent of 574 feet, require to be passed, and in calculating the effect of this artificial navigation on the development of the traffic naturally tributary to the great lakes, that point may be practically taken at Montreal, although tidal water reaches only to Three Rivers, ninety miles lower down.

From Montreal, then, where the ocean steamship can meet the lake propeller to

Duluth, at the head of Lake Superior, the distance is *thirteen hundred and ninety-eight miles*, and from the same point to Chicago, on Lake Michigan, is *thirteen hundred and forty-eight miles*.

The capacity of the navigation is governed by the size of the canals. The St. Lawrence series admits of vessels of 350 tons burthen, and are equal to a downward movement of 5-544,000 tons, with a similar upward movement; the maximum of work being 220 days of navigation each season, at the rate of six lockages per hour. Thus $6 \times 24 \times 220 \times 350 = 11,088,000$ tons—but *one-eighth* of that tonnage has never passed those canals in one season.

The good people of Toronto have enjoyed the felicity of hearing D'Israeli's renowned "social parasite" lecture on the "European crisis"—if unlimited abuse of France, her institutions, history, and the whole Celtic race, with one of the most incomprehensible parodies of European history that we have ever read, coupled with absurd laudation of German despotism, and an occasional spice of that special egotistical conceit so terribly lashed by the Right Honorable novelist, can be called by that name. A lecture on such a subject would naturally lead us to look for a complete analysis of those motives which led to this terrible contest, the direct cause of each incident, its bearing on the present aspect of European politics, and the condition of the people more immediately affected thereby. But the Professor (whatever that new fangled title may mean, probably in plain English, *school master*), chose to treat his audience to a strong dose of paltry declamation, and in so doing deliberately sacrificed historical veracity to prejudice. It would be useless to expect anything like political consistency from the party to which he belongs—they are innocent of all knowledge of any such quality, as it cannot exist in the mind of a *doctrinaire*. There is, however, one notorious fallacy which was palmed off on the audience of the Toronto Mechanics Institute, and we are astonished and surprised that Professor Goldwin Smith was allowed to escape without some symptom of dissent and displeasure on their part, it was when he asserted that *a great danger would precipitate a revolution in England and bring a Cromwell to the front*. Amongst two quarters of million paupers in a state of starvation in London alone; and by the way that is the result of the rule of his friends and party, headed by such men as his brother "school master," Beesely, such aspirations may be found, but the self-titled itinerant must know full well that A 124 would be quite sufficient with the help of such portions of his division as might be within call to crush the revolution and place the would-be "Lord Protector of the Commonwealth of England" in the cells to cool his heels, and that outside London the "philosophers" would be no where.

And we venture to predict that of all the intelligent audience who listened to this exordium, miscalled as it is not a dozen coincided with the speaker in sentiment or desire.

The English aristocracy have not yet fallen so low as to be made the tool of demagogues and if it should come to that pass there are yet enough of them to stand by the Crown and Constitution of England against the rascally *roundhead* plotters as their forefathers did in other days. The spirit of the gallant Dundee still lives, and the English socialists may rest assured that

"Ere the King's crown goes down
There are crowns to be broke."

But what surprises us is the fact that the covert allusion to radical progress and the affected ideas of constitutionalism enunciated by the lecturer, did not awaken the displeasure of his audience, as well as the egotistical allusion to his advice for the cession of Gibraltar to Spain. The Professor is, rather notorious for vagaries, and the lecture on the European crisis is the latest. The *advanced political school* to which he belongs is confessedly founded on the socialism and communistic ideas of Rousseau, while their religious principles are derived from Voltaire. If, therefore, the Frenchman of the present day is reaping the fruits derived from the practical application of those principles he has only to thank such teachers as Goldwin Smith therefor. And when that enlightened apostle of progress talks as he did at Toronto of the march of events, the development of greater political freedom, and the reformation of religion, he simply means a repetition of the scenes of the French Revolution pure and simple, as the logical and legitimate consequence of the teachings of J. S. Mill, Beales, Beesely, Goldwin Smith, *et al*; and the latter possesses a considerable amount of what is known as *check*, to blame the Parisian mob for profiting by the teachings of his masters.

His own and friends exertions in their peculiar field of labor have already resulted in making the London mob as unmanageable as the exertions of another lunatic, Lord George Gordon, succeeded in doing nearly ninety years ago. There is nothing new under the sun, therefore not even the "new political and moral world" of the English radicals. But Great Britain must have arrived at a high state of civilization when such people are looked on as political leaders and teachers. The school master is abroad with a vengeance.

It would have given us sincere pleasure to review the "Narrative of the Red River Expedition," with that liberality which a due appreciation of eminent public services requires at the hands of the Fourth Estate, and it is with great reluctance coupled with feelings of regret and positive dislike that we are obliged, in the interests of justice and of the people of British North America, its government and military force, that we

are obliged to denounce the misrepresentation and positive mendacity so unblushingly employed by the author when detailing his ideas, for they are nothing more, of the political motives governing the statesmen composing the Canadian administration. Not only is the direct interest of Canada injured in the eyes of those classes at home who have hitherto been her fast and staunch friends, but the military reputation of her people is foully maligned for the worst possible purpose; her soldiers unblushingly robbed of well deserved honors and the parties who have sinned them are those now employed in the laudable endeavour to direct public attention from their own shortcomings. It is not the first time in the history of North America that this little game of misrepresentation has been played, but it will not be our fault if it is not the last.

The motives governing the author of the Narrative has been already exposed, we shall, therefore pass over the very impertinent and utterly false assertion respecting the Minister of Public Works, by merely saying that the commander of the expedition was more than suspected of a desire that it should fail as his responsibility could be easily transferred and that the charges against the Canadian Administration had been carefully concocted, not after, but before it started; as a means whereby they could be at once punished as well as compelled to bear the blame of failure. We have now to ask our readers attention to a few points in the story, elucidating as they do the character of the author. He says:

"The boats were distributed into brigades of six, to each of which a company was allotted. With each brigade were boat builders' tools and all sorts of stuff for repairs, besides spare oars, sails, &c., &c."

"Every probable, indeed almost every possible contingency had to be thought of and provided for; and it may be confidently asserted that no expedition has ever started more thoroughly complete or better prepared for its work."

It would be hard to find in the annals of military operations a more unequivocal admission of the excellence of the arrangements made, a more complete recognition of the ability and foresight of the department that provided the equipment or a flatter denial of the charges made respecting the motives of the Canadian Administration, because this very equipment, of which the author of the narrative of the Expedition is betrayed into the awkward dilemma of writing the truth, was provided under their instruction by the Adjutant General and Staff of the Militia Department of Canada and without the aid General Lindsay was so very anxious to render. Although the author, in his description of the embarkation at Shebandowan, with that want of veracity which distinguishes his tale, says:—"Everyone felt that their comfort and preservation would be endangered if any of the articles selected after much careful thought by General Lindsay were forgotten," whereas

that gallant officer had about as much to do with the selection as the great Mr. Cardwell himself.

The next startling statement is that the supplies for the whole force of two month's provisions at Shebandowan was delayed by the transport horses becoming partially disabled which is attributed to first "the badness of the collars; secondly, the carelessness of the drivers."

It is then stated that the harness had been provided by the Canadian Government and the astounding assertion made that "like all the military stores supplied by it for this expedition was of an inferior description obtained by contract;" and it is made a charge against the Canadian Government that they did not purchase the old harness of the Royal Artillery which were at their disposal. The allegation about the harness is false, the real fact being that the horses fell off in condition owing to severe labour and short forage, Colonel Wolsley in the plentitude of his power and wisdom putting them on the rations of artillery horses, viz: ten pounds oats and twelve pounds hay per diem, and it was not till remonstrated with by Mr. Dawson that he allowed the horses the full feed they had been accustomed to. Moreover, the harness was contracted for by Lieut.-Colonel Wiley without any reference to political matters, was approved by a board of Royal Artillery officers, each separate set was fitted as well as marked by a sergeant farrier of the Royal Artillery, and, therefore, to the staff of the regular troops belongs the onus of this transaction if it happened at all, which is more than doubtful.

As the author of the narrative has stepped out of his way to assail the drivers and horse keepers, it may be as well at once to say they were hired by Lieut.-Colonel Wiley, were all farmers sons used to the care of horses and the peculiar work on which they were to be employed, and any trouble which did arise was owing to the bad treatment they received at the hands of Col. Wolsley and the Control officers; in fact, the men were put on rations and more than once were left without food for forty-eight hours. When the transport officer was applied to his reply was that the teamsters might go to h—l. Such conduct as this retarded the expedition and lost the services of the Indians as well as led to other less agreeable *contre temps*. As a fourth instance of the skill with which Colonel Wolsley managed or mismanaged (which would be the proper word) the affairs of this expedition, we have an accusation against the Ottawa Government for not sending up an efficient staff. As a result of this "according as every six or eight boats arrived daily they had to be fitted with rowlocks, masts, sails, rudders, &c. Those made for each individual boat were not to be found, so that really the onus of fitting out the boats devolved upon the troops, each captain looking after the equip-

ment for the boats of his own brigade." This is certainly about as refreshing a piece of impudence as we have ever read, directly contradicting the author's previous announcement and contrary to the real facts which were that two sets of all requisites for the boats were provided by Mr. Dawson, acting under the orders of the Minister of Public Works (whom the author viciously states to be adverse to the expedition), that the *controul* under Colonel Wolsley managed to lose or disarrange one set and that the loss was instantly supplied by Mr. Dawson's orders.

We now come to the almost *libellous praise* of that gentleman and his staff, in which the author has disgraced himself by indulging; the youth styled "book keeper" amused himself with a little quiet fun at the expense of his interlocutor. The Minister of Public Works had no relative employed in any capacity of the staff and the whole story is a *canard*. We have plucked some of the false feathers out of the author's sable plumage; his claim to anything like credit for the military conduct of the expedition has to be yet sifted and it will be found to be as slight as his claims to superior political wisdom, or to accurate judgment in assigning motives to better and more honorable men than himself. Meanwhile the organization of the force, supplies and appliances, which made the expedition a success, are due, not to General Lindsay, Colonel Wolsley, or the control department, but to the Adjutant General Colonel Robertson-Ross, with the Canadian Militia Staff, acting under the directions of Sir G. E. Cartier and the Department of Public Works, by Mr. Dawson acting under the orders of the Hon. H. Langevin, C.B., both statesmen foully libelled by the author of the "Narrative of the Red River Expedition," to whom we can only say as the poet said to John Gilpin:

"And when he next doth ride abroad,
May I be there to see."

A HIGH COMMISSION, with Earl de Grey as President, Sir J. A. Macdonald, the Canadian Premier, and Sir Stafford Northcote, as members have been appointed by the British Government to proceed to Washington to arrange with a similar commission appointed by the President of the United States, the *Alabama* claims and the Fishery question. As a matter of principle we are opposed to the idea of the initiative in any such movement being taken by the English administration, and if the interests of the empire were confided to Englishmen alone would be assured that they would suffer considerable loss before final adjudication; but luckily for Canada one of her own tried statesmen are on the commission, and they know well what the public opinion of the Canadian people on those subjects is, and they will be sustained in resisting concessions without full equivalents by the whole population *en masse*. Our fishery interests are of great importance; the supply is not exhaustless, and any concession granted must be under strictly limited conditions, not without, as a preliminary, a total abolition of United States duties on Colonial cargoes of fish, the navigation of our own internal waters must be acquired by corresponding privileges, including the total abrogation of the United States coasting laws, and the final settlement of all pending questions.

TO THE RIDEAU FALLS.

BY WILLIAM PITTMAN LITT.

I saw theeere the hand of man
Contracted thy majestic span
Or dim'd the iris bow of light
Which arched thy current's headlong flight.
I know thee when the pristine trees
Waved round thee in the morning breeze,
And threw their evening shadows o'er
Thy surging breast from shore to shore,
When thy primeval vapour curl'd
Upward as from some nother world,
Like incense from a mighty shrine,
Ascending to some tower divine,
Ere stern Improvement's iron power,
Had curbed thine everlasting shower,
And circumscribed thy pathless way,
Hidden beneath thy clouds of gray,
With childhood's awe I gazed on thee,
Grand and vast type of Liberty!
Rushing, resistless, wild and strong,
While o'er thee rose the ceaseless song,
The free, resounding, gushing roar
That echoed from the rock bound shore.
A place where Indian warriors came
In the unknown mysterious name
Of the Great Spirit power, and threw
Their offerings to the Manitoo,
With the strong artless faith profound
Which sees the happy hunting ground.
There oft with rod and line in hand,
In life's fair morn I took my stand
Upon thy unpolluted strand—
And there beneath thy thundering roar,
On Ottawa's wild and rocky shore,
From out the eddy's whirling tide,
The golden pickerel in his pride,
Black bass and maskinonge too,
With youthful pride to shore I drew.
Friend of my youth! the hand of change
Is on thee—: hath made thee strange,
The ancient cedartrees which stood
As sentries by thy flashing flood,
Planted by nature's hand sublime,
Back in the early dawn of time,
Like the fond hopes which round them grew,
Have disappeared from mortal view—
The rocks whereon they stood are bare,
Without a trace to tell that there
The grand old monarchs in their pride
Waved their proud crowns above thy tide.
The gloomy solitude which gave
Such grandeur to thy sounding wave,
Hath given place to whirl and clang
Of grim machinery, which rang
Years, years ago, the funeral knell
Of thy past glories loved so well.

Ottawa, February 4th, 1871.

A FEW WORDS ON CANADA.

BY A CANADIAN.

[CONTINUED.]

The foundation of the territorial organization of the military forces of Prussia, which is one of the main causes of her success; was laid by the father of Frederick the Great. In 1733 he decreed the division of the territories into cantons, to each of which was allotted a regiment, to be maintained at its effective strength from the cantonal population; on all of whom, with the exception of the nobles, military service was made compulsory. Frederick the Great extended and improved this system, by allotting to each district the supply of arms and stores necessary to enable its brigade or division to take the field fully equipped and ready to march on the mere order to mobilize.

In 1815 the Landwehr, was organized territorially in brigades, each Landwehr brigade being joined to a brigade of the line, and together forming one division of the army for service in the field.

For the Landwehr, or reserve forces, a body of instructed officers has been provided by regulations so pregnant with wisdom affording such an excellent example for our imitation that they merit some detail. Conscription is universal, but all young men of the educated classes, who are able to provide the means of their own equipment and maintenance and to produce certificates of conduct and attainments from school or college, are allowed to serve for one year in the different light infantry or rifle corps. When the young cadet or *einjahriger*, as he is called joins the corps to which he has cho-

sen to be attached, he is posted to a company after which his attendance is rigidly exacted at drills and parades, but except when on military duty, his time is at his own disposal. The military enthusiasm of 1813 has so far survived that it has long been regarded as part of the education of the son of every manufacturer, proprietor professional man, even of every prosperous shop-keeper, to spend one of the years between his seventeenth and twentieth birthdays in passing through this volunteer course. Such of these cadets as do not aspire above the average level return to their homes with the prospect of taking their places in the ranks of the conscription in their turn; but any cadet who desires it may, by special aptitude obtain a certificate of qualification, entitling him to the first vacancy as sergeant, and in due course to a commission in the Landwehr battalion of his particular district.

The organization of the Prussian or North German army, as it now exists, is generally as follows:—The population numbers about thirty millions. The number of recruits annually raised by conscription is 100,000; or one to every 300 of the population. The age of conscription is 20. The period of military service is twelve years, divided into three portions of three four and five years respectively; three years being passed by the recruit with the colors of a regular regiment; the next four years in the regimental reserve; and the final period of five years in the Landwehr or militia of his district, after which he is enrolled in the Landstrum, or service for home defence in case of invasion. All men who attain the age of conscription in any one year, and are not drawn for the army, are exempt from military service except in case of war. The regiments of the regular army during peace, are, on the breaking out of war, raised to double their number by recalling an equal number of men from the reserve; and each reserve man so recalled returns not merely to the same battalion, but even to the very same company in which he had passed the first three years of his military life.

All officers of the Prussian line have to pass six months in the ranks. For two-thirds of them this is a probation, at the end of which they had to satisfy a standing committee of the corps to which they seek admission, not only as to professional attainments, but also to *parentage and means*. The remaining third have received their appointments direct from the different cadet schools and may be considered, therefore, to be nominated by the King.

The North German armies are in the highest state of efficiency that can be reached, by scientific preparation for war, by concentration, by compact discipline and by forethought.

The instruction of officers and men is carried out in camps formed in the different districts, where the troops assembled learn as much of the business of war as it is possible to learn in peace. Major Goodenough, R.A., who witnessed the manœuvres of the Rhine camp in 1868, writes:—"The great peculiarity which gives such a superiority to their system of field manœuvres lies in the character of reality which is given to the whole of the operations: in my opinion, our manœuvres are too much in the line of a gigantic field day, and those of the French fail in interest from the laborious detail of their plan. The Prussians, on the other hand, place two opposing forces in the field give them a strategical plan of operations, and then leave the two commanders to plan their own tactical movements, the troops work every day over fresh unknown ground, and so the interest never flags."

To sum up, the *Review* says, the Prussian army, by means of its organization, and of the perfection of its departments of supply, was always ready for war; and the officers and soldiers by the intelligent instruction imparted by the yearly field manœuvres, learnt as much of the business of war as it is possible to learn in peace.

Turning now to the organization of the army of France, the *Review* says:

The organization which had been given to the French army by Louvois lasted with no material changes until 1793. Previous to that date enlistment was voluntary, commissions were objects of sale and purchase, and the army was officered exclusively by nobles. The revolution republicanized both the nation and the army, merit was recognized as the sole qualification for an officer's commission, and every conscript carried a marshal's baton in his knapsack. The enthusiasm thus created in the rank and file, when directed by the genius of Napoleon, carried the French eagles into nearly every capital in Europe. But victory is the indispensable condition of the success of such a constitution. Under reverses which try the confidence of the soldier in his superiors, discipline under such a system must surely break down. Since the restoration of Louis XVIII. the French army has been officered on a mixed system of promotion from the ranks and of direct appointments from the military school, the former class constituting one-third of the whole. Promotion is determined by selection or nominally by merit—a practice obviously open to dangerous abuses. Whether it be a result of this system or not, the fact remains, on the testimony of General Trochu, that whereas English soldiers, when allied with the French, showed all the military marks of respect to French officers, the latter found it extremely difficult to obtain any such marks from the soldiers of their own army.

The conscription was not established in France by law until 1798; and the statute, which placed the whole population at the disposal of the state, as each generation completes its twentieth year, preceded the supremacy of the man who was to make so tremendous a use of it. The proceeds of the annual conscription, fixed at 40,000 men in 1818, was raised to 80,000 men under Louis Phillip. Under the second Empire it has never been less than 100,000 men, and during the Italian and Crimean wars it was 140,000. The efficacy of the conscription was, however, materially lessened by the system of "exonerations" which permitted drafted men to commute their personal service for a money payment; so that in times of danger the men who were urgently needed were represented by the unsatisfactory substitute of a bank note in the Treasury.

The result was that in the Crimean and Italian wars, France could only place and maintain in the field one army, not much exceeding one-fourth of her effective strength on paper. The system of "exoneration" was accordingly abandoned in 1866, since which date drafted men must give either personal service or provide an efficient substitute.

The reorganization of the French army, effected under Marshal Niel's administration in 1868, is as follows:

The number of recruits raised annually by conscription is 100,000, giving a proportion of about one in 370 of population. The period of military service is fixed at nine years, of which five years are passed with the regimental colors, and the remaining four years in a general reserve, called the *second reserve*. There is no territorial con-

nection between the army and any particular districts; also none between the regular regiments and the reserve men who have passed through them. The age of conscription is twenty, one, and all men attaining to that age in any one year, who may not have been among the 100,000 drawn for the army are enrolled in the Garde Nationale Mobile, in which they continue five years. These remain at their homes, and the only military duty required of them by the law in ordinary times is the performance of fifteen drills in each year, with the proviso that no drill shall take them from their homes for more than one night. This part of the law however, has never been enforced, as the present war has found the Garde Mobile totally untrained. In time of war the Garde Mobile are to be employed in garrison duty, in guarding communications or in furnishing reinforcements to the field army.

Of the 100,000 recruits drawn yearly for the army 70,000 are at once drafted into the ranks, while the remaining 30,000 are enrolled in the *first reserve*, in which they continue for nine years, no military service being exacted during peace, except that they shall be drilled during five months in each of the first two years. At the conclusion of the nine years they are discharged. These are the men, as implied by the title of the *first reserve*, who are first taken to complete the regular regiments to their proper strength at the commencement of a war.

The 70,000 drafted into the ranks, after completing five years service, are enrolled in the *second reserve*, and continue therein for four years; after which they are held to have fulfilled their military obligations, and are finally discharged.

In contrasting the comparative preparedness for war of the French and Prussian systems, General Trochu eulogises that territorial organization of the latter, by means of which the different corps, divisions and brigades, with their proper material, field equipment and staff, are constantly and permanently acting together, and with their proper reinforcements in reserve, are maintained always in a condition to take the field on the order to mobilize. Such a system gives advantages of all kinds in the preparation of war, which can thus be carried on without throwing the country and the army into a state of violent agitation by sudden and exceptional efforts, which have the serious evil of disclosing beforehand intentions it is of vital importance to conceal to the last moment.

In his remarks on the Intendance, Gen. Trochu says:—

"Il faut, pour être bon forgeron, avoir forge tout sa vie." To be a good administrator, one should have passed his whole life in the study and practice of business.

He, therefore, considers it a serious error that the heads of the Intendance, the regulators of the existence of the French armies in the field, should be superannuated generals! and that all their subordinate functionaries, having passed a great part of their lives as officers or sub-officers of the army, can have no knowledge of the operations of trade by which alone supply can adjust itself to demand. During the Italian campaign of 1859, the troops were often without bread in one of the richest corn producing countries in Europe. Biscuit was equally deficient. In the Crimea the Intendance broke down so completely that recourse was obliged to be had to a great commercial house at Marseilles, which henceforth successfully supplied the wants of the army.

It is perhaps superfluous to make such copious extracts relating to the systems of Prussia and France; but, as we can only estimate the degree of excellence of our own system when comparing it with that of older and more advanced nations, taking into that consideration the difference between these countries as regards their requirements for defensive organization and the circumstances of the people, it is perhaps well that the opportunity for making such comparisons is afforded us from time to time.

Our organization is in many respects unlike either of the two systems referred to, but approaches nearer to that of the Prussian than of the French, and, as far as we have gone, the provisions of the law are, no doubt, more in accord with the spirit of our institutions and the circumstances of our people, than either of these systems would prove, if adopted pure and simple, but there are many points of detail in which we are wanting, and it becomes our duty to take advantage of the knowledge placed within our reach, let it come from whatever source it may.

It may be well, under all the circumstances, for such an ambitious country as Prussia is, to insist upon a lengthened period of drill, and an almost universal training of the young men of the country, but then, she has a population of 30,000, and is, in our sense of the word, without an extended territory in proportion to that population; in consequence, labour is cheap and abundant. But in Canada, with a population of only 4,000,000, and a desire only to guard the river, she is permitted to enjoy, the case is different. Her territory is considerable in extent, her population is sparse and the winters long, which requires as a necessary consequence, the concentration of a considerable portion of the agricultural operations of the year within these months during which drill can only be successfully carried on in camps; the result is that during that portion of the year there is an extra demand for agricultural labour at high rates. Besides this, the fact of our having such an abundance of uncultivated land for sale at low prices, and in many instances it is actually given away to actual settlers, tends to give the labour of able bodied militiamen a commercial value in the eyes of the people. As by settling on these lands and without extraordinary effort, any industrious man can in a few years make a comfortable home and independence for himself, he helps to make work in the rural districts more plentiful, and labor of all kinds more difficult to procure. It turns out, therefore, that a necessity prevails for every eligible militiaman to have some occupation or calling, and it matters not what that occupation or calling may be, the more important it is the greater the necessity for his becoming, through personal knowledge of all the details, able to rely upon his own head and hands for persevering industry to carry him safely through. The man of capital equally with the man of more moderate means, has ample occupation, and hence the difficulty arises as to the exact extent the industry of the country can be diverted from these pursuits for purposes of drill and training.

(To be continued.)

The impracticability of treating with the United States as to the Alabama claims seems to be insurmountable. Certain of the politicians appear determined that no peaceful result shall be arrived at. It is said that Great Britain has actually volunteered even after the gross and offensive blundering of American authorities, to agree

to the following terms. Admission of liability and payment of all claims so far as regards the Alabama, submission to arbitration so far as regards the cases of the *Shenandoah*, *Florida*, *Georgia* and other Southern privateers; agreement to a treaty binding the powers to prevent the sailing of vessels from their ports whose mission is to endanger the friendly state (of course under penalties.) But the moment these terms are proposed, up rise the Senators of the Butler school in Committee, and declare that as Britain is obviously afraid of being whipped into almighty smash, the U.S., like a Turkish huckster, must immediately raise her terms. And what, will it be guessed, is the compensation that these gentlemen have the hardihood to propose?—not in a stumpy speech, or at a revival meeting, or at a complimentary dinner, but in all the gravity of official conclave. Why, nothing more or less than that no money indemnity shall be accepted of England, but that she shall be compelled to give up a portion of her Canadian territory, in order that the American Eagle may triumphantly shriek over it before retiring to his lonely couch in the bosom of the setting sun! That's all the Eastern members wish—at present.—*Montreal Gazette*.

A NEW GUN-CARRIAGE.—It is understood that there is some idea of forming mitrailleuse batteries in India. The gun is to be mounted on and fired from a camel's back the latter kneeling down at the word "action." At present this idea is not even in an experimental stage; but in all probability such trials will be made. This reminds us of an amusing story connected with the Ordnance Select Committee. It was at one time proposed to fire mountain guns off the backs of mules that carried them. It was urged that this would obviate the necessity of dismounting the gun from the mules back and mounting it on its carriage; a mountain battery could thus come into action in far less time. This proposal was warmly taken up by the committee, who proceeded to test its feasibility. A mule or donkey was procured, and a small gun strapped firmly to a cradle resting on the pack-saddle, so that the muzzle of the weapon pointed over the donkey's tail. The animal so the story goes, was then led into the marshes at Woolwich, accompanied by the committee and several "big wigs" who were attracted by such novel experiment. On arrival at the butt the gun was loaded, the donkey turned with his tail towards the earthen mound, and the usual preparations were made for firing, by means of a lanyard and friction tube. Hereupon, however, one of the committee remarked that this mode of firing might possibly derange the aim by the jerk on pulling the lanyard. A discussion followed, and it was finally arranged to fire the gun by a piece of slow match tied to the vent. This was accordingly done, and the match duly ignited. Hitherto the donkey had taken rather a sleepy interest in the proceedings, but somehow the fizzing of the match on his back caused him to prick up his ears, then to lay them back, and finally to begin to turn round. The committee were thunderstruck, and "skedaddled" in all directions; the secretary threw himself flat on his face; there was a moment of agonizing suspense, then—bang—the shot went ricocheting away in one direction, while the wretched donkey turned a complete somersault in the other direction.

Phylography is a new art invented in England, and consists, as the name indicates, in printing by fire through a system of metal-cylinders, which burn into the wood any design required which is indestructible. From its nominal cost and great beauty. It seems likely to take the place of much of the expensive ornamentation and inlaid work done by hand.

Some years ago, in one of our Western courts, three men, an Englishman, an Irishman, and a Scotchman, were found guilty of murder, and sentenced to be hung. The judge told them that they could each choose a tree on which to be "strung up." The Scotchman promptly chose an ash tree, and the Englishman an oak tree. "Well, what, what will you be hung on?" asked the judge. "If it would please your honor, I'd rather be hung on a gooseberry bush," "Oh," said the judge, "that is not big enough." "Beggorra, thin," says Pat, brightening up, "I'll wait till it grows."



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