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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. VII.

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No 9.

### NEWS OF THE WEEK.

The London *Times* of the 15th publishes an official correspondence on the affairs of Central Asia. It closes with the concession on the part of the Russian Government of the immediate point in dispute, the boundary line laid down by England being accepted.

It is reported that the European Governments are negotiating with a view of jointly recognizing the Spanish Republic.

Families are leaving Madrid, as there are disturbances in the city.

Mr. Disraeli, Lord Cairns and Gathorne Hardy, members for Oxford University, will meet the members of the House for Dublin to-day, for the purpose of discussing and determining the course to be pursued by the Conservatives in relation to the University Tests bill.

Robert Vane Agnew, Conservative candidate, has been elected to Parliament from Wigton. Agnew succeeds George Young, a Liberal, by whom he was defeated at the last general election by 120, in a poll of 848 votes.

The *Times* has advices from Spain to the effect that partizan agitation is beginning to make itself felt in the new Republic and throughout the Iberian peninsula.

Portugal is arming, in anticipation of civil commotion.

The views of the Federalists are everywhere in the ascendant.

The Spanish mails are several days overdue.

The *Telegraph* this morning (21th Feb.) has a special despatch from St. Petersburg, which intimates that Count Schouvaloff will shortly replace Count von Brunnow, Russian Ambassador at the Court of St. James.

A despatch to the *Telegraph* says that Prince Gortschakoff is about to submit to the Government of Great Britain a proposal for a special Anglo Russian commission to settle the boundaries of Afghanistan.

The Russian Government has advices warranting the announcement that the Khirvees will shortly sue for peace.

A special despatch from Berlin to the *Times* says that the Russian Government is hurrying forward large reinforcements to Turkistan.

The *Morning Gazette* hints that the establishment of a neutral Government with Afghanistan as the intermediate state between Great Britain and Russia will accelerate instead of prevent the collision between these powers, which is apprehended.

The steamship *Geclae* from Liverpool for Palermo, with forty hands on board, is supposed to be lost.

The Conservative Associations give a grand banquet at Leeds on the 16th April.

Sir Rowland Stephenson is acting as mediator between the masters and men in South Wales, for the settling of the strike.

The Dowling Company yesterday extinguished fires in their furnace.

It is probable that the coal miners in North Wales will strike in a fortnight, if the increase of wages they demand is not conceded.

The mining districts are quiet.

Count Von Beust, the Austrian Ambassador, has returned to his post at the Court of St. James.

The meeting of Conservative leaders, which was announced to take place on Saturday last, after a lengthy sitting came to a unanimous determination to oppose the Ministerial Education Bill. The course to be pursued in carrying on the opposition to the Government was not definitely decided upon.

The strike of South Wales miners will probably be brought to an end by a compromise to-day. It is thought that sixty thousand of the miners will return to the mines to-morrow.

Rev. Thos. Guthrie, the English author, is dead.

The Archbishop of Paris has tendered the hospitality of his home, and a fraternal welcome to the Rev. Mr. Mermillod, who was recently expelled from Switzerland.

The decision of the Committee of Thirty, by their vote on Wednesday last, in favor of creating a second Chamber of Assembly, has led to a complete rupture between the parties of the right and right centre.

The Spanish Republic is a source of uneasiness at Berlin. The Emperor now regrets his false policy in France, and is sorry he did not re-establish Napoleon or some other monarch, and accept the payment of a slight indemnity, rather than let things take their course. He regrets the Spanish Republic as a consequence of the French Republic, and is uncertain where this desire for Republic will stop.

Excitement is increasing, particularly among the working men. There is an apprehension of barricades appearing, and the red Republicans are urging extreme measures.

The Carlists, in their operations and intrigues, are very active, and the army is dissatisfied. Washington's birthday reception by the American Minister, created a Republican demonstration.

The reactionists are extravagant in their expressions of hostility to the American Minister, whom they regard as officiously active in Spanish politics.

Gen. Cordoba, Minister of War, persists in his determination to resign his position in the Cabinet.

The Radical and Republican Deputies in the National Assembly, at separate meetings held last night, resolved to appoint a committee, consisting of twenty persons each, who are also to appoint sub-committees to report a plan for the settlement of the ministerial crisis.

It is now probable that the Assembly will not be dissolved.

The ministerial crisis has terminated by the election to-day of the following government by the National Assembly: Figueras, for President of the Council, received 231 votes; Castelar, Minister of States, 237; N. Salmeron, Minister of the Interior, 225; Acosta, Minister of War, 149; Oreiro, Minister of Marine, 176; Tetuan, Minister of Finance, 169; Chao, Minister of Public Works, 172; Serna, Minister of Colonies, 173. After the newly elected ministers had taken their seats, Senor Figueras addressed the Assembly. He declared that there would be no change whatever in the programme of the government.

ON THE BEST DETAIL FORMATION FOR  
THE NEW INFANTRY TACTICS.

BY J. H. A. MACDONALD

Lieutenant Colonel Queen's Edinburgh, R. V.  
Brigade.

(Continued from Page 87.)

Now, it is clear to demonstration, that although it may be possible to train troops to fight well, even when they have lost their way and their commander, and to do so under any officer whom they may come across after they have lost their own, that such contingencies are not to be courted, but to be avoided if possible. The accidental, divergence of two parts of a line from one another may make a more dangerous gap, not easily filled up, and golden opportunities may be lost by a captain's command getting thus out of hand or by the support having gone after the wrong half of a company that has got broken up. Nor can it be doubted that anything which tends to cause risk of men getting separated from their known commander ought to be avoided. It is always to be assumed as a general axiom, that men fight best alongside of their own comrades and under the command of their own officers, and that officers have most confidence when they command their own men; and this is especially true of our British Infantry, and is likely to be true also of our Infantry Reserve.

It should also be remembered that it is not a wise thing so to distribute a captain's command that to attend to it properly he must go through excessive fatigue. An over-exerted man—a man who, to use a slang expression is "pumped"—is, until he has recovered himself, an inefficient man more or less. He is, for the time being, of reduced value, mentally as well as physically. A panting, breathless man is neither fit to observe, nor to give orders, nor to receive and carry out orders, so promptly and clearly as one who is calm. If troops fighting are so arranged that the officer in command cannot superintend them efficiently without over exertion, that is equivalent to making it impossible for him to superintend them efficiently at all.

It is therefore most indubitably an advantage to reduce the extent of front each captain has to command if this can be done without disadvantage otherwise; and that it can be done, not only without injury, but really with advance in other respects, can I think, be demonstrated. It is much better to do this than to carry out the idea of mounting captains on horseback. This has been strongly urged by some, but there are two reasons against it which are unanswerable. First, a man on a horse is too good a target to be placed in the fighting line; and second, as the tendency of modern fighting necessarily is to seek cover, instead of open ground, a captain would too often find his horse an encumbrance rather than a help. To mount captains would be a wrong remedy for an evil that requires to be cured, not nursed.

There is another great advantage to be derived from having the supports formed of the same company as the skirmishers, and that is, that support or reinforcement can be brought up at any special point at which

it is required, without destroying the tactical unity of parts, or providing supports where it is not needed. At present skirmishing drill is conducted far too much as if the whole line of skirmishers should always be relieved or reinforced at the same time, and this is done by the battalion commander only. There could not be a worse arrangement than this. It may often happen that it would be a most useful thing to send forward fresh men to a very short portion of the fighting line, where to do so to the whole line would be most foolish, or perhaps even dangerous. And in an enclosed country it is beyond all question that the commanding officer of a battalion cannot always judge for his whole battalion when and where, and to what extent, to order up supports. It is very likely at most critical moments it may be quite impossible for him to have all his men under his eye at once. The officer who is actually up with the fighting line can best judge what is the requirement of the moment as regards support or reinforcement. In this view, two great advantages are attained by making the company supply its own support and first reserve. In the first place, the actual fighting front each captain has to look after is reduced to a reasonable length, so that he can attend to it efficiently; and in the second place, he can bring up fresh men at his point in the line the instant he finds they are needed, without the other parts of the line being encumbered by support which they do not want, and which may be uselessly exposed to fire. And moreover, by this arrangement, one captain might be able to give efficient help to the captains on either side of him. For example, a captain who held a strip of plantation might bring up his support into it, while his skirmishers fired on the enemy in his immediate front, his support posted at the corners of the wood might keep up a slanting fire upon those opposed to the skirmishers of the company on their flank, so as to aid them to get quickly and with little loss over the more open ground, and reach a hedge or any other cover available. And a captain might often get the advantage of a double fire, by using his support, where the nature of the ground would admit of it, to fire over his skirmishers while they were moving. Such things as these can always be best done on the small scale. Wherever anything is to be done, not by a set word of command, but by a direction conveyed and explained, so that it may be worked out, not formally but intelligently, it is obvious that there is less likelihood of failure if the unit to be worked upon is small and compact than if it is large and stretched out, and also that the command of the *directly* acting part of the unit, and the part which may be brought in *actively* to assist, should be in one person.\* Another great advantage of such an arrangement is, that a blunder is confined to a smaller part of the fighting line, and therefore more easily corrected. There is much less risk of that happening which under the present system is likely to happen, namely that while a captain is looking after one part of his long line, another part has begun to retire when it should not, because one man in the line has chosen to draw back and others have followed him, (1) which may compel the captain to retire the whole line against his will, because by the time he gets to that part of the line the thing may be too

\* This is doubly true when the tendency is to choose ground which gives cover, rather than open ground.

(1) See Wellington Prize Essay, p. 153.

far gone to be corrected. If a captain had the whole of his fighting line within easy reach he could instantly control any wrong movement by any part of it, which at present it is quite impossible to do. And if the front of each company be narrow, there is less risk of a blunder made by one company communicating itself to others. The men feeling themselves directly under order and in the hands of their captain, would have less tendency to act gregariously in mere imitation of those next them.

Further, the moral effect of the support and first reserve being of the same company as the line of skirmishers in front of it, can scarcely be over estimated, both as regards officers and men. On the men it would act powerfully, encouraging those who were in the front, and perhaps sometimes preventing demoralization. The man who would skulk if those behind him does not know him personally, might stay in the front and learn courage, if he knew that to fall back he must run into the arms of his own comrades. And the captain who was out with the skirmishers would have the comfortable feeling that his support and reserve were his own, subject to his orders, and, if brought up to reinforce his line, would bring not merely so many additional men under somebody else's command, but men of his own, the daily companions of those in front, bringing in the immense moral force of intimate sympathy, often worth a good deal more than mere physical effort. And further, the officers and non-commissioned officers brought up to support him would be his own, not those of some other company, or, as happens under the present system, of a different corps quite unknown to him. The command would remain the same, whereas at present it may be changed by reinforcements owing to the accidents of seniority. Any change in the immediate command of men who are fighting in the front is a great evil; in fact, one that it is scarcely possible to over-estimate.

The adoption of this principle would also pave the way to the practical introduction of an improvement which is now, I think, universally approved of, viz. the increase of the number of men in a company.\* There cannot be a doubt that a large unit under one command, if it can be arranged so as to make it handy to work, is better than two small units under different commands. Of course as long as the small units are worked in such a way as to make it difficult to command them efficiently, it would not be safe to increase their size. Until the system of throwing out the whole of a captain's command into a long single line next the enemy is abandoned, companies must be kept small. But if each company is made to provide its own support and first reserve, then, as a part of it to be extended in the first instance will only be a fraction, there can be no objection to increasing the size of the working unit, to a certain extent.

The next principle for which I would plead is, that the support and first reserve together should be three times as great as the original skirmishing line, and that the first reserve belong to the company should be equal in numbers to the skirmishing line and the supporting line together. It is, I think, evident, that although battles may now be expected to be fought till near their close by the pushing forward of "swarms of skirmishers," the fact that they are pushed forward in that formation does not imply that the actual fighting front will

\* This matter is forcibly treated of in Maurice Wellington Prize Essay.

\* This was the opinion of all with whom I spoke on the subject at the Autumn Manoeuvres

be much more extended than formerly. It is from front to rear, rather than along the front that the actual spreading out takes place. In the new mode of battle it is very much the extent of line that advances on the enemy, only it advances by dribblots instead of all at once. Formerly, a whole line was taken forward at once, because it was possible to do so without that amount of loss which would make it inefficient to complete the engagement successfully. The risk of destruction was not so great as to counterbalance the advantages of having the force in the first line of attack in a compact formation. But now, this is no longer the case and so it becomes necessary to push it forward bit by bit. And this being so, I think it cannot be denied that as the *bits* first exposed are sure in the first instance to suffer loss from which the *bits* kept back escape it is necessary to keep a very ample reserve, so as, in spite of loss, to be able to concentrate and accumulate strength, and strike harder as an engagement proceeds. Besides, it will always be impossible to prevent risk of a long fighting line opening out and leaving gaps. Men cannot creep through broken ground as straight as a "left guide" can march on two points, and even if they could the features of the ground itself may often make opening out inevitable. If part of a line of skirmishers has to leave level ground and fight over a hill or along a valley, it is evident that in doing so they must be more spread out than before, just in proportion as a horizontal line through the base of the hill, or across the top of the valley, is shorter than a line measured along the ground. Therefore it is indispensable, if there is to be any protracted fighting in skirmishing order, that independently of the general reserves, the reserves available to those in immediate charge of the fighting line should be ample; and this is all the more so, as it is just where there are great changes of level that there is the greatest need to secure that the fighting line is too thin, and the reinforcement brought up to it does not exhaust its reserve. It is against men crossing a hill or moving down a valley that the enemy's fire will generally conyerge.

Further, by having an ample company reserve, as distinguished from general reserves, it would be much more easy to overcome a difficulty arising at one point in a line than it is at present. The present system is rather too regimental in the matters of reserve. It is skirmishing with a reserve rather than with *reserves*. The reserve is a large body, kept together at one place, more for a general relief than to meet temporary and local exigencies. But under the "swarm of skirmishers" system, where it must inevitably be the case that captains will often have to fight long upon their own responsibility, and bring up supports as needed, they must not be embarrassed by the knowledge that after they have brought up their support there is no help for them but a regimental reserve, which they cannot see, and which might be quite unable to find or get to them without great loss of time, owing to the conformation of the ground. The captain must have a reserve whose duty it is to stick to him, an integral part of his own unit of command, a reserve having a fixed relation to his part of the fighting line, and his part only.

Another principle which it is necessary most carefully to keep in view is, that just in proportion as the dullness of modern fire-arms makes it necessary to practise fighting in a less compact form than used to be the case, so it is essential to make the detail of the system or manœuvring such, that a

tactical unit which is disarranged and separated into fragments by the necessity of the case, shall be so separated, that when it comes together again it may be as nearly as possible the same tactical unit as at the beginning. By this I mean that the company should, if possible, be so worked, that skirmishers' supports and first reserve, may, when brought together by supports or first reserve getting into the fighting line, be as nearly as possible in the same order as that in which they originally were. If the final decisive engagement is ever to be in line again, the line will very probably be formed by support and reserve pushing to the front when the enemy's fire is weakened, and, by filling up the spaces between skirmishers making a line for the final advance. Now, if by the previous detail arrangement this could be done in such a way as that each company which had been divided into skirmishers, support and reserve, should again find itself complete, and pretty nearly in its old form, there can be no doubt that this would be much better than if the line was made up, like an *olla podrida*, of men of different companies, or even of men of the same company but out of all order and with no tactical restoration of unity at all. I do not say that any system that could be devised would ensure this tactical restoration being always complete. I only urge that anything which tends towards securing it ought not to be despised. The Prussians seem to have recognized the importance of this principle, as, rather than depart from it, they adopt theoretically (!) an extraordinary, and highly dangerous expedient to secure it. As under their system a section, or rather fraction is sent out from a company in the first instance to skirmish, their proposal is, that in order to preserve the original tactical form of the company unit, when more men are sent up to the fighting line, the section that is in the front should close in sufficiently to allow the fresh men to come up in their proper company place, instead of mixing with the old company skirmishers. This device is one so unpractical in itself, and would in so many cases be positively impracticable, that its only value consists in its being a strong indication how much importance is attached to a restoration of tactical unity, when the thin skirmishing line is being thickened by reinforcement. (m) The Germans are very giants as regards the settlement of principles, but sometimes display the giant's clumsiness in their devices for working out principles in practical detail. (o) But the device proposed is worse than clumsy and unpractical. It is positively dangerous, and is not usually a reinforcement of the old line. It could not be carried out in many cases without unnecessary exposure of both skirmishers and reinforcement. It would slacken the fire of the old line while they were closing in, and would often result in the new line being composed of alternate rows of fatigued men and rows of fresh men, a most unsatisfactory state of things, as the new men must either conform to the old, or the "Zusammehang" (as our German friends would say) of the

(l) I say "theoretically," for though it is set forth as a mode of action, insisting adherence to the principle, it is scarcely possible to believe that it could ever have been tried, or that if tried, it could have been found satisfactory. Some of their own best authorities condemn it as impracticable.

(m) It also affords a practical illustration of what I have already said, viz. that the Prussian system is, as regards tactical detail, essentially crude.

(o) In proof of this see the diagrams in Tellenbach's excellent "Preussische Ballion's Exerciren."

whole line would be destroyed. Whereas a true reinforcement bringing fresh men up to the front, commingling with them, tends to give new life to the whole line. A reinforcement is not merely fresh strength to the line physically, it is also fresh strength morally. A tired hammormann feels inspired for a new effort if he can get another to take stroke and stroke about with him. So a soldier will be cheered into renewed energy by getting a fresh man on either side of him, and this particularly if the new man on either side of him, replaces a dead or wounded comrade. More over the old line has the range already ascertained, and therefore can be most useful in helping the new men who come up, with information. And last, not least, a reinforcement brought up into the old line of skirmishers is practically a fresh supply of ammunition to the *whole line*. All these advantages are set aside by the Prussian proposal that "the reinforcing party must be kept together, the old skirmishers reducing their intervals so as to leave a sufficient space for it." And they are set aside in order not to depart from the principle which demands the restoration of each tactical unit to its original form when recon solidation of the skirmishing battalion begins by reinforcement. In acting thus I do not think they over estimate the importance of the principle. If no better way can be devised of carrying it out, they are probably right in sacrificing many advantages of detail in order to secure it. But I trust to be able to show, when the detail part of the matter comes to be considered, that by the adoption of a very simple expedient, all the advantages of adhering to the principle can be obtained without any of the disadvantages in detail which have been referred to above.

(To be continued.)

Despatches from India announce a terrible disaster at Lahore, in the territory of Scinde, the capital of Punjab. An earthquake overtook the city so suddenly that no escape was possible. On the first alarm says the report, the people rushed into the streets from their houses, where they met their deaths. The narrow and crowded, and ever filthy streets, would afford but little refuge to the terrified inhabitants, while the high brick houses in their fall must have wrought frightful destruction. A great part of the city is in ruins, and it is estimated that five hundred lives have been lost. The earthquake extended over a large tract of country, having been felt in towns many miles distant from Lahore. Lahore, a city of about 50,000 inhabitants, is situated on the banks of the Ravee. It is a walled city, enclosed in a double line of defences, the outer being about seven miles in circuit. It has many large and splendid mosques, but the streets are narrow and filthy, and excessively crowded. The houses were high and built of brick. Around the city were extensive Mahomedan ruins, with the fine tomb of the Emperor Jehanguire, and the garden of Shah Jehan. Here were also many Hindoo temples, and a citadel containing the palace of the Sikh sovereigns.

THE REPRESENTATION OF FIFESHIRE.—It is rumoured that Sir Robert Anstruther, Bart., intends shortly to retire from the representation of Fifeshire in Parliament.

## COLONEL HAMLEY ON WAR.\*

The chief peculiarity of modern strategy, as distinguished from that of ancient times, will be learned for the first time by civilians with much surprise. It appears that Prussia has reared up a new school of war, which the world is adopting, and that the characteristic of this military education is that each individual combatant "in his degree has his intelligence cultivated, and is expected to use it. An essentially new element of great force is thereby introduced into the military system." This may seem to the civilian to be an impediment to discipline, but the reverse has been proved by experience. This being so, it may be advisable that a small catechism, founded on a book like that of Colonel Hamley, should be put into the hands of every British soldier. It would familiarize him with the theory of warlike operations. The name of Thiers has been dear to every French soldier since he presented to each a copy of his great historical work. Why should not our military authorities in a similar way endeavor to throw the business of war to every man in the British army?

Colonel Hamley gives a history of the development both of strategy and tactics, or in other words of campaigning and field battles. His historical retrospect is not without its practical use; for although modern warfare differs widely from that of feudal times, yet in proportion as railways are cut, magazines captured, or communications interrupted, an army is reduced proportionately to the condition of troops in the early portions of our history. Indeed physical strength and courage will always have their weight, both in strategy and field battles.

The chief difficulty, however, of modern campaigning, is to secure supplies. For want of those Wellington had to retreat from glorious Talavera back to Portugal, Sherman's passage through Georgia, in 1864 does not, in Colonel Hamley's opinion, disprove the necessity for an easy approach to supplies, as Sherman's movement was for the sole and definite object of ravaging the enemy's territory, and thus deprive him of so much of his stores. After supplies, good roads rank next in importance. Colonel Hamley discusses this question ably and succinctly, as well as the transport of troops by railway. It is necessary to move large armies not on one, but on several parallel roads. If Napoleon the First's army had invaded Belgium by three roads instead of one, it would have extended 43 miles. When thus lengthened, a slight British force, by enveloping the head of the French column, would have inflicted a series of crushing defeats before the rear could possibly arrive on the scene of action. Armies, therefore, must be advanced by parallel roads, and these should have good lateral communications with each other. The Colonel illustrates this doctrine in a clear and simple manner by reference to the French and Austrian marches in Italy in 1859.

While armies are advancing, they must also be moving forward their magazines, establishing new ones along the route, and keeping communications open with their base. These objects were thoroughly realized by the Prussians in 1871—first, in their concentration on the Rhine about Bin-

gen, Mainz, and Worms; secondly, by the capture of French stores at Forbach and Saargemünde; thirdly, at Metz; and fourthly, at Orleans. The author does not place much confidence in railway communications. This opinion is evidently sound. He does not, however, attach sufficient importance to what is termed in military parlance, the initiative, or the power of making the enemy follow your own movements. Can any doubt be entertained of the value of the first blow, after what was found, in 1870, to ensue upon the delay of the French army on the west of the Rhine?

The power of concentration possessed by the aggressor is of incalculable value. The enemy are then in the same predicament in which they would be if their whole army was moving on one route only. It can be seen in detail, while it will still be afraid to concentrate, lest the first attack be only a feint. Aggression along a line of railway is also the best. This is not Colonel Hamley's opinion, but he does not appear to give its full value to an initiative policy of any kind. Of course the advance should be slow and cautious, but having a railway in the rear of every foot of ground is of much importance for bringing up supplies, while the possession of the line will exclude the enemy from its use until they succeed in forcing a retreat. A defensive policy also leaves the general at the mercy of politicians. If he is on the enemy's territory he can wheel about as he pleases, but any movement like a retreat on one's own soil is disastrous. The Emperor of the French experienced this in 1870, and was thus embarrassed in all his plans.

In the seventh chapter the author gives a detailed account of the campaign of Metz and Sedan, considered with reference to the views recently expounded in the treatise, especially those relating to the configuration of frontiers. All the disasters of the campaign referred to appear to be mainly owing to the want of due preparation and the consequent delay on the part of the French. The author, who is not of the boldest school of writers (although every sentence pronounces him a brave man), censures severely the conduct of Bazaine at Borny and Vionville. It appears that the marshal laboured under "a misappreciation of the relation of a fortress to an army in the field. Instead of regarding it as a point of manoeuvre to be relinquished when its relevancy ceases, he treated it as his actual base. In clinging to Metz he acted like one who, when the ship is foundering lays hold of the anchor." Charles XII., Alexander the Great, or Napoleon I., will usually succeed in war by reason of the celerity of his movements. A Bazaine will always fail, even with the best strategic theory. Old generals, always excepting Von Moltke, are rarely brilliant or successful. "Action, action, action," is the essence of oratory, according to the opinion of the greatest of rhetoricians "Action," at all events, is the main essence of warfare. Wooden walls may protect a nation long enough, but wooden legs will certainly never enable her to make an impression on a neighbor.

The author considers that the new frontier line of France is eminently disadvantageous to that country. She must therefore, he thinks, fortify the line of the Meuse and also "form an entrenched camp, with bridges connecting it on both sides of the Moselle, across the railway at Frouard, and with a bridge head at the east bank of the Meurthe," with a base southward at Dijon and Besançon.

Colonel Hamley has thus considered the

future of Europe as well as the past. His treatise is, indeed, both elementary, exhaustive, and practical. A civilian can understand and appreciate most of it, while it contains at the same time accounts of intricate combinations, any of which might pass for a Wellington Prize Essay. In particular the campaigns of Metz and Sedan and the account of the battle of Woerth will be read with peculiar interest both by military men and civilians. The maps and plans are also of a simple construction, and greatly facilitate either a deep study or a pleasant cursory perusal of the work.

**THE ESTABLISHMENT QUESTION.**—The committee appointed by the synod of the United Presbyterian Church, in May 1871, to watch and to defeat "the attempts of the friends of the Establishments over the Kingdom to prop up the existing system," have just issued a statement which may be regarded as a manifesto of the body, and one likely to be followed by vigorous action. It sets forth in detail the various arguments urged by the committee to justify the assertions that the State Church system is—1. Unscriptural; 2. Is injurious to the interests of religion; and 3. Is opposed to political equity. Among the closing passages is one in which reference is made to the proposed abolition of patronage in the Church of Scotland, and to schemes of comprehension and Church reform in England.

**CAPTAIN STERLING, R. N.**—The death of this old naval officer is announced at the ripe age of 83 years. He had been ill for some time, but possessed the full use of his faculties till a few days before his death, when he was prostrated by a stroke of paralysis, from which he never rallied. Glenryan Industrial School was erected mainly through his exertions and liberality. Captain Sterling took a prominent part in the formation of the Kilbarchan Volunteer Corps, and to the last was a liberal subscriber to its funds. Indeed, every good object received from him a ready and generous support. He was twice married, and has left a widow to mourn his loss.

**SANITABLE ADVICE.**—A conference of the miners delegates of Scotland was recently held at Glasgow, at which a resolution was passed expressing entire disapproval of the line of policy pursued by the men of the Wishaw, Motherwell, and Holytown districts, who have been offered 9s. a day, and then struck for 10s. The meeting advised them to return to the work immediately at 9s.

The Radical and Republican deputies in the National Assembly, at a separate meeting held last night, resolved to appoint a Committee consisting of twenty persons each who are also to appoint sub-committee, to report a plan for the settlement of the Ministerial crisis.

General Cordoba, Minister of War, persists in his determination to resign his position in the Cabinet.

It is now probable that the Assembly will not be dissolved.

REMITTANCES Received on Subscription to THE VOLUNTEER REVIEW up to Saturday, the 1st Inst.—

KINSTON, Ont.—Ens. Henry Conly..... \$2.00  
WURRY, Ont.—Capt. Joseph White..... 4.00

\* The Operations of War, explained and illustrated. By Edward Bruce Hamley, Colonel in the Royal Artillery, Companion of the Bath, Knight of the Legion of Honour and the Medjidie, Commandant of the Staff College. Third edition, William Blackwood and Sons, Edinburgh and London.

## FROM RUSSIA TO INDIA.

The following memorandum on the invasion of India, presented to the Emperor Nicholas at the time of the Crimean war, by General Duhamel, late Russian Envoy to the Court of Teheran, may be interesting to some of our readers:—

“When, towards the end of last century, the Emperor Paul ordered an army to be concentrated on our Eastern frontiers, preparatory to the invasion of India, the Indians were greatly irritated by the measure, harmless as it then was. Since that time English journalism has never ceased to discuss the danger of a Russian invasion of India. Parliament, too, has more than once debated the question. The present war being destined to become ‘a war to the knife,’ it is incumbent upon Russia to consider whether she has the means to touch England in India—the only point accessible to our arms—or, at any rate, to force her to concentrate an army in Asia, and thereby limit her action in Europe. History records that nearly all the conquerors of India came from Central Asia and Persia. The roads chosen for this purpose by Alexander the Great, Gengis Khan, Timur Khan, Baber Sultan, and Madir Shah are open to this day. Whether proceeding from Persia or the Oxus, all these roads converge upon Khorassan and Afghanistan; Candahar and Cabul are the doors of India. The roads at our disposal are these:—(1) From Orenburg to the Ust Urt and Khiva, and further on to Cabul by way of Merv, Herat, and Candahar. (2) From Orsk or Orenburg to Aralsk, Bokhara, Balkh, Kulum, and Cabul. (3) From Orsk, or Troitsk to Aralsk, Ak Meshed, Tashend, Khokan, Kulum, Bunian, and Cabul. (4) From Astrakhan by sea to Astrabad, and, further on, by Kadushan or Shamid, to Meshed, Herat, Candahar, and Cabul. (5) From Julfa, on the Araxes, to Tabriz, Teheran, Meshed, Herat, Candahar, and Cabul. The first three roads traverse the whole breath of the steppe. Even if we would rely upon being assisted by the inhabitants of Khiva and Bokhara, many thousand of camels would be required to carry provisions. The fourth and fifth roads lie through regions which, nowhere entirely barren, are in some place uncommonly fertile and inhabited by sedentary tribes. They neither encounter the insurmountable passes of the Hindu Kush nor the broad and deep stream of the Amu. If the necessary number of transports can be collected in the Caspian, the Astrakhan Astrabad route is the most convenient of all. It is a short cut to the east, and Astrabad being situated on the borders of Khorassan, there remain only 1840 versts (about 1300 miles) to Cabul. Perhaps infantry, artillery, and ammunition might be sent by sea, the cavalry and commissariat trains marching from Transcaucasia (Tiflis) through Persia. To march through Turkestan would be dangerous, the Khans and people being sure to rise up against us in our rear, attack our stragglers, and menace our communications; to cross Persia is safe. A half-civilized country, utterly incapable of resistance and bound to us by treaties, Persia can be easily kept in check by our troops in the Transcaucasian provinces. No doubt diplomacy will suffice to make Persia grant us magazines, camels, and the means of sure and safe communication. More than this we do not want. Were we to try and enlist Persian troops on our side, the deadly enmity existing between them and the Afghans would deprive us of the assistance of the latter. But an

Afghan alliance is the *sine qua non* of success. Naturally, England would take her precautions against us. The English might land in the Gulf of Persia, occupy the Isle of Karak or Bender-Bushir, and stir up the South Persian tribes against the Shah. But all this would be of no avail. If Russia guaranteed the integrity of the Persian territory, and promised to help the Shah to recover Bagdad, Kerbelah and a portion of Kurdistan, Persia could probably be induced to declare war against Turkey. All this recommends the Persian route as by the most advantageous. From Afghanistan three roads lead to the Indus:—(1) From Cabul to Jellalabad, Peshawar, and Attock. (2) From Ghazna to Dera Ismail Khan. (3) From Candahar, by Quette and Dadur, to Shikapur. The defiles crossed by these roads can be easily defended; still, it is worth notice that they can be more easily forced from the West to the East. The best, shortest, and healthiest road is the first, though the English chose the third when invading Afghanistan in 1839. At Attock the invading army reaches the road to Lahore and Delhi, the principal objects of the attack. Proceeding on this road, the army will stir up the Mahomedan population and carry rebellion into the very heart of the English territory. Allured by the prospect of plunder and territorial aggrandisement, the Afghans are likely to follow in our wake. If we succeed in inducing the Sikhs likewise to make common cause with us, all the better; if not, the Afghans alone are enough for our purpose. The negotiation of an Afghan alliance cannot early enough be taken in hand. All is gained if that can be gained; for not to conquer India, but only to destroy or shake the English rule, must be our object in invading the country. A moderate force, just strong enough to form the nucleus of a general insurrection, would be sufficient to attain our end. In proportion as the enslaved nationalities gather round our standard, our troops might be reduced and the natives left to themselves.”

The above is dated June, 1854; two other memoranda on the same subject, respectively dated August, 1854, and April, 1855, likewise said to have been presented to the Emperor Nicholas, have been published by the *Allgemeine Zeitung*. I do not think it necessary to translate, as their authors are not given. Supposing these documents to be authentic (says the *Times* Berlin correspondent), they prove the Emperor who ignored them to have been a more discreet man than the generals who drew them up. Indeed, to treat the march through Afghanistan and the defiles, defended by English troops, with the amusing brevity observable in the above *plan de campagne*, can be accounted for only by the disturbing influence the heat of a hostile period exercised upon the imagination of the writer. Since then, the whole aspect of things have changed. One portion of Turkestan has been reduced, the rest will follow suit; and, what is equally important, the Bolor and Kun Lum mountains, thus rendered accessible to the northern conquerors, have been proved, not a continuous chain of insurmountable hills, as they were formerly believed to be, but a group of separate ridges, broken through by practicable valleys and passes. Fortunately for the preservation of peace, the policy of the Russian Government has likewise become such as to prevent its generals from drawing up memoranda like the above.

The *Vossische Gazette* of to-day, a Liberal organ, reviews the memorial presented by the Russian General Duhamel, to the St. Petersburg Cabinet in 1854, in which he ad-

vocated the adoption of the route through Afghanistan as the shortest way to the Indus, Lahore, and Delhi, and that the Sikhs and Mahomedans should be roused to revolt and the British power in India thus overthrown.

The same paper likewise points out the spirit of Prince Gortschakoff's despatch to Baron Brunnow on the 20th November, 1871, in which he avowed the pressure of the National sentiment. The *Vossische* concludes by stating that it is easy to see what England would gain by a line of demarcation.

The Federalist parties are pressing their claims with aggressive energy.

Senor Nicolas Salmerr, Minister of Justice, will shortly presented to the Assembly a bill for the abolition of capital punishment for all offences whatever.

The Spanish Government is hurrying forward reinforcements to the troops now operating against the Carlists in the north. The insurgents continue to burn railway stations and bridges.

Letters from Madrid state that an Alphonso rising is anticipated, to begin during Carnival. Great anxiety is felt among the peaceably disposed citizens at the threatening aspect of affairs.

The men composing the garrison of Madrid are said to be in a condition bordering on subordination. Many of the private soldiers absent themselves from their barracks nightly without leave.

Reports which are privately circulated in Madrid of the condition of affairs in the Provinces are of a nature to increase rather than allay the feeling of insecurity which prevails at the Capital.

In the Assembly yesterday, Senors Castelar, Minister of Foreign Affairs and Echegaray, Minister of Finance, made statements with reference to the conditions of the Republic, tending to allay apprehension concerning the movements of the Carlists and the course or reactionary partizans.

The Ministry presented a proposal to apply ten million reals from the war fund for the purpose of improved small arms. They also declared that the Government will punish with proper severity all excesses on the part of these who persist in insurrection violence.

The action at the Heights of Miravalles between the royal forces and the Carlist band under Ollos was one of the most serious that has taken place since the breaking out of the insurrection. The Carlists, who numbered 1500, fought with stubbornness, but were finally repulsed by the Government troops. Many of the Republicans in the districts infested by the Carlists have volunteered to assist in repelling the insurgents, and have been supplied with arms.

Advices from Honolulu to January 25th, states that the King, in his inaugural address, proposed important amendments to the constitution. The first and most important is that the legislature be divided into two district branches, nobles and representatives. He also proposed free suffrage, and that the Attorney General of the Kingdom be no longer a member of the Cabinet. The Legislative Assembly adopted these amendments, and it now only remains for the Legislature to ratify them next year.

The “Commercial Advertiser” wishes the King of Honolulu to visit the United States to negotiate a treaty of reciprocity with the Washington Government.

## CONTENTS OF No. 8, VOL. VII.

POETRY.—	
Napoleon III .....	94
EDITORIAL.—	
England's Military position .....	90
The British Navy .....	91
Infantry Drill .....	91
Guns .....	91
England and Russia in Asia .....	92
The News of the Week .....	85
Reviews .....	89
CORRESPONDENCE.—	
Sabreur .....	93
Inquirer .....	93
The Annual Target Practice at Markham ..	93
Frontier Rifle Association .....	93
SELECTIONS.—	
New Drill and Tactics .....	86
On the Best Detail Formation for the New Infantry Tactics .....	87
Is England Effaced? .....	87
The British Navy .....	88
Selling a Wife .....	89
Monster Projectiles .....	89
A Powerful Vessel .....	89
The British Line in Attack Past and Future ..	94
Infantry Drill .....	96
A Narrow Gauge .....	96

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## The Volunteer Review,

AND

### MILITARY AND NAVAL GAZETTE.

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

OTTAWA, TUESDAY, MARCH 4, 1873.

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

The Accounts for Subscriptions to the "Volunteer Review" are now being made out, and will be forwarded by post to each subscriber, and after allowing a reasonable time for settlement, if not paid, the paper will be discontinued and the Accounts placed in Court for collection.

ENGLAND is likely to reap the fruits of the policy of her Whig-Radical rulers in 1870, when, through craven fear, they allowed Prince GORTSCHAKOFF to bully them out of a surrender of the Treaty of Paris; and this time she will be in the position France then occupied—without an ally in Europe. Those dearly beloved German relatives are about to shew themselves in their true colours, and will probably try to realize old BLUTCHER'S idea of "London being a fine place to plunder;" and it is within the compass of the chapter of possibilities that gunpowder will be the burnt between the parties before the close of the current year.

The *Broad Arrow* in a most elaborate article, in the *whose afraid* style, puts this matter very clearly, and simply confirms what we have for some time been thoroughly convinced of, that Prussia will try to use England as she has used Austria, for the purpose of securing her own position in Europe, and then deal with her as she sees fit. It is not a good sign to find the Berlin press indulging in sneering recommendations to England to abandon India and restore Gibraltar, nor is it conducive to the maintenance of peaceful relations to find the English press, and noticeably the military journals, indulging in fierce recrimination and almost defiance.

*Broad Arrow* significantly says "there is a smell of gunpowder in the air," and that Prussia is playing the present game for the purpose of helping Russia. That the former power is capable of any amount of deceit is beyond doubt, and it hardly admits of a question as to the craven-hearted gullibility of the Whig-Radicals. How beautifully their dear German friends sold them during the Franco Prussian contest may be gathered from what our contemporary says in reference to German feeling towards England:

"The matter, indeed, is rendered more important by a significant fact, of which no notice has yet been taken. All through the French difficulty, up to the close of last year, a carefully-compiled official paper, intended for the use of English newspapers, and translated for us, was regularly despatched from Berlin, so anxious were the Germans to put us right on political and military matters. The paper is now stopped. The work is done, and our good opinion is valued at a finger-snap. We cannot tolerate the valuation, as we have tolerated other things."

This may be taken as Act 1st in the political drama or tragedy about being played. The objects of Prussia are and have been always apparent: it is to make herself the arbitress of Europe, England stands in the way of that ambition, and must be circumvented or beaten. For this purpose it will be necessary to call in the aid of Russia. Eastern domination is her game. The writer in the *British Quarterly Review* clearly demonstrates that fact, as well as the political and strategical blunder committed in the attempt to revive the Byzantine Empire in 1854-55. He says that will not be again

attempted; but with Central Asia and India, Russia would find full compensation for any check in Europe, such as has already been encountered, and there is no good reason why it should be repeated. With the German Emperor as an ally—France beaten into dust—England would stand alone to face the united forces of both; and as the Whig Radicals and shopkeepers are mortally afraid of the United States, we shall probably have the Yankees blowing on the same side. That some such complication is imminent our contemporary admits:—

"There are rumours of an alliance, under certain conditions, between Germany and Russia, and a lure has been held out to us that were Great Britain to join in the league we might sway the destinies of the world between us. Such an alliance has no fascinations for us. We are content to remain as we are, and to hold what we have. Our power to hold remains to be tested, but it is not to be shaken by circumlocutiously inspired articles in the German press. Germany, thank God, is not yet Europe, and we helped to finish the last would-be divider of the world at Waterloo. It may yet be our painful duty to quench a little ambition in a similar manner. We know not what may be in store for us, but we shall keep a sound heart, and stand firmly in our shoes whatever may happen.

It is very evident that England will have to meet the next coalition single handed, and that Germany is preparing for eventualities in which the contingency of a contest with her holds the first place. What those preparations are may be gathered from the following:

"His Excellency Prince Bismarck, exercising his function as Chancellor of the Empire, has submitted a proposition to the German Federal Council for the appropriation of 9,000,000 thalers each for the erection and improvement of fortifications at Cologne, Königsberg, Wilhelmshaven, Kiel, and Posen.

"The German Premier recommends, in other words, an expenditure of \$35,000,000 for the defence of the coast against the future assault of any powerful naval enemy or of the fleet of its allies.

"The subject of an alteration of the strategic line of defence of the German Empire has engaged the anxious attention of Emperor William's Ministers and of the German Parliament since the close of the war with France. The conquest which Germany reaped from the great struggle in a large addition of new soil has, indeed, rendered a frontier line of topographical and military engineering rectification absolutely necessary at the War Office in Berlin. The subject has not been neglected. The Committee of Fortification of the Empire of Germany decided a few weeks since on the measures to be adopted for carrying out a new system of national defence. The main features of the report are as follows:—

"The following fortresses are to be suppressed at an early moment:—Rastadt (Baden), Minden (Westphalia), Erfurt (Thuringen), Wittemberg (Saxony), Stettin and Kolberg (Pomerania), Graudenz (Eastern Prussia), and Neisse and Cosel (Silesia). The works will not be demolished immediately, but the committee will no longer maintain these localities as fortified towns. The cases of Neifrisach, Wurzburg-Custrin and

Boyen (Eastern Prussia) remain under consideration, Schlestadt, Litchenberg, Lutzelstein, Munsal, Phalsburg, Bitcho and Dresden will be suppressed as fortified towns immediately. The places which are to be transformed according to the new system of fortifications are:—Metz, Diedenhofen, Strasburg, Vieux-Brisach, Mayence, Cologne, Wesel, G'ogau, Thorn, Posen and Konigsberg. Bramberg, hitherto an open town will become a fortress. The works for the aggrandizement of Metz and Strasburg are already commenced, those of Mayence will only be undertaken in the spring of the present year. As will be seen by the above indications, the plan of defence is concentrated on the Western and Eastern frontier, and on the coast of the Baltic and North Seas. The Ministry will not ask for any supplementary credit for the works of fortification, the present funds being sufficient for those commenced. At Mayence the expense will be provisionally met by the sale of ground. The cost of twenty seven new field batteries will be covered by the ordinary budget.

"It is announced that the Prussian government has definitely decided upon the construction of a canal which is to connect together the North Sea and the Baltic. Plans of the works required have been already drawn up, and a commission composed of German engineers and superior officers appointed to examine the plans on the spot, so as to make what alterations might be required. The members of the commission are expected at Kiel. Russia, it has been alleged, regards the project with considerable jealousy, as a means by which Prussian influence may be extended to the north of Europe. Evidently Kiel, which is the headquarters of the Imperial German fleet, is designed to assume great importance."

Forewarned is forearmed; and if England is caught napping, the shopkeepers that have brought her into contempt deserve to have their profits lightened!

The abdication of King AMADEUS was no matter of surprise to those who knew anything of the factions at the Spanish capital. It is quite probably the outcrop of those intrigues which will help to make Germany the arbiter of Europe, and the leaders of the Republican party will be used as the tools of the despot.

Complications likely to embarrass England may soon arise out of this change of Government in Spain. The Republican party there are in favor of a consolidation of the political power of the Iberian peninsula. The annexation of Portugal will, therefore, be attempted; and in order to prevent this a strong British squadron is ready in the Tagus. The reclamation of Gibraltar is another article of the political creed of those people; and a good opportunity would be afforded for Russia to forward her own schemes by another impertinent message to Earl GRANVILLE, while the "man of blood and iron" stands by as arbiter! Altogether a fine chance is afforded for the illustration of the doctrines of the peace-at-any-price party, and it would be a pity to lose it.

The indifference displayed by the Spanish

people at the abdication of their Italian Sovereign proves that he never occupied any very prominent position in their esteem, while it is also evident that their natural character is not excitable, seeing that they have accepted the situation as an ordinary occurrence; and at the latest accounts the peace of the capital or country had not been disturbed. What a splendid chance it affords the astute German Chancellor and his Russian colleagues to out-manoeuvre the only power that stands "between them and anything else," Spain could be bought with the promise of Portugal and cession of Gibraltar, while the Treaty of Washington would become waste paper on the bait being held out that the Yankees might acquire Cuba. The opportunity is too tempting to be allowed to pass away without some steps being taken.

If it ended in abrogating the Washington Treaty, we might possibly benefit thereby, especially if it would lead to the revival of that iniquitous decision of the Kaiser respecting the Island of San Juan. The residents on that island are in a peculiar position, if the following extract from an exchange is correct:—

"The British settlers on San Juan and adjacent islands until recently jointly occupied by the governments of Great Britain and the United States, but now in the undisputed possession of the latter, have been officially notified that unless they take the oath of allegiance to the United States by a given time, their property will be liable to be jumped by any American citizens whose covetous desires might prompt them to do so. The following is a copy of a notice, posted by authority in various conspicuous places on the island in question: "By virtue of a telegram dated Olympia, W. T., Dec. 25th, 1872. Public notice is hereby given, that all British settlers on the late disputed island, who wish to become American citizens, in order to prevent trouble about their land claims, are requested to meet the Clerk of the District Court of Washington Territory, on Monday, January 6th, 1873, at W. F. Taylor's, San Juan town, where the Clerk will administer the Oath of Allegiance, W. F. Taylor, acting N. R. N. B.—Persons wishing to have their Naturalization Papers made out in proper form can apply to Thomas G. Murphy, San Juan town." The British Columbia papers express some doubt as to the authenticity of this notice. They can scarcely believe that the United States authorities would attempt to employ any such sharp practice as that referred to, to compel British settlers on the late disputed islands to forswear their allegiance to their native land or run the risk of forfeiting their homesteads. There are on those islands upwards of one hundred such settlers, not including their families, some of whom have been on their lands for the past twelve or fourteen years, and all in good faith, believing that the territory belonged to Britain, that the rights they had acquired to their lands were secure, and that they would be protected in the peaceful enjoyment of them. The adverse decision given by the Emperor of Germany to Britain's claim to the sovereignty of the islands in question, would scarcely under the circumstances justify the American Government in employing any arbitrary means either to dispossess those

people of their lands or to force them to forswear allegiance to the British Crown. The matter was brought up in the British Columbia Parliament on the 10th ultimo: an hon. member moved that the action of the United States authorities in this respect be brought to the notice of the Dominion Government. The Premier (Mr. DeCosmos) stated that this had already been done, and a memorial forwarded to Ottawa to be transmitted thence to England. The British Columbians, the next neighbors of the San Juan islanders, are naturally somewhat interested in the promises."

This is what Canada has reaped from the statesmanship of the Whig-Radicals and the Manchester philosophers!

The London Times, in its great anxiety to provide for the future welfare of British North America, has been a steady advocate of annexation to the United States. As a good many sentimental Republicans look on the constitutional regime of that country as the most perfect in the world, we would recommend to their careful consideration the peculiar phrase of political morality a pure Republic offers.

The Vice President of the United States, who is also President of the Senate, has been convicted of taking bribes of so low a value as \$1200, and he is not alone; other members of that illustrious body are charged with the same crime, and a committee of the House of Representatives have advised the expulsion of two. One of those is Ames from Massachusetts, Ben Burden's son-in-law.

If the Times and the clique it represents are enamored of the political institutions of Yankeeedom, they are perfectly welcome to their love—they are not admired in Canada. The following from a Montreal journal is about the true position of affairs:

"Our Republican neighbor's across the line now find it necessary to keep up a standing army of 30,000 men, and the various appointments and stations for it have just been arranged for the year. Formerly one of the blessings enumerated as accruing from a republican form of government was the non-necessity of keeping up such costly institutions, the militia and volunteer forces being depended on to defend the commonwealth in case of danger. Experience, however, shows that this fine theory will not bear to be put in practice. It is to be observed that the United States Army is not kept up through apprehension of foreign invasion, but as a precaution against outbreaks, the union of the States being no longer a voluntary one, and Republics not seeming to enjoy an immunity from intestine discord any more than monarchies or empires. Those reflections seem to have struck the New York Herald, and looking round at Canada it finds the latter has many blessings that the American Republic wants. No standing army or navy; taxes so small as not to be worth speaking about; a moderate revenue tariff; murderers and other criminals punished; judges incorruptible; cheap legislation and a public opinion that frowns upon corruption—such are a few of the advantages conceded to Canada by our New York contemporary, which allows that without an army we are just as safe as though we



had the forces of Russia. Like the genius who set out to convert another to his views and came back converted himself, so the *New York Herald*, which has been trying to make Canadians believe in annexation to the United States, may have got some convictions on the superior advantages of the annexation of the United States to the Dominion of Canada. There is no doubt we would all be glad to welcome back a long-stranded brother to the family circle. The Dominion would extend him her arms in a loving embrace. Perhaps the *Herald* will ponder this.—*Witness*.

The following extract from a Canadian Journal is recommended to the careful consideration of the London *Times*, the disciples of the Manchester School, the Whig radicals and the people of England, and when the *Thunderer* next takes up the roll of confidential political adviser of Canada, it would be just as well to remember that her people are better judges of what is good for themselves and for the people of Great Britain, than the sages of Printing House Square.

"Few of Canadians even realize the greatness of our Dominion as a maritime power, and it astonishes also those generally well informed to read such statistics as the following from that great authority the London *Times*, in which it is stated that the tonnage of the United States' vessels entering ports of Great Britain and Ireland during the year was 381,512, while the tonnage of the same nationality outwards was 465,047—total, 846,559 tons. The tonnage inwards of vessels from British North America is in the same paragraph given at 1,290,783. The tonnage outwards is not stated, but we may safely place it at the same figure as the tonnage inwards, and thus we have a total tonnage of British North American shipping of 2,591,566 or, in other words, the Canadian was nearly three times greater than the American tonnage.

Three years ago Canada was the third maritime power of the world, being exceeded only by great Great Britain and the United States, the latter power being ahead 500,000 tons. The Canadians have thus progressed rapidly while the United States have rather retrograded. Canada has gained so rapidly that she will soon rank second only to the grand old mother land. Although but a young nation she outstrips the maritime nations of Europe, such as France, Germany, Spain, Italy and Holland. If for nothing more than our maritime strength, our connexion with Britain should be highly valued at home, as our 90,000 hardy seamen would form a wall of defence not easily overcome by England's foes."

MILITARY organisers are subject to the delusions of all speculative philosophers, and frequently mistake theoretical deductions drawn from premises as illusive as the baseless fabric of a "vision," for axioms about the application of which practically, there can be no manner of question. Prominent amongst those crazes is that of *mounted riflemen*, a force held to be peculiarly applicable to the altered conditions of modern warfare—and like the Prussian examples, about which military men as well as others appears to have gone mad; the example and precedent cited in the late con-

test in the United States, a war, by the way, waged under specially exceptional circumstances, as far as the contending parties was concerned, and in no novelty more striking than the organisation of the force known as *mounted infantry*, from which the idea of mounted riflemen has been derived. One of our gallant correspondents "Royal Dragoon," in a late communication, in which he has disposed of some extraordinary theories respecting cavalry, describes the non-descript force organized by the Federal Army, as being "organized solely for the purposes of retreating," and we are of opinion that any man who could understand the peculiar functions of cavalry soldiers would at once decide that without his good steed, the dragoon, uhlan, hussar, or light horseman was in a great measure useless.

We are not aware that the cavalry force in modern days was even expected to be brought under the fire of the unshaken infantry array. Up to the introduction of *breech-loading* rifles, their business was to charge broken infantry, to complete a victory by dispersing a retreating foe, to cut off supplies, provide intelligence, and do other connecting duties for which they are yet as available as ever, with this difference that they cannot now be openly pushed as near the hostile line as in former days, and consequently it will be all the more necessary when they are enabled to act, to have their horses capable of advancing at charging speed, which is a feat that could not be performed by mounted riflemen. It must be remembered that during the civil war in the States, *breech loaders* were not used, nor was the range of weapons anything like that in the hands of good troops at the present day.

*Broad Arrow* of 8th inst. contains the following paragraph which throws a flood of light on the wear and tear of animal power on the occasion which furnishes the sole precedent on which the idea of such an anomaly is based, and it has not one feature to recommend it, the proposition for "low backed cars" would be a decided improvement, ridiculous as it is, and, although it might not be "inevitable" in every European campaign to compel the substitute for a cavalry force to go "straight across country," there is no other territory in the world so devoid of natural obstacles as to make those vehicles a possibility. Would it not be an improvement in those days of *iron clads* to make each car bullet proof, and put breast plates as well as head pieces on the horses. The wheels could be armed with scythes and to make all comfortable there should be in each car "a feather bed for every man," but the extract is as follows:

"Apropos of the employment of Mounted Riflemen, a correspondent calls our attention to an objection which he thinks is very generally overlooked, to wit, the enormous wear and tear of horses thus involved. In the reports of the Quartermaster General's Depart-

ment of the United States Army, it is asserted that in active field operations of the kind referred to, it was found necessary to remount every officer and man once in four months. In the Army of the Potomac alone, in the year 1863, the number of cavalry horses placed *hors de combat* was 35,078 or 2½ horses killed or ruined for every mounted man of the force within a space of twelve months. Our correspondent does not dispute the value of a corps of Mounted Riflemen under certain circumstances; but he observes that the presence of the horses under fire is objectionable; the real object of mounting bodies of riflemen is to increase their mobility out of range. He asks whether it would not be possible, in the majority of cases, to secure the requisite mobility by employing light, strongly built "outside cars," well horsed, and well-driven each carrying from six to ten infantrymen in light marching order. As the men could spring off the cars in case of need, the mobility attained would probably be, under ordinary circumstances, as great as that of Hussars carrying riflemen on their croups if not, indeed, of a corps of Mounted Rifle men proper. The difficulty of managing the riderless horses during a skirmish, and much of the wear and tear above alluded to would be avoided. A few extra feeds for the horses and some suitable pioneer tools, and a supply of gun cotton in discs, with fuzes &c., might also be carried in the cars much more readily than in the saddles. Presumably these cars could cover as many miles in a day, on a road, as the light delivery vans used by tradesmen, and in case of need, with a light load; and for shorter distances, they might be driven with the rapidity of a London fire-engine. In going straight across country, they would be at an immense disadvantage, but would this be so often inevitable in European campaigning?

We have to thank Captain G. A. RAIKES, 3rd West York Light Infantry, Belsize Park, Hampstead, London, for a copy of the *Army List* of 8th February, containing the first Gazette of the Canadian Volunteer Force.

#### REVIEWS.

We have to acknowledge the receipt of No. LXIX Vol XVI of the Journal of the *Royal United Service Institution*. It contains the following articles:—

- On Coast Fog Signals.
  - Firing at Armor clads reduced to a System.
  - Practical Nautical Surveying.
  - The Breeding of Horses for Military Purposes.
  - White's Porte-Knapsack.
  - Read and Nickell's Patent Day and Night Helm Signal for Preventing Collision at Sea.
  - Hill's Boat lowering and Self-detaching Apparatus.
  - Parker Rhodes Military Boat.
  - On Infantry Tactics.
  - The Cultivation of Scientific Knowledge by Regimental Officers of the British Army.
  - The Autumn Manœuvres of the Prussian Guard Corps in September, 1872.
  - A Brief Sketch of the System of Officing the Prussian Army.
- Those articles are by distinguished officers of the British Army and Navy, that on Practical Nautical Surveying by Staff Commander Thos. A. Hull, R.N., is a particularly valuable paper, not only to officers of the Naval

Service but to Civil and Military Engineers; the examples and problems being the best as well as simplest we have ever seen.

The *Westminster Review* for January contains the following articles:—

- Sophocles.
- Parliamentary Eloquence.
- The Decline of the Old French Monarchy.
- Religion as a Subject of National Education.
- The Republicans of the Commonwealth.
- The Christian Evidence Society.
- The Gladstone Administration.
- Contemporary Literature.
- The LEONARD SCOTT Publishing Company, 110, Fulton Street, New York.

The *Science of Health* for March has been received from the Publisher, S. B. Wells, 389, Broadway, New York, it is replete with interesting articles.

The *Illustrated Canadian News* for 22nd February contains—

ILLUSTRATIONS:

- Hon. E. R. Caron, Lieut Governor of Quebec.
- The Snow Lion at Laval University.
- Arrival at Halifax of H. M. S. "Himalaya."
- Hon. Alex Vidal, Senator.
- The Lieut. Governor of Ontario at Belleville.
- Practice of B. Battery, Quebec School of Gunnery.
- The Critics.
- Napoleon III. after death.
- Quebec Sketches, No. 1
- Fashions, &c.
- "Kli va-La?"

ORIGINAL ARTICLES:

- The Schoolmistresses and Governess of Charles Dickens.
- Biography of the Hon. E. R. Caron.
- Biography of the Hon. Alex. Vidal.
- Gossip on Popular Scientific Subjects. No. 4, Waterspouts, Whirlwinds, and Hurricanes.
- Mr. Sprouts, His Opinions.
- Mistresses and Maids; Is Another Conference Necessary.

ORIGINAL POETRY:

- Sonnet.
- Alar Dolorosa.

SELECTIONS:

- Alexander Dundas' "Grand Dictionnaire de Cuisine."—(*Pall Mall Gazette*.)
- Quebec, as Seen by English Eyes.—(*Queen*)
- Curiosities of the Piano Trade.—(*Cincinnati Gazette*.)
- Miscellaneous Items.
- Editorial.

- Notes and Queries.
- Notes and Comments.
- Courier des Dames.

- News of the Week.
- The NEW MAGDALEN, Chap. xx. By Wilkie Collins.
- Chess.

The March *Aldine* opens with a very of fective const scene: "After the Storm," by Tavernier. The black and rugged cliffs are in powerful relief against the moonlight-bursting through the broken clouds and reflected from every rippling wave,

"Break, break, break  
On thy cold, gray crags, O Sea!"

The "White Birches of the Saranac," the famous ride from "Ghent to Aix," and "The Fox and Grapes," are gems of art. The literature too is more excellent than usual. The most noticeable articles are "Interludes," a sparkling story, by Elizabeth Stoddard, and "Tawny Mustache," a bright social sketch, by Sue Chestnutwood. Charles Dawson Shanly contributes a pleasant paper about "Giants, Real and Mythical;" W. W. Bailey a little study in natural history about "Pussy Willows and Alders;" and Henry Richards a bit of gossip about "Short and Pithy Letters." The editorials, which are in Mr. Stoddard's best vein, are "A Few Thoughts about Water," "The Horse and his Riders," "White Birches of the Saranac," and "Love's List Service." Elizabeth Akers Allen opens the number with a pathetic poem, entitled "Inconstancy;" Edgar Fawcett follows with "Apostacy," a melancholy poem; and John Sydney with an amusing nursery song on "Baby's Toilet." Music, Art, and Literature are intelligently and critically treated. Altogether the March *Aldine* is the best yet issued. Subscription price \$5.00 including Chromos "Village Belle" and "Crossing the Moor." James Sutton & Co., publishers, 55, Maiden Lane, N. Y.

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.

Toronto, 22nd February, 1873.

SIR—In the REVIEW of the 18th inst., you say, "Ottawa can boast of having the best Field Battery of Artillery, the best Brigade of Garrison Artillery, and the best Battalion of Infantry, in Canada;" and you add, "the soldiers serve at their own expense."

My impression on reading the above was, some great change has taken place of late for the better. For on referring to the last report on the state of the Militia of the Dominion, I find quite a different statement about the Artillery, one corps in particular; did not perform its duty as they should have done, they were not complete and they were paid.

I would rejoice to know that Ottawa has now a very efficient force, but I must say you adopt a very injudicious mode to convey the information to the rest of the volunteers,

Would you be kind enough to point out, why you think the force at Ottawa the best in Canada.

And oblige yours truly,

REEMAN.

If our correspondent wants "hard facts" like Tom Gradgrind, he will find them if he comes here. We are always thankful for small mercies, and therefore accept his rebuke with meekness.—*Ed. Vol. Rev.*

RUSSIA AND KHIVA.

Russia, contrary to the advice of Prince Gortschakoff, is about to inaugurate a campaign against the Khan of Khiva. This khanate occupies an oasis of extremely fertile soil, highly productive and well peopled, owing all its prosperity and its very existence, indeed to irrigation from the river Oxus, which passes through the heart of it. For ages, which go back beyond the dawn of Oriental history, the great stream has performed its annual task of feeding and enriching the dwellers on its banks, a very mixed people of Turanian and Iranian elements, strongly wedded together not by sympathies of race, but by long submission to her editary government and by fanatical adherence to the tenets of Islam.

The people are born horsemen, wealthy agriculturists, honest, energetic, and brave to desperation. Only thirty years ago they literally destroyed an army of 12000 men sent against them by the Emperor Nicholas, and Russia has not since had the heart to retiate. But Khiva intrudes herself and intercepts communication between sundry outlying sections of the Czar's Asiatic provinces; and, from its central position, it threatens several surrounding points at the same time. Hence Russia is collecting her gigantic resources to surround and crush her adversary, and her legions are even now marching through the drifts of winter, against the enemy.

In the meantime, England looks upon the movement with jealous eyes, as threatening her allies of Afghanistan. Yet her newspaper organs keep up a show of indifference. The *Pall Mall Gazette* says:

"With all this grand preparation we are assured that Russia has nothing so little at heart as the annexation of Khiva. We shall see. Looking at geography only, it would seem almost impossible for Russia to dispense with the acquisition, or at least the control, of the khanate, if she means to retain any hold on Central Asia. The khanate is all but an 'enclave' of Russia already, save on the side of Bokhara, and Bokhara is now a submissive dependency. And as long ago as the reign of Peter the Great, the Khan of Khiva according to the Russian authorities, rendered forever allegiance to his majesty the Czar."

A HAPPY AND INDEPENDENT PARISH.—With a view of providing for the wants of the poor, funds were got up at Ceres, in Fifeshire, amounting to 30l. for the purpose of setting on foot a soup kitchen. Not one was found in a position requiring support therefrom, and in order to get rid of the funds it was agreed to distribute bread among those who would take it; but as in the case of soup, not one individual would take in the leaves, although offered to be delivered by the bakers.

## A MYSTERY.

BY JOHN G. WHITTIER.

The river hemmed with leaning trees  
Wound through its meadows green;  
A low blue line of mountains showed  
The open space between.

One sharp, tall peak above them all  
Clear into sunlight sprang;  
I saw the river of my dreams,  
The mountains that I sang!

No clow of memory led me on,  
But well the ways I knew;  
A feeling of familiar things  
With every footstep grew.

Not otherwise above this crag  
Could lean the blasted pine;  
Not otherwise the maple boid  
Aloft its red ensign.

So up the long and shorn foot-hills  
The mountain road should creep,  
So green and low the meadows fold,  
His red-haired kine asleep.

The river wound as it should win I,  
Their place the mountains took,  
The white torn fringes of their clouds  
Were now wonted look.

Yet ne'er before that river's rim  
Was pressed by feet of mine,  
Ne'er before mine eyes had cross'd  
That broken mountain line.

A presence, strange at once and known,  
Walked with me as my guide;  
The skirts of some forgotten life  
Trailed noiseless at my side,

Was it a dim remembered dream?  
Or glimpse through some veils of old?  
The secret which the mountains kept,  
The river never told

It is from the vision, ere it passed,  
A tender hope it drew,  
And pleasant as a dawn of Spring,  
The thought within me grew.

That love would temper every change,  
And soften all surprise,  
And, misty with the dreams of earth,  
The hills of heaven arise.

—Atlantic Monthly

## ATTACK AND DEFENCE

(From the United Service Magazine.)

The great military problem of the day is undoubtedly the tactical employment of Infantry.

Infantry, forming as it does the bulk of an army, is eminently the arm on which one must depend in battle; artillery may prepare, cavalry may complete, but infantry alone can win a decisive victory; therefore, it is the formations and movements of Infantry especially that must be studied.

Till recently, the tactical employment of infantry was comparatively easy, for, owing to the limited range of fire-arms, lines or columns could be formed at short distances from the enemy, and attacks could be successfully delivered, where attacks in such formations would now be utterly impossible. The vast range and accuracy of modern fire-arms, and the rapidity with which fire can be delivered, have rendered it as futile as it would be absurd to approach an enemy so armed in the dense formations so lately in vogue. Never again will be witnessed such a magnificent spectacle as the advance in close column of the Old Guard at Waterloo; such a column would advance only to die, and would be ruthlessly swept away long ere it could reach the enemy. The "thin red lines" that boldly breasted the heights of Alma, are also among the things of the past; their slowness in a flank and the difficulty of availing oneself of cover, rendered obsolete the famous formations so successfully employed at Salamanca and Vittoria. The combinations of line and column employed by Bonaparte, the open columns of double companies that charged at

Solferino, will never be seen again. The grand old arrays, that lent "pomp and circumstance" to "glorious war," are gone for ever, and war, as a spectacle, exists no longer.

"The old order changeth, yielding place to new." But what is that new to be? Are we to adopt the Prussian system without reserve and fall down and worship that golden calf—the company column? and are we to sacrifice at the altar of innovation the most splendid traditions of the British Army? We think not. But to guide us in our decisions, we have only afforded us the lesson taught by the campaign of 1870, for that of '66 can not be accepted as a fair criterion.

If we examine the tactics of the Prussians during the last great war, we shall find that there is a vast difference between the methods employed by them at the commencement and at the termination of the bloody struggle; at Weissenbourg, at Worth, at Gravelotte, it was the company column, at Lo Bourget, at Orleans, Lo Mans, it was the swarm of skirmishers.

To arrive at a correct conception of the advantages and disadvantages attending these two methods, it is necessary to enter more minutely into details. Let us then examine the formations of Weissenbourg and Gravelotte.

At Weissenbourg the attack was made in the following order:—

First Line.—Jagers in skirmishing order

Second Line.—A Line of company columns.

Third Line.—A line of supports of half battalions in column

Fourth Line.—A reserve line of battalions also in column.

This attack succeeded in spite of the murderous fire of the enemy; but why? Because the Prussians were immeasurably superior in numbers, because the nature of the ground was singularly adapted for such an attack, affording as it did numerous dead angles, in which these little columns found shelter, and, above all, because the French flank was turned, and the resistance paralyzed.

At Gravelotte the formation was something similar, but the skirmishers and company columns were as one and the same line; in fact the first line was a line of company columns of sections at quarter distance, and at deploying intervals, the intervals being filled by the third rank in skirmishing order. It was in that formation that the Prussian Guard made their first attack on St. Privat. The advance had to be made across a wide, open plain; it failed, and in a few minutes this *corps d'élite* had lost 6,000 men. From that moment the attack in line of company columns across an open plain was rejected as impossible. Another formation resorted to was, in first line a swarm of skirmishers, then a line of company columns, and finally a line of battalion columns. But the same objection applies to all these different formations; they were one and all so dense, and, except under certain circumstances, failed to penetrate the fearful zone of fire which separated them from the enemy; in fact, we believe that these formations were little less dense than the old line of battalion columns, and infinitely more so than the formation in line; but, on the other hand, they had advantages which might in some degree compensate for this—such as extreme mobility, facility of deployment, ease with which cover would be taken advantage of; but none of these advantages could wholly compensate for the awful loss of life entailed by attacks across open ground.

The fatal experiences of the Prussians at the commencement of the war all tend to show that these formations were too deep to be carried out without most frightful losses. The result was, that at a later period before Paris and on the Loire, the Germans learnt to attack in the loosest order. The attacks were then conducted somewhat in this fashion: Having brought up the columns of attack under cover to within about 2,000 paces of the enemy, these columns would be allowed to dissolve into swarms of skirmishers; they would then advance as rapidly as possible, the men making their way by dodging here and there, by creeping along, by throwing themselves down behind banks and bushes, assembling in groups as afforded, then forward again, and in this manner gaining ground bit by bit, till they arrive in close proximity to the enemy; then some officer, seeing his opportunity, would call his men around him and make a dash for some weak point in the enemy's line, and at this, the decisive moment, the French invariably gave way, and thus the Prussians' swarm system asserted its predominance, and convinced all Europe of its infallibility. But though such a system of attack might, and did, succeed against raw undisciplined Mobs and demoralized Zouaves, we doubt its efficacy in attacking regular troops. Would steady, disciplined British soldiers have given way before the desultory attacks of these organized bush whackers? We trow not. We maintain, then, that all such attacks, except under particularly favourable circumstances, would fail, and in failing, would at the same time offer peculiar facilities for the excessive flanking movements, which they—the Germans—undertake, frequently operating at the same time against both flanks, must necessarily tend to weaken the centre of their line of battle, and this weakness seems to invite, and in our opinion would render a counter-attack, opportunely delivered, most effective. Such a counter-stroke would most probably be met by skirmishers extended on the "swarm" system, in order that their numerical weakness might not become apparent, and because it would be impossible to cover the ground in any more solid formation. Now this "swarm" system is dense without possessing thorough cohesion, and surely, when met by troops in more regular and comparatively more compact order, would utterly fail to maintain a successful resistance. But what is this new system of attack to be? Let us examine what has been tried since the conclusion of the war, both in Prussia and at home. In Prussia all efforts have been directed towards the development of the "swarm," by a more systematic method of advance, a greater amount of order and regularity has been insured; but still many of the old defects remain.

At the recent Berlin manœuvres, the attack by a brigade, according to the *Standard* correspondent, was made by regiments, the second regiment of the brigade being in support, the battalions being themselves formed into four distinct and separate lines; the first of which was skirmishers, the second also skirmishers, the third a line of small peltons of half-sections as supports, and the fourth a line advancing by thirds from the right of each section at deploying intervals. The first, second, and third lines are composed by the first and fourth companies of each battalion, and disposed that the three "zugs" of the company are in the first, second, and third lines, respectively. This method has doubtless great advantages over the old hap-hazard system, for the men of each company are kept together, and are under their own commanders, and there is,

therefore, less liability to get mixed than there was heretofore. Still, we do not think that it would be advisable to adopt such a system, because, in the first place, the organization of our battalions and companies is unsuited to such a system, and in the second, because the old fault of density without solidity still remains; for even in this formation, there would be, on an average, four men to the yard, without reckoning the other regiment in rear, and it would be in the highest degree difficult, at the actual moment of attack, to change from that to any more solid formation.

Now let us turn to England. During the Autumn Manœuvres several systems were given a trial, but in all the same defects were observable, in all the general idea seemed to be the advance of a line covered by successive lines of skirmishers, which at the moment of attack were reinforced by the line itself extended in skirmishing order; the result was, the men of different companies became hopelessly intermixed, and all control over them was lost by the officers. If we are to adopt the "swarm," for Heaven's sake let us have the Prussian organization; with them, even confusion reigns, but with us the "swarm" means absolute chaos.

A system slightly different from the rest was that proposed, if not employed, by Sir Charles Staveley, as suitable for a division of three brigades each of 3 battalions; by this system two brigades were to be in the first line, while the third was in reserve, in column of double companies, either in line at deploying intervals, or in echelon. The first line, when formed for attack, was disposed as follows: The inner battalion of each brigade extended three companies in skirmishing order so as to cover the whole front; then another line of skirmishers, also of three companies, was thrown out, and the two remaining companies were formed as supports in rear; the centre battalions of each brigade then advanced in line, while the outer battalions, also in line, were refused, so as to protect the flanks of the division. This system certainly had marked advantages, but still is far from fulfilling the conditions required. The advantages attending it are:—

1. That a flank being refused, front can be easily and rapidly changed.
2. That the reserve occupying, as it does a central position, and point in the line can be speedily supported.
3. That skirmishers may be easily reinforced. But, on the other hand, every fresh reinforcement of skirmishers would only tend to increase the confusion—at first the companies, and then the battalions would become intermixed; again, advancing such a formation in the face of a heavy fire would be impossible, as the long unwieldy lines, owing to their slow rate of advance, would suffer most terribly from the enemy's fire.

But if we presume to criticize every formation that has been employed or suggested by others, we must ourselves not shrink from the onerous task of supporting some system in the place of those we have condemned, and this task we approach with the utmost reluctance, feeling, as we do, our own incompetence to treat so important a subject with the vigour and penetration which are its due; and knowing only too well the long and brilliant array of military writers, exponents of the Prussian system. It is with feelings of the utmost deference to their opinions that we now venture to suggest a system in opposition to their views. The system of attack that we would advocate is briefly this: That the attack should

as heretofore, be carried out by skirmishers, but that the present method of skirmishing be modified; that the battalions in rear should then advance as long as possible in close column, and, if necessary, by wings, every advantage been taken of all cover that may be afforded by the natural lay of the land, but from the moment of coming under fire the advance to be made in line at open order, either by alternate wings or by alternate companies, according to the nature of the ground; each successive line advancing about a hundred paces at the run and then lying down to regain breath, while the line in rear passes it in like manner; the moving lines to advance as rapidly as possible without firing, the line lying down to cover the advance of the moving line by a sustained and rapid fire. In this manner the whole line would gradually approach the enemy, and that, we believe without excessive loss; on arriving in close proximity, if the enemy had not already given way the wings or companies for the time being in rear should close with those in front so as to occupy their respective original positions in line; thus the final charge would be delivered in a formation somewhat approaching to that grand old order, the traditional British line. The battalions in second line must keep pace with those in front, and be ready at the decisive moment to support them, for in these days of far ranging weapons it is more than ever necessary that an attack when made should be successful; the losses that would be suffered in retiring are too frightful to contemplate. Success is obligatory. Such then is the system of attack that we would suggest as being suitable both to the existing conditions of warfare and to the national character. Now let us consider this system a little in detail. We have said that the present system of skirmishing should be modified; our reason for this assertion is, simply, that the method of skirmishing laid down in the drill-books is incompatible with order, for by it we cannot reinforce skirmishers without hopelessly intermingling the men of different companies. What we propose in its place is this: that the front rank only of the flank companies of the battalion should first be extended, so as to cover the whole front, each company covering its own wing; that this line having advanced about fifty yards, the rear rank of the flank companies should be extended, and then double through the front rank line of skirmishers, going about fifty paces to the front, then lying down, and continuing the firing till passed in like manner by the front rank; if at any moment it became necessary to reinforce the line in front, that in rear would simply double up, and join it; and then, instead of having two companies mingled together, you would find the men to be in almost exactly their original relative positions. When these lines of skirmishers had advanced some two or three hundred yards, the battalions—themselves the actual supports—might be put in motion. If advancing by alternate companies, the advance might be made in what we propose to call the open formation—that is, instead of preserving the touch, extending so that there should be an interval of about a pace between each file; this would most ~~apparently~~ lessen the loss, and would render a rapid advance more easy. Such a formation would not, however, be applicable to anything larger than a company, for the reason that a battalion extended would occupy too much ground, and so interfere with the advance or fire of regiments on either flank, and also because a battalion would take too

long either to extend or close. A company, on the contrary, might extend or close most rapidly. Take for example a company of thirty files; when touch is preserved, such a company occupies twenty yards at "open formation;" with about two feet between each file, the same company would occupy about forty yards; therefore, in extending from the centre, the flank files would at most only have to take ground outwards about ten or a dozen yards; and to do this would not take long. Now, by so extending, the alternate companies would fill the intervals that would have been between them, had they advanced with touch preserved; these two lines would therefore have the appearance of two successive lines of skirmishers, but with this incalculable advantage over ordinary lines of skirmishers, that by closing on their respective centres, each company can quickly reassume a more solid formation, and that by bringing up those companies for the time being in rear, the intervals would be filled, and line reformed. While this manœuvre is taking place, the skirmishing companies might gradually edge away towards their respective flanks, and thus, while making way for the battalion, might occupy the gaps between regiments.

This system, we think, combines the advantages of an advance made in a manner calculated to incur the least possible loss, and an attack delivered in an order sufficiently compact to render such an attack effective. It is probable that the steady but rapid advance of these thin successive lines, the continual fire, the rapid transition from loose, order to line would have a far greater moral effect upon an enemy than the usual haphazard advance of clouds of skirmishers; and of the actual physical effects at close quarters, we think little doubt can exist. Having explained the method of advance for a battalion, it only remains to say that when attacking by brigades, the skirmishers should at the last moment retire, or, rather, take ground towards the flanks of their respective battalions, and one rank, that for the time being in rear, should form a support; thus the intervals between battalions would be filled, and their flanks would in some degree be protected by these supports.

Such a system has the further merit, that little or no change would be required in organization; but we would remark *en passant*, that we consider it disadvantageous for many reasons that a company should exceed forty files, or that there should be more than eight fighting companies in the battalion: this would give a maximum strength of 640 bayonets; but for our part we should prefer seeing battalions of six companies of forty files—that is, 450 in all.

Now let us turn to the question of defensive tactics. An attitude strictly and entirely defensive is naturally deprecated by all writers, and condemned by all soldiers; therefore we may assume that as a rule a defensive action simply consists in allowing the enemy to develop his attack, and then, having discovered his weak point, acting offensively when and where an offensive action would be most likely to meet with happy results; but although this may be the general idea of the defensive, still there must always be some parts of the line which are actually attacked, and it is the manner of meeting these attacks which we now propose to discuss.

It may be argued that there is little need for changing the defensive tactics of the present day, and this we admit to be true in

some degree, for the defence can, therefore avail itself of all cover that may happen to present itself, and this cover it need never leave; whereas, on the offensive, cover affords but a temporary refuge. Again troops on the defensive being stationary, do not lose their order, and, therefore, the fact that a formation is unwieldy need not be taken into serious consideration. In fact, we do not hesitate to say that nearly all the arguments that are employed against the "line," apply to a line in motion, and not one in rest—therefore a change in defensive tactics is by no means obligatory; but however good existing formations may be, we should neglect no opportunity of improving on them, if we believe improvement to be possible, and see a way towards effecting so desirable an end.

For our part we believe that such improvement is possible, and that it is to be attained by a bolder and more extensive use of cavalry, and by a greater development of fire. It has often been said of late that the rôle of cavalry ceases on the field of battle; this we deny, for we believe that cavalry may still be most effectively employed during an action, and especially when acting on the defensive. It would be, of course, absurd for cavalry now to attempt grand cavalry charges, such as Waterloo, of Leipzig, and of Waterloo. To charge across an open plain under fire of artillery and infantry, in masses they are, would be as hopeless and as vain as was the glorious but desperate onslaught of the Light Brigade at Balaklava. We admit that the employment of cavalry in masses for such ends is obsolete, but we contend that, when acting on the defensive, cavalry may be employed with comparatively little risk to the selves, and with the prospect of great results; for when awaiting an attack, the cavalry may be held in reserve under cover, and out of reach of shot and shell, till the opportune moment for its employment; the enemy being close at hand, it has not then to traverse an extensive space of ground; it will not be exposed to artillery fire, thanks to the proximity of the enemy's infantry and finally, the enemy will be in no solid formation suitable for resisting cavalry; therefore, such charges would be made under circumstances the most favourable to cavalry. Such charges should not be made by large bodies of horse, for cover can rarely be found for such; they are not easily put in motion, and they offer considerable marks for the enemy's fire. Attack on an advancing enemy must be made where the opportunity arises, by regiments, by squadrons, and even by troops.

We now come to the question or development of fire, which we have already stated to be a means by which the defence may be improved and rendered more formidable. Our own ideas on the subject are novel and perhaps startling, and may no doubt meet with disapproval; it is, therefore, with extreme diffidence that we propound them.

In the meeting an attack, the front should of course be covered by skirmishers, and these skirmishers should be something more than a mere line, for the greater the loss inflicted on the enemy while advancing, the better will it be for the defence. But these skirmishers, if the attack be preserved in, will undoubtedly, sooner or later, be driven back, and then the decisive moment will arrive.

Let us suppose the position attacked to be occupied by four battalions in first line, and four in second, each battalion being 600 strong—the battalions in first line, reckoning the intervals, would therefore cover about 890 yards. The enemy, in whatever formation he approached, whether it be the swarm of

skirmishers or the line of column, would be dense, brought to bear upon the approaching masses, the greater would be the loss inflicted; therefore, the question of how to meet and repulse an enemy, simply resolves itself into this: How can we increase the amount of fire? In reply, we propose the following evolution, which might be executed when the enemy was from three to four hundred yards distant from the first line. When battalions are in line the outer companies to turn inwards, and double in on the remainder, then turning to their front, and the whole delivering a four-deep fire, the front companies kneeling, those in rear standing. Such a fire delivered by volleys would be fearfully destructive to those bodies of the enemy against which it might be directed; but this manœuvre would necessarily leave large gaps between battalions, gaps of at least 130 yards, and these gaps should at once be filled by guns or by infantry from the second line, also in a four deep formation.

Imagine the effect that would be produced on a disordered enemy, on seeing batteries of artillery gallop up into these gaps, unlimber, and at a few hundred yards distance, pour in round after round of case shot and shrapnel, or on seeing these same gaps filled by a firm, compact mass of infantry, every man of whom was enabled to use his rifle. Few troops, we believe, could make head against such a terrible *feu d'enfer* as would be delivered by such a line; they would waver, hesitate, and finally give way—then through the intervals in the line might be launched troops of cavalry to complete the rout of the enemy, and convert the attack into flight.

It is true that these four-deep lines would suffer infinitely more than lines two deep, but then the effect of their fire would also we conceive, be doubled, and such a fire at close quarters would, from its nature, be far more efficacious than any other; in fact, we believe that no front attack could possibly succeed when opposed in such a manner. It may be urged that such a front would offer too favourable a mark for the enemy's artillery; so undoubtedly it would, if exposed to its fire, but then we would expressly forbid this manœuvre being performed until the fire of the enemy's guns had been completely masked by the advance of its own infantry; also the reserve guns and cavalry with the infantry of the second line, should, till the very last moment, be retained as much as possible under cover.

We have now finished our task, and we trust that, in our endeavours to sketch what we believe to be a tactical system applicable to the circumstances of modern warfare, we have not failed, either by diffuseness or for want of method, to convey to the reader's mind a correct impression of our own ideas, and of the system that we have advocated. If we have done this, if we have enabled him to follow us clearly throughout, we are satisfied. We do not expect his ideas to coincide with our own, and shall not, therefore, be surprised if those ideas meet with the severest criticism. In fact, we have only hoped to impress on all the necessity of devising some system of attack by which order may be insured, and do not for a moment consider that we have thoroughly solved so difficult a problem as that of "Attack and Defence."

COMING IN TIME.—Mr. P. T. Barnum's travelling menagerie hypodrome and world's fair will pay Ottawa a visit sometime during the coming summer.

## THE RUSSIAN ARMY.

A correspondent of the *Daily News* writes as follows:—"The carcass of the dead alive 'military reform' is being still fought and screamed over by the vultures of the Russian press; but the most important point of all finds no place in it. Soldiers Russia may indeed possess, but who shall supply her with officers? More than one must have asked himself this question during the past week while watching the young subalterns who swagger about the Nevski Prospect, talking loudly about the duplicity of England with regard to the Khiva expedition, and the punishment which awaits her. Our military system has undoubtedly faults enough of its own, but the time has not yet come, thank God, when an English mess-room can combine for the expulsion of a single officer from sheer jealousy of his superior abilities, when the whole body can refuse the challenge of their intended victim; when the colonel himself can aid and abet this cowardly malice, and finally submit to a public beating at the hands of the injured man without any attempt at resistance beyond a cry for help to the police. All these things have occurred here in open day within the last three weeks, and I am not surprised to see that the Russian papers, so ready to chronicle events not worthy of mention are silent upon these. Such stories, if suffered to get abroad, would hardly tend to enhance the prestige of Russia as a military empire. It is true that the army of the Czar can as little be judged of by creatures such as these as by the ruffians who directed the massacre of Hango Head and the mutilation of the English slain at Inkerman. I who write have seen the last survivors of those who stood in the Great Redoubt at Borodino or rode in the van of the crowning charge at Leipzig, and, looking upon them, I felt proud to think that we had fought with such men as these, and had conquered; but of the *filibusters* of the Nevski Prospect it is better to say nothing. Let one should say to much: Well, will it be if it fare not one day with them as it fared with the butterflies of the Second Empire, reared upon absinthe and cigarettes, upon low comedies and foul romances, when the great day of wrath came upon them at Sedan. Some may, perhaps, admire this precocious *jeunesse dorée*, flaunting in all the pride of its tinsel finery and puny licentiousness, with just intellect enough to shoot those who suspect it; but there are many who think otherwise. The Russian soldiers who were shot a year ago for attempting the life of their commanding officer gave by that attempt a testimony respecting the present régime such as may be given by unlettered men who neither makes speeches in the Senate nor writes for the *Journal de St Petersburg*, and when that testimony shall be written across the length and breadth of Russia in the same red hand writing which now scars the surface of France, perhaps even she may believe it then."

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