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# The Volunteer Review

## AND MILITARY AND NAVAL GAZETTE.

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

VOL. VIII.

OTTAWA, (CANADA,) TUESDAY, NOVEMBER 17, 1874.

No. 46.

### NEWS OF THE WEEK.

The citizens of Ottawa were thrown into a fearful state of excitement on Friday morning last, a telegram having reached the City containing the news of the death of Her Most Gracious Majesty Queen Victoria, but we are happy to say a subsequent despatch relieved their fears, with the joyful intelligence that Her Majesty was still alive and in the enjoyment of her usual good health. The *canard* originated in a Fleet street bar room. The Queen, it is now stated, will leave Balmoral on the 19th of November, and arrive at Windsor Castle on the 20th, where Her Majesty will remain until the 16th of December, and then leave for the Isle of Wight, where she will spend her Christmas.

A despatch to the London *Daily News* from Vienna, of the 13th, says:—"Strange rumors are circulating in St. Petersburg of a social conspiracy, in which conspirators made an unsuccessful attempt to murder the Czar, and number of arrests have been made in consequence in Moscow."

Information received in Diplomatic circles at Washington, confirms the report that Spain has paid the indemnity to England growing out of the *Virginus* affair.

The *Pall Mall Gazette* says Prussia has declined the proposal made by Russia for a revision of the boundary line between the two countries.

The *Belleveille Intelligencer* of the 12th inst. says:—"A manufactory of butter from tallow has been started in Toronto. The proprietor was here a few days since, when he wished to purchase 1,800 gallons of milk daily, to mix with the tallow in the manufacturing of the butter. He offered 14c per gallon for that amount of milk delivered at the cars daily. The tallow is torn into shreds and churned along with the milk by a process known only to those initiated. It is said that it requires good judges to detect the difference between the butter thus manufactured and the pure article."

The Grand Trunk Railway Company of Canada, it is said, will make Boston the terminus of its freight lines, and is likely to complete connections with the Michigan central road. This will give it control of a large transportation interest, and it is already building a number of floating elevators for harbor use, and arranging for a number of ocean steamers to ship its grain and other freight.

The Hon. Mr. Vall, Minister of Militia, who we are happy to say has recovered from his indisposition, arrived in Ottawa on Wednesday evening last, and is now attending to the duties of his Department.

Seven hundred men from the garrison of Irun, made a sortie in the direction of Fontarabia and effected a junction with the retreating forces.

Some thieves broke into the artillery barracks London Ontario, on Wednesday night last, and stole several carbines. A reward has been offered for their recovery.

The Republicans lost two hundred men in an attack on Mount Marco on the 10th. The fight lasted 4 hours. Wednesday morning the Republican army advanced in three corps to the right under Gen. Loma, turned the position of the Carlists at Oarsoon to the left under Gen. Purtella, and drove them from the mountains near Lea, turning their formidable trenches. The centre under Gen. Blanco, suffered severely from the heavy fire. Towards one o'clock in the afternoon the Carlists abandoned all their positions and retired into Navarra. The garrison of Irun in their sortie burned houses and farm buildings belonging to the Carlists, or which afforded them shelter. The havoc thus created was immense, all the country around was in flames.

The Turkish authorities of Scutari have captured thirty of the leaders in the outrages perpetrated on the Montenegrain christians in Bodgoritza.

The Republicans are endeavoring to cut off the Carlists from their base of operations to compel them to take refuge in France or surrender. The result of their efforts is as yet unknown. Gen. Mariones at the same time is endeavoring to re-occupy Pampeluna. The garrisons of Bilboa, Vittoria and Irun are ready to act in concert with the present movements.

Despatches from Vienna announces that diplomatic information has been received from Constantinople to the effect that orders have been issued by the Porte to concentrate the Turkish troops near the Serbian and Montenegrin frontiers, and that the Governments of Janina and Presend in Albania, have been ordered to organize the Mahomedan inhabitants of the province.

A Calcutta despatch says, it is reported that the prisoner lately arrested at Gwalior, as Nana Sahib has furnished proof that he is another person, and this evidence has, it is stated, been accepted by Lord Northbrook, the Viceroy, as satisfactory. It is therefore probable that the prisoner will be released.

The Permanent Committee of the Assembly held its last sitting on the 12th. The Left renewed its protest against the suppression of the Republican journals,

Count Von Arnim was again arrested on the 12th and conveyed to a police station. It is reported that the count received a copy of his indictment on Tuesday last, and the only charge brought against him is for the suppression of official documents.

The loss of Carlists in the engagement near Irun was heavy. When they retreated, they succeeded in carrying off their guns. It is believed they will return to Estella. Government has received intelligence that General Lazerna has entered Irun.

Don Alphonso issued an address to his troops before he quitted Spain. He says his temporary retirement is solely caused by a royal order depriving him of his command in Catalonia. Don Carlos approves of his withdrawal.

The Russian Government has sent out orders for the speedy completion of fortresses on the Khivan frontiers.

The *Gloss* says the Government has resolved to introduce a system of compulsory and elementary education. A trial is to be made at St. Petersburg of the Berlin system, and it is thought the new schools will be opened by the 15th instant.

The Khan of Khiva has informed Colonel Ivanoff, commander of the Russian garrison on the Oxus, that he has neither soldiers nor money with which to overcome his rebellious Turcoman subjects, and he asks for aid of the Russians. Colonel Ivanoff has threatened the Turcomans with speedy reprisals if their outrages are continued.

The *Standard's* special telegram from Hendaye says the retreat of the Carlists from Irun ended in a general stampede. Hundreds of burning houses mark the progress of the Republicans who occupied San Martari at nine o'clock Thursday morning, and are on their way to destroy the foundries at Vera, to which place the Carlists first retired. The Carlists before leaving their old positions burned the houses of Republican sympathizers. One of their leaders Cebellos, is accused of treachery, and has fled. Another, Mendiri, is wounded. Gen. Lazerna has received orders to return to the line of Ebro. After leaving a strong garrison at Irun he was to return with his main force to San Sebastian and re-embark for Santander.

A car load of farming machinery was shipped from Newcastle, Ont., for Germany, and several more are to follow.

Paul Boyalon, of New York, with his life preserving apparatus, swam the whole length of the Lake on the 11th.



comrads—this should be seen in advance by the colonel, who should designate his musicians or company cooks as hospital attendants with a white rag on their arm to indicate their office. A wounded man should go himself (if able) to the surgeon near at hand, or, if he need help he should receive it from one of the attendants and not a comrade. It is wonderful how soon the men accustom themselves to these simple rules. In great battles these matters call for a more enlarged attention, and then it becomes the duty of the division general to see that proper stretchers and field hospitals are ready for the wounded, and trenches are dug for the dead. There should be no real neglect of the dead, as it has a bad effect on the living, for each soldier values himself and comrades as highly as though he were living in a good house at home.

The regimental chaplain, if any, usually attends the burials from the hospital, and should make notes and communicate details to the captain of the company and to the family at home. Of course it is usually impossible to mark the graves with name, dates, etc., and consequently the names of the "unknown" in our national cemeteries equal about one half of all the dead.

Very few of the battles in which I have participated were fought as described in European text books, viz., in great masses, in perfect order, manœuvring by corps, divisions and brigades. We were generally in a wooded country, and though our lines were deployed according to the tactics, the men generally fought in strong skirmish lines, taking every advantage of the shape of ground, and of every cover. We were generally the assailants, and in wooded and broken countries the "defensive" had a positive advantage over us, for they were always ready, had cover and always knew the ground to their immediate front, whereas, we, their assailants, had to grope our way over unknown ground and generally found a cleared field or prepared entanglements that held us for a time under a close and withering fire. Rarely did the opposing lines in compact order come into actual contact, but when, as at Peachtree Creek and at Atlanta, the lines did become commingled, the men fought individually in every possible style, more frequently with the musket clubbed, than with the bayonet, and in some instances the men clinched like wrestlers and went to the ground together. Europeans frequently criticised our war, because we did not always take full advantage of a victory; the true reason was that habitually the woods served as a screen, and we often did not realize the fact that our enemy had retreated, till he was already miles away and we again entrenched, having left a thin skirmish line to cover the movement and to fall back to the new position. Our war was fought with the muzzle loading rifle. Towards the close I had one brigade (Walcutt's) armed with breech loading "Spencer's," the cavalry generally had breech loading carbines, "Spencer's and Sharps," both of which were good arms. The only change that breech-loading arms will probably make in the art and practice of war, will be to increase the amount of ammunition to be expended and necessarily to be carried along; to still further "thin out" the lines of attack, and to reduce battles to short, quick, decisive conflicts. It does not in the least affect the grand strategy, or the necessity for perfect organization, drill and discipline. The companies and battalions will be more dispersed, and the men will be less under the immediate eye of their officers, and therefore a higher order of intelli-

gence and courage on the part of the individual soldier will be an element of strength.

When a regiment is employed as skirmishers, and crosses an open field or woods, under heavy fire, if each man runs forward from tree to tree, or stump to stump, and yet preserves a good general alignment, it will give great confidence to the men themselves, for they always keep their eyes well to the right and left and watch their comrades; but when some few hold back, stick too close or too long to a comfortable log, it often stops the whole line and defeats the whole object. Therefore, the more we improve the firearm, the more will be the necessity of good organization, good discipline and intelligence on the part of the individual soldier and officer. There is, of course, such a thing as individual courage, which has a value in war, but familiarity with danger, experience in war and its common attendants and personal habit, are equally valuable traits, and these are the qualities with which we usually have to deal in war. All men naturally shrink from pain and danger, and only incur its risks from some higher motive or from habit, and I would define true courage to be, a perfect sensibility of the measure of danger, and a mental willingness to incur it, rather than that insensibility to danger of which I have heard far more than I have seen. The most courageous men are generally unconscious of possessing the quality, and, therefore, when one professes it too openly by words or bearing, there is reason to mistrust it. I would further illustrate my meaning by describing a man of true courage to be one who possesses all his faculties and senses perfectly, when serious danger is actually present.

Modern wars have not materially changed the relative values or proportions of the several arms of service: infantry, artillery, cavalry, and engineers. If anything, the infantry has been increased in value. The danger of cavalry attempting to charge infantry armed with breech loading rifles was fully illustrated at Sedan, and with us very frequently. So improbable has such a thing become that we have omitted the infantry square from our recent tactics. Still, cavalry against cavalry and as auxiliary to infantry will always be valuable, whilst all great wars will, as heretofore, depend chiefly on the infantry. Artillery is more valuable with new and inexperienced troops than with veterans. In the early stages of the war, the field guns often bore the proportion of six to a thousand men, towards the close of the war one gun, or at most two, to a thousand men, was deemed enough. Sieges, such as characterized the wars of the last century, are too slow for this period of the world, and the Prussians recently almost ignored them altogether, penetrated France between the forts, and left a superior force "in observation" to watch the garrison and accept its surrender when the greater events of the war made further resistance useless—but earth forts, and especially field works, will hereafter play an important part in wars, because they enable a minor force to hold a superior one in check for a time, and time is a most valuable element in all wars. It was one of Professor Mahan's maxims that the spade was as useful in war as the musket, and to this I will add the axe. The habit of entrenching certainly does have the effect of making new troops timid. When a line of battle is once covered by a good parapet made by the engineers or by the labor of the men, it does require an effort to make them leave it in the face of danger; but when the enemy is entrenched it becomes

absolutely necessary to permit each brigade and division of the troops immediately disposed, to throw up a corresponding trench for their own protection in case of a sudden sally. We invariably did this in our recent campaigns, and it had no ill effects, though sometimes our troops were a little too slow in leaving their well covered lines, to assail the enemy in position or on retreat. Even our skirmishers were in the habit of rolling logs together, or of making a lunette of rails with dirt in front of cover their bodies, and though it revealed their position I cannot say that it worked a bad effect; so that as a rule it may safely be left to the men themselves. On the "defensive" there is no doubt of the propriety of fortifying, but the assailing army the general must watch closely to see that the men do not neglect an opportunity to drop his precautionary defences, and act promptly on the "offensive" at every chance.

I have many a time crept forward on the skirmish line to avail myself of the cover of the pickets' "little fort" to observe more closely some expected result, and I always talked familiarly with the men, and was astonished to see how well they comprehended the general object, and how accurately they were informed of the state of facts existing miles away from their particular corps. Soldiers are very quick to catch the general drift and purpose of a campaign, and are always sensible when they are well commanded or well cared for. Once impressed with this fact, and that they are making progress, they bear cheerfully any amount of labor and privation.

In camp, and especially in the presence of an active enemy, it is much easier to maintain discipline than in barracks in time of peace. Crime and breaches of discipline are much less frequent, and the necessity for courts martial for less. The captain can usually inflict all the punishment necessary, and the colonel should always. The field officers' court is the best form for war, viz., one of the field officers—the lieutenant, colonel or major—can examine the case and report his verdict, and the colonel should execute it. Of course there are statutory offences which demand a general court-martial, and these must be ordered by the division or corps commander; but the presence of one of our regular civilian judge-advocates in an army in the field would be a first-class nuisance, for technical courts always work mischief. Too many courts-martial in any command is evidence of poor discipline and inefficient officers.

For the rapid transmission of orders in an army covering a large space of ground, the magnetic telegraph is far the best, though habitually the paper and pencil, with good mounted orderlies, answer every purpose. I have little faith in the signal service by flags and torches, though we always used them; because almost invariably when they were most needed, the views was cut off by intervening trees, or by mists or fogs. There was one notable instance in my experience; when the signal flags carried a message of vital importance over the heads of Hood's army, which had interposed between me and Alatoona, and broken the telegraph wires—as recorded in my "Recollection;" but the value of the magnetic telegraph in war cannot be exaggerated, as was illustrated by the perfect concert of action between the armies in Virginia and in Georgia in all 1864. Hardly a day intervened when General Grant did not know the exact state of facts with me, more than 1,500 miles off as the wires ran. So on the field a thin insulated wire may be run on improvised stakes or from tree to

tree for six or more miles in a couple of hours, and I have seen operators so skillful, that by cutting the wires they would receive a message with their tongues from a distant station. As a matter of course the ordinary commercial wires along the railways form the usual telegraph lines for an army, and these are easily repaired and extended as the army advances, but each army and wing should have a small corps of skilled men to put up the field wire and take it down when done. This is far better than the signal flags and torches. Our commercial telegraph lines will always supply for war enough skillful operators.

The value of railways is also fully recognised in war quite as much, if not more so, than in peace. The Atlanta campaign would simply have been impossible without the use of the railroads from Louisville to Nashville—185 miles—from Nashville to Chattanooga—151 miles—and from Chattanooga to Atlanta—137 miles. Every mile of this "single track" was so delicate that one man could in a minute have broken or moved a rail, but our trains usually carried along the tools and means to repair such a break. We had however, to maintain strong guards and garrisons at each important bridge or trestle—the destruction of which would have necessitated time for rebuilding. For the protection of a bridge; one or two log blockhouses, two stories high, with a piece of ordnance and a small infantry guard usually sufficed. The blockhouse had a small parapet and ditch about it, and the roof was made shot proof by earth piled on. These points could usually only be reached by a dash of the enemy's cavalry, and many of these block houses successfully resisted both cavalry and artillery.

(To be Continued.)

**THE NEW FRENCH RIFLE.**—"Orders," says the *Journaal de Paris*, "are said to have been given to proceed immediately with the manufacture of the new musket, model 1874 (system Gras). Those weapons will only be constructed in the workshops of the State; private firms will not be called upon to assist. The calculation is that in about a year a million of them will be made. Then only will the new arm be placed in the hands of the soldiers of the active army, and the men of the reserve and the territorial army will be drilled in the management of this musket. The chassepots will be withdrawn, and they will be altered to the new pattern. France has at present 1,800,000 of them. One year will be necessary for that transformation; so that by adding 200,000 new ones to be constructed in the interval, the Minister of War counts upon possessing, at the end of 1876, 3,000,000 of muskets (model Gras) with a store of 250 metal cartridges per weapon. The manufacture will afterwards be continued on a normal scale, and in proportion to the resources of the ordinary Budget of War. The news concerning the artillery is no less satisfactory. France will have at the end of the year 1875. 495 batteries of six cannons each, of balibres 5 and 7, with iron carriages, the pieces, breech loading, on the Reffye system. The results of them are excellent, and events may be awaited without apprehension. But, from the beginning of next year, the construction of bronze cannon will be abandoned, and those in steel on the Latholle system will be adopted. The metal obtained in Le Creusot, and the composition and make of it will leave nothing to be desired."

RIFLE COMPETITION.

RIFLE MATCH.

YORK, Oct. 15th, 1874.

To the Editor Grand River Sachem.

DEAR SIR: I send you herewith a report of the 8th annual Rifle Match of the 37th Battalion, held on Regimental Ranges, near York, on 30th September and following days, which you will be good enough to publish in your valuable paper. Owing to the prevalence of a very heavy wind during the whole time the match was in progress, the scores are not so large as they would have been under more favourable circumstances. The firing and scoring this year was conducted in accordance with Wimbledon regulations. The subscription list, accounts, &c., will be forwarded for publication as soon as they are ready. The following are the scores of the winners:

1st Match—200 yards—10 rounds. Number of Competitors 62.

	Pts.	Prizes
Pte J S Nelles	24	\$4 00
Ens Cranston	23	3 00
Corpl Hill	23	2 50
Pte G Alward	23	2 00
Lt Adj Tuck	23	2 00
Corpl S Wilson	23	2 00
Q M Sergt Gill	21	2 00
Sergt Agnew	21	2 00
Capt Glenn	20	1 00
Capt Goodwin	20	1 00
Corpl Atkinson	20	1 00
Pte A Morrison	19	1 00
Pte G Richardson	18	1 00
Pte J Evans	18	1 00

2nd Match—500 yards—10 rounds. No. Competitors 60.

	Pts.	Prizes
Pte J Quinsey	30	\$4 00
Corp S Wilson	29	3 00
Pte D Pettigrew	28	2 50
Pte R McDonald	26	2 00
Pte W Wickett	23	2 00
Corpl S Nelles	22	2 00
Pt Running	21	2 00
Sgt Maj Griffith	20	2 00
Pte R Knox	19	1 00
Pte H Shealer	18	1 00
Pt J McCauley	18	1 00
Pte G Becks	18	1 00
Lt Armstrong	15	1 00
Pte A Morrison	16	1 00

3rd Match—500 yards—10 rounds. No. Competitors 51.

	Pts.	Prizes
Corp S Wilson	28	\$4 00
Pte J S Nelles	25	3 00
Pto D Pettigrew	25	2 50
Pte W Wickett	24	2 00
Ens Cranston	23	2 00
Pte Knox	21	2 00
Corp Pettigrew	20	2 00
Pte G Alward	18	2 00
Corpl J Covil	17	1 00
Sergt A Steel	17	1 00
Corpl S Nelles	16	1 00
Pte Atkinson	15	1 00
Pte English	15	1 00
Pte G Richardson	14	1 00

4th Match—600 yards—10 rounds, No. Competitors 46.

	Pts.	Prizes
Corpl Hill	16	\$4 00
Pte H Young	15	3 00
Corpl S Nelles	14	2 50
Sergt Lamond	13	2 00
Q M Sergt Gill	13	2 00
Pte G Alward	11	2 00
Corpl S Wilson	11	2 00
Sergt A Steel	11	2 00
Pte J S Nelles	11	1 00
Pte J Shealer	10	1 00
Lt Armstrong	10	1 00
Pte M Pettigrew	9	1 00
Pte R Knox	9	1 00
Mr Wells	8	1 00

5th Match—Officers Match—600 yard, 10 rounds. No. Competitors 12.

	Pts.	Prizes
Officer's Cup, Lt & Adj Tuck	20	
Enfield Rifle, Lt Col Davis	16	
Driving Whip, Ens Cranston	14	

6th or all Comer's Match—500 yards—10 rounds. Competitors 27.

	Pts.	Prizes
Pt D Pettigrew	30	\$4 00
Lt Armstrong	26	3 00
Pt Wickett	25	2 00
Ens Cranston	25	1 00
Lt & Adj Tuck	24	1 00

A. WILLIAMSON,  
Lieut. No. 1 Co.

RIFLE MATCH.

The annual match of the Cobourg Rifle Association was held at their Range, on Thursday and Friday of last week. The days were far from being favourable, the first day it was blowing heavy, first from the left and then changed round to the right, making it most difficult to shoot; the second day it was blowing half a gale with occasional showers; indeed the storm drum was hoisted on Wednesday night, giving warning of an approaching storm, but notwithstanding the unfavourableness of the weather, some very good shooting was made. There were a great number of competitors, and as our old Wimbledon friend, Lieut. MacNachtan, had announced he would shoot only for the aggregate prize, being the total of the several matches put together, much interest was felt as to who would prove himself the best man. The list of prizes was good, the highest honor being for the National Rifle Association Silver Medal. Although the final result shows that it was not kept in town, yet we have the satisfaction of knowing that it was one of our late town boys, Neil F. MacNachtan, raised in our midst, who proved himself a "worthy son of a worthy sire." Several of the prizes were carried off by strangers, but that is no discredit to us, when we know that they were crack shots. The shooting was exceedingly close, there being only one point between Mr. White for second and the first prize, and no less than three times for second place in the next match. In the first match Mr. White outstripped all competitors, making the splendid score of 35 out of 40, being an 18 and 17 out of 20, at each of the ranges. Below we give the results of the contest:

FIRST MATCH.

200 and 400 yds. Points.

Prize Silver Cup, H. B. White,.....	35
Prize Silver Cup, J. Featherston, ...	25
Camp Stool, John Morrow, ....	24
Purse of Money, G Gummow,.....	28
Silk Handf., Henry Martin,.....	21
Photo Frame and Bracket, Joseph Edgcombe,.....	18

SECOND MATCH.

400 and 500 yds. Points

Prize Silver Cup, N F MacNachtan ..	31
Prize Silver Cup, H B White,.....	30
Purse of Money, W Black, ..	26
Plate Mirror, J B Rolfe, .....	24
Ink Stand, D McNaughton,.....	22
Purse of Money, G Gummow,.....	22

THIRD MATCH.

200, 500 and 600 yds. Points

Prize N R A Silver Medal, Neil F MacNachtan .....	43
Silver Butter Cooler, D McNaughton, ..	34
Purse of Money, W Black,.....	34
Globe Lamp, H B White,.....	34
Photo of Winner, framed, G Gummow, .....	31
Purse of Money, J H Rolfe,.....	29

HIGHEST AGGREGATE.

Second and Third Matches.

1st Silver Badge of Ontario Rifle Association, E A MacNachtan, 75.—*Cobourg Star.*

RIFLE ASSOCIATION—FIRST ANNUAL MEETING.

The day was opened with the All Comers' match; seven shots at 300 yards, any rifle, prizes \$10 and \$5. A strong wind was blowing, right across the range, and the glare of the sun on the water, directly behind the target, made it impossible for those who shot first to distinguish either bull's eye or centre marks; before the match closed the light was better—but far from good—hence the poor shooting. Messrs. Newbury, Victoria, and Peele, New Westminster, tied with 20, and, it being a one range match, shot off, Newbury winning the first place.

Next came the Effective Militia Match, 200, 400, and 600 yards, five shots at each; prizes N. R. A. medal, \$10 and \$5. Quite a number who competed in other matches were debarred from this, not having put in all their drills; among them, Sergt. Brown, of New Westminster. The light was fair, but the wind continued troublesome, the necessary allowance being nearly 10 feet at 600. Ensign Wolfenden and Private James, Victoria, took first and second place, Ensign Peele, New Westminster, coming in third.

The competition for Governor Trutches Cup came next; same range as previous match. The wind made holding one's rifle steady at 200 yards quite a gymnastic feat. The cup was taken by Sergt. Butler, with a score of 45—very good, indeed, under the circumstances.

On the closing day, the light and wind continued the same during the firing; the sky was dull and overcast, and a fresh breeze was blowing from the left. The first prize was the London Citizens' Prize, a Martini-Henry rifle and 500 rounds of ammunition, the second man taking the entrance fees. Mr. Peele winner of the Lord Mayor's Prize was not allowed to compete. The ranges were 200, 300, and 600 yards, 5 shots at each. The rifle fell to Ensign Wolfenden, Victoria; Private Fletcher, Victoria, taking the second prize; Scores, 41 and 35.

The Match between teams of eight men

from the Navy and Militia, 200 and 400 yards, was won by the Militia team, Pte Cox leading the score with 32 points.

The United Service Match (open to naval men and militiamen) same ranges as previous competition, Prizes, Silver Watch, and \$10, came next. Both prizes fell to New Westminster, Sergt. Brown taking the first with 34 points, Ensign Peele second, with 33.

[NOTE.—In the last two competitions, the ranges originally fixed were 200, 400, and 600 yards; but the third range was omitted, owing to want of time.]

The Consolation Stakes wound up the firing; ranges 200, and 500 yards, 5 shots at each. Mr. Doffet, H. M. S. *Myrindon*, took the first prize (20), the second (\$5) falling to Private Rose, Victoria; scores, 30, and 28.—*Dorinton Pacific Herald.*

ENGLISH NAVAL POWER.

It is now nearly twenty years since it was recognised that the Navy was in a state of transition, which had commenced and was inevitable. After the lapse of time and a vast outlay of treasure, how is it that we are as far as ever from discovering the types for the war ships of the future? During this time monsters have been constructed, much lauded, and after a short trial, condemned as in no way approaching the desired vessel. A carefully selected commission (under Lord Dufferin) sat for some time. They were empowered to call before them every person whose experience and abilities and suggestions might aid them in arriving at the required object. In the report of that Commission no one of the vessels constructed was approved of, except one, not quite completed, which was confidently held up by a large majority of the Commission as the long sought for type of "line-of-battle ship" of the future, subject to the additions and alterations proposed by the Commission. On trial, the *Devastation* was found as deficient as any of her predecessors. This succession of failures may be fairly attributed to the fact that the tool makers were ignorant of the nature of the work upon which the tools were to be employed. Before commencing the construction of entirely new types of vessels, the vast changes which have actually taken place in consequence of the introduction of steam power, the immense development in artillery and firearms of every description—the application of the torpedo, the steam projectile, the ram, able to deliver a blow of tens of thousands of tons—all these supplemented by rail and telegraphs, should have been minutely considered. The great changes and novelties have greatly altered our position with regard to the military nations of Europe, by enabling them in a short time to become formidable Naval Powers, especially as our builders are quite ready to provide them with ships of the best construction. To the invaders of our Home Empire all these great changes and novelties can be of little service until they have landed, but for the defence all are, through our insular position, immediately available. There can be only one sure line of defence for us, and that is free of accidents and chances, without any dependence upon Channel fleets and fortifications, etc., viz. the united and simultaneous action of the military and naval forces. By rightly applying all the new to the old means which we possess, no enemy ought ever to touch our shores except as prisoners. Safe, therefore, at home against invasion by any possible combination of nations, our coast towns and coast commercial harbors, comparatively

secure under the old system, are now more liable to marauding raids, like those of Paul Jones, which will require special modes of defence. Many points of our Colonies and our Eastern Empire, formerly secure, are now liable to invasion. None of the new vessels are at all suited either for pursuing the invaders or serving on those seas, or for the protection of the coasts. The efficient blockade of an enemy's military ports under the new system of warfare is now impracticable; therefore, the assembling of squadrons and fleets, which was absolutely required for such purposes, must now become events of the rarest occurrence. A powerful fleet of fast-sailing troopships strongly armed with heavy stern chasers, each towing a tender with auxiliary steam power, could effect their escape, and be many days in advance of their pursuers before their true destination could be guessed. It must be remembered that such a squadron of vessels would have an opportunity of destroying our coal stations on the way. It behooves us, therefore, to consider with the most careful attention the means by which this increase of naval power could injure us, either at home or in our commerce and colonies, as many points hitherto considered secure and invulnerable are now no longer so. Had some such examination been instituted, none of the present vessels of the new forms would have, in all probability, been constructed. In this general consideration, the fact must be borne in mind, that as a Naval Power we are far ahead of every other nation in the world; that our national wealth, our great resources in engineering and ship building, will enable us to build four or five of the most elaborate naval constructions in less time than any other nation could build one; therefore, our advanced position, at least for a long time, is secure, and there is really no necessity for all these costly experiments at present. No nation could strike out the true type of the future without the fact being generally known before the completion of the vessel, at least, if a proper look out be kept. With the disappearance of the old types, the former theory and practice of naval warfare have become equally obsolete, and it is the extreme reluctance to recognise this fact which has been one of the causes of failure in the latest constructions. To arrive at the true type of the future, it will be necessary to free the mind as much as possible from all the technical phraseology, tactics, regulations, and "manoeuvres for battle or fleet sailing," such as were applicable to the ships of the foregone period. To talk of a line of battle ship is not applicable to the present time. It will infallibly be found that the larger the ship the more guns she carries, and the greater tonnage she admeasures, the less use will she be for general service, and the more easily will she be destroyed by the ram and the torpedo. We are glad to have such an authority as Mr. E. J. Reed, M. P., to support views maintained and published since 1855, by that highly distinguished officer, Admiral Sir George Rose Sartorius—"That before armor ceases to be superseded as a means of defence against guns, guns will themselves be superseded as a means of attack; and the ship itself, viewed as a steam projectile, possessing all the force of the most powerful shot, combined with the power of striking in all directions, will be deemed the most powerful weapon of attack that man's ingenuity has devised." "The smallest ram at a moderate speed is able to deliver a blow far heavier than is required to smash in the sides of any ship now existing or likely to be built."

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The Volunteer Review,

MILITARY AND NAVAL GAZETTE

"Unbought, unbought, our swords we draw,  
Toward the Monarch, fence the Law."

OTTAWA, TUESDAY, NOV. 17, 1874.

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

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

COLONEL STRANGE, in the example he has given us of the importance of Phalsburg and Ritchie, shows clearly what might have been the ultimate issues of the Franco-German war if such scoundrels as GAMBETTA, THIBAU and Co. had not, under the spacious plea of liberty for the people, thrust themselves into positions which they never should have occupied, and for which each a halter would have been the fitting reward. As the great lecturer indicates, the various constitutional systems of France have produced a strong lawyer and politician tendency in its affairs, it is quite probable the Tuetonic invasion would have met on the plains of

Chalons the same fate that awaited their Saracene prototypes at the hands of CHARLES MARRET; in which case Europe would have been delivered from the dread of a military despotism and the peace of the civilized world insured for another quarter of a century.

Common sense without consulting strategical reasoning would have now prescribed the conditions under which the defensive campaign for the salvation of France must be carried out; but there was a Council of War at Paris composed of one or two political Generals and guided by advocates whose business it was to climb to power at the expense of the country; as a consequence, the line of the Moselle was to be maintained at all hazards in order that the French Ministry might conciliate the Parisian mob with the idea that la belle France was a match for the whole world in arms, and that in any event Paris, which, as it were, crystallized all France as well as the whole world was secure; and that they should be enabled to meet the rascally plotters in the Legislative Assembly which was very foolishly allowed to continue its sittings, when the true national policy would have been to assume at once the whole country as being in a state of siege—decree a general conscription—seize and send the patriotic representatives to the front as soldiers, and let them prove in that capacity the value of their theories; but with traitors and self-seekers about the Executive it was impossible to make any effort which common sense might dictate. In accordance with this policy Marshal MACMAHON was ordered to advance to the support of BAZAINE at Metz, and in obeying that order consummated the ruin of France. With councils directed by civilians it is little wonder that French Generals blundered BAZAINE lingered at Metz in order to get a chance at striking the divided German Army which he expected would cross the Moselle north and south of that city; but they crossed the south while his forces were by the battle of Courcelles, which BAZAINE committed in error in fighting, having previously determined to fall back by way of Verdun, and instead of interposing between the German forces he allowed them to interpose between himself and MACMAHON without a chance of retrieving this fatal mistake. At this battle and the action at Mars la tour the artillery was the principal effective agent of the invaders' success. At Vionville and Ronville similar results followed—it was always the same—artillery massed on flank and handled with great skill. At Gravelotte the fire of 81 guns admirably handled decided the fate of that terrible battle, and as the lecturer says: "This concentration of fire to be produced in the heat of battle must be inaugurated and practiced at peace." Instances are given of the value of the training which produced such astounding results, and although the final catastrophe of Sedan was the greatest triumph

of German artillery," we may rest assured that the corresponding arm in the French service had been woefully neglected. In making the application of this lecture the gallant officer distinctly points out the defects of the French system and how it originated—he naturally divides this part of his subject into three parts: Scientific, Technical, and Tactical. Under the first he says, "comparing the French and German artillery officers under the first head, I am inclined to think the French artillery officers being a competitive *élève* of the *ecole polytechnique* was more highly trained to pure mathematics than the Germans to the exclusion of more practical artillery knowledge." Instance are given to prove this defect for which France has suffered so severely, and in the direction of which not only ourselves but the British army has been quietly drifting. Under the technical head both the gun and gunner is considered—the history of the rifled field gun in France and its comparative value with the German compared showing that the latter had the advantage in shape of projectile and initial velocity and a valuable table of the comparative ranges of British and Foreign artillery given—even in such matters as the fuzes requisite to explode the shells the Germans had the advantage. In comparing the gunners of both armies the lecturer says, "But I am of opinion the main difference lay in the man and his training: Was the French gunner educated up to his weapon? The Prussian system of universal service forces into the ranks of their artillery a very large proportion of highly educated intelligent men. It was an easy task to select those who combined intelligence with natural quick sight and steadiness of nerve and entrust the pointing of guns to these men only. The French army, like the English, being recruited mainly from the poorer and less educated classes it is more difficult to get this selection of marksmen. In the British service it has not yet been attempted, and thousands of pounds sterling are fired away by men who may be short sighted or too illiterate to read the figures on a tangent scale of time fozes. In the French service there was an effort to remedy this by selecting *Pointeurs*, but the character of the modern French seems to place them at a disadvantage in the use of arms of precision and the old *Furcur-Francaise* of historic chivalry has a tendency to waste ammunition."

"The first artillery tactical consideration is mobility without which there can be no application of tactics in the field." The lecturer then shows them that the French had "no practical mobility," because no provisions were made to transport the gunners with the gun. In the German army sufficient artillerymen to man each field piece are transported on the axle tree seats and *hatter boxes*, so that they move at their position and bring their gun into action

at the same time without the men being exhausted (by a run in the rear or having to await the ammunition waggon; the time gained by this arrangement is and has been of incalculable value. The lecturer does not go into all the details on this subject, and only glances at the fact that the Franco-Prussian contest was the first "in which both sides have been completely armed with breech-loading small arms and rifled cannon. Previous struggles shows us chiefly what to avoid and though general principles remain unaltered their application must not be fettered by the old stereotyped idea that artillery must conform to its infantry, for as a rule the limit of infantry fire is the commencement of modern artillery efficiency."

This being the first part of a most valuable practicable paper on a subject of surpassing importance to ourselves to a close; and it shows clearly that one of the chief necessities of a modern army is a numerous and well trained artillery force, while it may be possible to improvise the other arms of the service, it is utterly impossible to create artillerymen at a moment's notice. In the organization of the Canadian army that fact has been totally lost sight of, and yet it above all others furnishes the very material to make the right sort of artillery soldiers, and it gives full scope to that practical training which Col. STRANGE shows can be made so efficient without a knowledge of the "higher mathematics" for the service of the country.

The following article on Offensive Torpedoes is copied from the London Times. We cannot argue with the writer that it will ever become an offensive weapon of naval warfare in any higher degree than its prototypes the old fireships which could either be sent to the bottom by shot, avoided by seamanship or towed out of them by during.

As an engine specially applied to naval warfare, we first meet the torpedo under the form of an explosion ship. The first recorded instance of this method of employing locomotive mines was in 1535, when the inhabitants of Antwerp destroyed a boom which had been thrown across the Scheldt by the Duke of Parma while he was besieging the town. A number of vessels filled with gunpowder and combustibles of various kinds were arranged so as to explode either by clockwork or slow match, and were then allowed to drift with the tide against the boom. The result was most successful—the explosion vessels blew up with the terrific violence, destroyed a great part of the boom, and killed 800 of the enemy.

During the wars of the 17th century we frequently used explosion vessels, and in 1809 a boom in Basque Roads was successfully destroyed by this means by Admiral Cochrane. But as the science of torpedoing advanced, this method came to be looked upon as a very crude and wasteful way of expending gunpowder, and for many years it was quite given up. The tremendous ef-

fect, however, of the explosion of the gun powder magazine at Erith, in October, 1864, appears to have led Admiral Porter, of the United States Navy, in the following December, to attempt the destruction of Fort Fisher by an explosion vessel. The powder vessel was towed in and anchored at about 400 yards from the fort; the party in charge then applied the match and took to their boats. In due time the vessel exploded, but beyond creating a temporary panic among the sleeping garrison, no injury resulted. This is the last recorded instance of the use of an explosion vessel. The method could only be successfully applied under special conditions, and as the explosion ship was always abandoned by her crew and left to the mercy of the wind and waves for a considerable distance, the chances were against her ever reaching her destination, unless drifted to it by a direct current. With a view of obviating this difficulty, an artillery officer in 1862 proposed to the Ordnance Select Committee that explosion ships should be steered by electricity. He suggested that by a system of electro-magnetic leverage it would be possible so to govern machinery in connection with the steam engines of the vessel, that the whole operations of going ahead, reversing, and steering would be completely under the command of an operator at a distance, and that an explosion ship paying out a cable astern could thus, without crew, be put in motion and steered in any direction. This novel proposal was, however, at that time in advance of the age, and it was not until about ten years afterwards that any trials were made in this direction.

The matter appears to have been brought to the notice of the Russian Government in 1871 by Lieutenant Colonel Von Scheibler. The propelling power was a screw worked by compressed air, and the torpedo was steered from the shore by means of electricity. The idea was taken up in this country and in Germany, and several successful experiments have been made on a small scale; indeed, it is reported that the German Admiralty have determined to adopt a locomotive torpedo of this kind. It is difficult, however, to understand the role of such a machine on a small scale. To be able to govern the movements from a distance of gigantic explosion vessel containing several hundred tons of gun cotton dynamite might, under certain circumstances, lead to the successful accomplishment of some coup d'essai, but to adopt all the necessary paraphernalia to a mere torpedo boat appears unnecessary.—*le jeu ne vaut pas la chandelle.*

During the 17th and 18th centuries many attempts were made from time to time to destroy vessels by means of drifting torpedoes; and in 1800 an American, Robert Fulton, endeavoured to introduce into the English service a torpedo boat of novel construction. Since that time the art of approaching an enemy's vessel unserved and exploding a mine beneath it has gradually developed, and it may confidently be affirmed that specially constructed boats by means of which torpedoes may, with considerable secrecy and safety, be brought into contact with an enemy's vessel and exploded on impact, will hereafter form an essential feature in torpedo tactics. The most promising mode of employing this method is that known as the 'outrigger system,' in which the torpedo is at the end of a long spar which is thrust out from the bows of the boat. This system was much used by both parties during the late American war, and it has since then been largely developed, both

in this country and in America. For a ship of war's launch the spar would be about thirty feet long and six inches diameter at the but, tapering to four inches at the top. The torpedo, a 100lb. case of gunpowder or gun cotton, would be fastened to an iron rod hooped on to the bottom of the spar. In making an attack the torpedo boat, with the spar raised so as not to enter the water, would stealthily approach the enemy's vessel under cover of darkness or fog. When close up the extremity of the spar would be lowered so as to place the torpedo about 10ft. under water, and in this position the torpedo boat would drive full tilt against her adversary.

Assuming the attack to be successful, and that a torpedo containing 100lb. of gun cotton was detonated under and in contact with the ship's bottom, the probability is that the biggest ironclad afloat, unless specially built in watertight compartments, would sink in a few minutes. Moreover, recent experiments have demonstrated that when a ship is at anchor it is most difficult by any system of improvised defence to guard thoroughly against an attack by well-manned and active torpedo boats. In spite of a crinoline framework of spars and booms projecting round the ship, supplemented by numerous guard boats rowing round and round, one or more torpedo boats, driven at full speed on a dark night, may succeed in leaping the obstacles and driving their infernal machines against the vessel. In fact the only defence which seems to offer any prospect of success is some means by which a bright light can be constantly brought to bear on the surface of the water to a considerable distance round the ship. The experiments last spring with the Wilde magneto-induction machine, by which vivid flashes of electric light were thrown on the water, may possibly lead to most important results in this direction. It is said that no boat could approach the light within a mile without being discovered, and that on a very dark night the Times could be read at a distance of 2,000 yards from the induction machine when the beam of light was brought to bear. An attack by outrigger torpedo boats during the daytime would probably end in failure, and if night can be turned into day the defence will gain a great advantage.

There are however, two systems of locomotive torpedo warfare that do not depend for success on stealthy tactics. The well known Harvey torpedo consists of a peculiarly shaped case capable of containing about 100lb. of gun cotton, and intended to be towed in such a manner that it will take up a position more or less on the quarter of the vessel to which the tow line is attached. The advantages of this system are that the torpedo can be towed by any vessel, and that a vessel with torpedoes in tow is to some extent secure against being rammed, the ram keeping off through fear of being torpedoed. Whether this system can successfully compete with the ram is, however, a question that mainly depends on speed and seamanship, and it can only be finally decided by actual contest.

Lastly, we have the motive torpedo, or 'sea devil,' as it may aptly be termed. Doubtless this is one of the most infernal machines that has ever yet been devised by man for the destruction of his fellow man. The 'Whitehead' or fish torpedo is an example. In appearance the Whitehead torpedo somewhat resembles a large shark. It is a long steel cylinder somewhat thicker than a man's body, with a venomous pointed snout at one end,



The rear half of its body contains those mysterious intestines by which it receives its motive power, the front half is packed with gun cotton, and the snout holds the detonating fuse. This marine monster is moved through the water by a screw at the tail driven by small engines, which are worked by a reservoir of compressed air. The torpedo can maintain a speed of about nine knots for about 300 yards, but it will run a mile at a less speed, and it can be so adjusted as to maintain its direction at any depth under water desired by the operator.

"The 'fish' is generally launched from a tube immersed about 4ft. below the water; it immediately dives under water to the depth to which it has been 'set,' and then continues to move on at that depth in a direct course until the reservoir is exhausted. It can be launched either from a boat or from an ironclad by night or by day. The officers who have been engaged in bringing the Whitehead system to perfection in this country have carried out numerous experiments and have made many important improvements; but its effect on future naval tactics cannot be accurately judged until some experience has been gained in real war. It may turn out to be difficult of employment in actions on the high seas, and its use may have to be confined to calm waters and adjacent ports; but the system will undoubtedly be largely tried in the next naval war."

PEOPLE who are fond of lauding the "Prussian System" will find food for reflection in the following paragraph from *Broad Arrow* of 10th October. It is evident the new German Empire needs another war of "more blood and iron" to consolidate it.

"A telegram from Berlin confirm us in the opinion we had formed of the very serious character of the new Landsturm Bill submitted to the State Council by the chancellor of the empire. Under this bill, we are told, the Empire may summon the Landsturm without requiring the consent of the State Council. To the Emperor alone likewise belongs the right of organising the new force, which is to be placed under the military code, and the individual members of which may be draughted into the Landwehr in case of necessity. This means that every able-bodied man in the country is placed at the Emperor's disposal for the reinforcement of the army in time of war. Imagine such a measure applied to our force of Yeomanry and Volunteers!"

#### CORRESPONDENCE.

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

To the Editor of the VOLUNTEER REVIEW.

DEAR SIR—Your correspondent "Ixion," in his letter of 24th October last, seems to begrudge Colonel Stuart the thanks which you tender him for his important item of news concerning the "Scarlet Jacket." It is very possible that "Ixion" and others were cognizant of the information contained in this item before you had published it, but that is not a reason to draw down upon Colonel Stuart the sarcasms with which

your correspondent so flippantly assails him. On the contrary, I think that Colonel Stuart deserves the thanks of his brother volunteer officers for the information no matter how tardy it might have been.

The most amusing part, however, is to see "Ixion," no doubt to follow Colonel Stuart's example, announcing "a really important piece of news," which is not new at all, at least to volunteer officers in Quebec. That is, that the Rifle Exercise and Musketry Instructions have been revised and will be shortly issued. Why! not only has this been known in Quebec for some time, but the revised firing exercise and regulations are already in the hands of some officers. I can assure "Ixion" that there is no cause to alarm himself about the revision, and although the work may not be very much simplified, it is simplified enough to disappoint him.

If you allow me, Mr. Editor, I will give your readers the alterations that have been made in the Firing Exercise.

"1. In the third motion of the "Present," the flap of the back sight, if raised, is not to be put down until after the breech is closed.

"2. The caution *Fire a Volley and Order* to be simply *Fire a Volley*, the men coming to "The Order" in all cases on ceasing to fire.

"3. When the Order is to fire more than one round, the breech is not to be closed at the third motion of the *Present*, nor the flap of the backsight (if raised) to be put down after the last round.

"4. On the caution *Prepare for Cavalry*, the standing ranks will come to the "ready position."

The Regulations for Musketry Instruction have also been somewhat changed, especially in their compilation. I will give but one example, (see Rifle Reviews of 1870, page 73, at the word: *Present*). In the revised Firing Exercise, it reads thus: "*Present*. Bring the rifle smartly into the hollow of the right shoulder, which must not be allowed to give way (carrying it to the front, so as to clear the body in doing so), pressing it to the shoulder with the left hand; and at the same instant bring the left elbow under the rifle, and the right elbow nearly square with, and well to the front of the right shoulder to form a bed for the butt, without moving the body, head or eye; placing the forefinger round the trigger, but without pressing it; the top part of the keel plate to be in a line with the top part of the shoulder; the right hand to hold the small of the butt lightly, thumb pointing to the muzzle, which is to be directed a few inches below the mark the right eye is fixed upon; the left eye to be closed."

Your obedient servant,

A VOLUNTEER OFFICER.

Quebec, 5th November, 1874.

#### "A" BATTERY—CANADIAN ARTILLERY.

On the 5th inst., Major General Selby Smyth, accompanied by his Aid-de-Camp, Captain Stapleton, reached Kingston, when the customary salute of 11 guns were fired from Fort Henry. In the evening Major Irwin and officers entertained them at mess when a number of officers in the District took the opportunity of meeting the General. On the 6th inst., General Smyth, accompanied by the Hon. Alex. McKonzie, inspected the Battery. After the inspection the Battery marched past in column of half batteries. The Battery then went through the Manual and Platoon, after which Major General Smyth addressed the men in a few words in which he expressed himself well pleased with the smartness and general soldier-like appearance of the men. At the men's dinner hour the General made an inspection of the barrack rooms, canteens, &c. The General and Staff then adjourned to the officers' mess-room for lunch, after which they went round all the fortifications and towers. On Saturday, the General again visited the barracks and examined the Battery books, &c, also a number of plans and sketches drawn by the officers during the past six months. The General and his Aide-de-camp left Kingston by the afternoon train.

Toto de Pont Barracks, Kingston,  
11th November, 1874.

FROM OUR OWN CORRESPONDENT.

Montreal, 6th November, 1874.

As expected the Victoria Rifle inspection on the 2nd instant was a perfect success, this fine and efficient body of soldiers turned out in full force, and performed the parade and other movements in a manner that did not fail to elicit the approbation of the inspecting officer, Lieutenant Colonel Fletcher, C.M.G., Deputy Adjutant General of the district, who, in his remarks on the termination of the drill, highly complimented Col. Esthune, on the soldierly and smart appearance of his men. The band of the Victorias was in attendance, and played several choice selections during the parade. The Victorias are about importing from England, at their own expense, the new regulation busby as now worn by her H.M.'s 60th Rifle Corps.

Captain Tees of the 1st Troop V. Hussars of this city, who has just obtained his nomination to that rank, is the only member now remaining in the corps since its reorganization under Col. Lovelace and Captain Ramsay in 1856. Captain Tees is most deservedly appointed to the command having worked his way up from a trooper to the position he now holds. As Sergeant Major he was present at all the Fenian raids, received a gold medal for the best mounted pistol practice at the great cavalry tournaments in 1862, and is a recipient of a first

class certificate from the Cavalry School of Instruction of H.M. 13th Hussars.

A very worthy and efficient N.C. officer, Quartermaster-Sergeant Colin McArthur, has been appointed lieutenant *vice* Tees, this has given much satisfaction to the members of No. 1 Troop Cavalry. By the recent regulations only two officers are allowed to a Troop of Cavalry, otherwise another excellent N.C. officer, Sergeant Porter, would have been promoted as cornet, (or rather as sub-lieutenant, the title of cornet being now obsolete in the regular army) his name having been sent in previous to the order alluded to was in force and he in consequence was unfortunately led to the expense of a cavalry officer's entire outfit, his comrades and friends it is rumoured are still hopeful that under the particular circumstances of his case the militia authorities may allow him to receive the rank first promised him.

Major Muir who was favorably known as a dashing and active cavalry officer during the Fenian raids, having retired in favor of Captain Tees, (being permitted to retain his present rank, with a view to future service) carries with him the respect and esteem of every officer, non-commissioned officer and Trooper of the Montreal Hussars.

The 1st or Prince of Wales Rifles will give their annual concert on Monday next, a very large attendance is expected,

X.

'A' AND 'B' BATTERIES, SCHOOLS OF GUNNERY.

To the Editor of the VOLUNTEER REVIEW.

SIR.—As the powers that be are at the present time taking such an interest in the defensive force of the country, exemplified by their placing the fortifications of Quebec and Kingston in a (much needed) state of repair, the establishment of a Military College the procuring of the services of a general officer to command the Militia, &c. &c. I thought it would be an opportune time to bring forward a few suggestions which have occurred to me, more with a view of getting the opinions of other and able writers than myself, than of advancing my own. Being an artilleryman I shall concern myself with what affects my own branch of the service, leaving to members of the other and not less important branches the right to advance and discuss matters which affect them solely.

The only question that I shall consider in this letter, is probably one of primary importance to the Canadian artilleryman, viz. the establishment of "A" and "B" Batteries, Schools of Gunnery, the object by which they were organized, and the means at disposal for carrying out the same.

By the General Order of the 20th October 1871, Para. 1, I see that they were organized for the protection of the Forts, armaments, magazines, and warlike stores, handed, or about to be handed over, to the Do-

minion of Canada by the Imperial authorities. Para. 2 of the same General Order states, that it is further intended that these batteries, in addition to performing garrison duties, shall serve as practical schools of gunnery for the training of all ranks of the militia artillery, viz. —by instructing gunners and drivers, and affording officers and non-commissioned officers, opportunities of acquiring instruction in their several branches &c.

With regard to the duties laid down in Para. 1, no one who has visited Quebec or Kingston, can deny but that the duties devolving upon the officers and men of these battalions, have been well and efficiently performed, duties which under the Imperial regime required the services of double the number of artillerymen at each station, and when it is considered that the officers of these batteries, have in addition to their ordinary garrison duties to perform the part of instructors to the endless number of short course men and recruits who enter these schools, a task which is no light one, with hardly any prospect of promotion and upon a rate of pay which a respectable mechanic would turn his back upon in disgust, (a Lieutenant receives \$1,58 per diem) I think most of your readers will agree with me that their position is no sinecure and that they deserve more encouragement for the way that they have, and are still performing, the duties devolving upon them.

With regard to the objects stated in the second paragraph, I cannot admit that they have been as well performed, not, I admit, through any want of attention on the part of those holding authority in these schools who as before stated deserve great praise for what they have done and are doing, but simply from the want of the necessary equipment to carry out the same. As far as the Garrison Artillery is concerned, everything that is necessary to know regarding that branch, is taught, but what of the Field Battery men, are the eight horses which are allowed (to quote again the words of the Gen. Order) for the purpose of teaching, riding, driving, moving field guns (how many) sufficient for the purpose, certainly not; to give any fair idea of moving field guns, i.e., Field Battery manoeuvres, there should be at least fifty.

Now, what I suggest is this, that instead of the large establishment at present paid for each of these Batteries, they should be reduced so as to form at each station one field and one garrison battery, each to keep at its own particular work, that is, the garrison battery to teach garrison gun drills, exercises, and duties, and all officers and men of militia garrison batteries who are permitted to join for instruction be posted to it, and all militia field battery officers and men, to the field battery. The extra expense would not be a great deal, and would be money well spent in teaching the officers

and men of what is by far the most important, and judging from the reports of inspecting officers, by no means the least efficient portion of the Active Militia, their duties and the duty only which they require for their respective branches of the artillery service.

It is of little use a field batteryman learning heavy gun drills, repository exercises, &c., all he wants to know is how to handle well the particular description of gun he has in his battery, to be well versed in the ammunition and stores belonging to it, to ride and drive, and, if an officer, in an addition, how to handle the battery in the field, to learn which even were the means I propose placed at his disposal, would take all of the three months allowed him, and more than that provided his means permitted him to remain longer. (See note.)

Now, what I would suggest is this: let us take "B" Battery (Garrison) as an example. Its establishment is as follows:—

1 Captain,	yearly pay,	\$1,022 20
4 Lieutenants,		2,117 20
1 Asst. Surgeon,		838 00
1 Sergt. Major,		845 00
1 Laboratory foreman,		365 00
1 Ordnance Armorer,		365 00
1 Master Gunner,		885 00
6 Sergeants,		1,732 00
6 Corporals,		1,633 00
4 Bombardiers,		878 00
3 Trumpeters,		547 50
150 Gunners,		23,725 00
Adjutant, extra pay,		182 50
Gr. Mr. Sergt.,		84 50
8 horses, forage for each at 30c. per diem,		850 00
<b>Total,</b>		<b>\$35,011 00</b>

Reduce it to the following strength;—

- 1 Captain.
- 2 Lieutenants.
- 1 Sergt. Major.
- 1 Quar. Mr. Sergeant.
- 4 Sergeants.
- 4 Corporals.
- 4 Bombardiers.
- 2 Trumpeters.
- 80 Gunners.

Then organize a Field Battery of the following strength:—

- 1 Captain.
- 2 Lieutenants.
- 1 Sergt. Major.
- 1 Quar. Mr. Sergeant.
- 4 Sergeants.
- 4 Corporals.
- 4 Bombardiers.
- 2 Trumpeters.
- 80 Gunners and Drivers.
- 15 Horses.

To be armed with four 8-pdr M.L.R. guns with one line of wagons, the horses to be distributed as follows: each sub-division eight, four in the gun, and four in the wagon; 33 three officers' horses, Sergt. Major 1, Quar. Major 1, Trumpeter 1; 3 No's 1, 3, and 4's, are ranking in all 45; and should mares be required, (I don't consider them at all necessary), they will require 4 more. The present staff of the Battery, viz.: Commandant, Assistant-Surgeon, Laboratory, Foreman, Ordnance Armorer and Master Gunner, would form the Staff for both Batteries. The annual pay of both Batteries of the strength as suggested by me would be about:

	\$18,548 25
Deduct the pay of "B" Battery,	35,011 00
	\$13,197 50 Balance.

An increase which the country would find amply repaid to it, by the increased efficiency of the schools. The question of increased expenditure on clothing and rations for two extra non-commissioned officers and men I have left out as it is a trifling matter in the pay, and this latter is already long enough. Hoping, Mr. Editor, you will pardon my trespassing on so much of your space, and that this letter will have the effect of provoking discussion in your columns, on this important subject, I subscribe myself, as of old, Yours sincerely,

10th Nov., 1874.

SHRAPNEL.

\* NOTE.—The pay of officers going through a course of instruction at the S.C. is \$1 per diem.

MARRIED.

At Ottawa, on the 11th inst., at the Eastern Methodist Church, by the Rev. J. W. Hunter, Mr. Guilford Heber Fawcett, of the Customs Department, to Anna Maria, daughter of Mr. Dawson Kerr, publisher of the Vol. Review.

## THE MORNING SONG.

Sing, little daughter, sing,  
Sing me your morning song,  
Thanking our Father for His love  
And care the whole night long.

Sing out with cheerful heart,  
Sing out with cheerful voice;  
The tones of gratitude to God  
Will make my heart rejoice.

Thank Him for parents dear,  
Thy father and thy mother,  
Thank Him for little sister Bess,  
Thank Him for little brother.

Thank Him for pleasant home,  
Thank Him for many friends,  
For mercies which we cannot count,  
For mercies without end.

Thank Him for health and strength,  
Thank Him for clothes and food,  
Thank Him for light and the fresh air,  
Thank Him for every good.

Thank Him for pleasant days,  
For sunshine and for flowers,  
For the green grass and lofty trees,  
And for the fair wild flowers.

Thank Him, oh, most of all,  
For His most Holy Word,  
Wherein we read the wondrous love  
Of Jesus Christ our Lord.

Thank Him that Christ has died  
That we might die to sin;  
Thank Him that Christ has risen again,  
That we His heaven may win.

Sing, little daughter, sing,  
Sing forth with heart and voice,  
Thanking the Lord for all His gifts:  
Rejoice, my child, rejoice.

Selected.

## GERMAN AUTUMN MANŒUVRES.

(Continued from Page 540.)

"When one considers that one third of these cavalry soldiers have been only ten months—i.e., since last November—in the ranks, it must be acknowledged that they have good use of their time, and been well instructed. On Saturday, the 5th instant, General Willisen had out the division of three brigades for exercise. The manœuvres practised, which one of the officers on his staff was kind enough to sketch out for me beforehand, were very well conceived, and the ideas generally carried out in a direct and practical manner. The brigades were disposed generally in two and some times in three lines, the oblong formation, in either its oblique or direct form, being almost invariably made use of, and one portion of the force was generally so disposed as to be able to take any advancing enemy on flank. I observed also that frequent efforts were made when two bodies were advancing against each other, and while they were yet at some distance, to gain ground to a flank by slightly oblique echelon movements, the formation in divisions affords great facilities for such a manœuvre. There were mistakes made of course now and again, which were obvious enough, and freely afterwards by those who made them. I may remark, moreover, that there was both in the brigade, as well as in the regimental manœuvres, a total absence of all those ingenious and totally useless manœuvres which in our Service we are only just beginning to have the courage to discard. Never once, I need scarcely say, did I see the brigades disposed in the fashion that is far too often adhered to in England—viz., the second line drawn up immediately in rear of the first. Such a formation in ninety-nine cases out of a hundred would possess every conceivable disadvantage, and it appears to be adhered to with us merely because it is the sole formation laid down in our regulations for brigade and divisional

cavalry drill, a little book published years ago, which has notoriously been long out of date, and which it has never, it would seem, been thought worth while to amend so as to bring it more in unison with the principles and ideas that are generally received as correct in the present day.

"On Saturday there were only two manœuvres made with application of artillery, and I cannot say they were particularly successful. The first attempt, indeed, may be said to have been a failure. The guns were freely brought to the front, and did not take up any effective position from which to prepare the intended attack, so as to be able to continue its fire till the last possible moment during the advance of the cavalry. Moreover, when the attack had been made, the fire of the battery was utterly marked by the squadrons as they retired, so that the guns were not able to be brought into play so as to cover the retreat. This failure of the artillery to play its part effectively in the instances of which I am speaking, could not be said to be owing to there being any want of ground whereon to select a position, for an artillery officer of great experience who was riding by my side, pointed out to me some little distance to the right front a spot on a slightly rising ground from which the guns might have played an effective part against the enemy. It is easy enough of course, to criticise a manœuvre such as this, more especially when it is obviously not well done; but in reality the judicious employment of these two arms in conjunction with each other is no easy task, and there is nothing strange in mistakes being made in handling them. They are certainly common enough with us at home. Few commanders seem to attain the knack of handling horse artillery with cavalry so as to enable each to put forth its full strength in aid of the other, or to steer between the difficulty of bettering the action of the former or masking unnecessarily the fire of the latter.

"Each day at the conclusion of the parade General Willisen sounds the officer's call, and when all the officers of the division have assembled around him he comments upon the way in which the various manœuvres have been carried out, and either expresses his satisfaction or points out to the various brigade and regimental commanders, the mistakes which he considers have been made, or any other point to which he deems that sufficient attention has not been paid. Should any officer whose doings are thus commented upon have any explanation to make, or in any way justify his proceedings, his remarks are attentively listened to and considered, and a discussion often thereupon takes place. Finally, the General inquires if any officer wishes to make any further remarks, and if not all return to their respective corps.

"On Saturday at the conclusion of the manœuvres there was a march part of all the squadrons of the division—twenty-four in number. The method of marching past is marked by the same simplicity and desire to save unnecessary waste of time which characterises all they do in the cavalry. The regiments are drawn up, massed in close column one behind the other on the passing line, which is of a considerable length, and which is marked by three markers (the only occasion on which I have ever seen them used). When the advance is sounded the foremost squadron of the column moves forward, followed by each successive squadron, each of which waits until it has its distance for open column—until it moves off.

"On the occasion of which I am writing the division galloped past, and a very goodly show they made. General von Lozroth, a Bavarian officer on a visit here, was, as a compliment, asked to take the salute. He accordingly posted himself in the centre of the line. The gallop is sounded, and the foremost squadron is at once put in motion. First comes General von Willisen on a handsome bay horse, followed by Colonel von Wright (a rising man in the Prussian service) at the head of his brigade of White Dragoons; the trumpeters of the 10th White Dragoons, with their major at their head, follow after, all blowing a blast as they gallop past, and wheel off to the left until their corps has gone by. Very picturesque and soldierly do the 16th Dragoons look in their black helmets, light blue coats, dark breeches, and facings of white—their pace is very good, and the dressing is fair, though it would scarcely be deemed first-rate if judged by an Aldershot standard. Next comes Von Sakow at the head of his brigade, in his tunic of light blue and silver, followed by Colonel von Hisperg, who commands the 15th Silesian Dragoons, the regiment which is quartered at Hagenau. The uniform is light blue and pink facings; and as a squadron after squadron goes by it is difficult to see any difference between them as regards dressing and general appearance and the White Dragoons who have gone before. The 5th Bavarian Chevaux Legers, in their dark green tunics, red facings, and fur-topped helmets, are the second regiment of Sakow's brigade. As have said before, they scarcely compare favourably with their Prussian comrades. They go by, however, fairly enough, and pass muster well enough in the crowd. Last of all comes the Uhlan Brigade, with their colonel, Von Kadeke at their head. A very soldierlike looking man is Von Kadeke as he sits with his square, stalwart figure upon his big chestnut horse. Bigger horses and bigger men than the other regiments of the division, the Uhlans seemed to me to go by the best of them all, and as a squadron after squadron rushed past one could not help owning that, despite what cavilliers may say to the contrary, a regiment of lancers may be a very formidable foe."

## MILITARY MANŒUVRES AT FRIEDBERG.

To the south of Friedberg a hilly tract of land extends, intersected by many small rivers and bordered on the west by the wooded heights of the Taunus, and on the other sides by high table land. On this ground, from which one has a beautiful view of the surrounding country with its varied scenery, General von Bose has conducted the manœuvres of the 11th Army Corps, which terminated in a grand review on the 12th inst. At 6.30 p.m. on the 11th inst. the Emperor was received by the Grand Duke of Hesse, the Crown Prince, a brilliant assembly of officers belonging to the armies of all nations, and the leading officials of the town at the railway station at Friedberg. His Majesty drove with the Grand Duke, loudly cheered by the populace through the streets, which were decorated with flags, flowers, and garlands, to the castle, where a company of the Hessian Body Guard Regiment was drawn up with the regimental band. All the officers were waiting to receive His Majesty at the entrance of the castle. The Emperor alighted, inspected the guard of honour, saluted the officers in attendance, and then addressed a few kind words to the young ladies of Friedberg, who, dressed in the national colors, had come to

present a wreath to His Majesty. The Emperor then repaired to the castle as guest of the Grand Duke, whilst apartments were fitted up for the Crown Prince of Naueim. Notwithstanding the bad weather, the different unions of the town, and many other civilians serenaded the Emperor, who returned them his thanks of this proof of attachment through the mayor of the town. On the morning of the 12th instant, at nine o'clock, a cannon was fired as a signal that His Majesty had arrived on the ground where the manoeuvres were to be held. The Kaiser was mounted on his noble charger, and followed by a suite of princely personages and distinguished military men, among whom were the Crown Prince of Germany, the Prince of Wales, the Duke of Edinburgh, and the heir apparent to the Grand Duchy of Weimar. The enemy was supposed to have lodged himself in the chain of hills on one side, a commanding place for his artillery. The troops advanced against him from the south to protect Friedberg. The fight began with a tremendous cannonade. Then the riflemen appeared on the crest of the hills, followed at some distance by battalions in close marching order, whilst the enemy was harassed from the south-west by the cavalry. In a long semicircle the forces advanced on the enemy's position, which was taken after a long resistance. The enemy was then supposed to have retired to the next chain of hills, where the energetic resistance was continued, till at last a more concentrated fight ensued, and was brought to a close by the infantry and cavalry. Although the troops left their garrisons at the end of last month and bivouacked several days in very bad weather, their appearance and movements were fresh and vigorous. The Emperor and Crown Prince, followed by their suites were to be seen on all parts of the ground during the manoeuvres. Thousands of civilians had flocked there, not only from the province of Upper Hesse, but from Frankfurt, Wiesbaden, and Hamburg, to witness the animating and picturesque sight. The Grand Duke of Hesse, drove in a carriage accompanied by the Princess Alice, who had arrived from Darmstadt on the same morning. At the close of the manoeuvres the three divisions of the army corps defiled past the Emperor. In the morning it had been very stormy, and occasional showers fell, but just as the march past began a tremendous thunderstorm broke and drove away the greater part of the spectators. The aged monarch, however, did not move, but remained on the spot till the whole 25,000 men had marched past. The Emperor then returned with the Grand Duke to the castle, where the latter entertained his distinguished guests at dinner. In the evening the weather had improved so much that the intended illumination of the town could be carried out. The Crown Prince left on the same evening for Cassel, but the Emperor remained till the next morning, when he departed for Hanover. His Majesty was accompanied to the railway station by the Grand Duke. At the station the Prince of Hesse, a number of officers, and the corporation were assembled to bid farewell to the Emperor. Although the visit of His Majesty was exclusively for military purposes, it was a good opportunity for the population of Friedberg and the surrounding country to show their attachment to the monarch, and they did not fail to do so. Such hearty cheers as were given when the Emperor left Friedberg have seldom been heard; indeed signs of attachment and devotion to His Majesty and the Crown Prince were mani-

festated on all sides. The Grand Duke ordered the principal street of Friedberg, which had till then been named Ludwig's Street, to be rechristened "the Emperor's Street." On the morning of the 14th inst., the troops marched towards the south, where the manoeuvres were continued up to the 16th instant. The brilliant military spectacle is now over, and the accustomed quiet and peace reigns as before, but the day which the founder of the German Empire passed within the walls of Friedberg will be long remembered by the inhabitants.

#### AUSTRIAN AUTUMN MANOEUVRES.

The manoeuvres of the Austrian Army in the vicinity Prague, on the Elbe and the Lower Iser, have attracted special attention on account of the visit of the Emperor of Austria. The Archduke Albrecht is Commander-in-Chief. The supposition on which the operations are based is, that an enemy coming from the north is advancing from Iser towards Kolin and Pardubitz to the south east, having detached at the same time two divisions to take Prague, which form the hostile corps during the first three days of the manoeuvres. The commander of the opposing army detaches three divisions, the South corps from Prague, to operate on the flank of the Northern army on the Iser. They force it on the first day to recross the Elbe, on the second they themselves cross the river on pontoon bridges, and establish themselves firmly on the other bank, the North army retires to the strong position of Hawanetz, which the South army forces on the next day, forcing its adversary to recross the Iser. Then, according to the supposition, the Northern Army is reinforced by a division while the Southern army is weakened by detaching one to Helmik; that is, one of the divisions from the Southern Army goes over to the Northern Army, which is thus in a position to resume the offensive again on the fourth day, which concludes the manoeuvres. In order to afford an opportunity to several general officers to show their skill, after the third day the command is changed in both armies, two other generals of division taking charge of the armies. The *New Free Press* says this is the first great muster of Austrian troops since the reorganization of the army and that the Emperor had gone to Bohemia to form an opinion as to the results of the new system, which has now been six years in operation. During all these years the largest concentration hitherto has been in divisions.

We are indebted for the following interesting particulars of the operations to the correspondence of the *Times*. The number of men in the field was, all told, about 30,000:—"No better ground have been chosen for the operations than the country where the rivers Elbe and Iser meet at right angles, for you find there almost every kind of ground on which war operations can occur. You have on the left banks of the Elbe, towards Prague, the starting point of one, the Southern Corps d'Armee, an open undulating plateau with scarcely any wood except the rows of trees lining the roads, but intersected by ravines often steep, and valleys and villages with substantial stone buildings lying not far from each other, and affording good positions for defence. Then there is the Elbe, a sluggish stream, scarcely sixty or seventy yards wide, fordable indeed in some places for cavalry, at least at this time of year, when the waters are usually low, but offering every variety of river defence in its meandering course;

above, Brandeis heights domineer the town and Alt Bunzlau opposite, and further down a gradual slope down the meadows, among which the river runs. On the opposite bank are clusters of wood and hillocks rising up to steep heights, and beyond to the north-east are some formidable positions. Then there is the Iser line, with wooded broken ground on both sides. Thus, there is plenty of opportunity for the commanders on both sides to show their skill in making the most of every sort of ground. Indeed many commanders have done so in earnest before now, for the line of the Elbe and Iser has and must always play a conspicuous part in the defence of Bohemia against an attack coming from the north. It was so repeatedly in the Thirty Years' and Seven Years' War, and it would have been probably so in 1866 had not the Prussians been beforehand, and by their rapid victories decided the campaign before getting to the Elbe line.

As the programme prescribed, and as could not well be otherwise from the disproportion of the forces, and even more so from the nature of the manoeuvring ground, the first day belonged to the Southern Corps, commanded by General Philippovich. The distance from Prague to the Elbe at Brandeis is about fifteen English miles over which a broad *chussage* runs in an almost straight line to the north-east. This circumstance alone was a great drawback to the Northern Army, which thus had its line of retreat on its left if it attempted to make any stand more forward, where the ravines of Jenstein and Podolanka and the rising ground above them offered the best defensive position. The commander of the Southern Corps did not fail to take advantage of it; for while he attacked the position with two of his divisions, of equal strength to that of the whole of the opposing army, he sent his third towards the left flank of his adversary, which left the latter no chance but to make good his retreat. But, although well knowing his fate, General Westphalen had made his dispositions to retard it as long as possible. There you could see massed behind his fighting position, large bodies of infantry and a strong reserve of artillery, which he had at hand to oppose the turning movement of his adversary, and check it until he had time to withdraw the bulk of his troops from their exposed position. But although as a strategical operation it was a foregone conclusion, the day offered not a few interesting tactical details, especially if you had so excellent a position as I happened to have on the top of the ruined tower of Jenstein, which overlooks the country all round, while, being in the heart of the defensive position, you could see the gradual bringing up and deployment of the forces on both sides.

(To be Continued.)

Another serious disaster to British naval vessels is recorded. The Flying Squadron, under the command of Rear Admiral Bagnold, C.B., was making for the well known and thoroughly surveyed Bay of Palermo, when the flag ship the *Narcissus*, and the *Endymion* struck heavily. The damage sustained by the latter has not yet been ascertained, but the former knocked away about twenty seven feet of her false keel, and two large holes were made in her outer skin.

The French are about to make experiments with the Moncrieff system, now that it has been brought by the English to a tolerable state of perfection.

## THE USE OF CAVALRY.

(The following article, referred to in our last, was obliged to postpone until this week for want of space:—

It was a remark of that eminent Scotch logician, the late Sir William Hamilton, that there is nothing which men seem to admit so lightly as the simple assertion of a statement as a fact; hence arises popular credulity as to quack medicines, fortune telling, hobbie companies, bogus mines, ghosts, spirit rapping, and, we may add, the doubtless well-meaning, but often rash and ill-considered utterances of the special correspondents of the daily newspapers. Accordingly, when, during the late Franco-German War, some of these writers—advising, not wisely, but too well, the splendid way in which the Prussian Uhlans were used in covering the advance of the German armies—maintained that in future cavalry would be chiefly employed in this way, the dictum was very generally accepted as correct—at least, by those who were not regular students of the art of war. Not, however, that there has been wanting some further corroborative evidence tending more or less in the same direction, supplied by the objections recently raised by some German theoretical tacticians, such as Colonel Verdy and Major Schettif, against the use of cavalry in masses. On the whole, therefore, it has been of late a vague idea prevalent that the importance of cavalry in the line of battle has been seriously impaired, and its general status greatly affected, by the increased destructiveness of infantry and artillery fire. Hence, we believe we are right in saying that some little surprise was felt in certain quarters when it was lately announced, in connection with this autumn's Prussian cavalry manoeuvres, that there was probably to be a return to "the traditions of Zieten and Seydlitz," inasmuch as the intimation recalled to a writer in the *Globe*, and doubtless to many other people, a remark of a great general to the effect that "he liked to see his cavalry charging, jumbled boot to boot." We therefore now propose, not to give a disquisition on cavalry tactics, but to glance briefly at the aspect of matters just stated, and to indicate what, so far as we can see at present, seems to be the probable nature of the Prussian official views as to the future use of cavalry.

Now, in the first place, as regards the handling of the German cavalry in the late war—which we readily admit is, so to speak, a most important point of departure for the discussion of the subject—it is to be noted that there was after all nothing new in the principle of the method in which this arm chiefly and most successfully employed, namely, in covering the main body of the Army and in reconnoitring, for the last Napoleon constantly employed large bodies of cavalry in this way. It must be allowed, however, that this duty was probably never so thoroughly and efficiently discharged as by the German cavalry during the late war. But on the other hand, it must be remembered that the Prussian Chivars, when engaged on the service, were seldom opposed by the enemy, owing to the great remissness of the French in the organization of outposts and patrols. Then another circumstance which prevented the German cavalry from playing a more conspicuous part on the field of battle was the Prussian mode of attack, which threw the great bulk of the fighting on the infantry. Thus according to Colonel Hamley, "the history of the victories of 1870, is that the German

corps march straight for the enemy, that the leading troops at once attack, that the rest hurry up to their support, extending and deepening the skirmishing line, and that after a severe engagement an extension beyond a flank renders a position untenable.

The student will, therefore, learn from these battles none of the higher tactics. Now, as it is universally admitted that cavalry cannot nowadays attack the front of prepared infantry with any hopes of success, it is obvious that the use of cavalry in the line of battle in combination with artillery or infantry, or alone, for making sudden flank attacks, must belong to the man to those higher tactics which was not practised at all, according to Colonel Hamley, by the Germans during the late war. Hence it seems to us, by no means improbable that the Prussian military authorities are now striving to devise a more scientific system of attack which will not involve that enormous infantry loss—often locally much greater than that of the French, whom they defeated—which was occasioned by their maintaining a frontal attack in order to distract the enemy's attention from those flank movements, which were really intended to decide the fate of the day. In his higher tactical system of attack, we apprehend that the cavalry will be destined to play a most important part, and hence, we fancy, the reason for the establishment last year in Prussia of special cavalry manoeuvres. But that anything very new and startling is likely to arise from these manoeuvres we do not believe; and, indeed, the fact of their being confined to the cavalry must give them the character of mere brigade drill, rather than of tactical manoeuvres for any extended exercise, in which latter the presence of the three arms is necessary. A correspondent of a contemporary (not a cavalry officer he says) writes from Berlin *appos* of these manoeuvres to "call the attention of thinking military readers to the part cavalry may be called upon to play in future wars." Now, after this preliminary flourish of trumpets one does expect to hear something new about cavalry tactics. But the writer really says nothing at all on the subject, although, with respect to cavalry organization, he proceeded immediately to make the following remarks:— "The old system of the distribution of cavalry amongst the various divisions of a grand army may be considered as condemned by experience. For the future each army corps of moderate strength must have a special strong division or brigade of this arm. The system will be a simple one since each mixed division in the Army Corps, often obliged to act independently, cannot of course be left without a certain small force of horse for various duties. This there will be divisional cavalry and independent divisions of cavalry." Very good, but there is nothing new in this. It is, in the main, simply the change which was made by Napoleon when he reorganized the French army in 1804, at which date the old divisional system of the Republican armies was supplanted by the army corps system. On this point Colonel Hamley says (*Operations of War*, page 352). "The idea of imparting the necessary concentration and unity of action to an army was completed in the camp of Boulogne in 1804, when Napoleon's authority as Emperor was supreme and the army was shaped into the instrument of his vast designs of aggression. It was soon that great masses of cavalry might produce a decisive effect on a field of battle. They were, therefore, abstracted from the divisions, and these were now united into

corps, under a marshal or lieutenant general," &c.

We believe then, on the whole, whatever changes the Prussians now introduce into their cavalry organization and tactics—so far from being startling novelties—will proceed rather in the direction of revising some of the principles adopted by Frederick the Great and Napoleon Bonaparte, that is to say, as regards cavalry proper. What they may do in the way of mounted riflemen is another matter, for these latter really deserve to be guarded as a new arm of the Service, which as yet, however, does not ostensibly find great favour in the eyes of the Prussian military authorities. Nevertheless, it is quite possible that the Germans may, after all, quietly train a considerable portion of their cavalry to act as mounted riflemen, and as such us with the result in the next European war in which they engage.

The Paris correspondent of the *London News* writes: "At the Correctional Tribunal at Rouen General Lebrun, holding a command in the town, appeared the other day as a prosecutor against a discharged soldier, named Lepretre, for using abusive language to him. The General deposed that on the afternoon of Aug. 2 he went in his carriage to make a call upon the Archbishop. He was in uniform, and as he drew near to the Archbishop's Palace he heard repeated vociferations, when he thought at first proceeded from some drunken people quarrelling. But as he alighted he turned round mechanically, and saw the defendant hooting him, and with menacing gestures pointed him out to a group of people. He heard him say, 'Ah! look at that one who is high up and condemns poor fellows to die of hunger.' The General rushed at him and called him a cowardly and miserable slanderer. The man, after hesitating a moment as if he meant to strike him, rushed round and ran away, and he ran after him. He was arrested by some soldiers and others, who stopped him. The General then said, 'Why do you insult me, wretch that you are?' The man replied, 'It is you who insult me, and you have the best of it, for you are armed and I am not.' Then he continued, 'You do a pretty piece of work; you back up people who betrayed France and sold her provinces. They were not proud then! Oh, no; they crouched before the enemy. And now your journals will say tomorrow that an individual of the worst sort insulted a man who wears epaulettes.' Lepretre pleaded drunkenness, but this was denied by the General and other witnesses; and he was sentenced thirteen months imprisonment and a fine of 100 francs."

An ingenious projectile invented by a Russian officer, is now claiming the attention of military scientists. The Sczaroch, as it is called, is an elongated shell, the head of which is completely spherical; a round shell upon the end of an iron cylinder. The two parts are united by comparatively slight thickness of metal. When fired the sczaroch leaves the gun like an ordinary shell; but when it bursts the cylindrical part alone flies to pieces, while the spherical head continues its flight intact and may ricochet for hundreds of yards farther. The advantage of such a shell artillery, for example, is very great. After bursting and scattering its fragments among the guns of the enemy, the head goes on the plunge into the infantry still further back. It is to be used in Russia, however, only for for cannon of moderate size.