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# The Volunteer Review

## AND MILITARY AND NAVAL GAZETTE.

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

VOL. VI.

OTTAWA, (CANADA,) MONDAY, MARCH 18, 1872.

No. 12.

### NEWS OF THE WEEK.

The Prince and Princess of Wales left England for the South of France on 9th inst. and were at Paris on the 11th.

Mr. Secretary Fish's reply to Lord Granville has been received, it expresses the desire of the United States Government for a final amicable settlement, neither Government are in favor of re-opening the proceedings of the Joint High Commission.

Lord Northbrook (one of the Barings) has been appointed Viceroy of India.

Lady Mordaunt has been declared hopelessly insane, her husband's petition has been dismissed.

France has paid two milliards of francs of the war indemnity, leaving three milliards yet due, this gives the Provisional Government control of six departments in which as large a military force as the country desires may be maintained.

The Minister of Foreign Affairs has sent a friendly note to the Italian Cabinet respecting the fortifications on the Genoese coast.

Joseph Mazzini, the Roman revolutionist is dead.

Considerable dissatisfaction is expressed at Berlin at the conduct of the Pope in appointing secretly the Archbishop of Posen to be Primate of Poland. This office has been long extinct. When Poland existed as kingdom, one of the functions of the Primate was to act as Regent in case of the death or absence of the Sovereign.

At a public dinner at Rome on the 11th, the Pope said the troubles of the Church commenced in 1848, and the existence of two powers in Rome was impossible.

A crisis is approaching in Spain, the King has been concentrating troops about Madrid and taking precautions to suppress an outbreak.

The Washington Cabinet has decided to proceed with the arbitration, and not withdraw the claims for consequential damages, whether England consents or not. Gladstone & Co. will have an opportunity of appreciating the good faith and feeling of their dearly beloved friends the Yankees—and can realize the exact value of their good will by the length of their little account.

The "Erie ring" has been overthrown by a series of manoeuvres unparalleled in the history of legal proceedings and could occur in no other country than the United States.

The Secretary of the Navy in reply to a resolution of the Senate on Iron ship-building, and the restoration of commerce has submitted a report advising the establishment of ship building yards in favorable localities with reference to a supply of materials, the Government giving a bounty equal to the duty on foreign material, and that suitable foreign stations be provided for the interchange of commerce, the whole being evidently an attempt to restore the commercial activity of the country by state and personal enterprise being unequal to the task, the capital of the country being absorbed by war expenditure.

If the New York papers are to be believed every one of their city officers should be inmates of the penitentiary.

A most extraordinary winter voyage has been made by the steamer *Arctic* from Quebec to Escoumains harbor at the head of the Gulf to relieve the ship *Pride of England* ashore there, a work successfully performed.

By this voyage which occupied ten days the navigation of the Lower St. Lawrence has been demonstrated to be perfectly feasible at all seasons, a most important matter to the Dominion of Canada.

The Representatives from British Columbia are arriving at the Capital previous to the opening of Parliament. The House of Assembly has been opened in that province.

From the Maritime provinces we are happy to hear accounts of increasing prosperity in ship building and other industries.

The demand for timber built vessels is increasing in England, and will give a great impetus to that industrial pursuit.

*La Parti Nationale* has had a meeting at Quebec, and condemned the Canada Pacific Railway project. The world progresses but the *National Party* tries to execute a crab like move to the rear.

Mr. Graves one of the Conservative members for Liverpool, has struck out a great idea. He tells the people that the Government ought to buy all the railways, work them at a fair profit, as the post office and

telegraphs are worked, and in a few years pay off the national debt.

A "joke" is credited to an American visitor in England. "Wall stranger," he is reported to have said, "I guess you English jurists ain't smart. If an American jury had tried the Tichborne case, I'll tell you what they'd have done. They'd just bought up all the Tichborne bonds, and then found a verdict for the plaintiff."

The land grant system in the United States is being carried to an extent which, if some check is not soon applied will leave very little land, even in "the boundless west" at the disposal of the Government. At the present there are fifty six land grant bills before Congress, embracing a total area of over two hundred million acres, or more than six of the largest States together.

A set of paper wheels on a Pullman car have run 160,000 miles and worn out their steel tires. Cast iron wheels will run only 60,000 miles.

Sheer Aller, the murderer of Earl Mayo, was not sent to penal servitude in the first place on account of any outbreak of religious fanaticism, but simply because he had killed a personal enemy, in the prosecution of a blood feud between his own family or clan and another. This was of course a crime under British law, but to get the mountaineers of India to regard it in this light is hopeless. It is no easy task to force upon the people a degree of civilization beyond what they can understand and appreciate.

We are happy to learn that our Canadian young men are appreciated in foreign lands, especially in the Southern States, as the following notice respecting a brave Canadian soldier, copied from the *Daily Union*, Columbia, South Carolina, illustrates:—

"Mr. Robert Sisson, the efficient reading clerk of the Senate, has been appointed postmaster at Blackville, Burnwell county. It is a pleasing duty to note these, even small, recognitions of the services rendered to the county in her time of need and peril by her defenders. Mr. Sisson was an efficient officer in the Union army and rendered valuable services in this State in the army of the Potomac.

## THE NEW FORTS AT SPITHEAD.

It has been decided to defend the approaches to Portsmouth by fixed forts in profusion to floating and moveable batteries, and out of that decision has arisen the present phenomenon. It excels that marvel of the Eastern tale in this way, that it had to be built without ground to build upon. The problem was given to erect an impregnable Fort upon the sand which should be as safe as if founded on a rock; and so the rock had to be constructed first. On this artificial foundation an iron castle will, so to speak, be dropped, already made some 700 feet in circumference, and about 30 feet high. Then will be seen the very latest form of fortification, and it is curious to observe that except in material, it will be simply a return to the very earliest form. If stone could have resisted artillery, a Norman castle would still be the perfection of a stronghold, but when the material was found to be no longer impregnable the whole system of fortification was changed. Instead of opposing a bare, blank wall to the enemy, engineers hit upon the device of exposing no wall at all. The brickwork of a fort was sunk in a ditch, so that until approaches had been scientifically and painfully accomplished, there was nothing visible to fire at. Now-a-days iron is to cannon balls what stone was to bows and arrows; and so the strong, high wall rises once more confronting an enemy and daring him to do his worst. No known gun would make any impression on the Spithead Fort, even if it could be brought near enough for the experiment. But the fact is, the cannon of the Fort itself, seconded by that of its consort, would sweep any floating thing from the face of the waters. An esteemed correspondent asked incautiously the other day what we had got for our money which we had not got in 1851. Here is an answer for him. We have got a fort unmatched in the world for strength and quality. We trust it may prove to be also money's worth, though the account already shows some alarming figures. Each of these ready made castles will cost £450,000 for the shell alone. To be sure, the shell is all sufficient as regards the mere building, but the foundation has cost something, and the armament will cost something more. In one tier there will be 32 600 pounders; in another, 25 400 pounders. What a broadside will cost in powder and shot together we shall not attempt to calculate. After all, the expense is not much above that of an iron clad. Ships used to be reckoned as costing £1,000 a gun so that a 40-gun frigate would be worth about £40,000. They now cost, as nearly as possible £100,000 a gun; so that a 4-gun turret-ship stands for £400,000. If Mr. Harcourt thinks this is a shocking outlay to be forced upon a nation wishing to be at peace with all the world, we are at once with him; but the single specimen before us is enough to account for the difference between the estimates of 1859 and those of 1871. If we must prepare for war as a contingency not wholly improbable, we may as well prepare in earnest, and here we see what the condition involves.

We frankly confess, indeed, that the phenomenon, creditable as it is to our national ingenuity, suggests some unwelcome reflections. This marvellous Fort, representing we dare say, after all expenses have been paid, a good million of money, is but a single item in the account of a single branch of our war armaments. It is only a particular work in the fortifications of a particular spot. Besides the sea-forts there are land Forts, standing for a pretty figure already, and yet what with new turret ships and military ro-

organization we have almost forgotten the fortifications of Portsmouth, about which so much was said a few years ago. Indeed the "Peril of Portsmouth" was the subject of one of our earliest panics, and one of the strangest features of the story consists in the adaptation of the works in question to the incessant progress of the time. When Lord Palmerston first advocated the construction of these Spithead forts not one of the wonders now seen had been so much as dreamt of. If Ministers had issued specifications of such a fort and such an armament as we have been describing, the idea would have appeared literally as extravagant as that of the Magic Castle of the Black Islands. The system of rolling iron plates had not been discovered; Sir Joseph Whitworth's tools had not been perfected; the working of the metal itself was still comparatively rude. As to guns, we were still in the days of the old 68-pounder, and it was the firm conviction of many experienced seamen that no heavier gun could be worked on board ship. Those were the conditions under which the work was taken. Its first instalment has been so completed as to be a marvel, even in 1872. Never was armor more ponderous, more impregnable, or more cunningly worked. Never was armament more irresistible. The designer and the architects must have changed their hands fifty times; and it may be regarded, perhaps, as fortunate that the foundation cost us so much trouble. Had they been ready for the Fort and the Fort for the guns ten years ago, the whole work might now be obsolete and useless. Perhaps the reader will think the same result may be reached ten years hence; but we really cannot conceive it possible. There can be no limit to the powers of science, but there must be a limit to the resources of man. It is only a pity that we are compelled to expend all this money, all this ingenuity, and all this energy upon such a purpose. What might we not have had for a like charge in the way of public convenience or instruction! How many schools could have been built with the money! And yet—although it is an ugly moral—there is no disguising the truth that wars are more common and more probable now than when these works were first designed, and that there is little reason for supposing that our national defences will be completed only against an age of peace.—*Pull Mall Gazette.*

## PRUSSIAN EXPLANATION OF PRUSSIAN SUCCESS.

Pending the official history of the war in France, which is in the able hands of the Prussian Colonel von Verdy, we are left entirely without the means of judging to what causes Prussian officers ascribe their own vast success. Colonel Boristedt has given in the introductory volume of his unfinished history a very complete review of many of them, not omitting the personally temperate and hardy habits of his Sovereign which he contrasts with those of the ex-Imperial Court to the great disadvantage of the latter. But an excellent contribution to this inquiry and one that brings to clear light a matter hitherto little studied, says the *Pull Mall Gazette*, may be found in a pamphlet containing some lectures, delivered apparently before the late campaign, at the Division War School at Cassel, by Captain Laymann, Instructor in Tactics, and lately translated by Captain E. M. Jones, Historical Professor of Sandhurst. Captain Laymann shows, more plainly than has been done by any one before, how in the recent wars the Prussian commanders have deliberately chosen the

part of attack in preference to that of defence, at considerable risk, often, and a certain heavy loss always, in order to obtain that "moral force" without which the finest training is thrown away. The old maxim, "Unquestionably the defence has the best of it" is shown to be very doubtful in application, for, as Capt. in Laymann explains those of the attack are not less certain though they do not lie on the surface. And if the first few attacks do succeed, then comes that moral force (or rather moral superiority) which was sought for, growing intensified at every new advantage, until strategy is almost superceded by the collapse of the enemy wherever he can be got at. Such were the lessons drawn chiefly from a study of the operations of 1866. If Captain Laymann's modest book—which is too little known—should reach a new edition, he will surely be able to illustrate the success of the new tactical principles, to which boldness is the key, with greater abundance out of the rich materials offered him by the events of 1871.

## THE SAN JUAN BOUNDARY QUESTION.

The following is the introduction of the American case in the San Juan question prepared and presented by Minister Bancroft to the arbitrator, the Emperor of Germany. The English case has been presented in French; the American, on the other hand, in German:

The Treaty, the disputed interpretation of which is submitted to your Majesty's decision, was concluded more than a quarter of a century ago. Of the sixteen members of the British Cabinet who drew it up and submitted it to the United States for acceptance, Sir Robert Peel, Lord Aberdeen, and all the others, with a single exception, are now no more. The British Minister at Washington who signed it is dead. Of the American statesmen who took a part in the negotiations, the President, the Vice-President, Secretary of State, and all the constitutional advisers of the President are deceased, except one. I alone remain, and after completing more than 70 years' the term assigned for the duration of human life by Holy Writ, I have been selected by my country to maintain its rights intact. On six different occasions have the United States received an offer of a settlement by arbitration respecting their north-western boundary, and six times have they declined to subject themselves to such a decision in a case in which the importance of the object in dispute is so great and the right of it so clear, but when an agreement had been effected to bring the question before your Majesty, my country resolved on changing its course of action. We are now willing in the heart of Europe to demonstrate before a tribunal from which no other than a just judgment can proceed how well founded have been our claims and how completely our guiding principles have been those of moderation and of justice. The case in dispute comprises within itself questions of geography, history and international law, and we regard it as fortunate that the investigation of these questions is to take place in the midst of a nation whose sons have been educated in those sciences by a Carl Ritter, a Ranke, and a Heffer. The long protracted dispute has tended towards the alienation of two of the greatest Powers on the earth, and though perhaps remotely, has threatened to lead to a contest of arms. A want of confidence in the sentiments of the British Government has taken possession of men's feeling in those States of the Union

which are now springing upon the coast of the Pacific Ocean, and might grow into a popular conviction which it would be difficult to eradicate. In the meantime your Majesty has secured for the German people a unity and a peace and a height of prosperity which never before have been allotted by Providence to a German warrior and statesman. Would it not be the crown of the fame of the German Emperor, if, in the fulness of his years, and the repose succeeding the mighty struggles of an eventful life, he were to reconcile the two younger branches of the great Germanic family of nations?

HINTS AND QUERIES.

SOMETHING ABOUT GLASS.

The elements which enter into the composition of the subject of glass are siliceous flint, soda, potash, lime, clay or its metallic basis, and the minium or red lead, the matter which colors house-painter's priming. They are mixed together in the crucible of the glass house, and then combined or melted by the aid of fire. The temperature (in all cases high) at which fusion is attained, varies with the kind of glass and the ingredients of which it is composed. Window glass is made of flint, soda and lime; bottle-glass, of flint and iron, (in the shape of ferruginous sand,) soda, lime, and clay; crown glass of flint, potash and lime, and so on for other kinds of glass. The greater the number of bases used in the composition the more easily they are melted into glass, the manufacturer mixes as many elements as possible, in order to obtain his result at the least possible expenditure of fuel. Nevertheless, as often happens, what is gained in one way is lost in another; for the greater the fusibility of the glass, the more it is liable to decomposition by atmospheric and other influence.

This decomposition is evidenced by curious and even beautiful phenomena. Old window-glass, and especially stable window-glass, manifests incipient decay by the iridescent tints which cover its surface. Bottles that have long been buried in the earth and submerged in ponds become most striking and ornamental specimens, from the gorgeous hues which they display, their transparency is gone, and they are coated with small scales shining with metallic lustre. By exposure to great heat and gradual cooling glass also becomes unvitrified and opaque, presenting a great resemblance to crockery, and named, after its discoverer, Reaumur's porcelain. The opacity results from the formation of microscopic crystals of one of the earthy silicates which constitute glass, in consequence of the volatilization of the alkaline ingredient. Such porcelain is in request for decorative purposes; nor is this the only way in which the decomposition of the original compound has been turned to account.

Soluble glass is obtained by melting in a crucible a mixture of fifteen parts of quartz reduced to a fine powder, ten parts of carbonate of potash, and one part of pulverized charcoal. For use it is broken up into little bits, and then dissolved in boiling water till the solution has the consistency of syrup. It is somewhat muddy and has an alkaline taste. Nevertheless, it must be very pure to effloresce under the action of the air after a certain lapse of time. A good plan is to cover the article to be protected with several coats of the soluble glass, beginning with a weak solution, to be followed by a more concentrated liquid. Its efficacy is also increased by mixing with it some other incom-

bustible substance, powdered clay, for instance.—*All the Year Round.*

PUNCH'S BILL.

Mr. Punch, considering it his duty to step forward at the present moment, and to suggest an easy and honorable arrangement of the American question, has prepared the following schedule of English claims for compensation. It is manifest that they are all absolutely just, and he is sure that the American Government will admit that fact. Therefore, all that remains to be done is this: Let Mr. Hamilton Fish append his signature, and the words "All right," (he may add "old boss," or not as he may think the American nation would desire,) and then the two Governments have but to exchange receipts for their respective claims.

HER MAJESTY'S GOVERNMENT CLAIM COMPENSATION.

For twenty years of violent abuse poured upon England by the New York <i>Herald</i> , in the interest of slavery, and up to the date when the editor of that paper was informed that he must really be hanged if he would not desist from treason to the United States.	£	s.	d.
For similar abuses, in nobody's interest in particular, since the above date.	0	0	2½
For encouraging the Fenians and putting Canada in dread of a Fenian invasion.	0	0	0½
For permitting the Irish-American Press to abuse England.	0	0	0½
For inducing many persons in England to use the word "reliable" instead of "trustworthy".	20,000,000	0	0
For allowing Mr. G. F. Train (our enemy) to be out of a lunatic asylum.	0	0	6
For the use of the works of ancient English authors, from William Shakespeare downward, and for calling them American authors.	100,000,000	0	0
For piracy on modern English authors, and for not calling a great many of them American authors.	100,000,000	0	0
For spoiling a great number of decent second rate actors, and sending them home with the idea that they were Keans and Kembles.	0	7	6½
For insulting the King's or Queen's English by speaking it for 50 years, nasally.	20,000,000	0	0
For eclipsing the harmless gaiety of nations by suddenly stopping the supply of capital nigger stories, which have now entirely ceased.	1,000,000	0	0
For outraging humanity by not annexing Mexico, and putting an end to its atrocities.	100,000,000	0	0
For putting us under an obligation by the graceful return of that Arctic vessel. <i>Thy love is Worth</i>	1,000,000	0	0
For attempting to destroy the monarchical principles of His Royal Highness the Prince of Wales, by treat-			

ing him with so much kindness and hospitality that His Royal Highness was induced to think well of Republicans.	100,000,000	0	0
For persuading Mlle. Nilsson to leave London for America, and for still detaining that songstress.	100,000	0	0
For inventing Herr Brietmann, instead of leaving to some Englishman the honor of inventing him.	100,000	0	0
For incessantly reproducing pictures from Punch, and never acknowledging their source.	No charge.		

Total. . . . . £442,200,000 8 4½  
(This is our bill)

GLADSTONE, PUNCH & CO.

The large clock of the English Parliament House is the largest one in the world. The four dials of this clock are 22 feet in diameter. Every half minute the point of the minute hand moves nearly 7 inches. The clock will go for 8½ days, but it only strikes for 7½ thus indicating any neglect in winding it up. The mere winding up of the striking mechanism takes two hours. The pendulum is fifteen feet long; the wheels are of cast iron; the hour bell is 8 feet high and 9 feet in diameter, weighing nearly 15 tons, and the hammer alone weighs more than 400 lbs. This clock strikes the quarter hours, and by its strokes the Parliament Chambers regulate their labors. At every stroke a new reporter takes the place of the old one, whilst he retires to write out the notes he has taken during the previous fifteen minutes.

Of late years the whalers have been making a wholesale slaughter of the walrus in the Arctic regions for their oil and ivory. It is estimated that in 1870 upwards of 50,000 female walrus were killed, and they are now so shy that the natives on the Arctic shores, from Cape Thaddeus to the Anadyr Sea, who depend upon them almost wholly for food, clothing, boots, and dwellings, are unable to supply the necessities of life. The Arctic walrus are nearly all females, who go into the Arctic in the summer months to bring forth and nurse their young.

One of the most remarkable instances of British enterprise is the Mexican Railway which extends from the port of Vera Cruz to the capital, a distance of 293 miles, and which, it is announced, will before long be opened for traffic throughout its entire length.

The rumor is revived that the Pope is about to leave Rome. It is said that the archives and jewellery in the Vatican are already packed, and His Holiness will go to the city of Trent, in the Tyrol. Probably some concession or other is being demanded from the Italian Government, and we fancy that the Government will concede a good deal to keep the Pope in Rome, where he ought to be.

Dr. Hayes, the Arctic explorer, announces, his belief agrees with that of other recent travellers, that the interior of Greenland is covered with ice, and he thinks it impossible to cross the country from side to side.

Bears are to be found in immense numbers on the Alaska mainland. They are of enormous size, but do not evince the ferocity of the California animal. It is a fact that contact with civilization increases the ferocity of Bruin and his whole tribe.

## 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,

SIR:—Judging by the tone of your Journal you in Canada are going through the phases of Militia organization that we in Nova Scotia have gone through.

We began 12 years ago with a volunteer force, and so long as the novelty lasted, and officers could be found, who, either from patriotism or other motive, would interest themselves in raising and maintaining their corps; this, the simplest and, to the public, the cheapest, organization went on well enough; but after a time the officers wearied of coaxing men to attend drill; and the more zealous men got tired of being made fun of by their lazier neighbors—said I to a man in a small country town one day, "Smith you are a smart fellow why do you not join the volunteers?" so I did "quoth Smith," but my neighbor Jones used to laugh at me, and tell me what a fool I was to drill, whilst he could sit quietly at home; "make Jones drill, and I will do my share willingly enough." This being the tone of the people, general compulsory drill was the only alternative and became a necessity.

The Province was accordingly divided into Battalion Districts, the rolls of officers were filled up, instructors were furnished to each body of officers and commissions were not given till each officer proved his capacity as instructor, then the whole body of the men was called out, the response was noble; there was hardly an absentee in this little Province, over 50,000 men drilled for five days every year; and attained so much efficiency that when, during the Fenian alarm in 1866; 15,000 arms were issued to the Militia at the points exposed to attack, that number of men at once fell into the ranks and garrisoned these points; mustering from day to day and all without one cent of expense for maintenance; whilst in Halifax the garrison duty was performed by the Militia, who simply furnished from day to day the actual number for guard, and these alone drew pay; whilst the remainder of the force, although ready to turn out at a moments notice, remained at their ordinary avocations.

This organization was of course broken up by the new militia law of Canada.

Instead of 50,000 men with over 300 well trained officers, and the same number of sergeants, both of the latter uniformed; we now have about 4000 Militia all told, and, excepting that they are uniformed, which of course adds to their appearance, I give it as the very general opinion of our best officers that our old force was more efficient than the present; the drill was perhaps not quite so smart; but by taking all, it was more thoroughly "the nation under arms," and the men being compelled to serve, instead of

persuaded to do so, the officers exercised more real authority over them.

I repeat that I believe that it is to this system or to some modification of it that you must at last come, as shadowed forth by you in an article in your issue of the 12th inst., and when you do, it will not be amiss to recollect that we in Nova Scotia already had this system in force; but that your lawframers would not level up to it but down to their own and that the result of so much toil in this Province was thus lightly cast aside, instead of being used as a model by which to shape the organization in the other provinces; that great discontent was thereby engendered down here, of which we in the active force still feel the effects; that consequent on this, our re-organization and any developemet which should, and I trust will, gradually be worked out, has had and will continue to have, more to contend with here than in any other part of Canada; and I trust the heads of the Militia will recognize this, and make due allowance for the difficulties which our commanders down here had to overcome. Trusting soon to see every man compelled to do his share in person towards the defence of his country.

I remain,

Yours obediently,  
NOVA SCOTIA.

Feb. 2 th, 1872.

To the Editor of the VOLUNTEER REVIEW.

SIR:—As the time approaches for the annual camps I would like to put forward a few suggestions in your paper with regard to them; these remarks although not entirely original may turn attention in the direction in which I wish to see it.

Last year we had a large Camp at Niagara of some five thousand men, and they turned out every day, going through either Brigade days with sham fights, or drills in the main of a parade nature; although very proper and very beneficial to the volunteer force, still it might be varied, and to the advantage of the Canadian army, (as I see our force is beginning to be called). What I would suggest is this: the formation of two camps commencing on the same day, one at Brantford or in that vicinity, the other at Niagara or Drummondville, each of an equal size, 3000 or 4000 men. For them to put in their first seven days in drilling in the usual way, so as to knock them into some sort of shape, having put in that time, to have it arranged to break up both camps on the same day, and let them start off under the command of their senior officers across country by the quickest and best roads, with orders to make directly for each other, and throw out scouts and otherwise conduct the march, as in an enemy's country, so as not to be surprised by the opponent; one being considered as a defensive force the other as an invading army. On their meeting to go through some movements similar to the autumn manœuvres in England last

year, umpires being on the ground to decide who has to retire, and which officer has shown the greatest generalship, or any other points that may arise.

The advantages of this plan are the following: that neither commanding officer would know the ground he was going over, except what he gleaned of it through his cavalry patrols or his staff, thus neither would have an advantage over the other till they met, each Brigade would be on the alert trying to take the other by surprise, and avoid being surprised themselves. The marching would be excellent training for the men, the striking tents in the morning, and the camping would also be practise, as in the time of war; there is generally twenty days of marching and camping for one of fighting it is most necessary that the best way to do it should be understood by all. It would accustom the whole staff to practically moving an army in the field, particularly the commissariat staff to their work, they would have to make arrangements to take food with them, or else to get it on the way, to find transport for the tents and camp equipment &c., and generally to keep their wits about them. It would be capital practice for the cavalry in scouting and in the general work of outposts, they could be billeted if necessary at the farm houses or taverns on the march, it would also teach the officers how to look after their men. It would benefit the infantry in throwing out pickets and advanced posts in suitable places by day or night.

If an Engineer corps were with each Brigade with a pontoon train, it would be of great service to throw bridges over small rivers where present ones are bad, or insufficient.

The extra expense to carry this out would not be as much as at first supposed, the principal cost being for waggons for transport of tents &c., during the four or five days the force would be on the march. Taking the distance from Brantford to Niagara at about 60 miles, and calculating at 15 miles a day as a march, that would make four days on the route. After the sham fight was decided, the Niagara Brigade could be ordered to retire on Niagara covered with a strong guard the Brantford Brigade to pursue them; together they could put in the rest of the 16 days in that town, having some more Brigade days on a large scale and a final grand field day.

A couple of officers could follow the march and pay all damage done to the crops of the farmer on the route; by settling up at once there would be no grumbling on their part.

This subject might be gone into much more fully, but I must apologize for already taking up so much of your space.

Yours &c.,

MILES.

March 12th, 1871.

## DISTRICT OF BEDFORD RIFLE ASSOCIATION.

To the Editor of the VOLUNTEER REVIEW.

The fourth annual meeting of this Association was held at West Farnham county of Missisquoi, on the 12th March. There was a large attendance of officers and members, the three counties in the District were well represented, Major Gilmour President in the chair.

The Treasurer's report showed a small balance against the Association, but this will be more than covered by subscriptions not yet paid. The following were elected the office bearers for the ensuing year.

PATRON.—Hon. Judge Dunkin.

VICE PATRONS.—Lt.-Col. Hon. A. B. Foster, Senator; Lt.-Col. Chamberlin, O. M. G.; Hon. Thos. Wood, M. L. C.

PRESIDENT.—Lt.-Col. Miller, 52nd Batt.

VICE PRESIDENTS.—Lt.-Col. Rowe, Majors Gilmour and Fourdrinier; Captains Patteson, Bockus, Asa Westover, Hall, and P. Smith, Dr. Brigham, M. P. P., Geo. B. Baker Esq., M. P., Wm Donahue Esq.

SECRETARY-TREASURER.—Lt. Col. Fletcher.

COUNCIL.—The captains of companies belonging to the Association.

EXECUTIVE COMMITTEE.—Lieut. Cols. Fletcher and Miller; Major Gilmour and Capt. Bockus.

It was unanimously resolved to hold the next annual match at Granby on the third Tuesday in June, if that time did not interfere with the annual drill in Camp.

A list of six matches with a total of eighty prizes was adopted. From the warm interest, and excellent spirit shown by the delegates at the meeting, it is expected the next matches will be very successful. The Border men—volunteers and home guards—are determined to keep up and improve their practice so that they may "watch well the front."

It was agreed to hold the next annual meeting at Sweetburg.

Votes of thanks were passed to the retiring President Major Gilmour and to the Secretary-Treasurer for their efficient services during the past year.

## FROM MONTREAL.

[BY OUR OWN CORRESPONDENT.]

A most extraordinary verdict has been given in the case of Col. Harwood, D. A. G., vs. Capt. David McNaughton, M. D., of Vaudreuil, for fraud in having embezzled \$318.50 a cheque for that amount having been given him in September last by Paymaster Brehaut, for the payment of his men. Capt. McNaughton had admitted his delinquency to Col. Harwood.

Judge Coursol having examined the law on the subject, inflicted the penalty the law allows,—a fine of \$20 and costs, amounting to \$25, or 40 days imprisonment. Who shall say in this case that the way of the transgressor is hard? An officer deliberately violates

trust, pockets \$318.50 the pay due to his men, the law fines him \$25, leaving a net gain to him of \$293.50 and the majesty of the law is appeased. If this be the law the sooner a change is made the better; we have had rather too many cases of similar nature lately, and such a verdict whether in accordance with law or not is one that will rather encourage than intimidate such criminals as Capt. McNaughton; imprisonment or Penitentiary without option of a fine, would have a salutary effect on such rascals, who bring discredit on the service, and create ill-feeling and discontent.

If the Militia Department does its duty, it will at once cancel Capt. McNaughton's commission and dismiss him from the service he has so disgraced.

A good deal of speculation is rife, as to whether we are to have a camp or not this year. I believe the general desire is to have one; at no time or nowhere can the men have the training required than at camp, and although these camps are expensive arrangements they are absolutely necessary if we are to sustain an efficient volunteer force. In regard to the proposed draft I learn that but a very few of some seventy colonels of battalions have replied in the affirmative to the query addressed to them by the Adjutant-General as to whether they could fill their ranks in the spring without resorting to a draft. The impression is that of the 40,000 men enrolled not more than half could be made available if required. However it is currently reported that a meeting of staff officers is called for at Ottawa next month, when this and other matters will be fully discussed.

The funeral of Major Edward St. George Smyth, superintendent of Military schools in Montreal, and formerly Captain in H. M. 30th Regiment, took place on Wednesday. It was largely attended both by civilians and members of the staff.

B.

## FRANCE AS A MILITARY POWER OF THE FUTURE.

The *Débats* notices a statement in the *Journal Officiel* to this effect:—"Yesterday we invited a loan of two milliards, and five were offered. To-day we exhibit to Europe an army of 100,000 men full of valor, admirably commanded, who have just rescued civilization. France, unaccustomed to good fortune since the disasters accumulated through the faults of the Empire, begins to recognise and to be again conscious of herself." The *Débats* admits that the success of the loan is a cause for congratulation, and it concurs in the praises of the Army, but adds—"Let us be modest, as befits our position. Let us not recommence, either now or at any time, the foolish boasting which events have so signally denounced. We are returning to life, and our strength is returning, but it is not yet sufficiently great to be trumpeted abroad or 'exhibited to Europe.' When in his orders of the day issued from Versailles to reassure the provinces, and to give to these reorganised troops confidence in themselves, M. Thiers styled them 'one of the finest Armies France ever possessed,' the exaggeration was allowed to pass, and perhaps was necessary. But to-day we find the same expressions repeated in many

newspapers, and we ought to be upon our guard against the illusions which such exaggerations may produce. Let us say of those troops that they are the nucleus of a fine army, and we shall have spoken quietly but sufficiently. We are able from the present time to place 100,000 men under arms, but the discipline which this small number has recovered cannot supply the want of practical fitness among the cadres of the Army. A long sojourn in the camps of instruction will be needed before setting out upon the conquest of the world, if the era of conquests be not closed. What is really satisfactory is the bearing of those troops and the character of that review, so different from the parades which it pleased the Empire to exhibit to Europe on the plains of Longchamps or Satory, where the soldier, primed with a double ration of brandy, cried, 'Vive l'Empereur!' On the present occasion the troops defiled silent and gravely. Prætorian armies indulge in shouts; national armies preserve silence, and it is when the army utters no cry that we can exclaim 'Vive l'Armée' as then we know that it belongs only to the country. Let us hope, then, without becoming excited, without exaggeration, and, above all, without making any 'exhibition to Europe.' Glorious enthusiasm is unreasonable. The astonishing success of the loan also offers a temptation to our national pride. It is a review of our wealth, and it must be admitted a brilliant one. To have found this money in the midst of our ruins, to have inspired such confidence in our future at a time when our position seemed so precarious and our disasters so recent! Well let us resist that temptation to a legitimate pride. The millions offered are unprecedented; they testify to the extent and the solidity of our credit. But it must not be forgotten, alas; that those millions which we have so easily found are no longer ours. They are our hard ransom, and only a portion of that. We count them only to pay them away. A day will come—and what French heart does not beat quicker at the thought?—when we shall again become what we ought never to have ceased to be, and in which, "*la grande nation*" will perhaps become greater than it has ever been, but it will be only upon this condition—that it comprehends the greatness of its fall, the width of the gulf it has to cross, the qualities of reason and wisdom, and time that are necessary. Until then, let us juggle neither our spurs nor our money. If we are Frenchmen let us wear mourning."

Not remotely connected with this topic is the position of Italy and her relations with France, on which the *Soir*, has a long article on the 3rd instant which concludes thus:—"We close here an exposition between France and Italy for the last ten months. The conclusion which results is that we must neither quarrel with the Cabinet of Florence, nor count upon it, but watch it (*la surveiller*) Italy aspires to expansion. Can she do so without diminishing us? Evidently not, because she is an element always in progress of the Latin civilization of which we were formerly the sole representatives. Already she disputes with us the road to India by Brindisi, she seeks to establish herself in Tunis; she claims perhaps in accordance with Russia, a part in the protection of the Eastern Christians; in a word Italy seeks to inherit all that we may be unable to keep. That is not a reason for declaring a war, which is as much beyond our means as contrary to our interests; but it is a motive for showing ourselves attentive and vigilant over her diplomacy, and we heartily hope that the Government of the Republic will not fail in this duty of prudence and attention."



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## The Volunteer Review,

AND

### MILITARY AND NAVAL GAZETTE.

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

OTTAWA, MONDAY, MARCH 18, 1872.

The term logistics, the practical art of moving armies, is derived according to Jomini from the title of an officer in the French service known as *Major General de logis*, whose position and duties were analogous to that of Quarter-master general (when that office existed) in the British service.

The science technically described by this term consists of the following local divisions:—

The preparation of all material necessary for putting an army in motion.

Preparing all plans for marching, works of attack or defence.

Devising the measures necessary to be taken for security of posts, &c.

Reconnaissance of every description.

Arranging marches, guards, regulating the manner and time of halts.

Giving proper composition to advanced guards, rear-guards, flankers, and all detached bodies.

Prescribing forms and instructions for subordinate commanders or their Staff officers, relative to position and duties.

Indicating to advanced guards and other detached bodies, the points of assembly, and arranging for their support.

Providing for the march of trains, baggage, munitions, provisions, ambulances, and the whole material of an army.

Taking precautions for order and security on the march and for the halts and parking of the trains.

Making provision for successive arrivals of convoys, collecting means of transport and regulating their use.

Directing the establishment of corps and adopting regulations for their safety, good order and general police.

Establishing lines of communication, lines of operation, and looking out for preserving the communications of the army with its base of supply.

Organising hospitals, conveyance for removal of sick and wounded, and workshops for repairs.

Keeping accurate records of all detachments, looking after their movements and return to the main column, giving them direction and centres of action and forming strategic reserves.

Organizing military police.

In siegeworks assigning the strength of the force in the trenches, preparing the plans of attack and supplying the means of carrying on the operations.

In case of retreat prescribing the order of march, relieving the rear guard, taking up positions necessary to cover the movements, preserving order, making provision to save munitions and material from falling into the hands of the enemy, preventing straggling and making dispositions to check pursuit.

Planning and providing for the sustenance and comforts of the troops in cantonments.

It will thus be seen that the science of "Logistics" covers a very important part of the whole art of war; without a thorough knowledge of all its details the most elaborately planned strategy is sure to fail, and some conception can be formed of the important and onerous part the staff of an army plays in its success or failure.

Those details can be arranged in two grand divisions; the first, the supply of munitions and material; the second, giving the troops with their whole equipment mobility.

Without a thorough reconnoissance the best planned expedition must be a failure and the initial step in the advance of the troops must be taken by the Engineer.

From the fact that a body of troops will necessarily occupy much ground—that marches will rarely exceed fifteen miles per day—that roads are of limited capacity, and that a column unable to deploy is a helpless mob; it follows that a thorough knowledge of every foot of ground to be passed over is a pre-requisite of a campaign.

The most important point in this necessary reconnoissance is to ascertain how many rivers, streams, creeks, or water courses are

to be passed—the structures by which they are crossed—the material of which those structures are constructed—their strength or the weight they will bear—their capacity and facility with which they can be destroyed or restored, the capabilities of their sites for defensive and offensive operations are only parts of the knowledge which must be acquired. In addition, the science and skill necessary to supply the means for crossing the water courses in the line of march must be of a high character indeed, for bridge building has been at all periods of the world's history a slow, difficult, costly, and laborious process, while the exigencies of military service requires that it should be accomplished with the minimum of time, labor, and expense.

In order to accomplish this effectively, the establishment of a corps for the especial duty of bridge construction is the first necessity, and that corps should merely supply the higher intelligence which could design and carry out the construction of those structures in detail.

Military bridges may be classed as follows:—floating bridges, trestle bridges, pile bridges, raft bridges, rope bridges, and structures of a greater or less degree of permanence built on crib work piers or abutments.

Floating bridges comprise all structures built on pontoons, boats, scows, casks, or other material whose stability is dependent on anchorage; and buoyancy on the specific gravity of the material employed.

Trestle bridges are dependent for their stability on framed timbers reaching to and resting on the bottom of the river or water course.

Pile bridges are structures built on piles driven into the bottom of the river.

Raft bridges depend for their flotation on rafts of dry wood anchored at proper intervals, and in this country could be extensively used.

Rope bridges are constructed on the principle of suspension bridges, points must be found considerably higher than the stream, between which the cables could be stretched and the rest of the operations can be easily effected.

The art of passing armies over great stretches of water by means of floating bridges is of high antiquity, Darius caused such bridges to be laid over the Bosphorus and Danube, twenty-three centuries ago, and Xerxes caused the most celebrated of all those structures to be laid across the Hellespont for the purpose of facilitating the invasion of Greece. In the celebrated *Anabasis* of the Greek auxiliaries under Xenophon from Persia they are said to have crossed the Tigris by a floating bridge, and Alexander is represented to have had a regular bridge train attached to his army, the practice of passing troops over rivers on structures supported on inflated skins of animals is of great antiquity, and the Romans improved on the idea, so far as to

substituto vessels of wicker work covered with skins which was undoubtedly copied by Cosnar or some of his officers from the *Corrach* of the ancient Britons—they are remarkable for the boldest military structures in the bridge way on record as the bridge they caused to be built across the Rhine is an evidence, and some of their permanent structures remain till this day. During the middle ages this branch of military science was neglected, armies were small, and military operations local. The thirty years' war in the beginning of the seventeenth century compelled a revival of the art, the armies operating in the field were compelled to cross the Elbe, Vistula, Rhine, and Danube, this was effected by means of vessels constructed of oak, bearing trestles carrying floor timbers.

About the middle of the same century the Dutch improved on the practice by employing *bateaux* or small light vessels in the formation of military bridges, those were technically denominated pontoons and were generally built with flat bottoms, sides nearly vertical gradually diminishing from amidships to each end, terminating in an inclined plane, making an angle of 45 degrees with the water; this admitted of variation, one end being occasionally a vertical plane, the frame work of timber was covered with tin.

This improvement was quickly adopted by the French, and in 1672 they are said to have a complete pontoon train.

Early in the eighteenth century all the great nations in Europe were provided with *bateaux* of a similar form, some had the frame work covered with copper, others and notably the English with tin; the Russians used pontoons covered with sail cloth.

Towards the close of 1st century the French adopted a species of pontoon capable of transporting from fifty to sixty men across a river. Its length was 36 feet five inches; breadth, six feet nine inches; depth of hold, three feet nine inches; and weight, 4,079 lbs. Since 1829 they have adopted a flat bottomed vessel whose sides are nearly vertical, the ends are curved like those of a canoe; the length is 31 feet midship; width, five feet seven inches at top, four feet four inches at bottom; depth, two feet 6½ inches; the frame of oak covered with fir planks; weight, 1,657 lbs.; its buoyancy or weight that would sink it to the level of the gun wale is 18,674½ lbs.; when used as a bridge they are placed 19 feet eight inches asunder; the roadway is 11 feet wide.

The principle of this description of pontoon has been adopted with variations of construction by all the European powers.

The conditions governing their construction are as follows:—

That their capacity and solidity be such that a bridge formed of them may be able to support the greatest weight accompanying an army, and that the weight of the *bateaux* be the lightest.

That they may answer as well for row boats to establish lodgments.

That their forms and dimensions be such as to admit of being easily mounted on carriages for transportation.

The great unexpected and unparalleled success of Prussia during the war of 1870-71 astonished the civilized world, in the excitement consequent thereon the impulse to account for the surprising events that succeeded each other with magical rapidity, entirely overbalanced the calm analytical system of reasoning in accounting for facts connected with the greatest revolution of modern days, and allowed speculators to exercise their fancies in the construction of theories without the slightest basis of fact and with which no normal law was in accordance.

The prevailing theory was and has been that contained in the idea that Prussian organizations, discipline, and strategical training were the main elements of Prussian success, that all those qualities were wanting in their opponents and that finally the abstract quality of Teutonic valor was superior to the Celtic bravery and *elan* tested on many a hard-fought field of historic fame.

Acting on the impulses derived from this idea reorganization of armies has been and is the employment of those states whose tenements are about to be set in order, so that it is in reality a political epidemic raging with greater or less violence according to the interests at stake.

It is particularly virulent in Great Britain pervading all classes from peer to peasant, and is quite successful as far as the disorganization of the military force of the Empire is concerned, and the total demoralization of its departments; to such a degree has this been carried that with the vast outlay of over sixteen millions sterling annually, it would take the English war department six months to partially equip a force of 30,000 men.

Leaving the consideration of this deplorable mistake for the present, a calm investigation of the real cause and secret of Prussian success will be interesting, especially as it tends to dispel the mystery which surrounds the subject and will show on what slight foundations, or rather no foundations at all, massive theoretical structures are raised.

There can be no better authorities for the causes which led to Prussian success than the Prussians themselves, one distinguished officer attributing to "the personal temperate and hardy habits of his sovereign," one of the chief or primary elements of success, a series of lectures delivered by Captain Laymann at the Division War School at Cassel before the late contest, would apparently lay it down as a maxim not to be contradicted, that the secret lies in taking the "offensive in action," on every occasion; as the gallant Captain is or was instructor in tactics it is quite probable that one element

of success may be traced to audacity—how far that quality would comport with the successful operations of a campaign remains to be seen.

Other authorities trace it to the careful training bestowed on the armies, the ease with which the tactical unit is manœuvred, the superior intelligence (sic!) of the staff and regimental officers, their superior knowledge of country, the intelligent use made of cavalry, and the obedience of the soldier, while the great strategical abilities, political and military of Bismark, Von Moltke, Von Roon, Prince Charles, and the Sovereign are advocated by others as the chief causes of success.

While admitting the Prussian system (if that can be called so which is in a constant state of revision) to be admirably adapted to the social, moral, intellectual and political circumstances of the people, there are other elements of success which must in reality be looked for as primary, and those consist of the political capacity of the Prussian people which enables them to bear all the burdens of military despotism with patience, and enables their sovereign to turn out the whole population *en masse* as soldiers if necessity demands it.

This places in his hands a power which effectively used cannot fail of success, the facility of concentrating vast masses of troops at any point, so as to completely overpower his opponents by numerical force, and this alone is the great secret of Prussian success.

According to the Prussian "Staats-Anzeiger" they had at Woerth 120,000 German troops against 47,000 Frenchmen; at Gravelotte, 250,000 against 140,000; at the battles around Sedan, 290,000 against 140,000 French. No discipline, no knowledge of strategy, nor no skill could snatch victories from the banners of such hosts. The First Napoleon, a giant in the art of war, was beaten to the earth by similar proportions, and there is no need for assigning any peculiar excellence to the troops achieving such victories, admiration should rather be given to the soldiers, badly disciplined, worse led, and infamously treated with respect to provisions and munitions of war, that stood unflinchingly to be ground to powder by such an over-whelming preponderance of force.

A careful analysis will show that we have nothing to learn from the organization of the Prussian Army, nor would the people of this country desire to copy any civil military or political institution therefrom, if our Parliament can find money to furnish the arsenals required in each military district, and if our Quarter-Master General's department was once organized, all the requirements of an efficient military force would have been provided without compulsion, consequently we never had the slightest desire to copy any part of the Prussian system.

In England with a small but very costly



regular army, fearfully mismanaged, the shuttle-cock of her political factions till it was rendered totally useless by the interference of lawyers and traders in its administration, a strong desire arose out of the panic caused by Prussian success to adopt the supposed system on which it was founded; like all crude experiments it was a miserable failure, being the play of Hamlet with the principal characters left out.

In order to make the Prussian system effective in their case the English people should shut up Gladstone, Bright, Cardwell, & Co. in Portsea Castle, call Parliament together for two weeks, each year to register the edicts of the Queen, dictated by his H.R.H. Field Marshal the Duke of Cambridge, and render every able bodied male between the ages of 16 and 60 liable to military service. They will then be able to have a large army at small cost officered by pedagogues and composed of "inkers, tailors and soldiers."

That specimen of Whig radical ability and administrative talent, Mr. Childers, having succeeded in completely demoralizing the Admiralty, his colleague, Mr. Cardwell, is playing the same game at the War Office; by the time he gets sick or so overpowered with the magnitude of his work as to be obliged to take relaxation he will have comfortably provided for all his relations and other hangers on, but the Department will be in such a state that no earthly skill can unravel its intricacies. Happy England! "with soldiers that can't march and ships that can't swim," the Prussian system fits you exactly.

WHATEVER embarrassment may beset a military force can be generally traced to some fault in its organization, thus the troubles and difficulties which beset the English volunteer force has risen from the fact that it was never brought under the control of the military law of the Empire.

In any other country such an organization controlled by private individuals would be a dangerous political machine, but in England the people instinctively recognize the fact that they owe a duty to the country and are prepared to discharge it.

What that force now requires is that it should be made a portion of the forces of the crown under Military control with a clearly defined period of service, but it should be well understood that except commissions shall be made interchangeable, no officer of the regular service should be posted to a Volunteer corps.

Its staff and every officer in its ranks should belong to itself, because its very existence depends on the personal influence of the gentlemen who raise the corps and naturally become its officers.

In order to prevent any assumption on their part of powers which should only belong to the Commander-in-Chief of Her Majesty's force, it is simply necessary to bring

the force under the operations of martial law

It is stated that Major General Macdougall, our late Adjutant-General, is charged with the duty of reorganizing the English Volunteers; with his experience in Canada there can be no doubt of his success.

The force has suffered from its friends and foes alike and has been subjected to very harsh treatment. Sir Hope Grant did all in his power to destroy it; he does not seem to have had the idea that it could be made anything of, and while his report advised the Easter Monday Review to be abolished, it suggested no scheme for re-organizing the force. General Macdougall is another kind of officer, and we are much mistaken if the volunteers under his hand does not become the most important portion of the Reserve Force.

In another column will be found the address of Mr. Bancroft, the Minister of the United States at the Court of Berlin, on the occasion of presenting the case of that country in reference to the San Juan question for arbitration, and we question if any where in modern days an ambassador ever descended to such fulsome adulation.

It is hardly possible to look at the whole of this case with patience, originally brought on by English stupidity and carelessness, it has been intensified by allowing Yankees to occupy the island for such a period, and it is now placed at the mercy of the political exigencies of the German Empire and the intrigues of an unscrupulous people, both having the common object of humiliating and destroying the British Empire in view, as a matter of profit and speculation.

The disposition of this question is a matter of importance to the people of Canada, as its loss would virtually deprive them of the command of Vancouver's Island and place an insuperable obstruction to their Pacific communications.

We do not look for a favorable issue, the Yankees will rig the case, and in English hands some fatal blunder designedly, or otherwise, will be made to facilitate assertion of the Yankee claim, so we shall not be disappointed at an adverse decision.

"It is thought not improbable that Mr. Bright may vacate his seat. In that case Mr. Chamberlayne is spoken of as his successor.—*English Paper*."

"Mr. Bright is one of the most arrant impostors in this age of humbug. He was no sooner in office than he went to Ireland to preach agrarianism and array class against class, and when the masses followed his teachings and asked for home rule he scouted at them. He played traitor to Canada, secretly advising Canada to annex this country to the United States, and as a member of the Government he contributed to denude Canada of troops, as if to force us to declare our independence. He said he was an invalid, and perhaps he spoke

the truth, but he clung to office until the day when, by usage and precedent, he became entitled to the handsome pension of a Cabinet Minister, and that day he resigned office. Saddling himself on the country with a comfortable sinecure he has nothing further to gain, and he does not relish the expense of a contested election, so he retires and devotes himself to salmon fishing. That he had the gift of words we admit, but he used them for a selfish purpose, and his anti-colonial policy proves that he had nothing of the patriot in his nature."—*Montreal News*.

Since the days of that other Quaker impostor Penn, England has not seen within her own shores a greater foe than John Bright, Penn would sell her liberties for the sake of advantage to his sect; Bright would sell her body and soul to save Manchester one fourth of one per cent. A demagogue in the worst sense of the term, like political purists of the Radical type he is sure to take care of number one, and while denouncing corruption in others, greedily swallows the most sordid and dishonorable bait that could be offered for falsehood and treachery which are all the services he ever rendered Great Britain.

A "patriot," indeed, John found his congenial home in that refuge of scoundrelism, and having cheated a credulous people he has added to their burthens by saddling himself as a pensioner on their hardly won earnings for life.

A fellow that never did a single thing to ameliorate the condition of the working man, but, in conjunction with the late Dick Cobden, another humbug of the same school, steadily resisted the ten hours' bill. England is an extraordinary country to tolerate such impostors.

English journalists are prone to assume that the "sentiments of educated Americans" represent public opinion in the United States, and, therefore, because all movements tending to disturb the arrangements of the Washington Treaty are denounced by a certain class, the conclusion is arrived at, that the little bill for consequential damages is the work of trading politicians and adventurers in New York.

The *Broad Arrow* of February 24th, has an article on the position entitled "England and America," in which the writer congratulates his readers on the true appreciation of American character and sentiment displayed by that journal in opposition to the warning of the *United States Army and Navy Journal*, which honestly stated "that there was a legacy of hate in that country" bequeathed by the war of independence and aggravated by subsequent occurrences which could not fail to make itself felt when occasion offered, because in a recent edition the war organ of the United States for good and sufficient reasons lowers its tone as follows:—

"Who can estimate the extent of the evils a war between the United States and England would bring upon both peoples, upon

the ago and upon humanity? Such a calamity cannot be lightly spoken of anywhere as possible, and those who do so at present, for the sake of sensational journalism or political purposes, are grossly criminal; and unspeakably ignominious and wicked would be those who should be responsible for it. Unlikely as we ought to regard such a war to be, yet we must remember that recent great wars have been surprises, and were not foretold by any significant indication. This should beget mutual moderation in language and in action, and a rigid abstineness from all causes of irritation. Public attention should be fixed solely upon the precise matter of misunderstanding, so that its gravity and scope will be fully comprehended as the first step toward an honorable, amicable settlement. From the beginning, the controlling idea should be that there is not the least cause for war between the two countries; and that nothing so wicked is to be regarded as contingent.

"Happily the language of the Queen's Speech sets the example of moderation, whatsoever may be the intemperance of some of the English press and Opposition politicians in Parliament. Evidently the Government at Washington will follow the same moderate course, and we may hope for a calm consideration of the question whether or not, under the Treaty of Washington, our Government is entitled to set up at Geneva any claims in the nature of indirect losses arising from the careers of the English-built rebel cruisers, of the following character:—

- "1. The national expenditures in the pursuit of those cruisers.
- "2. The loss in the transfer of the American commercial marine to the British flag.
- "3. The enhanced payments of insurance.
- "4. The prolongation of the war and the addition of a large sum to the cost of the war and the suppression of the rebellion.

"It is contended on the English side that the express language of the protocol, and the letter and spirit of the treaty, preclude the least consideration of any such claims for indirect losses; and it is alleged that the protocol shows the American commissioners abandoned all such claims at the very threshold of the negotiations. To which on our side, the reply is that abandonment was conditional upon an amicable settlement of the claims for direct losses, which it is now asserted was not effected by the treaty, at least in the sense designed by the Secretary of State when he introduced it into the discussion.

"We have no idea, however, that this difference can have the effect to put an end to the session of the Conference at Geneva—that is to say, break up the treaty; for we believe more wisdom controls and animates both Cabinets than to suffer any such end to the misunderstanding. But in the meantime we hope the statesmen of the two countries will turn a deaf ear to partisan clamour, and rely on the good sense, the natural integrity, and the amicable spirit of the great mass of the people on both sides of the water, as sure to sustain and applaud that settlement which shall effectually remove the material source of misunderstanding between the United States and England."

The credulous Briton, thankful for small favors swallows all that balderdash as the genuine expression of the feeling of the educated Yankees towards his country, never pausing to ask whether such opinions

if they ever existed were worth the paper and ink or whether they were not written with the deliberate intention to deceive.

As we happen to know full well what Yankee sentiment is worth, we can tell *Broad Arrow*; first, that the *Army and Navy Journal* truly describes the feeling of the people as that of hate and envy against Great Britain.

Secondly, the country is not governed by educated people, but by the mob, and a war with Great Britain would secure President Grant's re-election without a doubt.

Third, the bill placed before the Geneva Arbitrators was not concocted by trading politicians, but by that educated class on which *Broad Arrow* depends for right feeling, and those people will humour English credulity to the top of its bent and will persist in their demands which they would enforce if they had the power or dare; and lastly—the *Army and Navy Journal* sings small because the report of the Secretary of the Navy showed that instead of the dreaded raw head and bloody bones' monitors at League Island, they had a heap of old scrap iron.

We warn the *Broad Arrow* that the real cause of all this apparent moderation is what we have detailed, and the "blatant" *Heralds* and beer-sodden *Advertisers* are honest, truthful and manly, compared with its friends, the educated Yankees, or the polished astuteness of the *Army and Navy Journal*.

With all its admiration for that selfish hypocrite, Cornwall, and probably honest appreciation of Republicanism in theory, it has yet to learn by practical experience how truly that unscrupulous and artful leader represented the system in all its worst features, and how his worthy successors bend their energies to accomplish by fraud what they dare not attempt by force.

The English people have to be disabused by two errors, namely: that the Yankee nation recognizes the relationship which it has become so fashionable to claim in Britain, or that they are looked on in any other light than as a people to be conquered, plundered and abused, by their pusedocousins whenever opportunity serves, and they should govern themselves accordingly.

The scheme of Army reorganization which has been so long maturing in England is at last propounded by the great Reformer Cardwell, and as far as details have reached us, appears to be to a very great extent a modified copy of our own system.

Great Britain and Ireland is to be apportioned into sixty six Brigade divisions in the following proportions: England 49; Scotland 9; Ireland 8; the idea being to include in each division about 400,000 inhabitants, but in this case, Ireland with a population of 6,000,000 should have 15 instead of eight, while England would only be entitled to 42 instead of 49 Brigade divisions, doubt

less there are good tactical strategical and political reasons for the present arrangement.

The British Army in future will consist of the Line, Militia and Volunteers; each local force will be complete in all its arms and have its own exercise grounds.

Every local centre will be made to serve as strategic rallying point, and as the artillery is to be localised, a certain number of Brigade divisions will form a perfect *Corps d'Armee*, the Government providing barracks and store-houses.

It is also intended to copy our practice of annual drill and to put the whole force under canvas for a short period each year; it would appear as if depot battalions would form the permanent unit of this organization inasmuch as they will always remain at head quarters for supplying recruits for the line regiment on service which will be drawn from the Brigade division as far as possible.

Officers retiring on half pay after ten years' service must serve in the militia of their respective counties, and militia officers will be enabled to pass into the line regiment, a battalion of the latter being amalgamated with the militia and volunteers in each division, the other being on foreign service.

We are indebted for this outline to the *Broad Arrow* and the scheme appears to give our contemporary the liveliest satisfaction, as indeed it ought, anything but the chaotic state of confusion into which the administrative departments of the British had fallen, would be preferable.

There is yet a vast deal to do before the scheme can be fairly set in working order, and if it can be kept clear of political influence, there is no doubt but its general principle will work well. We wish it every success.

REMITTANCES Received on Subscription to THE VOLUNTEER REVIEW up to Saturday, the 10th inst.:-

ALTON.—Dr. J. Knight Riddall, \$2.00.  
 LONGWOOD STATION.—W. K. Merrifield, \$2.00.  
 OTTAWA.—Lieut.-Colonel A. Brunel, \$1.00.  
 SAULT STE. MARIE.—Capt. Joseph Wilson, \$2.00.  
 STANSTED, Que.—Capt. I. Wood, \$2.00.  
 TORONTO.—Lieut. Orlando Dunn, \$2.00.  
 (78th Highlanders.)  
 TRURO, N.S.—Lt.-Col. Campbell, \$1.50; Capt. Layton, \$1.50; Capt. Crow, \$1.50.  
 OXBOW, N.S.—Capt. Payne, \$1.50.  
 WINDSOR, N.S.—Capt. Burgess, \$1.50; Lt. Smith, \$1.50; Ens. Chandler, \$1.50.  
 MILL BROOK, N.S.—Capt. Geo. Sutherland, \$1.50; Capt. Wm. Sutherland, \$1.50; Mr. D. McDonald, \$1.50.  
 WEST RIVER, N.S.—Lieut. Wm. Maxwell, \$1.50; Ens. J. T. McKay, \$1.50.  
 (Cumberland Provisional Battalion.)  
 AMHERST, N.S.—Lt.-Col. Charles Howard, \$1.50.  
 MACCAN, N.S.—Capt. M. B. Harrison, \$1.50.  
 RIVER PHILIP, N.S.—Capt. R. L. Black, \$1.50.

Chicago will contribute to a Persian relief fund. She knows how it is herself.

Boston is assisting France to pay her war indemnity.

Kansas and Missouri complain of their wheat being winter-killed.

The California State Legislature has voted a pension of \$200 a month for two years to Marshall the discoverer of gold in the Golden State.

## THE NATION'S PRAYER.

"Call upon me in time of trouble,"  
—Psalm 50 c. 1 v.

Almighty God of Sabl aoth,  
Our hope in time of need,  
Whose ears are always open  
When wo thy creatures plead.  
We thank thee thou hast heard us  
Thy love which never falls  
Has turned our grief to gladness—  
"God save the Prince of Wales."

Restore him, Lord, restore him,  
To health and strength again  
And when it is thy pleasure  
May he long o'er us reign  
To wield the sword with power  
And balance well the scales  
Dispensing truth and justice,  
"God bless the Prince of Wales."

Comfort the Royal Princess,  
Assuage her poignant grief,  
And let the promise in thy word  
Come forth to her relief  
That thou wilt be a present help  
When human effort fails  
To strengthen and console her  
"God bless the Prince of Wales."

To our beloved and gracious Queen  
Thy special grace impart  
To guide her midst the darkest gloom  
And sanctify her heart.  
Long may she reign and happy be  
Spite of Odger, Dilke and Beales.  
Confound her enemies, Oh Lord,  
"And bless the Prince of Wales."

Newbliss, Co. Monaghan. }  
Ireland, Dec. 29, 1871.

J. W.

## THE "EIGHTEEN MANŒUVRES."

I have all my life been hearing of the "Eighteen Manœuvres" of Dundas, and coming upon a full description of them recently in that curious storehouse of miscellaneous knowledge, "Rees' Encyclopædia." I think some of your readers may be as curious as I was to know what they really were, I shall, therefore, attempt, with your permission, to condense the account in question, omitting small details, but giving enough to show any Volunteer who understands the present battalion drill what it was at the beginning of the century. With the help of "Rees" there is no difficulty in doing this. The article, "Battalion," which is dated 1819, but which I apprehend must have been compiled some years previously, not only comprises the description of the "Eighteen Manœuvres," but the full details of squad, company, and battalion drill, prefaced by the expression of a hope that "at a crisis like the present" the account of the training of the recruit for service, the order and formation of the battalion, and the principal evolutions it was destined to execute, would not prove unacceptable. While fully agreeing with the Editor's views, I cannot help wondering whether, if an encyclopædia had been published in 1860, it would have occurred to its compilers to reprint the whole "Red-book" for the benefit of its Volunteer readers.

The "Eighteen Manœuvres" constituted apparently a ready-made programme for the inspection of a battalion and were, it will be seen, so contrived that, at the end of every two or three sets of movements, at the most, the battalion was brought back to its original ground in line, facing the reviewing officer, who is throughout assumed to remain motionless in one spot. I gather from the marks in the Encyclopædia that it was not essential that all the manœuvres should be executed, but that the regiment should be prepared to execute such as might be order-

ed. The notion of a cut-and-dried programme of this sort was not altogether extinct even a few years ago; for when I was attached as a Volunteer officer to the 1st Battalion of the 60th Rifles, in the year 1863, they had a private manual of company drill, which was always gone through in its entirety at every parade, the movements always following one another in exactly the same order.

Before commencing the account of the manœuvres, it will be well to say a few words on the formation of the battalion and the general principles on which it was worked; though these, indeed, are so like those that Volunteers learned twelve years ago, that they will not require much explanation. The battalion, when the Eighteen Manœuvres were in fashion, consisted of ten companies, with the same officers and sergeants that we have at present. Each company had (as it appears on a peace footing) sixty rank and file, and as three ranks were formed, would, if all were present, only stand twenty in front. As, of course, it would never really be so strong as this on parade, we find a provision made for forming only two ranks. When the companies were on a war footing, they were probably much stronger, and then each company was divided into "platoons," which worked, I fancy, very much as independent companies, just as the Prussian *Züge* now work. The right and left companies of the line were the Grenadier and light companies, just as they were up to, or shortly before the Crimean War. The other companies were numbered from one to eight. This arrangement causes, at first, a little confusion in reading the directions, because one is apt to forget that when No. 1 Company is spoken of it means that standing second from the right of the line or the head of a column. I need scarcely say that all the movements are so contrived that the order of the companies is never changed, except from right to left in front. The places and duties of the officers and sergeants are very much the same as they were before the publication of the 1870 Drill-book. The companies being three deep, all movements to a flank were done in file. The length of step was thirty inches, and in "ordinary time," in which most movements were made, 75 steps were taken in a minute; "quick time," 108 steps of thirty inches, was used for filing from line into column, and from column into line, and "quickest time," 120 steps of thirty inches, for all wheelings and a few other movements.

The preliminary proceedings at a review or inspection offer no great speciality. The reviewing officer was received just as he is at the present day, except that the colonel and lieutenant-colonel did not mount their horses till the regiment broke into column to march past. The march past was first in ordinary (i. e. slow) time, with ranks at open order and officers in front, and afterwards in quick time, with closed ranks, but also in open column. The men turned their eyes to the right in passing the saluting point, which must have made the marching difficult. I may remark, also, that the second senior mounted officer, the lieutenant colonel, rode, in marching past, in rear of the battalion, where the junior major now rides. The major rode on the left and in rear of the commanding officer, as the senior major does at present. After the march past the regiment was wheeled into line, and the major (not the second in command, the lieutenant colonel) put the men through the manual and platoon. Muskets were then loaded, and all was ready for the performance of the Eighteen Manœuvres, or so many of them as were ordered.

1st MANŒUVRE.—*Close column on a rear division.*—Close column was first formed in rear of the right company (the Grenadiers) exactly as it would be now formed, except that, as always, the movement was made by files instead of by fours. Column of grand divisions was then formed, the left companies filing to their left and moving upon the left of the right companies. All the supernumeraries moved to the rear of the column at the beginning of this movement. The grand divisions were then closed to the front to one pace distance. The caution was then given—"The column will take ground to the right, and on its march deploy on the rear grand division." The column was then moved off in files to the right, for twenty or thirty paces, and then the rear grand division, and each other division in succession, were halted and fronted by the colonel. The deployments, as all deployments on a rear or central division, were conducted on the principles familiar to most of us a very few years ago, the order of the companies remaining unchanged, and the division of formation moving up as soon as its front was clear into the front base. With this deployment the First Manœuvre concluded, the line being formed on a prolongation of the original alignment to the right.

2nd MANŒUVRE.—*Close column on a division.*—A very few words will suffice for this manœuvre, inasmuch as the movements are a repetition of those in the first Manœuvre, except that the close column is formed in front of the left company (the light infantry) and the column of grand divisions when formed moves to the left and deploys on the front division. The line would then be formed at a distance equal to the depth of a close column of companies in advance of the original alignment.

3rd MANŒUVRE.—*Close column on a central division, facing to the rear.*—A close column left in front, facing to the rear, was first formed on the right centre company, each company countermarching; then the companies were again countermarched by files, so as to bring the column right in front, facing the general. But to do this from close column, the left companies had to lead out of the column to the left to give room, filing into their places again after the countermarch. The battalion then deploys on the right centre company, and would be still parallel to its original alignment, but nearer to the general by the depth of half the close column than at the end of the Second Manœuvre.

4th MANŒUVRE.—*Change of position in open column.*—The battalion breaks into open column right in front, the column advances, changes direction to the left, and halts when about three companies have wheeled, the rear companies filing into the new alignment. The battalion then wheels into line. The new line is on the left of the general, and intersects the old one. The only point to remark upon in this manœuvre is that the change of direction necessitates the planting of three camp colours—one at the wheeling point, the second and third in front and rear of it—to determine the new alignment. The captain of the leading company rarely gives the word "Forward," when he sees by the camp colour that a sufficiently large arc has been wheeled. I may also notice that in breaking into open column the companies actually wheeled backwards, and were not turned about.

\* I give the titles of the manœuvres as they are printed in Rees. But I should have thought that these titles should have been transposed, unless close column on a rear division is an ellipse for close column deploying on a rear division.

**5TH MANŒUVRE.—Wing thrown back.**—This is a simple change of front from the halt on the left company, right thrown back the quarter circle. The company of formation wheels backwards, but the others go to the right about, and wheel rear rank in front, and when the front are dressed, back not up. Assuming the change of direction in the Fourth Manœuvre, to have also been an eighth of a circle, the battalion is, on the conclusion of the change of front, facing towards the general, but to his left. The line then retires fifty or sixty paces, and halts and fronts.

**6TH MANŒUVRE.—Countermarch, solid square and change of position.**—The battalion breaks into open column, right in front, and then countermarches by companies, so as to stand left in front, facing to the former rear of the column. It then advances thirty or forty paces, halts, and closes to one pace distance on the leading company. This is preparatory to forming the "solid square"—a somewhat intricate business, which I will endeavour to explain in as few words as possible, though the description before me is itself a little obscure on some points. First, the whole of the companies close outwards one pace by sub divisions. The intervals in the front and rear companies thus left are filled up by captains covered by their sergeants, and a captain with his sergeant also takes post in the centre of each flank of the column. Then the two rear companies face about, and four files on each flank of all the companies except the light infantry and the Grenadiers (the front and rear companies), face outwards. Then there is a distance of one pace between each of the companies. To fill up these spaces, the fifth file (three men, it must be remembered) from each flank of each of all the companies, except the light infantry and Grenadiers, and one man of the sixth file, move up, and place themselves one behind the other (four deep). The rest of the men of each sub division of these companies close and face outwards. A space is thus left in the centre for the officers, colours, &c. But four files in the centre of each company remain, facing to their front, to act as a reserve. The two front ranks kneel to prepare for cavalry and the two ranks in rear of them fire standing, the rest being in reserve. When firing begins, the four captains who stand in the centres of the front rank of each side of the square, retire to the rear rank, and their place is taken by their sergeants, who kneel and slope their pikes outwards as the men do their bayonets. The square is reduced, the close column advanced, and then opened to wheeling distance from the rear. The next thing is to change the order of the column by the successive march of companies from the rear. This brings it right in front, and wheeling to the left into line, the battalion stands on the right of the general, with its rear towards him.

**7TH MANŒUVRE.—Countermarch by files in the centre of the battalion.**—This is a change of front on the centre of a line, and will be familiar to many of your readers, as, if I collect right, it, or something like it, existed so late as the Red book of 1862. The wings face inwards, and, taking three steps outwards to disengage, move to their new places, forming by files to the reverse flank as they come up. The line is then facing the general.

**8TH MANŒUVRE.—March in open column.**—The battalion forms open column in rear of the light infantry. To effect this, all the companies except that of formation wheel backwards on the left, and then file into their places. The column advances, and on the march diminishes and restores its front by

forming sub-divisions and re-forming companies. It is to be remarked that the diagonal march is not effected by a half turn, but by stepping obliquely, keeping the shoulders to the front. The manœuvre is completed by wheeling to the right into line so that the battalion is at right angles to its original alignment, and is on the general's right.

**9TH MANŒUVRE.—Echelon change of position.**—The battalion breaks into open column left in front, and then forms line on No. 7, which wheels back four paces on its left.

**10TH MANŒUVRE.—Echelon change of position.**—Front is changed to the left the eighth of a circle at the halt on the left company. This brings back the battalion to a position parallel to its original front, but to the right of the general.

**11TH MANŒUVRE.—Change of position.**—The line moves to the right in file, forms companies to the front on the march, and the column, when opposite to the general, halts and wheels to the left into line.

**12TH MANŒUVRE.—Retreat in line.**—The line retires fifty or sixty paces, halts, fronts, and fires by companies. It then retires by alternate companies, firing. Line is formed on the right companies, and again retires, halting and fronting when convenient. In this manœuvre we have the first indication of extended order in the words: "The light infantry may be divided in the intervals of the first line, retire with it, and change to the other line whenever it becomes the advanced one. In this situation they cover the retreat, and may occasionally fire, and when the line is formed they resume their position on the left."

**13TH MANŒUVRE.—March to a flank in echelon.**—The companies wheel up four paces on the right, and advance in oblique echelon, wheeling back into line when they have moved about 150 paces, and then advance in line. They then halt and fire by companies.

**14TH MANŒUVRE.—The hollow square, and its movements.**—The hollow square, which is three deep, is formed on the three centre divisions—i. e., battalion companies Nos. 4, 5, and 6. Those three companies form the front face; Nos. 3 and 2, the right face; No. 1, the Grenadiers and the light infantry, the rear face; and Nos. 8 and 7, the left face. The manœuvre begins by forming the square from line. To do this, Nos. 4, 5, and 6 stand fast (I omit the unimportant details necessitated by the colour party), and the remainder wheel backwards the eighth of a circle, those on the right wheeling on their left, and those on the left wheeling on their right. They then face about and move into their places in square. The square then moves, first to its right front, and then to its right; and, subsequently, line is re-formed by the inversion of the movements which formed the square. The movements of the square are very curious. To move to its right front, the left and rear faces face about, and the whole wheel up by sub-divisions the eighth of a circle, the front and rear faces on their right, and the side faces on their left, and then advance in echelon, wheeling back when the square is to be re-formed. To move to a flank, the side faces march in line, and the front and rear wheel up, by sub-divisions and march in open column. An analogous arrangement permits, of course, of retiring or advancing.

**15TH MANŒUVRE.—Retiring and filing to the rear.**—The line retires, passes by files to the rear from the proper right of companies, halts, fronts, and wheels into line. The retreat is covered by the light company skir-

**16TH MANŒUVRE.—Filing, advancing, and charging to the front.**—The line advances, covered by the light infantry, and passes to the right from the right of companies. The column halts, fronts, and wheels into line, calling in the skirmishers. It then advances and fires by wings, forms line on the right wing, fires a volley, and brings the bayonets down to the charge. "When the battalion has charged bayonets, they may be ordered to move forward at the charge at a very quick step, but by no means to run. A very few paces only can be necessary, Care must be taken that the battalion moves in perfect dress, which it cannot do if it run." When the light company was called in it separated itself into two sub-divisions, and formed one in rear of each flank of the battalion. After the charge it "issues from behind the flanks, pursues, returns, assembles, and forms the left of the battalion." At the end of this manœuvre the battalion is near the general, and with its centre opposite to him.

**17TH MANŒUVRE.—Retiring in line.**—This is merely retiring and firing by wings, the light company covering each wing as it retires, though the compiler of the directions before me seems doubtful whether this is authorized by the regulations. Line is then formed upon the right wing, and the battalion retires in line, and is halted and fronted, the light company taking its place on the left.

**18TH MANŒUVRE.—Advancing in line.**—The battalion advances, halts, fires volleys obliquely to the right and left and then directly to the front, and opens ranks. The colonel and lieutenant-colonel then dismount, the officers post in front, and the line advances in review order, halts, gives the general salute, and the review is over, and the famous Eighteen Manœuvres concluded.

UBERSTWACHTMEISTER.

#### EUROPEAN STATISTICS.

A Berlin statistician has published the following useful summary of facts and figures:

Europe had fifty-six States before the Italian war, while now it has only eighteen, with a total superficial area of 179,362 square miles, and a population of 300,900,000. Of these the German Empire comprises 9,888 square miles, and a population of 40,106,900 (according to the census of 1867). The principal States in Europe with a population of more than 25,000,000 are Russia, 71,000,000; Germany, 40,000,000; France, 36,500,000; Austro-Hungary, 36,000,000; Great Britain, 32,000,000; and Italy, 26,500,000; their total population is therefore four-fifths of that of the whole of Europe. A century ago, before the partition of Poland, the Great Powers only possessed one-half of the then population of Europe, thus: Russia 18,000,000; Austria, 17,000,000; Prussia, 5,000,000; England, 12,000,000; and France, 26,000,000; total, 80,000,000. The number of Roman Catholics in Europe generally now is, 158,000,000—35,500,000 in France, 23,000,000 in Austria, 25,000,000 in Italy, 16,000,000 in Spain, and 14,500,000 in Germany; Greek Catholics, 70,000,000—54,000,000 in Russia, 5,000,000 in Turkey, 4,000,000 in Roumania, and 3,000,000 in Austria; Protestants, 71,000,000—25,000,000 in Germany, 24,000,000 in England, 5,500,000 in Sweden and Norway, 4,000,000 in Russia, and 3,500,000 in Austria; Jews, 4,500,000—1,700,000 in Russia, 822,000 in Austria, 1,309,000 in Hungary, and 500,000 in Germany. Dividing Europe into nationalities there are 82,200,000 of the Slavonic race, 97,500,000 of the Latin races, and 93,500,000 of the Germanic race.

## SUPERIORITY OF THE PRUSSIAN ARMY.

From Baron Stoffel's Reports on the Military Forces of Prussia.

### MORAL ELEMENTS OF SUPERIORITY

Whatever defects one may discover in the Prussian military organization, it is impossible to suppress one's admiration for the people who, understanding that the first condition of happiness for nations as well as individuals is to be independent, resolved that the army should be the first and the most honoured institution; that every available citizen should share the duties and honor of defending the country, or of extending its power and dominion; and that they should above others be honored and esteemed.

Taking account only of the officers, what a brilliant example they give to the other classes! The high-born and wealthy do not live as elsewhere in a deplorable state of idleness and self-indulgence. Far from it. The members of the richest families, of the most ancient houses, become officers, and submit to the labor and hardships of a military life. They set the example; and beholding such a sight, it is impossible to restrain one's admiration for that rough and philosophic nation; but one cannot help a feeling of awe when thinking of the nation which possesses in its army such unparalleled advantages.

The system of compulsory education has been adopted in Prussia for thirty years, and one may almost say from the time of Frederick the Great; thus the Prussian nation is the most enlightened in Europe, owing to the education so thoroughly distributed among every class of society. The Polish provinces alone are somewhat inferior in an intellectual point of view.

In France one is so completely ignorant of all that refers to foreign countries that nothing is known of the vast school of learning so firmly rooted in Northern Germany. Large schools abound in great numbers, and, while in France the seats of learning and intellectual development are confined to a few great cities, Germany is covered with such institutions, and to enumerate them it would be necessary to include towns even of the third and fourth order.

I will not dwell on the advantages which an extensive education affords in the composition of an army. But is it not somewhat strange that in France, men who have reputation for ability and clearness of mind refuse to believe in them? Is it not tantamount to denying that instruction and education develop the faculties of man and elevate his ideas, by giving him a greater sense of his own dignity? Those *sarans* innocently affirm that an army of rough uncivilized soldiers, but accustomed to warfare, will defeat an army composed of well educated men, who, however, have no warlike experiences.

I simply ask what general would hesitate in choosing between the command of two armies each consisting of one hundred thousand men, the one composed of pupils of the Ecole Polytechnique and St. Cyr, and the other composed of uncouth peasants from Limousin and Berry; both armies being equal in point of discipline, physical force and length of service? If he took but one consideration into account—the rapid training of his recruits—it alone must instantly determine his decision. But there are other moral advantages which he could not ignore, and which make the one army worth ten times as much as the other. I can further bring the experience I acquired in

Bohemia in 1866 to bear on this subject, for Prussian officers and sergeants, proud of their victories, ascribed them in a great measure to the intellectual superiority of their men.

I cannot omit to call attention to a quality which particularly characterizes the Prussian nation, and which serves to increase the moral value of its army, namely the sense of duty. It is so extraordinarily developed in every section of the community that the more one studies the Prussian character the more one marvels at it. As, however, it is not in my province to search for the root of this sentiment, I content myself with stating it as a fact. The most remarkable proof of this devotion is shown by the employees of the various civil departments of the government, men paid with surprising parsimony, generally burdened with large families, but who slave all day with an indefatigable zeal without a murmur or giving evidence of discontent or of a wish to rise into a more comfortable position. M. de Bismarck, said to me a few days ago:—"We take good care to leave this class as they are; this *bureau cracy*, hard working and ill paid, do our work admirably, and constitute one of our principal supports.

### MATERIAL ELEMENTS OF SUPERIORITY.

Among the principal material advantages possessed by Prussia, the facility which its military organization gives it of creating special services, such as railway and telegraphic companies, companies of bearers of wounded, is one of the most important. In my reports of 1866 I dwelt on the most important details connected with these services. I described the numbers, composition and duties of each service, so that it only remains for me now to add that, by means of the *Landwehr*, these services are maintained without deducting a single combatant from the active army; and, moreover, in time of peace, they are on a permanent footing.

(Colonel Stoffel adds some details here of the Prussian system of gathering the wounded, and an account of their infantry rifle practice, which last has been sufficiently presented in Colonel Church's address on rifle practice published recently. Coming to artillery practice, Colonel Stoffel continues.)

If war were to burst upon us, we would have to take pressing and stringent measures to counteract the vast superiority of the Prussian artillery over the French. I do not deny that our gun carriages are far lighter than the Prussian, and that our field pieces are more moveable; but the 4-pounder and 6-pounder Prussian field guns shoot with far greater accuracy, and have a longer range than ours. The German work on this subject, which I annex to my report, leaves no room for doubt. Moreover the Prussian field guns fire with far greater rapidity than ours. But what is the argument of the large number of artillery officers in our service who deny that this is an advantage, and contend that the rapidity of fire of our field guns is sufficient for all practical purposes? One would think that it was a moral impossibility for an occasion to arrive in action when it would be of paramount importance to hurl in a given time, the greatest number of projectiles, either against the enemy's columns or against his artillery. The advantage of the force capable of firing with the greater rapidity would then be evident.

With regard to the greater accuracy of the shooting of Prussian field guns, I consider it so important a point that I shall make a special report on the subject.

Respecting the drill of the *personnel* of the Prussian artillery, it is in no way superior to

ours, for the gunners serve barely two years in the active army. As to the officers, in stead of enjoying as in our service, a higher reputation than those of the other arms of the service, it is rather the contrary; but in point of scientific education they by no means yield the palm to France.

### PRUSSIAN AND AUSTRIAN ARTILLERY.

I may here perhaps be permitted to digress a little in reference to a popular error, existing since the campaign of 1866. It has been frequently asserted, verbally as well as on paper, that the Austrian artillery is superior to the Prussian. This verdict emanates from Austria, which alone should have made one mistrust the truth of the assertion. For those who wish to ascertain the true facts of the events of the Bohemian campaign the error is complete. If it had been only said that during the war of 1866 the Austrian artillery did more damage to the Prussian artillery than *vice versa*, none could have contested the fact; but an explanation is necessary.

1st. As Prussia has not completed the armament of her field batteries with the 4 and 5-pounder steel breech-loader, she was obliged to enter on the campaign with a third of her artillery composed of bronze pieces; but not a single opportunity occurred for using these guns, or where it was possible for them to oppose the rifled long-range cannon of the Austrian artillery. Every Prussian artillery officer that I spoke to on the subject said that these bronze pieces were a constant source of hindrance and annoyance throughout the campaign.

2ndly, Owing to the strategical operations of the war, the offensive was generally taken by the Prussians. At Nachod, at Skalitz, at Trautensau, the Prussian division debouching from the mountain passes found the Austrians drawn up ready to receive them. It is thus apparent that it was far more difficult for the Prussian artillery to choose an advantageous position, especially as they were unacquainted with the nature of the ground. The battle of Koniggratz (Sadowa) furnishes though, the most striking example. The Austrian artillery, covered by epaulments, took up its position beforehand on all the commanding points of the range of hills which stretch from Maslowed to Prim, whilst the Prussian artillery, which attacked had to overcome the dangers of hastily choosing positions on a commanded ground.

Thus the Prussian artillery was unable throughout the Bohemian campaign, to utilize a third of its effective strength, and upon that arm, nevertheless, devolved the most important duties on the various battle-fields. Such is the double reason for which the Austrian artillery was actually able to do more damage to the Prussian artillery than itself sustained. But I again repeat, it is a false statement that the former is superior to the latter; in reality the Prussian material is superior to the Austrian, as will be seen by the German report I forwarded on February 20, and the Prussian artillery officers are better educated and more instructed than the Austrian. I am unable to state whether the training of the men differs.

A Minnesota backwoodsman has a library of 2,000 volumes.

An anti-infallibility journal has been started in Rome.

The Mahomedans have occupied parts of India for upwards of a thousand years.

For the future the passage of the Straits of Dardanelles will be open to all nations.

Californians are enjoying strawberries and cream.