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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. VI.

OTTAWA, (CANADA,) MONDAY, DECEMBER 23, 1872.

No 52.

NEWS OF THE WEEK.

The Viscountess Beaconsfield, wife of Benjamin D'Israeli is dead, a most estimable woman, and well deserving the homage of such a husband.

Throughout England the storms which have raged over Europe for the past week still continues. Telegraphic advices of the 18th inst. states ;

It has been storming for the past six hours, and the rain fall has been the heaviest of the season. Large tracts of land in Leicestershire are inundated. In Derbyshire snow fell to a depth of 12 inches.

The telegraph lines in all directions are badly damaged. Telegraph communication with Liverpool, Leeds and Hull are interrupted.

At Grimsby the gale was a hurricane, and many casualties are reported.

The "Daily News" commenting on President Grant's message, trusts his recommendation for the abolition of slavery in Cuba will be successful with the Spanish Government.

The ship *Luconia*, from Philadelphia, for Rotterdam, went ashore in the storm near Bologne, and became a total wreck. All on board were saved except one.

The funeral of Lady Beaconsfield will take place on Thursday. It will be strictly private.

In France the Loire, and other streams have overflowed their banks spreading ruin and devastation around. At Nantes the quays, and all low lying portions of the city are all under water, business was suspended and affairs generally looked very gloomy.

The action of the *Left* in the Assembly, has been unanimously condemned. Gambetta, Louis Blanc, and the Reds, are adding to the complication of distress under which unhappy France is suffering, by furnishing occasion to the Germans to exact the securities for the war indemnity, to concen-

trate their forces now occupying that country, as well as refuse to evacuate it.

It is pretty evident that the humbug of a Republic is nearly played out, the question affecting the salvation of the country, simply resolves itself into a Bourbon King, or a Bonaparte Emperor. M. Thiers may cling desperately to office for a little while longer, but it can be only till MacMahon, who appears to be the *Monk* of the crisis, declares what he intends to do; as he is the only man with a soldier's reputation in France, it is to be hoped he will not sully it or stultify himself by adding another name to the number of unsuccessful rulers with which that miserable country has been cursed.

The criminal and inordinate ambition of the First Napoleon foisted a new dynasty on its throne, to the great detriment of its interest because, if it was simply a question as to the restoration of the ancient dynasty; and the retention of such parvenues as Thiers or Gambotta in power it would require no extraordinary upheaval of social order to ship the so-called provisional government to luxuriate in that tropical paradise of Cayenne; and the accession of a legitimate sovereign would be a guarantee to the Prussians that there would not be a likelihood of any disturbance of existing relations during the present generation. It is, however, a different question when the intrigues of rival dynasties affords a chance for the small knot of traitors representing the scum of society which formed the Commune to overthrow law and order in the attempt to establish socialism. Meantime the political crisis becomes more serious, and the chances for another upheaval of social order are greater.

Under date of the 19th inst, the telegraph announces that the river Seine continues to rise and at many places has overflowed its banks.

In Italy the severe weather has inflicted considerable damage and loss, especially in the valley of the Po. Social order appears, however, to be maintained throughout, although political movements are considerably influenced by the Papal partizans. The commence-

ment and close of the 19th century have been singularly fatal to the temporal power, and if, even, any political convulsion could bring about its restoration it would be only for a limited period. The Pope as head of the church of Western Europe would exercise large influence, and if the office was thrown open to people of other countries that might be wielded for the benefit of society and the progress of such countries, as Italy, Spain, Austria and other States, towards the enlightenment of the Science and Constitutional knowledge of the present day, and afford Germany as well as England relief from complications only understood by the statesmen and rulers who too often find clerical turbulence the greatest bar to progress.

Society in Spain must be in a very unsettled condition, the king has recovered from his dangerous illness, but announcements like the following occasionally appear :

Three Carlist bands were defeated and dispersed by the Government troops on the 16th.

It will be strange news to our readers to know that the great Prussian statesman Prince Bismark, has abdicated power. The following telegraphic despatch is dated Berlin, Dec. 17; General Von Roon will act provisionally as President of Prussian Council of Ministers, the Emperor having granted Bismark's request to be relieved. It is the generally received opinion that ill health is the cause of this movement although some will suspect a *coup d'etat*.

Across the line our neighbors are exercised at the prevalence of crime in New York. It is very little matter for surprise, especially, as the criminals bear a prominent part in placing the Judge who is to try them on the Bench. Such are some of the beauties of *universal suffrage*, and the natural result of democracies.

Nothing of interest has transpired except the announcement that President Grant means to send commissioners to Cuba, to enquire into the state of affairs in that Island.

THE AUTUMN MANŒUVRES.

THE SCENE OF OPERATIONS.

(From the Broad Arrow, Sept. 7.

(Continued from Page 604.)

WEDNESDAY SEPT. 4TH.

The Southern Army on the march.—The active operations of the invading force commenced this morning. The cavalry marched away at six o'clock, and the infantry were ordered to start at seven. As a matter of fact, it was nearly eight o'clock before the different regiments marched off from Racecourse Down. The *corps d'armee* took three different roads, the 1st Division going by Tarrant Gunville, and the valley of the Turrint, and then about a mile from the last named village, bearing off to the westward, and crossing the path of the 2nd Division, at a place called by some Iwerne Farm, by others Bowers Barn. At any rate, however the place may be named, there was a meeting there of the two divisions; but, thanks to the admirable arrangements of Colonel Herbert, there was not the slightest confusion. Before the different regiments had reached Iwerne Farm, which was a sort of half way house, there was a good deal of falling out in some of the Militia regiments. Several of the Militia regiments had nearly a hundred stragglers before they reached Iwerne Minster. The crossing of the two divisions having, as I have said, been very cleverly managed, the whole of the 1st Division passed on through Iwerne Minster and Sutton Waldron to the camping place, which was in some fields near Fontmell, and near a place called Higher Mill. Both the camps to day surpassed in beauty of situation anything that has been seen hitherto with the Southern Army. That of the 2nd Division at Higher Mill, although itself situated in a *cul de sac*, commanded, nevertheless, most lovely views, not only of the neighboring country, but of the more distant vale of Blackmoor, a name suggestive to huntsmen of good runs and stiff fences; but the camp of the 1st Division was not only good from a tourist's point of view, but excellent in situation for the comfort and convenience of men and horses. There were no tremendously stiff gradients to ascend for the baggage horses, and no distance to traverse in search of water for the men. The stream, which rises a little above Higher Mill, and flows through Fontmell, is evidently a strong one, as it showed no signs whatever of giving out to day, despite the severe trial it was put to. The fighting men of the 1st Division arrived on the camping ground about eleven o'clock, and they had hardly finished marking out the camping ground for their respective camps before the head of the baggage column appeared on the ground. The contents of the wagons were quickly distributed to their owners, and soon the white tents were seen rising as if by magic all over the ground. Many critical eyes were fixed on the Volunteer battalions present with the 1st Division, who were, of course, comparatively green hands in the great mystery of pitching tents; but it was generally allowed that they went most creditably through the ordeal. The camp was on stubbles and clover leys, but seemed, nevertheless, to be tolerably dry, and altogether the 1st Division had reason to think themselves very lucky. The 2nd Division have their camp on an open down, or rather on two downs—Fontmell Down, and Compton Abbas Down—in a situation of beauty of which it is difficult to speak soberly. Even in Dorsetshire there cannot be many such views as that from Compton Abbas Down. On

the north the village of Melbury Abbas bounds the view, its pretty church tower cutting the sky line, and its houses dotted down the hill slope to the south in the most charmingly picturesque fashion. To the west, the eye ranges over miles and miles and miles of dale and down, hill side and valley. Eastward and southward downs and woods bound the view. But, despite the picturesqueness, there is one most terrible drawback to camp on Fontmell Down—this is the lack of water. What is a drug at Higher Mill and Fontmell is an almost unattainable commodity on Fontmell Down. Men were to be seen staggering up the hill with buckets, who declared they had come a couple of miles with their burden. However, the water carts—those that had not "busted" on the march—are doing yeoman's service, and as the division marches tomorrow, the water question is not of paramount importance. The baggage was, on the whole, tolerably well managed today, the columns moving in good time after the men, and the hired transport material proving less rickety than it was feared would do. Praise ought to be given to Colonel Herbert for this, as he was careful to make the baggage columns avoid steep gradients, and the way he had the baggage of the 2nd Division smuggled up, as it were, to the top of a high hill was a lesson to raw hands. The Control, as usual, gave room for complaints. It would fill a couple of columns (says a correspondent) if I recorded half the grumbles which were poured into my ears as to that department's shortcomings, but I will give one case to show of what the Control is capable. The West York Militia drew their meat last night, and thanks to the Control who could furnish no wood, were unable to cook it till eleven o'clock. On receiving the said meat a "Meat Board" pronounced that all of it was more or less injured by exposure, and some totally unfit for human food. However, having turned their cooks out of bed, the West York had to cook the meat, which turned bad on the march to day. Another Meat Board was held on their arrival in camp, and the Control refused to furnish any more meat, on the ground that the bad meat having been accepted, they had no business to issue any salt pork to replace the putrid matter, which was all that remained for the West York men's dinner. Tomorrow the march is to Fonthill and Telfont.

Night March of Sir Robert Walpole's cavalry—By six o'clock this morning all the forces of the Wiley were in possession of the Northern Army, whose cavalry has made a brilliant dash for the stream which it was arranged in the programme was to divide the contending forces on Thursday. A great secret was made of this intended movement in the camps, the Duke of Cambridge himself knowing nothing about it on Tuesday night. The first order was that the cavalry should march at two in the morning, but at the last moment this was altered to as soon after midnight as possible. There was much of the stir and adventure of real war in this incident. Some idea may be formed of it from the following description by a correspondent of the *Times*:—

"The last orders concerning the march and the junction and reconnaissances were given, and what with the lights and shadows and the staff and their horses it was a picturesque scene. General Shute left the Household Cavalry to go their road, for the clock had struck, and, followed by his staff, dived down what seemed in the blackness a veritable abyss, but which was probably the most graduated of grassy dells, making across the country for the Light Brigade.

Soon their road was crossed, and the tramp of horses of the columns passed along, having left their camp in excellent time. It was composed of the 9th Lancers, the 13th Hussars, and Major Williams's battery of Horse Artillery. The 19th Hussars had been separated from their brigade and detailed for service with the infantry of the two divisions. For several miles the road was straight, and all went well. Presently came a check, then on we went again; but near Nether Avon we came to a stop of long duration; and by and by it was found that the head of the column had overshot a cross road it ought to have taken. Countermanding cavalry in a clotted row, full of sidgely horses is a tedious matter, but at last all is right, and on we went again. Blacker and Blacker grew the night, till at last the man next to you is as invisible as though he had been a hundred miles away. It began to lighten, and the flashes went on all night, at times coming every second with great brilliancy. We were very much obliged to them for they showed us our way a little. We pushed on at a fast walk, and now and then a trot; the clatter of a thousand hoofs and the rumbling of the guns disturbed the villages we passed through; candles were lighted, and sleepy men and women looked out of the little latticed portholes which do duty for windows in the upper floors of cottages. The night grew darker still, and a big bully of a cloud gathered in the sky and emptied its wrath on our devoted heads in a pelting storm. At every check, the horses bumped and crowded upon each other, full of chargers danced about the road in the lightning, and it was a wonder no one's leg was broken. Lord Charles Bruce, and Mr. Stagg, a farmer, who most kindly piloted us the whole night, and familiar as he was with the country, could scarcely find their way through the desolate blackness of the downs, rode at the head of the column, General Shute and his staff in the centre. For some way we trotted along merrily—then came a check which tumbled us off top of one another, and we stood in the rain and in the lightning a long and weary time. Lord Charles Bressford volunteered to go to the head of the column and see what was the matter, and set off on an errand not so easy on a road clogged with guns and horses, and bounded by ditches, or precipices, or brick walls, for all we knew we could see. By and by Lord Charles came dashing back in the dark with two pleasant news that the column ended with a squadron of the 13th Hussars, the officer of which had halted because he had lost the guns before him, and he did not know where he was. General Shute had given the strictest orders about keeping the links of the column connected, but here was it broken off in the middle, and the latter part of it riding none know where or how long by itself in the middle of the great Salisbury desert, on a night of rain and lightning, and darkness demoniac. Again was there a countermarching of cavalry and a jamming and bumping indescribable of men and horses. Away the general and his staff and the lost 13th rode into the dark of what felt under us like a trackless steppe. Every minute we pulled up, and the bugler was made to blow the 9th Lancers' call, that being the regiment at the head of the dislocated column. We scanned the horizon at each flash of lightning. General Shute made the bugler blow his breath away till the blast became like the blast of a lost lamb from its mother. At last there, as a reply and a carbine shot, and in a few minutes more, the brigade was itself again."

(To be continued.)

PRESENTATION TO COL. BROWN 49th
BATT., HASTINGS RIFLES.*(From the Belleville Intelligencer.)*

An interesting ceremony, in the presentation to Lieut. Col. James Brown, M. P., of the 49th Battalion, of a portrait of himself, painted by Sawyer to the order of the officers of the Battalion, took place at that gentleman's residence on Wednesday evening, 11th inst.

Amongst those present were a number of the officers of the Battalion, together with K. Graham, Esq., M. P. P., the Warden and Messrs. Ems, Anderson, Rose and Armstrong, County Councillors; Thomas Wills, William Sutherland, A. Diamond, Wm. Legate, A. Sutherland, Thos Kelso, A. T. Peira, and W. H. Graham, Esqs., besides the reporters for the *Intelligencer* and *Chronicle*, and several of the senior members of No. 1 Company—the old "Belleville Rifles," those present numbering about forty.

The hour appointed for the presentation having arrived, and the deputation being assembled in the parlor,

Major CUMMINGS, on behalf of the subscribers, said he had been deputed to make the presentation, though sorry that the task was not to be performed by the senior officer (who we learned, had sent a note to Col. Brown, apologizing for his unavoidable absence.) He then read the following

ADDRESS.

To Lieut. Col. BROWN, M. P., Commanding
49th Battalion, Hastings rifles.

The undersigned on behalf of the officers of the 49th Battalion, Hastings Rifles, feel called upon to express in some way, other than mere words, the esteem in which you are held by them, not only as our Commanding Officer, but as a private citizen and a man, who has ever taken a prominent part in all matters affecting the public weal—particularly in the formation of and sustaining a Volunteer Force in this Town and County.

They look back with pleasure, at the readiness with which you have ever done your duty as a Volunteer, and the open heartedness and willing hand displayed in assisting others in doing theirs. And above all the example of self sacrifice which you have ever set in this respect for others to follow.

Identified as you are with the raising of the "First Volunteer Rifle Company," under our new system in this Town, and having under the most trying and adverse circumstances succeeded in connection with the late lamented Major C. G. LeVesconte in maintaining said Rifle Company, serving in it in Amherstburgh and Aultsville, calls for our warmest approbation.

Endearing as these memories are to many of us who served under you during these troublous times, they are materially enhanced by the associations of late years while serving as privates and officers in the Battalion you now command.

With the most kindly feeling and great respect this deputation request that you will accept as a slight token of affection and esteem from the Officers under your Command, this Portrait of yourself, with the assurance and prayer that God in his providence may spare you many years to those to whom you have endeared yourself, and as an example in all matters pertaining to Volunteering for others to follow.

Signed,

JAMES CUMMINGS, Major.
G. H. GORDON, Major & Paymaster.
G. H. BOULTER, Major.
P. H. HANBLY, Major,

Ed. HARRISON, Lieutenant.
JAMES S. HURST, Ensign & Adjutant.
ALEX. WHESTER, Quarter Master.
B. B. FRALOCK, Lieutenant.
B. H. VANDERVOORT, Captain.
O. F. RIMNEY, Captain.
C. FRANCIS, Lieutenant.

Col. Brown, who was visibly affected by this testimony of the regard of his brother officers, said he had, in the course of duty been compelled to speak on many occasions, but he had never so much as at that time felt the lack of words to express his feelings. He felt proud indeed to be surrounded, as he was, by gentlemen the most prominent in the County, who were identified with every public improvement, and many of whom had long been connected with the Volunteer movement, which they had aided and encouraged. He had, in conjunction with the late Major LeVesconte, and Lieut. Col. Rowell—in his capacity as a subaltern—been instrumental in the formation of the Belleville Rifles, which Company he had accompanied to Amherstburgh and Aultsville, and which he was pleased to day, had earned the commendation of the Inspecting Officer as being the best Rifle Company, in the then Province of Canada. This proud pre-eminence it had gained from the strict discipline maintained by Major LeVesconte. In 1866 he had consulted with Majors Gordon, Cumming, Boulter and Rawe, with the object of forming their isolated Companies into a Battalion, and these gentlemen meeting his views in the most cordial manner, the 49th Battalion "Hastings Rifles," had been formed. Of the Battalion he was proud to say that to day it stood second in efficiency to none in the broad Dominion of Canada. Its full strength had been represented on all occasions; it had gone into camp and out of camp; into quarters and out of quarters; but there had never been a defaulter in the ranks—never had a Court Martial set to try an offence of one of its members. (Applause.) The duty performed had not been light as his friend, Col. Wills, could tell from his experience in going the rounds of the posts at Aultsville, knee-deep in mud. The men on duty there as elsewhere had always evinced the readiest alacrity in the discharge of the functions which they were called upon to perform. Not a sound of alarm could be raised, but they were one and all out and ready for action. This readiness for duty still continued in the ranks, and he had no doubt should their services ever be unfortunately required, they would still be found in the front ready to defend their country. For the testimonial which was now presented to him, he could but return his warmest thanks. It would serve as a lasting memorial of those with whom he had been associated during his military career, and should be transmitted to those who might succeed him as a precious heirloom.

Col. Brown concluded his remarks amidst general applause, and after a few minutes had been spent in viewing the portrait—which is a faithful representation of the gallant Colonel, and magnificently framed, and which has already been described in these columns—the party adjourned to the dining room, where half an hour was pleasantly spent in social converse, and in drinking the health of Colonel Brown in wine or cider as the guests preferred.

At the invitation of Col. Brown, an entertainment was made to Hambly's, where a splendid repast, worthy of that establishment, was served.

The Chair was occupied by Major Cum-

ming and the Vice Chairs by Majors Boulter Gordon, and Hambly, respectively.

The CHAIRMAN after the viands had been successfully assaulted, read letters of apology from Major Rawe, Capt. Anderson, Lieut. Lennox, Capt. Fillar and Ensign Parker, all expressing regret at their unavoidable absence.

The toast of "The Queen" was then drunk with all the honors and the Chairman stated that this would be the only standard toast proposed as the hour was getting late.

The Warden then rose and said it afforded him much pleasure to be present in his official capacity, to testify to the esteem in which he and the Council held the 49th Battalion. The 49th, when called upon for active duty, had always given a good account of themselves and conducted themselves in a worthy manner. He had the pleasure of being present at the Annual Review in camp at Kingston last year, and it seemed to his eyes—though he might be prejudiced in their favor by partiality—that the 49th Battalion was the finest on the ground. However, his position on the field happened to be near the staff, from the members of which he heard highly favourable comments on the appearance of the 49th. (Applause.) He concluded by proposing the health of the Colonel, officers and men of the 49th Battalion.

The toast was duly honored.

Col. Brown, in response, alluded to the good reputation which the battalion had ever borne. He hoped that they would never again be called upon to repel marauders, but, if difficulties should arise between the Dominion and the great nation south of the line, he had no doubt we should be able to hold our own as our fathers had done before us, as attested at Queenston, at Stoney Creek, at Chrysler's Farm and at other places. (Applause.) The Volunteers were now our national army and he believed they would prove a safe reliance in the hour of danger. Our neighbors had prospered, it is true, but we had advanced in equal ratio. However, he hoped that any difficulties which might arise between us and our neighbors might be settled amicably. As there were a number of other officers who would reply to the toast, he would not further trespass upon their time.

Major Boulter, M. P. P., returned thanks for the manner in which the toast had been received. He felt thankful for the favors which the Battalion had received from the Council, but would not object if they voted another \$100 to the Band, as the Band was the life of the regiment when in the field—(Laughter). There had been the greatest unanimity of feeling among the officers, and the men had done their duty in the most satisfactory manner. He hoped that whatever position the Battalion was placed in, it would do its duty creditably, as it had done in the past.

Major Gordon, Major Hambly, Captain Vandervoort, Lieutenant Fralock and Adjutant Hurst also made suitable responses.

Col. Brown then proposed the "County Council and the Reserve Militia," which toast was duly honored and ably responded to by Col. Wood, Col. Wills, Capt. Armstrong, Capt. Rose, and Capt. Kelso, all of that force.

The Chairman gave "The Legislature of Ontario," to which K. Granam, Esq., M. P. P., and Dr. Boulter, M. P. P. responded.

Other toasts were given and responded to, and the company separated shortly after midnight, having spent an evening the enjoyments of which will not soon be forgotten.

CORRESPONDENCE.

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

FROM BRITISH COLUMBIA.

(FROM OUR OWN CORRESPONDENT.)

Victoria, B.C., Nov, 27, 1872.

The weather still continues fine, and not cold for the time of the year.

Her Majesty's Steamship *Arrowhawk*, was sold by public auction yesterday, realizing, including some things sold separately, about \$30,000. She would have made an excellent Dominion Gunboat, could the government have purchased her, and employed her in the conveyance of mails to San Francisco. But the contract with the owners of the barge *Prince Alfred*, is I believe, for three years. The Imperial Government, were it not of the Manchester School, might well present to the Dominion Government, one or two such vessels, when they desire to get them off their hands.

There is an excellent leading article in to-day's *Standard* on the San Juan decision. It would be very advisable, that there should be a Dominion Battery or Company of artillery here, which might, I think, be incorporated with the military school.

I observe in the Vol. Rev. of 11th inst. which I have just received, an order from the Horse Guards, for a trial of a new mode of attack. It is pretty much what would occur to any commander in the field, and is not very clearly worded, tho' the intent is plain enough. I think the word "open order" which occurs as applied to the supports and reserves of the skirmishers, should read "extended" or "loose" order.

It is curious to notice how, if these things are much in one's mind, one's thoughts anticipate changes. It will be in your remembrance, that, when in the Drill Book for 1867, a change in deployments was ordered, I asserted, in an article, which you did me the honor to publish that the authorities had struck the key note of non-pivot drill, altho' they had not followed out the principles. In 1870 my anticipations were verified by the publication of the admirable manual of that year.

You will also probably recollect, that in a private letter some months ago, I dwelt on the expediency of half battalion columns. I now see them directed.

My ideas were turned in that direction from the anxiety we had to learn what formation had been, during the late war, favored by the Prussians. When, through a series of articles in the Vol. Rev., we became aware of them, it appeared abundantly evident, that their "company columns" were in no way desirable to imitate. Four companies, 250 strong each, with a mounted captain, were evidently nothing but small battalions. The Battalion, as constituted,

was a small brigade, the Major commanding, a small Brigadier; the Regiment of three such Battalions, was a small Division, and the Colonel, a little general of Division. That this was so, was proved by the fact that practically, from their extreme independence in action, the "company" became the unit.

The French have, of late years, favored the "six company to a Battalion in the field" organization, and that mode was specially adopted in reference to the expediency of a medium in the depth of ranks of attacking columns, which, in a front of double companies, would be six.

It seems almost a settled thing, that no close formation can now live within musketry range, but the advisable formation for second lines and reserves, may yet be a question.

I will venture to hazard the assertion that no foreign organization is likely to be found of more practical worth than that of our Battalion, but I think, it might take a more definite shape, and would be little, if any thing the worse, for a little more rigidity of definition, as to what, in point of numbers, should be understood by a Battalion. At present, it means anything from 600 or 700 to 1,200.

Now, the F. E. 1870, like its predecessor, contains hints for the future. One of them is the "short echelon," another is the "Half Battalion Column." It appears that in the Swiss service, the half battalion is the unit. It might approach to that position in ours. I would make a battalion in the field—and indeed at all times, and in all positions—to consist of eight companies. If possible, they should be 125 strong, making 1000 men to the Battalion. Give them four company officers if you like, tho' I think three is sufficient. Then, let the half battalion be accustomed to be under the immediate command of its Major. If necessary, do away with double battalions to Regiments to make the strength of other Regiments up. A regime. and a battalion, should be synonymous. The rank of Lt. Col. is almost an absurdity. Why don't they make Admiral's the first Captains of ships afloat? It would be quite as sensible as having generals for colonels of regiments. A colonel should be the actual commander of a regiment, his majors are his lieutenants.

Take your battalion of eight companies, and let it work by half battalions in the field, and you will get a body which can stand (or lie), in second line, or reserve, in column of double companies, requiring only the deployment of two companies to bring it into line. A body which, as a column will only stand four deep, which would be handy to form in an oval, handy to work as a skirmishing force (skirmishers and supports) on the principle prescribed by the gallant Adjutant General of Militia, that of skirmishing by half battalions, easily sup-

ported and reinforced by other half battalions, and altogether, just the sized body that can be conveniently handled by a single officer. And I cannot but think that General Lysons must have had some such idea in his mind, when he devised Sec. 23, No. 5, of Battalion drill.

It may also be noted, how much the half battalion idea coincides with the whole existing subdivisions of responsibility. The half battalions are at present, supervised by their respective majors, as the half Companies are by Subalterns, the sections by Sergeants, &c., and by the way, the responsibility of Section Commanders in the field should be particularly kept in view.

If it were not so utterly useless for obscure people ever to trouble themselves to make suggestions, I should strongly recommend, in especial reference to the loose formations which will, undoubtedly, be those of the future, a simplification of squad drill to the extent of teaching the turnings on the American plan. I do not quite remember the details, but the principle is that, to turn, say to the right, the left foot is lifted from the ground, and the turn made on the right heel, the ball of the left foot assisting the movement by a momentary pressure on the ground. It is quite possible that this also will come to pass. With a lesser general order will vanish our overstrained veneration for immobility in the ranks, the touch will be disregarded, and if men have, in such loose order, to execute a wheel, they will have to use their eyes on either side of them as they do now in the wheel of a skirmish line.

A good deal of parade nonsense remains to be done away with too. Notably the ceremony of trooping the colors, which is altogether unnecessarily complicated. It might be half cut away with advantage, and totally revised.

How easily these things may be done, is to be seen by reference to the formation of rear guards by the F. E., 1870, as compared with previous Drill Books. In the 1870 book all the nonsense of right or left in front is done away with.

But I am allowing myself to glide into a dissertation on drill which I by no means intended when I began, and the mail is now on the point of closing. However, as there is no militia news, or indeed any other to talk about here, it is perhaps not of much consequence.

G. W. G.

Victoria, B. C. Dec. 2, 1872.

How widely spread and how intense must be the snobbery which can lend force to such a paragraph as this:

"It would make some of our fine ladies stare to see Lady Dufferin promenading the streets, doing her shopping. She dresses plainly and sensibly, wears thick soled boots, and does not fear a walk from one

end of the city to the other, or face the muddiest crossing on Sparks Street."—*Ottawa Citizen.*

That the simple and unassuming manners of a high bred English lady should be sufficiently noticeable to afford a text for the rebuke of parvenues! Perhaps there exists in the minds of the good people of Ottawa the sense of a contrast, with some bygone evidences. However, it is not every lady of high rank is that free from the follies of affectation and assumption.

It is a pity that the name of the contriver of the Dominion flag is not generally known in order that the genius which could achieve the arrangement of so singular (and miscellaneous) collection of curiosities on one piece of bunting, might be duly honored. Surely such a medley never before astonished the breezes in which flags float! Buffaloes, fish, galleys, fleur de lis, thistle, and heaven knows what, jumbled together in an undistinguishable hotch potch. I suppose it never occurred to people whose taste could be satisfied with such a production, that there is a principle in flag making as well as in other combinations of color and design. The leading idea should be conspicuousness, and the employment of emblematic device as simple and distinct as possible; above all, simplicity. Any one who will take the trouble to study the great national flags, will at once perceive this. The White, Blue and Red ensigns, and the Jack of England, the Stars and Stripes of the United States, the Tricolors of France, Belgium, Holland and Italy, the beautiful standard of Portugal, the ensigns of Russia, Sweden and Denmark, are all unconfused by any attempt to crowd in a mass of heraldic blazonry. Any flag in which this is traced will, at any little distance, be a mere muddle. The standard of England, is probably the most elaborate design which would by any possibility look well, but the meteor like effect of it is, after all, attained by a simple good taste in the arrangement of three striking colors. Now, nothing can exceed the poverty of disposition of the colors on the Dominion Flag, and a wretched hash it looks. All attempts to emblomatize a number of states by heraldic devices in one flag, cannot produce anything but a confusion, unsatisfactory to the eye, and undistinguishable when floating in a breeze at a masthead. It may be relied on that the only way to indicate states or provinces is by stars. A single distinguishing badge, or perhaps two might be allowable; thus if it were necessary, to retain the jack, and if, for that purpose, the blue ensign were adopted, the provinces might be indicated by as many red stars on a white shield surmounted by a yellow crown, and if thought desirable surrounded by a maple wreath, all on the blue flag of the ensign. Or, take another simple and conspicuous design, supposing the jack were drooped, a white flag with

red St. George's cross, on the centre of the cross a blue shield with white stars, surmounted with a crown, and surrounded with a maple wreath. In fact, any one possessed of the slightest taste might sit down with a paint brush and three water colors, blue, red, and yellow, and produce in half an hour, half a dozen designs superior to that of the tasteless piece of patchwork at present inflicted on the unhappy Dominion, tho' I don't at all see what we really want with anything but the English Jack and ensigns, without any addition or alteration whatever.

I am continually questioned by persons here who take an interest in the organization of the militia, not only as to the working of the Act, but as to what is going to be done, as to which latter, I am of course no wiser than any one else. I fancy that the tendency to loose formations, and the reliance which must in future be placed on the intelligence of every man in a corps, are elements which will commend themselves to the self reliant people of this Province, and I think, if organization is ever set on foot here, lectures by staff officers on military subjects, as a means of explaining the mature growth and capabilities of the Force, and what is especially required of a citizen soldier in these days, would be acceptable to numbers of the inhabitants of British Columbia.

Speaking of loose formations, which led me unawares in my last letter, into a hasty dissertation on impending alterations in drill, reminds me of a change which ought to be made in the "charge." The actual "charge" which ought to be distinguished from the standing "charge bayonets" by having it laid down that, advancing at the trail, the rifle should not be seized with both hands till the actual close with the enemy, if, in these days of breech loaders, enemies ever actually come in contact. The idea was, I think, first propounded in Col. Wolseley's Pocket Book, but, from whomsoever it might have emanated, it is common sense.

Within a year or thereabouts, we have now seen the Flag of England lowered on both sides of the continent. It seems sadly like the drawing in of the Roman Legions, especially in view of the contemptible position she has elected to occupy in Europe. Her deduction in power and influence, brought about by the Manchester men, has been as timely acquiesced in by the nation, that her abdication of the policy of colonial extension, may be considered deliberate. It is doubtful, whether the ridiculous facility of her diplomats has left her anything more to loose on this continent, tho' there is already a rumor, I believe, of an American claim to some island in Luke Superior, and it is edifying to note the tone assumed by even so loyal an officer as Col. Wheaton, the Commandant at Pembina, with regard to the H. B. Fort there, in reference to the doubt as to the true 49th parallel. Had Sir James Douglas had his way and been supported by the British Admiral, the bold, but insolent General Hailey would have been put off San Juan at once.

In notice with satisfaction, the tenor of the charge of Chief Justice Morris of Manitoba. It is devoutly to be hoped that the formation of party and religious discord, and obstructions of national unification will meet their full deserts.

Are we to have a Militia List, or is the Force willing to content itself with embodiment in the English Army List which I see mentioned? I think we ought to have one of our own.

G. W. G.

To the Editor of the VOLUNTEER REVIEW.

16th Dec., 1872.

DEAR SIR,—About a year has elapsed since it was stated in the VOLUNTEER REVIEW, that it was probable gold lace would be substituted for silver by the officers of the permanent staff of our Canadian Army. Will you kindly inform me and other officers interested in this change whether or not such alteration is still in contemplation? so that in the event of investing money in the purchase of uniforms under the existing regulations, we may not be led astray in obtaining outfits.

Yours dear sir, respectfully,

B. S.

ANSWER.—The cavalry, artillery and engineers, to wear gold; the infantry, silver. No change.

Ed. Vol. Rev.

To the Editor of the VOLUNTEER REVIEW.

SIR,—Will you kindly permit me to point out in your columns what I consider a grave error in the present system of cavalry drill in the Dominion, viz.: That of the Government allowing a certain sum, (\$40) annually to captains of troops to drill their own men instead of the old and regular method of providing efficient and responsible drill instructors as is the practice of all Governments who pretend to have a serviceable armed force.

* A Commanding officer may be, and British officers are, as a rule, perfectly au fait in everything pertaining to their profession, for the very reason that they have gone through a thorough training under the tuition of regular instructors; men educated for the purpose and who have been deemed by competent authority, not only possessed of all necessary military knowledge, but also imbued with the peculiar faculty of imparting that knowledge to others.

A regimental officer may be "well-up" in all his duties as a soldier and a good disciplinarian, &c., and yet be wanting in the gift (so to speak) of training; and on the other hand, methinks, the present system has a tendency to bring the captain in such close contact with his men during the period of drill, that any ebullition of temper or view of impatience on his part must necessarily tend to weaken his authority. Officers of all grades should, of course, occasionally drill their men, but they ought not to be the schoolmasters. "He that yields the birch will seldom hold the sceptre with dignity."

I have the honor to be, Sir,

Your obdt. servant,

Lieut. Horse.

Compton, 18th Dec., 1872.

REMITTANCES Received on Subscription to THE VOLUNTEER REVIEW up to Saturday, the 21st inst.
WEXFORD, Ont.—Lieut.-Col. W. H. Norris, 12th Batt., \$2.00.
HAMILTON, Ont.—Lieut.-Col. Wm. Paton, 33th Batt., \$1.00.
WATERVILLE, Que.—Sergt. W. F. Parker, No. 4 Troop, (per Agent) \$2.00.
MONTREAL.—Lieut.-Col. Harwood, D.A.G., \$2.00
& FOREST, Ont.—R. S. T. Conklin, \$1.

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The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

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

OTTAWA, MONDAY, DECEMBER 23, 1872.

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

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

On and after the 1st January next, the VOLUNTEER REVIEW will be discontinued to parties in arrears. All those desirous of continuing their subscription will please forward them direct to the office of the paper. The expense of paying a travelling agent to collect subscriptions is too great, and we mean to discontinue it for the future. To those who have regularly paid their subscription in advance we return our sincere thanks

THE *Broad Arrow* of the 16th November has an article on the *Canadian Militia*, for which that force should feel all due gratitude, as we are sure both officers and men appreciate the good will as well as the good feeling which prompts our contemporary's efforts to impress on the War Office authorities the necessity of recognizing the existence of the only really valuable auxiliary force the Empire possesses, outside the British Isles.

Apart from its intrinsic value, and the patriotic spirit which breathes throughout, it is of more importance to us, from the historical reminiscences its opening lines, whimsical as they are, awakens.

Our contemporary says: "It is a speciality of colonial hotels, however remote they may be, that the coffee room, or parlour, boasts the possession of some back numbers of *Punch*, an odd volume of the *Illustrated London News*, and a somewhat antique Army List." Without attempting to account for those peculiarities, in a philosophic manner, we would just remind the *Broad Arrow* that Canada has been won and held by the sword; that its leading families, and a large proportion of its wealthiest yeomen, are descended from officers of the British army. That of all Great Britain's possessions, it is, *par excellence*, a military colony, and, therefore, it is not a matter for much wonder to find the Army List a standard volume, in all places of general resort; and since the organization of the local force a deep interest has been manifested by the sons of soldiers, themselves also soldiers, in the fortunes of the British Army.

Of course, all this is what the Whig-Radicals, and the Young England schools, would call ridiculous sentiment, unworthy of consideration in this utilitarian age, as it does not pay; but our whole people seem to think that patriotism is something more than mere romance, and national honor of such a priceless value that it cannot be purchased.

It is thoroughly well understood in Canada, that the present rulers of England's destinies will not willingly acknowledge the existence of the powerful military force at the disposal of the Dominion authorities. The true representatives of that Whig faction, whose treason hatched and treachery to the best interests of Great Britain brought forth the Republic of the United States. They are bent on aggrandizing their bantling's interests at the expense of that Empire their predecessors betrayed.

It is well known that the cry of FOX and BURKE was in order to lessen the power of the Sovereign, it was necessary to dismember the Empire, and GLADSTONE is ambitious to ape their traditions. As a matter of course, the official recognition of the existence of the Canadian Militia, by inserting its strength in the Army List, would seriously traverse the plans of those Yankee worshippers and their dear friends. Besides, the

loyalty of the Canadian people would be an awkward and inconvenient article in the way of a faction, who have loudly declared their intention of subverting the Constitutional Regime of their native land, and placing all its institutions at the mercy of the mere mob.

At the late great banquet in London, on the occasion of the establishment of telegraphic communication with Australia, Lord KIMBERLEY enunciated an awkward truth when he stated that the cheering consequent on the delivery of a telegram from a similar banquet in Adelaide, New South Wales, giving as one of the toasts "The Integrity of the Empire," evidenced the existence of a counter party, and the people of the colonies have little doubt that this very circumstance rang the first stroke of the death-knell of the Whig Radicals in Britain.

Throughout the length and breadth of Canada one feeling exists, and it is an intense aversion to the party now in power in England, and no event could give greater satisfaction than its downfall. While it exists, justice or fair play will not be expected, and damaging as was the Australian message, the Gazette of the Canadian Militia would be far worse.

It is well understood here, that as British subjects we have inalienable rights which no faction at home shall be allowed to meddle with. We have cheerfully undertaken to train our army which is of more value to Great Britain, from the strategical position it occupies, than any force she could raise to occupy this country. It was not, however, as an outcome of Whig Radical policy this was done, but to counteract it; and while we thank our contemporary for his kindness, we assure him the Canadian militia can afford to await recognition, till the responsible party is dug out from amongst the red tape, sealing wax, and wafers, under which CARDWELL has buried the War Office.

It is with sincere pleasure we notice that Lieut. Col. BERNARD, A.D.C., has been honored with the companionship of the Order of Sts. MICHAEL and GEORGE, and we congratulate the gallant officer on his well-earned distinction.

The Ottawa *Times* of the 17th inst., alluding to what we hope will be the opening of the fountain of honor to Canadians who have deserved well of their country and the Empire, says:

"The honor granted to Colonists by conferring on them one or other of the two grades of the Order of St. Michael and St. George have not been unsparingly distributed in Canada; but they have been given with a wise discretion. No one can say that the recipients have been undeserving; but there is room for saying that there are some gentlemen whose services to the country render them worthy of consideration in any distribution of similar honors that may hereafter take place. Among these we trust it

will not be esteemed had taste to mention the name of the Adjutant General, Colonel Robertson Ross, whose public services in connection with the administration of Colonial affairs have already been sufficient to entitle him to distinction. We merely mention the matter because the public judgment has already pronounced him worthy."

We not only entirely concur with our contemporary in the matter and tone of his article, but we are sure the Canadian Army and people will endorse the idea, that any honor conferred on the Commander in Chief should carry with it a title commensurate with the services he has rendered this country and the Empire.

We are aware that the Sovereign is the source of all honour, but we do not know the *modus operandi* by which its flow is set in motion. It will not, however, be out of place to remark to whoever has the initiative in the process that the army and the people look in this case for a very marked and decided expression of the Sovereign's approval of the services of a soldier that has organized the finest and best military force in the British Empire, not even excepting the Regular or Imperial Army.

It is not necessary to recapitulate the services of Colonel P. ROBERTSON ROSS in this connexion. Although comparatively a young man, he has had professional experience of a varied character in almost every quarter of the globe. Nearly three-fourths of his life has been spent in the army; and we have only to turn to the successful administration of our own military system and the complete organization he has given it, to see how well that matured experience has been turned to account in the service of his Sovereign. We say, then, honor to whom honor is due, and with no sparing hand either.

In the last issue of the VOLUNTEER REVIEW a full description of Mr. LAY'S Torpedo Boat was given as well as the reasons which induced us to oppose the whole system. It was not anticipated at the time that our views would receive confirmation from a very unexpected quarter—indeed, no less than the inventor, a *la Yankee*, of the first monitor, Capt. ERICSSON, whose letter, as published in the United States *Army and Navy Journal* will be found below.

It was our intention to have given our readers a whole history of this so-called torpedo system, but press of other matter and the natural reluctance to run it into the last and first numbers of two volumes, as well as other circumstances, compelled us to leave over the articles till the opening of the Seventh Volume, in which we shall endeavour to furnish every detail connected with this very interesting subject.

Our contemporary the *Broad Arrow* has gone to some trouble to make a comparison of the naval strength of Great Britain with that of the United States. No reading man out of

England ever gave the latter credit for being a great naval power, and as far as that is concerned Canada could put a more effective, as well as efficient, fleet in action to-morrow than the United States possess altogether. When it becomes necessary for a great country to resort to submarine mines for the first line of harbor defence, it is very evident that State does not possess a navy. It is equally evident she cannot improvise a naval force, and, therefore, is compelled to resort to a *scare crow* which it is pretended is found in the *torpedo system*.

If British statesmen were not so besotted with the relationship idea, JONATHAN would give JOHN BULL very little trouble, and would be in the condition he really occupies—that of a vicious youngster, with a strong tendency to *kleptomania*, requiring to be well watched and occasionally chastised.

NEW YORK, December 10, 1872,

Hon. G. E. ROBESON, Secretary of the Navy.

"SIR.—I beg to call your attention to the accompanying description of a moveable submarine torpedo, a copy of which I forwarded April 13, 1870, to Vice Admiral Porter and to the Chief of the Naval Bureau of Ordnance. I also at the same time, forwarded copies of the same description to the Committee of Naval Affairs of the Senate and of the House of Representatives, in order that Congress, as well as the Navy Department, might be informed of the fact that a submarine torpedo had been devised capable of being propelled under water and directed to any desirable point. The description of the moveable submarine torpedo having thus been placed before the Executive officers of the Navy Department and before the Naval Committees of Congress, it was taken for granted, in view of the simplicity and obvious efficacy of the device, that the Navy Department would at once order an investigation of this new system of coast defence. It will be proper to mention that I was fully prepared at the time of forwarding this description—and have been ever since—to construct the torpedo, at my own cost and risk, complete for practical test. Nor, will it be irrelevant to advert to the fact that I have been urged by persons well acquainted with the state of the naval defences of the country to present a special application to the Department. Had the description referred to not been sufficiently clear to enable the officers of the Department to form a correct judgment of the nature of the invention, it would have been my duty to adopt the course suggested; but, since the detail of the mechanism was described with such minuteness that any skillful engineer could construct the same, the inaction of the Department in the matter rendered the inference irresistible that a moveable submarine torpedo do not form part of the means by which it is intended to defend the coast and harbors of the United States. The recent official trial of a torpedo boat at Newport indicates, however, that it is not intended to dispense with moveable submarine torpedoes for coast defence. Accordingly I have forthwith constructed such a torpedo agreeably to the accompanying description, provided the Department will do me the favour to appoint a board of naval officers with instructions to institute a rigorous comparative test of the efficiency of my submarine

torpedo and that of the torpedo boat referred to, built by Messrs. Clute.

"Thinking that an exhibition of the main features of the rival inventions—the torpedo boat and the moveable submarine torpedo—might influence your decision, I have the honor of submitting the following statement.

"1. The torpedo boat, floating at the surface of the water, will be easily crippled by a watchful enemy, even in a calm, while in a seaway its destruction will be inevitable.

"2. The submarine torpedo, being immersed from fifteen to twenty feet below the surface of the water (regulated according to the draught of the vessel attacked), will advance toward its destination in spite of watchfulness and a rough sea.

"3. The explosion of the torpedo boat takes place too near the surface to effect seriously an iron-clad ship carrying twelve inch thick armour six feet below water line.

"4. The submarine torpedo explodes near the bottom of the vessel struck, at a depth where the pressure and resistance of the surrounding water renders the force of the explosion so great that a charge of 400 lbs. of nitro glycerine will wholly destroy the lower part of the structure. The adopted water compartment system will therefore offer no protection against the effect of such an explosion.

"5. The motive power of the torpedo boat is of a dangerous nature owing to the enormous pressure of the acting medium, 600 lbs. to the square inch. At best it is insufficient, and ceases the moment the small quantity of carbonic acid capable of being carried is consumed. Any mischance calling for prolonged action of the propeller will exhaust the motive power, hence the craft will be useless in such a case, and inevitably lost, no means having been devised for bringing it back.

"6. The motive power of the submarine torpedo, atmospheric air under moderate pressure, is safe and reliable. It acts with undiminished energy during any desirable length of time, being supplied by stationary engine power; hence any occurrence calling for prolonged action of the propellers will occasion no embarrassment. Should the enemy avoid contact by manoeuvring or retreat, the torpedo, will be brought back by turning the reel, an operation effected also by engine power. During contest, a rapid retrograde movement (impossible with the torpedo boat) may be effected whenever requisite, simply by putting the reel in motion as stated.

"7. The means adopted to start, stop, and steer the torpedo boat involves mechanism of an unusually complex and delicate nature. Two insulated wires are required connected with a galvanic battery on shore and coiled round a reel on board of the boat. The electric currents, are regulated by a dial plate and keys, the handling of which requires experience and the strictest attention on the part of the operator who, unable to watch the course of the torpedo boat himself, must follow the instructions received from another person. Three motors are necessary to put the propeller in motion, viz., (1) A small magnetic motor to open a valve admitting carbonic acid gas into (2) a small engine, the power of whose pistons opens a valve for admitting gas into (3) the main propeller engine. The steering is effected by two separate pistons operated also by the carbonic acid gas admitted by valves moved by galvanic agency. The pistons last mentioned put the helm

hard up or down; but in going straight ahead, the rudder is kept in position by some arrangement, the nature of which has not been published. Another important device, the particulars of which have not yet been published, is necessary for letting water into a chamber at the bottom, to make good the weight lost as the wires are reeled off during the progress of the boat. Other necessary devices connected with the mechanism of the torpedo boat might be pointed out, for instance: in order to prevent the great loss of motive energy attending the reduction of temperature during expansion, the carbonic acid gas is passed through a system of pipes intended to abstract heat from the sea and transfer the same to the frigid motive agent. Considering the high pressure employed and the great number of pistons, valves and joints, connected with the torpedo-boat, all of which must be perfectly tight, Messrs. Clute deserve great credit for their excellent workmanship.

"8 The submarine torpedo is controlled altogether by the handle of the stop-valve, which admits air into the tubular cable. When this handle is placed in a vertical position, the torpedo moves directly ahead; inclined to the right, the helm is put hard up, and when inclined to the left the helm is put hard down. By intermediate degrees of inclination of the handle, the rudder may be placed at any desirable angle. By bringing the handle, to a horizontal position the air is shut off from the tubular cable, and the torpedo stops. The steam engine employed in charging the air receiver which supplies the tubular cable, also turns the reel. Accordingly, the torpedo may at any moment be hauled in with great rapidity, or caused to perform a retrograde movement during contact, by simply throwing the reel in gear. It is scarcely necessary to contrast this simple mode of controlling the submarine torpedo with the intricacy involved in the system of effecting the object by electric currents and small motive engines operated by carbonic acid gas, in the manner described. The fragile character of the insulated wires, and the liability to dis-arrangement of mechanism of such complex and delicate nature, need no comment.

I would respectfully call attention to the fact that the trial at Newport was conducted at high water, under exceptionally favorable circumstances, and that the drifting of the boat, after stopping the motive engine, was resorted to at last in order to reach the mark showing that the absence of means of effecting a retrograde movement is a serious if not fatal defect.

"9. The torpedo-boat, although too small to carry sufficient motive power, and incapable of running at high speed, is twenty-five feet long and three feet in diameter. Evidently such a body is too heavy to be handled with facility, while an adequate supply of such combrous and complicated structures in time of war will involve numerous difficulties.

"10. The movable submarine torpedo is nineteen inches in diameter, and ten feet long, the shell being composed of light galvanized iron. It is provided with an engine which transmits to the propellers the motive energy conveyed through the tubular cable. A medium pressure fully fifteen horse power will be developed. Of course a considerable portion of this motive energy will be consumed in towing the cable; but the torpedo itself, the section of which is less than two square feet, requires for its propulsion only a fraction of the stated power. It merits special notice that the propellers are

employed, turning in opposite directions, an expedient indispensable to counteract the torsion produced by the great amount of motive power applied. Obviously, the torpedo will revolve in the water unless the tendency to rotate be prevented by the expedient of turning the propellers in contrary directions.

"In conclusion, I have the honor to inform you that a trial has just been conducted in the bay of New York, for the purpose of ascertaining practically what amount of motive energy is consumed in towing a tubular cable of adequate size to transmit the intended power. The result of this trial has established the important fact that a tubular cable half a mile in length, towed at a rate which will give a mean velocity of ten miles per hour to the submarine torpedo, consumes one-third of the motive power capable of being transmitted through the cable. I have also the honor of informing you that the seemingly difficult problem of running the torpedo across tidal currents, has been satisfactorily solved. I am, sir, your most obedient servant,

"J. ERICSSON."

As the period cannot be much longer delayed when the *Canadian Army* will be registered amongst the auxiliary forces of Great Britain, we would most earnestly direct the attention of the officers of the force to the advantages to be derived by becoming members of the *Royal United Service Institution*, which they can do, by paying an entrance fee of £1 sterling (five dollars) and a yearly subscription of £1, which will entitle each member to receive the *Journal* of the Institution, in which every military and naval question of the day is discussed and illustrated; and they will also have the privilege of attending the lectures, the use of the library, and reading rooms, as well as the instructions to be derived from an inspection of the model and map room, as well as the museum; whenever they may happen to be in London; and as it is likely a part of the force will be engaged in the next Autumn Manœuvres, the advantages offered will be speedily realized. They will also have the privilege of furnishing papers on professional subjects, which will appear in the *Journal*, and to such officers as our gallant correspondents *Centurion*, *Kanuck*, *G. W. G.* and others, this would afford a vehicle for the discussion of their several specialities, far greater than the pages of the *VOLUNTEER REVIEW*. We can assure our readers as they very well know, we make no small sacrifice in giving this advice, but we look upon the dissemination of knowledge, such as has been acquired by our correspondents, as entirely too valuable to be left wholly to the chances afforded by a mere local organ.

It will be in the memory of our readers that a most able series of papers on the probable strategy of an *Invasion of Canada*, was furnished by our gallant correspondent *CENTURION*, and appeared in our pages in the early part of the current year, and it was to us a source of keen regret that it was out of

our power to place it before the military authorities of Great Britain, with the emphasis it deserved. If that gallant officer had been a member of the *Royal United Service Institution*, his memoir on *Canadian defence* would have been brought under the notice of the chief military authorities of the Empire, and a subject little understood, and not at all appreciated in Great Britain, would have received ample elucidation. It is hardly necessary to point out the precise value of such a course to the military and national interests of Canada, they are sufficiently apparent. But, apart from this view of the case, the knowledge and advantages to be derived are all important to the gentleman who aspires to be that most accomplished of human beings, an efficient military officer.

In our issue of the 2nd December, we noticed the receipt of No. LXVIII of the XVI volume of the *Journal of the Royal United Service Institution*, with the following articles from the pens of officers of distinction in the army and navy:

On the economy of fuel in Ships of war. On Naval Guns. On mounting and working of heavy guns at sea. On the lighting of H. M.'s ships. On explosive agents applicable to naval and military purposes, as substitutes for gunpowder. On military transport and supply in India. On Autumn Manœuvres at home and abroad. On the latest changes made by Prussians, in their Infantry drill book. On the theory and practice of peace manœuvres, with their relation to real warfare. On our naval and military establishments, regarded with reference to the danger of invasion. On the practical instruction of Staff Officers in Foreign Armies.

We question whether in any one publication in any country in the world, subjects of such paramount importance and interest to the military student and officer could be found, or that it would be possible under any other conditions than those offered by the *Royal United Service Institution*, such a variety of practical and scientific subjects could be got together in one pamphlet.

There are several subjects which it is our intention to review at an early day, especially the article on "Naval Guns," "The working and mounting of heavy guns at Sea," and "on Naval and Military establishments regarded with reference to invasion." But, in the meantime, we think it to be our duty to place before the officers of the *Canadian Army* the advantages which a membership would confer on them.

The Secretary, Capt. Burgess, has kindly sent us several copies of what may be called a prospectus of the *Institution* and some forms of application for membership, which we shall gladly send to such of our readers as may wish to avail themselves of the advantages held forth, and we hope very many of those will one day become the leaders of the *Canadian Army* who will be amongst the number.

The Journal is sent to all officers, post-paid, wherever they are quartered. It is our intention to take up the question of Naval Guns in our opening number of the new volume; its connection with the torpedo question makes such a course advisable.

A MILITARY TOUR THROUGH THE DOMINION.

The Adjutant General's Journey from Fort Garry to Vancouver's Island—The Resources of the North West—The Future Garden of the Dominion.

Colonel Robertson Ross, our Adjutant General, returned to Ottawa on Saturday, (20th Nov.) having completed a military inspection tour through the Dominion of unprecedented extent.

For the last six months this officer has been incessantly employed on inspection duty. Within this period he has not only visited almost every military district in the Dominion, and inspected nearly every corps of our National Army, but after proceeding from Ottawa to Manitoba, *via* Lake Superior and the Dawson route, he crossed the continent in the horseback through Canadian territory to the Pacific coast, travelling for many days through the country of the Blackfoot Indians, those Arabs of the West.

Leaving Fort Garry on the 10th August, accompanied by his son, a youth of 16 years of age, he proceeded to Fort Edmonton, on the North Saskatchewan, *via* Forts Edice, Carlton, Pitt, and Victoria, a distance of nearly 1,000 miles, which he accomplished in 21 days of actual travel. He had with him to this point two guides, the party having 10 horses and two Red River carts with them. At Fort Edmonton he obtained the services of "William Monroe," the Hudson's Bay Company's Blackfoot Interpreter, well known in that country by his Indian name of "Piskaan," a Scotch half-breed, and one of the most famous guides and hunters in the service of the Hudson Bay Company. Leaving the two men who had accompanied him thus far at Fort Edmonton, he proceeded onward with the new guide to the Rocky Mountain House, distant about 180 miles from Fort Edmonton, which he reached in four days from that place. The "Rocky Mountain House" is the Hudson Bay Company's Post for trading with the Blackfoot Indians, being situated in the country of that wild tribe, in Lat. 52 deg. 22 min. 6 sec North, Long 115 deg 10 min 45 sec. West, and about 45 miles from the foot of the Rocky Mountains.

At the Rocky Mountain House Colonel Ross met with a band of Blackfoot Indians; here he learned that the Vermilion Pass was impracticable for horses from fallen timber blown down during the great storm in the mountain last spring, and that his best route across the mountain would be by the North Kootenay Pass. Here he obtained the services of two other men, one of whom was an Indian of the Rocky mountain Assiniboine tribe, the other a French half-breed, and the party numbering only five in all taking twenty horses with them and one Red River cart to carry their provisions and baggage, started for The Kootanie Pass by a route which led for more than three hundred miles through the heart of the Blackfoot country. Following a south-easterly course they passed (after travelling

Blackfoot country. Following a south-easterly course they passed (after travelling for two days) through the thick wood country, and crossing the Red Deer River, again entered upon the great prairies. On the 18th of September, they reached the south Saskatchewan, here called the "Bow River," but did not succeed in crossing it till the following day when they found the water flowing as it does, out of the glaciers in the Rocky Mountains, icy cold. Previous to crossing this river, the Assiniboine Indian coolly deserted riding a long way back, but probably fearing to be left alone in the Blackfoot country he rejoined the party before they had crossed the river, and remained faithful for the rest of the journey.

On the 21st of September, having arrived at the north west flank of the Porcupine range of the hills, which run parallel with and are separated by a narrow valley from the Livingstone range of the Rocky Mountains, the travellers were forced to stop, by a violent snow storm, and had to camp on the open prairie; for two days and two nights the storm raged without intermission, men and horses being half buried in snow.

On the 23rd the weather cleared, when they found their position a sufficiently critical one. On all sides as far as the eye could see over the boundless prairie, the snow lay everywhere more than two feet deep, and very many more in the numerous ravines and gullies, while in front, seeming as it were to bar all further progress westward, rose the great range of the Rocky Mountains to a height of fourteen or fifteen thousand feet above the sea, the foliage of the immense pine forest in the numerous dark dells and gorges contrasting beautifully with the snowy mountains whose lofty summits glittered in the sun over the whole scene, like silver crowns.

Colonel Ross, declares it was the grandest spectacle he ever saw.

The guides considered that to cross the mountains was impossible, and wished to make for the Fort Benton, an American military post, on the Missouri, in Montana, distant about 280 miles in a southeasterly direction, as the nearest place for succor, their provisions running short. To add to the difficulties of the situation, Monroe, the chief guide, on whose personal influence with the blackfeet, Colonel Ross relied for protection from Indian molestation, was seized with a severe attack of inflammation of the lungs, the result of the hardship and exposure, and they had, moreover, been stopped at that part of the country considered most dangerous, and which it was desirable to get out of as soon as possible. Altogether the situation was a difficult one.

The weather improved rapidly, however, during the 23rd; on the afternoon of this day, Colonel Ross had the good fortune to kill a large grizzly bear, which approached to within a few yards of their camp, the animal having lain all the previous night very close to the party. This event proved a very fortunate one, as it afforded them an ample supply of meat, and being determined to cross the mountains if possible, Colonel Ross persuaded his men to persevere. On the 24th and 25th they remained snowed up the weather continuing to improve, and the snow to disappear. On the 26th abandoning the cart, and all superfluous baggage, and taking as much of the bear meat as could be conveniently carried, they started with the horses for the Kootanie Pass, making, however, only four miles on that day, owing to the depth of the snow. On the 27th, they made about sixteen miles, and the following day the snow had disappeared. On the 30th,

they entered the Kootanie Pass, and met with a friendly band of 50 Kootanie Indians, who presented them with a horse; and on the 1st October, they crossed the Rocky Mountains camping that night on the west by a river whose waters flow into the Pacific ocean.

On the 4th October by which time the provisions were exhausted, the party, reached the Gold Miner's Camp of "Wild Horse Creek," on the Kootanie District, British Columbia, where supplies were obtained.

From Wild Horse Creek Colonel Ross and his son, accompanied by one man and five horses, proceeded through the Kootanie District in a south-westerly direction to the International Boundary Line and Lake Pend Oreille, and from thence by Walla Walla, the Columbia River, and Portland to Olympia on Puget Sound, from which points he crossed over to Vancouver's Island. After remaining a fortnight in Vancouver's Island Colonel Ross returned to Ottawa, via San Francisco and the Pacific Railway, stopping at the great Salt Lake, in Utah territory, to visit the city of the Mormons, thus concluding a series of most interesting journeys.

We understand that Colonel Ross, whose visit to the North-West territory was not a mere flying one, speaks in the highest terms of the fitness of extensive regions through which he passed for settlement, and he considers that the country of the Blackfoot Indians through which he passed, lying for about 300 miles along the eastern base of the Rocky Mountains and extending for about 90 or 70 miles out on the Plains to be the Garden of the Dominion. He predicts a great future for this part of the country, and has brought some fine specimens with him of the Gold obtained in the Saskatchewan and at "Wild Horse Creek" on the western side.

We understand that since Palliser's expedition, the country of the Blackfoot Indians has been rarely visited by white men. It will be remembered that Lieut. Butler, 1st 69th Regiment, was despatched from Fort Garry by the Lt. Governor of Manitoba in 1870, to visit and report upon the wild tribes in the far west, but that officer failed to penetrate farther than the "Rocky Mountain House," no men at that time being willing to accompany him through to country recently traversed by Colonel Ross, owing to the dangerous nature of the service. The Adjutant General met with no Indian molestation, and we have no doubt but that the experience he has derived may prove hereafter of public service, for it seems clear that the few white settlers, our fellow countrymen, now located in the North West require protection; at present they are living by sufferance, and are at the mercy of some of the most barbarous savages in the world.

The time, however, had now arrived when it becomes necessary to take proper steps to establish law and order in the North West so as to secure, not only without fear of interruption the construction of our Pacific Railway, but the peaceful settlement of the country.—*Ottawa Times, Monday.*

We direct the attention of our reader to the Prospectus of *The Aldine* for 1873. It is one of the best, if not the best, literary and artistic journal published in the United States, besides being the cheapest. Subscriptions received at this office, where a copy of the Journal can be seen.

TRUE COURAGE.

BY A. THOMSON.

'Tis easy to stand on a vessel's deck,
On a vessel neat and trim,
And to watch the foam from her flashing
wake,
And the rainbow bubbles swim—
It's easy enough to climb the mast
When hushed the billows' war,
And the zephyrs play
With the pennon gay
That floats from the highest spar.

'Tis another thing in the murky night,
By the snaky lightning's glare,
To climb and stand on the dizzy height,
When the tempest's arm is bare;
When the masts are bending low with the
strain,
And the canopy all is riven,
And the angry blast
Goes whirling past,
And the flying clouds of heaven.

'Tis easy enough to be brave and true,
With nothing to set us wrong,
When the sky above is a cloudless blue,
And the heart is full of song;
'Tis another thing when the stormy clouds
Are darkening overhead,
When the angel of wrath
Stoops o'er our path,
And all above is lead.

Oh! the Christian who stands through his
flery youth,
When the tempest's power is strong,
And who will not barter God's holy truth
For the proffered hire of wrong;
Oh! bring not him, the warrior's mood,
'Tis a fading wreath, and dim,
Earth has no gem
For the bright diadem
That the Lord will give to him.

AN AUSTRIAN VIEW OF THE DEFENCE
OF ENGLAND.

(From Macmillan's Magazine.)

BY BARON VON SCHOLL, MAJOR GENERAL, AUS-
TRIAN ARMY. EDITED BY LIEUT. COL. C. C.
CHESNEY, R. E.

(Continued from Page 611)

2. THE ISLE OF WIGHT.

The South Coast of England, in its extent from the Land's End to Samsgate is certainly the most exposed, on account of its proximity to the French coast; and as the Isle of Wight lies in front of this coast, and is only separated from the mainland by the narrow channel of the Solent, this island appears to me of such importance for friend and foe that I cannot sufficiently recommend it to attention, and I would wish to see more done to fortify it than has hitherto been effected. The Solent is to an English fleet just what the channel near Pola was to the Austrian before the battle of Lissa, affording good shelter and free issue, either towards east or west.

The Solent, in fact, is the true offensive basis for British maritime operations; but it would cease to be so from the moment an enemy was in the Isle of Wight. This is my reason for asserting that the defences of this island should be further strengthened. This is the more necessary because an enemy lodged there would have within reach of him, at the short distance across the Solent, a most desirable *pied a terre* . It might be alleged that a landing at the back of the Isle of Wight is difficult from the nature of the coast, and that the enemy, having no port there, would not seek to occupy the Isle of Wight, because troops once landed could not be reinforced or supplied in bad weather and would even be in danger of starving. But many persons acquainted with the locality believe that a landing is perfectly possible, the sea often remaining calm for days together. And it would perhaps be to

the enemy's interest to seize the Isle of Wight, with the object of diverting the defender's attention from points of landing elsewhere. In that case he would throw only a small number of troops on the island and the landing would occupy but a very short time. They would thus be little exposed to danger from a sea getting up during the operation, and the small number could easily be provided with food and ammunition, sufficient for a considerable time.

With the enemy in possession of the Isle of Wight, there is the striking disadvantage that the works which serve to close the Solent at the Needles passage and Spithead are taken in flank and rear, that the fleet can no longer use the Solent, and the entry into Portsmouth is endangered. Moreover, in order to check the further advance of the invader, it would be necessary to concentrate a superior force on the English coast, cut in two as it is by the deep inlet of Southampton Water, and an English army acting elsewhere would be correspondingly weakened. I assume here, naturally, that the enemy has not only infantry, but also guns on the island, for it is only with the shells of these that he can reach the northern shore of the Solent. The island is in fact a very tempting object for an enemy; for if the landing succeeds, he secures himself a footing from which he cannot easily be expelled, having the Solent, like a gigantic wet ditch, in his front. It may be further said of the Isle of Wight, that its preservation is all the more important in English interests, inasmuch as by its means the disadvantages of Portsmouth (the position of which under modern conditions, is very bad, are somewhat obviated. Portsmouth, as a great naval depôt, is far too advanced. In regard to this question I must recognize the wisdom of the English Government in having, as has been the case quite recently, paid increased attention to the more secure position of Chatham, and having made extensive preparations there for building and repairing ships of war.

I do not propose to enter here upon the question of what further fortifications are necessary on the Isle of Wight to prevent the enemy from occupying it, for this is a question of detail, the solution of which my honoured friend Colonel Jervois understands as well at least as I can pretend to.

3. THE ISLE OF ANGLESEY.

No reference is made to this island in the treatise, possibly for the reason that it lies on a less exposed side of the country, and because Colonel Jervois, considering the shortness of the time available to him, did not wish to bring too many questions under consideration, and desired to arrive as soon as possible at his virtual object. Perhaps I may be allowed to add something relative to the Isle of Anglesey.

Although I am not of those who believe in the probable outbreak of a war between England and the United States, in which the latter could play so aggressive a part as to carry the operations into the mother country, yet nevertheless one should for safety's sake accept the supposition, that the Americans, aided by a coalition of European States, might carry the war to Europe. In such a case Ireland might become a base of operations in the prosecution of the war, and considering the small width of the Irish Channel, the Isle of Anglesey would offer the same advantages as the Isle of Wight, and become a good *pied a terre* naturally secured from attack from England by the Menai Straits.

On a closer comparison with the Isle of

Wight, Anglesey has the advantage, being in possession of a good harbour at Holyhead whereby troops could be supplied and reinforced whatever the weather. It appears to me very necessary that some special attention should be paid to its defences, although on the other hand, I must allow that the Menai Straits do not form a rendezvous for the fleet like the Solent, neither is there any point in the vicinity resembling Portsmouth in importance.

4. IRELAND.

Colonel Jervois speaks of the necessity of keeping a strong force in Ireland in case of war. Thoroughly agreeing with this view, I cannot divest myself of the apprehension that the enemy might succeed in possessing himself of Ireland; for, as it would be undesirable to weaken the army in Great Britain too much, this force in Ireland could never be very large, and on the coast of Ireland there are a number of unfortified harbours and bays where the enemy could very easily land.

The possibility of the loss of the island should therefore be held in view, and it should be considered what should be done either to prevent or regain the island if lost.

The first end would certainly be obtained by means of fortifications. But even if only so much were done as to prevent enemy's vessels from lying in any harbour, this would involve the expenditure of a very formidable sum.

It would be better to undertake first what would be necessary for effecting the recapture of the island. This involves the means of landing an entire army with all its material without molestation, of putting it in a position to take the offensive immediately under favourable conditions, and of having a place of security to fall back upon in the event of failure in the open field. In reply of the further question, whether one or two points of the coast should be selected for this purpose, I would certainly say two; for advantages not only double, but manifold, are to be derived therefrom. For suppose one point of the coast only prepared, should the enemy take position before it with his entire strength, it might happen that it would be altogether impossible to debouch, or the prospects of success be very much diminished. But if two points of the coast are so prepared, and the English army lands at that one where the enemy is not, there is no obstacle to debouching. And should the enemy take position before both points, he has committed the fault of dividing his strength, and the English army has good prospect of beating the enemy in detail. The existing fortifications of Cork are not sufficient for such purposes as the above, as they only serve to prevent an enemy on the leeward side from forcing his way into the harbor. The existence, however, of these fortifications and of the harbour establishments, and the geographical situation of Cork Harbour, with reference to a British fleet stationed on the English coast, and an army held ready for embarkation, should be sufficient to designate this as one of the places spoken of, whilst the other should be in the northern section of the eastern coast near Dundalk, if the natural conditions are appropriate. Not at Dublin, certainly, for this would be too near Cork, and the development of the town would be interfered with. Cork and Dundalk would be, so to speak, the *têtes du pont* which would facilitate the recapture of Ireland, and would also serve for any troops to retreat upon which

had been unable to prevent the enemy's landing, and obliged to retire before numbers.

5 A GENERAL ARSENAL.

Notwithstanding that Colonel Jervois has drawn attention to the importance of a central arsenal, I cannot refrain from saying that its importance appears to me so great, that every means should be adopted to call it into existence as early as possible.

At present, all the supplies for the army are on the coast, which is at the same time the frontier, and consequently so placed as to be the most exposed to the enemy's attacks. This is contrary to the natural order of things, and might lead to the very worst consequences.

Even Woolwich is not properly placed in view of war. The central arsenal should contain all the stores of the Army, and partly of the Navy also, and should accommodate all workshops for the manufacture of war material.

In order not to weaken the active army in the field too much, the arsenal should be capable of being defended for a long time by a small number of men: this obliges us to search for a locality where nature has already done much to facilitate defence. The fortifications should be designed with a view to mere defence, for the offensive might lead to losses too serious for a small garrison. There would be a wise economy in the creation of a central arsenal, for at present the stores being scattered on the coast lead to many places being more strongly fortified than they otherwise would be, merely because they are depôts of supplies.

I am not inclined to dispute the point as to whether Sheffield or Cannock Chase would be best adapted for a central arsenal. This is matter for special local inquiry. I would only remark that the local should be one where Art comes to the aid of Nature only, and not where everything must be left to Art: for such artificial fortifications are expensive, and never can assume the large proportions to be met with where Nature herself co-operates in the defence, as she often does on a gigantic scale.

6. ARMY ORGANIZATION.

On the Continent the English military organization is often blamed, and the institution of Volunteers laughed at. For my part I have never been able to join in this blame and derision.

The system of voluntary enlistment is of course far less of an injury to personal freedom than conscription, or any form of compulsory levy; and the raising of Volunteers is less injurious still. Enlistment provides soldiers of long service, which is particularly desirable for non-commissioned officers, and also for soldiers who enter the cavalry or other special arm. Under the law of universal liability to service prevalent on the Continent, the want of old soldiers is bitterly felt, and everything put into operation to meet the disadvantage has been insufficient to wean men from the attractions of their homes. I believe, therefore that England ought to adhere to her present system of enlistment for the standing army, all the more because she requires a system of long service, scattered as her troops are over the world, and hampered by the difficulties of foreign relief.

The institution of Volunteers I would also preserve, with all its shortcomings; for it has the great advantage of being of spontaneous growth, and only requiring fostering care. I am persuaded that the Volunteers, if called to arms by the country in

earnest, would be on the spot and ready for action in a trice.

This is guaranteed by the patriotism of the Briton, his habit of self-reliance, his respect for the law and public opinion, the consciousness of the possession of institutions more liberal than any which could be given him by others, the memories of former victories, and, finally, a great contempt of the enemy. Where such powerful factors work in unison, no one should despair of such an institution, while its bare existence warns the enemy that he must use far greater foresight than if he had merely the standing army to deal with.

From my point of view, the only disadvantage of the standing army and the Volunteers is that their numbers are too small; a defect all the more sensible because, if a general war broke out, England would probably be obliged to strengthen the garrisons in India and the colonies considerably, and to send them strong reinforcements from the mother country. The words of Marshal Bugeaud on this subject are remarkable: "L'infanterie Anglaise est la plus redoutable du monde, mais heureusement il n'y en a pas beaucoup."

If England has gained many victories on the Continent in spite of the small strength of her army, it must not be forgotten that she was generally acting with allies. Indeed British commanders have derived the further advantage from their allies that they have been able to use them for duties for which the English soldier is least well adapted—e.g., skirmishing; for the red* uniform, and the contempt of cover which is the consequence of an excessive daring, lead to heavy losses on such service. England should accustom herself to consider the possibility of having to rely upon her own resources in the case of a general war, and of encountering a coalition which could bring a superiority of force against her. Under such circumstances nothing remains but to develop one's own forces to the utmost; and as this pressure can only be of a temporary nature, the question of personal freedom should be set aside for the time, and every man fit for service be called to action. Without abolishing what exists, and setting up something different in its place, it would be well if England raised her Militia infantry at least in the sense of the law of universal service, training them solely as auxiliaries for the defence of the mother country.

As a pattern for such Militia, I would recommend that of Switzerland, which, though costing very little, showed in 1870 a readiness for service which did them the highest honour.

The first training of recruits, and the periodical call-out to manoeuvres, would certainly affect the national economy considerably. Colonel Jervois reckons the cost at 30l. sterling per. man per year; but where the independence of the country is actually at stake, money considerations sink into insignificance. If Switzerland, with her republican feelings, and her possessions, which no one covets, recognizes this universal obligation, how much more should England do so, whose riches are the envy of the Continent, and whose foreign possessions are constantly exposed to so many dangers!

7. LONDON.

Having referred to what seemed proper to supplement the first eight chapters of the

"Lecture," I now pass the consideration of what I regard as its chief conclusion—the fortifying of London* which my honoured friend wishes to see effected.

The importance of the subject is such that I think it necessary to say something on the theory of the subject; for in all matters of fortification there is a theory, and the application of it to a given case is a subsequent stage. The defence of capitals is a subject for such a special theory, and perhaps this question has never been so well ventilated as in the present century. While some advocated the defence of capitals, others, and among them even military men, have declared it to be folly; and therefore, if we ask, in this case, which is the true view, the answer cannot be made, as it so often is, that a middle course is the true one, for here there is no middle course—either fortify, or do not fortify! "To be, or not to be, that is the question."

When it is considered that in such fortification strategical and tactical data are but part of the determining factors, and that other circumstances interpose themselves which must have great practical weight, it is clear that the answer may be given with as much justice in the negative as in the affirmative, according to the special case. Wherever the whole life is concentrated in the capital, and this is exposed, to be easily reached by the enemy, as in the case of Paris, fortification appears highly necessary; but where those conditions are different, as at St. Petersburg (on the land side), or Moscow, or Madrid, the argument for fortification is lost; or if it still holds good in part, the question arises whether the expenditure which the fortification of the capital demands would not be better applied to other military measures.

It is chiefly among continental people that the question of the fortification of the capital arises. Having communication with their neighbours over dry land, they are always liable to attack; and the less the distance and intervening obstacle, the greater the apprehension. This is increased in proportion as the country is centralized, for with the capital the command of the whole country has often been lost, although a considerable extent of territory remained untouched. On this theory we maintain that in the French interest the fortification of Paris is in a high degree justifiable; while, on the other hand, Spain, which with its provincial divisions is decentralized rather than centralized, would do much better to apply her money towards the fortification of the provinces on her border than upon the defence of the capital.

Turning our attention now specially to London, it would be absurd to maintain that London fortified would not offer a much longer resistance than London unfortified. But although London forms, officially, the central point of the countries subject to the sceptre of England, can this great city be considered as a capital in the same sense as the capitals of continental countries which theorists would recommend to be fortified?

To answer this question right we must go back into the book of History, and there we find that those peoples who, like the Anglo-Saxons and Normans, took possession of the British Islands, made it their first business to divide the lands and to secure places of residence upon them. They in no way sought to collect themselves in towns; as did the founders of Venice, and, at an earlier date, those of the Roman municipalities.

* A very doubtful assertion this. Many practical soldiers declare red to be one of the best conspicuous colours at a moderate distance. C.C.C.

When subsequently, in England, markets were established, and towns arose, and the "gentlemen" built themselves houses therein, these were only for temporary wants. The country seat continued to be so much the principal consideration, that it actually gave rise to an architecture of its own, with a wider range than is to be found in any other country. Thus, from the earliest times in England a peculiar country life has been developed, and the true house of the gentleman is his country-seat, not the town-house which he has built in London, for the most part within such limited horizontal dimensions that the several living rooms are stacked in tiers one above another. The English gentleman, in contradistinction to his fellow on the Continent, passes the greater part of the year, even the winter, in the country; to London he goes merely for business, or to meet friends, or for such amusements as are to be found only where men congregate. In spite, therefore, of the colossal size to which London has attained, it is not to be compared with capitals on the Continent, where the house of the gentleman is in the capital, and the estates he owns are merely regarded as possessions to be occasionally visited.

It under the name of the capital of a country we understand the focus of its life and the development of its civilization, we must in the case of England, apply the term to a far wider area than the limits of London would offer.

Geographers may be perfectly right in describing London as the capital; but in a politico-strategical question such as this, I should say that the whole island of Great Britain, or at least England proper, is the capital of all the countries which are governed from the British throne.

London has so overflowed into the surrounding country, that it would puzzle the geographers themselves to define its true limits; and if they were to fix the limit today, it would be wrong again (and so much the better for the Marquis of Westminster) to-morrow. I have thought it right to notice these facts, because London must be regarded with other eyes than any continental city, and because, as a rule, books on the art of fortification speak of capitals under merely military conditions, and do not allude to the bearings of national culture and of politics on the question.

Besides the gentlemen's country-seats, manufacturing establishments have been set up which appear gigantic compared with those on the Continent, and are, in fact the main source of England's power and wealth, agriculture and breeding of animal being as nothing in comparison. These mines of wealth are so valuable that cannot be a matter of indifference whether they go on, or be occupied by the enemy and come to a standstill.

The argument that the stoppage of the factories would create a starving proletariat class, of which the Government would find it to disembarass itself when peace was regained, is alone sufficiently weighty to cause any great extension of the fortifications to embrace these establishments. We thus come involuntarily to the sea, and as the coast forms a line, having in front of it that great wet ditch, I affirm my conviction that the circuit of the fortifications of London is nowhere else to be sought than on the line of the coast, and that any funds designed for the defence of London should be employed to perfect the fortification of the coast.

England, whose insular position makes her differ so vastly from every continental

nation, should draw advantage from these circumstances. She can do so all the better from the possession of a high developed network of railways, while the distances of the coast-line from any army stationed centrally are, in comparison to other countries very small, and the country so thickly populated that a sufficient number of combatants ought to be soon got together to throw against an enemy attempting to land with good prospect of success. If such a force can be brought at once on the spot, a moderate number may prove quite sufficient. For landing an army is an operation which, to be successful, should not be in the least impeded by the enemy, even though weather and coast are favourable.

If we consider successful instances of landing, as in 1840, near Beyrout, and in the Crimea in 1854, we should not forget that these landings were not in the least disputed by the enemy; while on the other hand another case in 1840 shows that three hundred troops, without any guns, were able to prevent the landing of the crews of three men-of-war (the *Benbow*, *Carysfort*, and *Zebra*), mounaing together one hundred and twenty-four guns. The risk of being forced to retire by the smallest resistance is the reason why naval officers of experience are so careful in selecting places for disembarkation. This in particularly the case when the disembarkation is on a large scale, for then there is more time for bad weather to come on, and the danger arises lest the party landing should be obliged to break off their operations, leaving the troops already on shore to their fate, when they would probably be soon thrown into the sea by superior forces. This is the reason why different points of the coast are of every different importance to the defender with respect to a landing. Small bodies of troops could land almost anywhere, but entire armies only where the locality is peculiarly suitable. Moreover the advance of the fortification of London to the coast would enable the Navy to take an active part in the defence, which it could hardly do were it withdraw from the coast. In 1870-71 the crews of the French Navy undoubtedly took a stirring part in the defence of the forts of Paris; but how much more service would they not have rendered if Paris had lain upon the sea, when they could have made use of their armed ships, and would have been acting on an element, and in localities which they knew.

(To be continued.)



TO CONTRACTORS.

INTERCOLONIAL RAILWAY.

THE Commissioners appointed for the construction of the Intercolonial Railway, give Public Notice, that they are prepared to receive Tenders for the erection of Passenger and Refreshment Buildings, Freight Building, and Engine House, at Campbellton, N.B., and for Passenger and Refreshment Building, at New Castle, N.B. Plans, Specifications, and forms of Tender may be seen at the Office of the Chief Engineer, Ottawa and the Engineers' offices at Rimouski, Dalhousie, New Castle and Moncton.

Tenders may be for the whole, or any less number of the buildings, and will be received marked "Tenders for Buildings," at the Commissioners' Office, Ottawa, up to 12 o'clock noon, on FRIDAY, the 31st January, 1873.

A. WALSH,
ED. B. CHANDLER,
C. J. BRYDGES,
A. W. McLELLAN,
Commissioners.

Commissioners Office,
Ottawa, Dec. 4th, 1872.

51-4in

Prospectus for 1873.---Sixth Year.

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