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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 4, 1872.

No. 10.

CORRESPONDENCE.

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

The winter costume for officers of Cavalry in Canada, is a dark blue pea patrol jacket, braided and trimmed with black astracan fur—black astracan gauntlets, thick blue cloth pantaloons, with two white stripes down the outer seams, long boots and jack spurs with steel understrap, embroidered gold lace scarlet waistcoat (or white do, as worn by the 13th Hussars when in this country) a black astracan fur cap—*inches high with scarlet or white crown embroidered with gold and gold button—no cap lines, and the fur cap made loose so as to be well pulled over the ears in cold weather, undress snow belt and black patent leather Sabretasche undress pouch and belt when mounted. The long Cavalry cloak with removable cape, can, if required, be worn over all, the cloak protects the horse and rider. This is the uniform worn by the Quebec and Montreal V. Hussars.*

The winter uniform as worn by the Field battery officers and garrison artillery is the same as in the regular artillery when serving in Canada, and consists of a thick blue cloth great coat, braided and trimmed with black astracan fur, scarlet waistcoat, black astracan fur gauntlets, thick blue cloth pantaloons with broad red stripe down the outer seams, long boots (with jack spurs and steel understrap for mounted officers), undress pouch and belt, undress sword belt, and black patent leather sabretasche (for mounted officers) black astracan fur cap with scarlet crown embroidered in gold and gold button; cap—*inches high. The same badges of rank as are worn in the Infantry; are used in the V. Cavalry and Artillery but are of silver instead of gold.*

R. L.

Alfred Waddington Esq., the energetic promoter of the Canadian Pacific Railway died in Ottawa on the 24th ult, at the age of 72.

The 23rd February was the anniversary of the capture of Ogdensburgh by the Canadian Militia under Colonel Macdonald in 1813

NEWS OF THE WEEK.

The 27th of February (Tuesday) will be remembered in England as the day of National Thanksgiving for the recovery of His Royal Highness the Prince of Wales.

The Queen attended by the Princes of her family, the House of Lords and Commons with the Judges and nobility of England passed in grand procession through the streets of London amid plaudits of over half a million of her subjects, the rear of artillery and the ringing of bells to St. Pauls Cathedral there to acknowledge the mercy of Almighty God in sparing, to the prayers of herself and people, the Heir of the British Empire, and the hope of one third of the human race.

Twelve thousand soldiers aided by the police force kept the streets, and the procession was one continued ovation, the cheering of the people being continuous from Buckingham Palace to St. Paul.

That old historical cathedral was decorated with a magnificence impossible to describe, and gave seats to fourteen thousand of the magnates of the land, the grand old aristocracy of England, to take part in the services, hear a *Te Deum* chanted by one thousand voices, and a thanksgiving sermon by the Archbishop of Canterbury, on the return the Prince occupied a seat in Her Majesty's carriage.

In all parts of the United Kingdom similar services were held, especially in Ireland: with all the enthusiasm of a warm hearted people.

The discussions on the Alabama Claims was gradually dying out, it is quite clear Jonathan will get all he demands. The *Times* remarks that John Bright is quite satisfied at the conduct of the Government. England has come to a pretty pass when the approval of a Birmingham Quaker is necessary to support her premiers and his colleagues—*six transit Gloria Mundi*, friend Broadbrim represents the money bags, and that comprises the *summum bonum* of the England of to-day.

A change of Government is imminent in France, the hierarchy support the Count de Chambord (Henri V) as he is childless it

would seem to be the policy of the House of Orleans to support his claims as they would be the legitimate successors.

It is feared that Amadeus cannot cope with the difficulties of his position in Spain and that another revolution is imminent in that distracted country.

A convention of legitimists are sitting at Antwerp, their proceedings give great umbrage to M. Thiers and are the means of causing great excitement in that country.

The snow blockade on the Pacific Railway was broken after *fifty eight days*, we hope to hear no more about the severity of a Canadian winter.

The Cabinet at Washington declines to withdraw their claims for incident losses arising out of the Alabama Claims, and will succeed in pocketing some of John Bull's surplus cash.

Criminal statistics state that a murder per day is averaged in New York.

In Ohio the state Senate reported a bill opening the states canals to Canadian vessels for a similar concession.

From what can be gathered of Mexican affairs the revolutionary forces appear to be gaining ground.

The Nova Scotia Assembly was opened on the 22nd ult., and that of Manitoba prorogued on the 20th.

The Ontario Legislature was prorogued on the 2nd inst.

The Dominion House of Commons is summoned for the despatch of business on the 11th April next.

News has reached us that a madman named O'Conner attempted to frighten the Queen with an unloaded pistol at the gate of Buckingham Palace on the 29th ult. Prince Arthur who was in the carriage with Her Majesty knocked him down and when secured he said he only intended justice for Ireland; he had papers in his hand purporting to be pardons for convicted Fenians which he wanted the Queen to sign. Her Majesty displayed her usual courage on the occasion; it is evidently the act of a lunatic.

It is stated that England will repudiate the Treaty of Washington, the very best thing she could do.

OPINIONS OF THE PRESS ON THE GENEVA ARBITRATION.

THE ALABAMA CLAIMS QUESTION.—Yankee "smartness" has again outwitted British diplomacy, and the result of such "cuteness" is the creation of a "question" which may require all the forbearance, tact and self-denial of the nations to bring to an amicable conclusion. When the people of Canada congratulated themselves upon the settlement of the Alabama Claims by the Joint High Commission, they little thought that the American Government had a mental reservation which they were ready to spring upon us at the proper juncture. We considered the whole matter disposed of except the mere assessment of the damages; and we have every reason to believe the Americans did the same, and that their outrageous demand for indirect or consequential damages was an after thought of theirs, intended, no doubt, to secure better terms than they had attained by the treaty. We were among those who considered the concessions made by England on this very question too great, in consenting to a review of her conduct during the American war by any foreign power; it was more than the Americans had a right to ask and more than England should have granted, but so anxious was Her Majesty's Government to remove all causes of national irritation that they went to the "verge of national humiliation" to meet the American half way. And how has Britain been repaid for all these concessions? By deceit and bad faith to which no Government, representing a free people, should submit. The claim for consequential damages is not only unreasonable but an insult to England; unreasonable because they can never be defined with sufficient certainty; the whole cost of the war being but a portion of the indirect damages; an insult because the demand is sprung upon us in an underhanded manner, at a critical moment throwing the whole responsibility upon us of breaking up the Geneva Conference by compelling us to withdraw from the Arbitration, and tainting our conduct with a treaty-breaking stigma. England must, at all hazards, repudiate American greed as set forth in this rapacious demand. She must withdraw from the Conference, if her presence there, notwithstanding her demurrer to the reception of the claim for inferential damages, should be considered a waiver on her part.

What then? That war between the two countries should be the result we consider highly improbable. England has no desire to reconquer her old colonies, and she never goes to war for a mere idea, and the United States are not in a position to go to war. The South is a slumbering volcano, ready at any moment to belch out rebellion. A considerable portion of the country is under martial law; northern bayonets keep the people from overt acts of treason against the Washington Government. Besides this, the Americans have no navy, and in a war with England greenbacks would go down almost to zero. The worse that can happen will be a reversion to the position we occupied before the Treaty of Washington—a very unsatisfactory one, it is true, but indefinitely preferable to national dishonor. That England will remain firm but conciliatory, we do not doubt, and that Grant's Cabinet will not at present recede from their position we think equally probable; but wiser counsels will prevail by and by, and the efforts of diplomacy, we hope, will succeed in removing every barrier to a thorough understanding between the two nations for the future. We in this country want peace, but no

"peace at any price." True, we had nothing to do with fitting out of Alabamas; the Canadian Government, at great expense, observed the strictest neutrality that one friendly power could have observed towards another, and our skirts are clean and our consciences clear on that point; but England's quarrel is our quarrel, and we shall stand by the old flag to the last.—*Sarnia Canadian*.

A GERMAN CRITIQUE ON THE AMERICAN DEMAND.—The Cologne *Gazette*, referring to the claims put forth in the American case says: "Think a little on the magnitude of the sum comprised under the six heads enumerated. It is at least as much, if not more than France must pay to Germany for her foiled aggression, but which she consented to pay when her armies were everywhere overthrown, her Emperor taken prisoner, her capital captured, her strongest fortresses fallen, a great part of her territory in hostile occupation, her resources and her prospects utterly destroyed—in short, when there no longer remained to her a hope of a change for the better. Contrary to this, an equal sacrifice is demanded from England on account of disputed questions, which admit of different interpretations, and especially before the adversaries have measured their strength. It appears inconceivable. The fifth part which demands an indemnity for the prolongation of the war, would alone impose upon the English a contribution of £400,000,000, for the cost of the war to the Union amounted yearly to £200,000,000; and that the struggle was prolonged two whole years by England's fault alone is a proposition which has long enjoyed widespread credence in America. Compared with this, what is the sum of \$14,000,000 which is demanded as compensation for the owners of the ships and cargoes destroyed by the Southern cruisers, and which England in her innocence supposed would be the principal item in the American bill submitted to the Geneva Council of Arbitration. It must be supposed that America has run up her demands so high in order that the award, even after great deductions may still amount to a considerable sum. This may perhaps be smart, but it certainly is not dignified, nor politically judicious. Respectable individuals and respectable States, as a rule claim only what they are entitled to, and the one merit hitherto of the Treaty of Washington was that it was designed to be an example of fairness and moderation. But the example will fare ill if unjustifiable claims are put forward, not to mention if the Americans should in the end be dissatisfied with their government should it obtain only a fraction of what it had originally demanded for the Union and for citizens who had suffered injury. Respecting the inner justification of these claims, the English have good grounds to ask the Americans. You moral people, why do you not apply to us the measure of neutral duties which you have applied to yourselves and your conduct during the Franco German war? Pray, did you not a year ago sell ship loads of arms and munitions of war, by means of which Gambetta was enabled to prolong for months resistance to the German armies? The preservation of the peace of the world and the welfare of all nations is of higher interest to us Germans than the gratification of a malicious pleasure, otherwise we could not help feeling satisfaction that the only two countries which, for the sake of a miserable gain, supplied our enemies with the means of stubbornly prolonging the contest have fallen out with one another on account of a similar piece of huckstering."

FRONTIER RIFLE ASSOCIATION.

The tenth annual meeting of this association was held at Franklin centre on the 13th February. The attendance of delegates was good, nearly every company being represented. Lieut.-Col. Fletcher, President, occupied the chair. The report and financial statement was read and adopted. The Treasurer's report shewed a handsome balance on hand. The following gentlemen were then elected the office bearers for the ensuing year.

President: Lieut.-Col. Fletcher.
Vice Presidents: Lieut. Cols. Rogers, Ried and Macdonald; Majors McNaughton, Lucas and McFee, Captains Johnson and Bredner.

Secretary Treasurer: Lieut. Colonel McEachern.

Council: The President, Vice Presidents, Secretary-Treasurers, and the Captains of Companies.

The several Committees were next appointed, after which it was unanimously resolved, that the next annual match be held at Havelock, the time to be determined upon by the President and Secretary so that it shall not interfere with the annual camp drill. A list of matches and prizes was also adopted.

The case of the young man McCarroll whose sight was injured at the last match, was brought before the meeting, when the sum of \$25,00 was voted as a gratuity to him.

From the interest shewn by the officers and members of the association, as well as by the people of the county of Huntingdon, the next match promises to be a very successful one. This association has done a great deal towards keeping up the *esprit de corps* and efficiency of the border volunteers in the 2nd Brigade division, and its continued prosperity reflects credit on its managers. An additional feature of interest at the next match, will be a match between the Borders and the Rangers for a champion cup presented by the Lieut.-Colonels belonging to the association.—*The News*.

DEBT OF CANADA.

The debt of the Dominion as it stood on the 30th June, 1868, is payable as follows:

Payable in 1872.....	\$255,951 87
" 1873.....	882,868 43
" 1874.....	36,772 00
" 1875.....	1,851,433 33
" 1876.....	3,957,203 34
" 1877.....	1,531,833 35
" 1878.....	569,533 33
" 1879.....	2,657,113 33
" 1880.....	7,613,413 33
" 1881.....	6,111,560 00
" 1882.....	1,338,333 32
" 1883.....	2,684,940 00
" 1884.....	1,357,965 00
" 1885.....	1,529,266 66
" 1886.....	33,658,962 54
" 1887.....	3,471,093 33
" 1888.....	474,266 67
" 1889.....	1,703,333 33
" 1891.....	959,220 00
" 1892.....	705,666 67
" 1893.....	600,000 00
" 1895.....	40,000 00
" 1896.....	88,500 00

The Right Hon. Edward Cardwell, Secretary of State for War, has submitted to Parliament the ministerial estimate for the support of the army during the military year from April, 1872, to April, 1873. The figures show a reduction of £1,000,000 from the estimate of the year from 1871 to 1872.

Shakespeare says that "some men are born great, some achieve greatness, and some have greatness thrust upon them."

Who has not met with representatives of these three classes? On this side of the Atlantic where respect for birth and pedigree is chiefly confined to a horse or a cow, that class prevails which comes under the second head. The self-made man, the man who started with "fifty cents in his pocket," is a person we meet with daily and hourly; and yet how very differently these very men are constituted in mind and disposition. Could we follow the career of each of them step by step, we should find this difference stamped on every one of those transactions large or minute, that have added to the pile, and contributed to the present relative status as a "rich man." How many "Cherryble Bros" or how many Peabodys should we find, how many who have made money, as they did, with the noble design of using it to advance the welfare, and relieve the suffering of their fellow men. In these men was a nobleness that made birth and pedigree unnecessary. But the number of this class of self-made men that one has met with in life he may count on his fingers.

On the other hand how many do we find who have accumulated money by "sharp trades," by a system of dealing, morally if not legally damnable, by extortion, by oppressing the poor, by hard bargains, by taking advantage of a neighbor's difficulties? We need not travel far to find a good sample of this class. And what object have these men in making money? Is it to do good, is it to make good use of the "talents" confided to them? Far from it.

The miser hoards up his money and worships it, and though he may know that after his death his heir will squander it as fast or faster than he collected it, yet he will say "If it only gives him as much pleasure to spend it as it has given me to collect it, he is welcome."

But this man is in a certain sense harmless; the injury he does is chiefly of a negative character. A worse character is the proud man, the man of low origin and low thoughts, with whom the maxim *Didicisse fideliter artes emollit mores nec sinit esse feros* is a dead letter, because he never had any education, and who is proud of his ignorance and boasts of his ignoble descent.

This man is a public and social bugbear his riches serve only to enable him to display his petty tyranny, his ill governed temper, his pride of purse, his narrow mind, his contempt for honor, and his love of oppression. This type of rich men then is the drawback to the American idea of equality. We have not here the evils that emanate from what the Yankees call a "bloated Aristocracy," but it may be doubted whether we have not by jumping out of the frying pan, fallen into the fire. Could we be sure that none but Peabody's would rule us with the *almighty dollar*, we should lament less the virtues that do attach to education, blood and birth.

By the number of dollars a man possesses, he estimates his greatness in this country, and consequently an ignorant and low-bred petty Croesus is a curse that we in this favoured land of Liberty have too often to endure. —*Sherbrooke News*.

The *Montreal News* takes a jubilant view of the defences of Canada. The old 68-pounders which once armed the citadel at Quebec have been sent to the melting-pot, and seven-inch muzzle-loading rifled 150 pounders have taken their place, and are, the *News* thinks, "more than a match for any ironclad that can enter the harbor of Que-

bec." At Point Levi three forts are being rapidly pushed to completion, each of which will mount five 300 pounders rifled Armstrongs, while the guns from the citadel can sweep the ground in advance of the forts. Halifax, one of the Imperial strongholds, has in position twelve 25 ton guns, which throw a 600-pound shot, and twenty 300-pounder guns are to be added to these. From the fact that England takes such precautions to defend her colonial strongholds, the *News* draws the comforting assurance that she has no idea of turning her back upon Canada, and is quietly preparing "to give a good account of any foreign fleet that ventures to attack them." It is her policy to teach her Canadian subjects the lesson of self-reliance and to wean them by degrees from dependence upon her protection.—*U. S. Army and Navy Journal*.

WHAT WILL BE PROVEN BY THE DEFENSE ON THE STOKES TRIAL.

When the Stokes murder case finally comes to trial, if it ever does—it will not be the fault of the prisoner's counsel of it ever reaches the second scene in the drama—the defense will attempt to prove, and it is not certain that they will not succeed—

1st.—An *alibi*, that is, that Stokes was not in this country at the time James Fisk, Jr. was murdered.

2nd.—That Stokes never carried a pistol.

3rd.—That the pistol was not loaded.

4th.—That it could not be discharged.

5th.—That he killed Fisk in self defense.

6th.—That Fisk had a Gatling gun in his pocket.

7th.—That Fisk re-organized the ninth regiment, with a view to using it against Stokes all over town.

8th.—That Fisk was the destroyer of his peace and happiness, and therefore, the killing, if such it may be called, was at the worst justifiable homicide.

9th.—That Fisk was a bad man, and ought to have been killed anyhow.

10th.—That Stokes was insane when he committed the murder, and was, therefore, an irresponsible agent.

11th.—That Fisk did not die from the effect of wounds inflicted by the ball discharged from the pistol in the hands of Stokes.

12th.—That Fisk was the victim of malpractice on the part of his physicians.

13th.—That he died from natural causes.

14th.—That he was not shot at all.

If all the above points of evidence do not carry the desired weight with the jury, then there will be no more need of laws and lawyers in the country.

Politically, the American people are omnivorous. Everything is dragged into partyism, and made to subserve party ends. The furnishing of arms by the United States to France would probably never have been ferreted out, unless Senators Sumner and Schurz had not found in it a capital chance of damaging the electoral chances of General Grant, by arraying against him the whole German element. Mr. Sumner charges the administration with knowingly selling arms and ammunition to France, in violation of neutrality. It is to be feared that the administration can really make no honest answer to the charge. The facts against it are very strong. Besides the corruption that lies at the bottom of the transaction whereby Government officials filled their pockets with commission money, there is the ugly fact of duplicity in pressing for indirect or consequential damages in the

Alabama business, while the Washington Cabinet was guilty of a much more open and serious breach of neutrality with regard to Prussia. While the administrative organs kept the Germans in good humour by lauding their valor and chivalry, the Government itself was secretly engaged in supplying the French with cannon, rifles and cartridges, thus helping to prolong a contest that was virtually settled at Worth. If Bismarck don't put in his little bill for this he is not the astute statesman we take him to be.

IMPORTANT DISCOVERY.—The *Boston Traveler* announces the discovery of a fact of much interest to all who use stationary steam engines. The waste steam from one engine can be used to heat the boiler of another, if it stands sufficiently near, and this without requiring extra fuel, fireman or chimneys. The amount of power thus attained is equal if not superior to that of the engine from which the waste steam is received. The heat of the second boiler is obtained by passing the waste steam through its flues, and is filled with a volatile liquid mainly composed of the bisulphate of carbon, which boils at 110 Fahrenheit, and at the temperature of exhausted steam, gives a pressure of sixty-five pounds to the inch. The vapour formed in this boiler is used to drive the second engine instead of steam, and after being used is condensed by cooling, pumped into the boiler again, and used continually with small loss.—Two engines arranged on this plan are now running at the Atlantic works in East Boston, and the power of the vapour engine is proved by careful measurement to be the greater.

It is almost impossible to get at the truth about the revolution in Mexico. It is certain that war and bloody war, too, is raging there, but which side has the upperhand is not clear. The appearances are, however, in favor of the revolutionists. The rumor has reached us now that Juarez had been called upon to resign and give his place to the Vice-President. If so, the Juarez party might thus postpone its final ruin, but if Porfirio Diaz has retained any of the popularity which he enjoyed only one year ago, there is little doubt that his cause will receive popular support. It will be remembered that Diaz is at the head of the revolution.

The fortifications of the French port of Brest are soon to be greatly strengthened so as to enable them to resist modern artillery. The plans adopted for this object are those presented by Vice-Admiral Gueydon. The question of defending the narrow channel of Brest, which has always presented very great difficulties, is to be solved by the building of a casemated tower on Maugam rock which could cross fire with Forts Maugam and Cornouailles. To protect the entrance of the roads, an *avant-porte* or fore harbor will be constructed, which will have the additional advantage of permitting the loading of coal and the embarkation of goods of all sorts, hitherto a matter of difficulty in the harbor, even during the prevalence of west winds.

To show the workings of the competitive examination system, an English case is cited. One of the candidates spelled Venice with two n's, thus Vennice. The examiner, who could spell, but not speak correctly, sternly inquired: "Do you know, sir, that there is but one 'hen' in Venice?" "Then eggs must be very scarce there," was the reply; whereupon the candidate immediately passed.

THE REPORT OF THE GUN COTTON COMMITTEE.

The preliminary report of Colonel Young-husband's Committee, recently addressed to the Secretary of State for War, will be somewhat reassuring to those whose faith in gun cotton was somewhat rudely shaken by the Stowmarket explosion. We are able to present our readers with an epitome of this first instalment of the result of the committee's labors, and we cannot but feel that in every respect the point at which they have arrived will be deemed satisfactory and reassuring.

The constitution of the committee is as follows.—

President. Colonel C. W. Young-husband R. A. F. R. S. Members: Colonel R. Gallwey, R. E.; Colonel F. W. Midward, C. B., R. A.; Lieut. Colonel C. H. Nugent, R. E.; Captain E. Field, R. N.; G. P. Bidder, Esq.; Past President Institution of C. E. Dr. Wilham Odling, F. R. S.; H. Beauerman, Esq. Secretary. Capt. W. H. Noble, R. A.

The Committee was appointed by the Secretary of State for War to report up on the following points respecting the employment and manufacture of gun-cotton.—

1. "Whether the employment of gun-cotton is attended with such uncertainty or peril as should induce the party to relinquish its manufacture and its use for these military purposes for which it has hitherto been considered peculiarly valuable.

2. "Whether its manufacture, in all its different stages, is a dangerous process, and one that should not be carried on near an inhabited neighborhood, and whether additional precautions to those now in use seem necessary.

3. "Whether the storage of gun cotton, either wet or dry, is necessarily attended with danger, in magazines on shore or on board ship, under any or all conditions of temperature.

5. "Whether, either in a pure or impure state it is liable to spontaneous combustion, and if so, whether such combustion would result in explosion, or in mere ignition.

5. "The nature of buildings best suited for the storage of gun cotton.

The committee were besides, required to report upon any points, in addition to those above enumerated which might arise in the course of their investigation and to which they might consider it desirable to draw attention. Mr. Cardwell also desired that they should undertake, "as a separate subject, an investigation which the Secretary of State for the Home Department has requested, as to the question of the safety for transport, and storage, of the substance called litho-fracture.

It seemed desirable, at the commencement of the labours, and their attention should be diverted to the first of these points as, should the evidence obtained, show that the employments of gun-cotton for military purposes is attended with uncertainty or peril, it would follow that its manufacture must be abandoned, and it would be unnecessary to enter into the other points as to storage, liability to spontaneous combustion and the most suitable nature of buildings for magazines.

The committee naturally made themselves acquainted with all the official reports yet furnished on the practical application of gun-cotton; notably, the report of the Royal Engineer Committee, dated 3rd August, 1870, from which some very valuable information was obtained. They also received evidence from the officers of the Royal Engineers under whose directions their experiments

with gun cotton in military mining demolitions, and in submarine mining have been carried out; and also from other persons of varied experience in mining and quarrying operations. From all these sources, opinions very favorable to compressed gun cotton were generally obtained as regards its safety in use, facility of application, storage, and transport. The following officers appeared before the committee, namely—Sir J. Lambert Simmonds, K. C. B. formerly commandant of the School of Military Engineering at Chatham; Col. Lennox V. C., R. E. Instructor in Field operations at Chatham, Captain Home, R. E. Secretary to the Royal Engineer Committee; and Lieut. Anderson, R. E. Secretary to the Torpedo Committee.

A careful review of the reports and other documents before them, and the evidence of these officers and others, respecting the use and application of compressed gun cotton, principally as regards its employment for military purposes, decided the committee to report that they consider that its use is not only unattended by either uncertainty or peril, but that the material as an explosive agent, is effective, certain, safe, portable, and easy in employment; they consequently express a strong opinion on its great value for military engineering purposes generally, and for submarine mining purposes.

As regards storage, no extended experience has been gained by the officers who have used it at Chatham and elsewhere; but within the limits of twelve months no change has been observed. The evidence respecting the stability of a material which has been in practical use during a comparatively short period is necessarily meagre; time forming an essential element in determining upon this important quality. But as bearing upon this point, the committee found that considerable quantities have been sent during the past two or three years to hot and damp climates, and have undergone voyages to Australia and India, without, so far as they could learn, any accident whatever. Some gun-cotton which was supplied by the Stowmarket Company in the summer of 1870, and kept in a magazine on the Thames, was subsequently sent to Calcutta, where it had been stored for some months. A report recently received from Colonel Kenaid states that the gun-cotton shows no indication of any change.

The reports published in Austria furnish very satisfactory evidence respecting the stability of gun cotton. These, and the elaborate investigations made and published by Mr. Abel, are too voluminous to discuss at length; but a consideration of them together with the other evidence adduced, satisfied the committee that no hesitation need be felt in continuing the employment of compressed gun cotton through any fear of undiscovered unstable qualities.

A considerable number of specimens of gun cotton that had been stored at Woolwich for several years past (several specimens for periods as long as nine years), under varying conditions of exposure to light, heat, and change of temperature, were examined. Their unaltered state furnishes confirmatory testimony that under all ordinary circumstances, gun-cotton may be regarded as a stable material.

The experiments on the stability of gun-cotton extending over a long period, refer to the material in the form of rope or skeins, that is gun cotton in the loose state, as distinguished from the substance compressed in blocks or discs from pulp, on Mr. Abel's system; but as it has been satisfactorily proved to the committee that gun cotton

produced from the long staple cotton cannot be so perfectly purified as pulped gun-cotton, it follows that all the evidence is in favor of stability of gun cotton, in the purification of which the pulping process has been applied.

As regards manufacture, the committee made themselves acquainted with the nature of the several processes constituting Mr. Abel's system, up to the stage in which gun cotton is compressed into discs and ready for use. In these processes the material, from the moment of its conversion into gun cotton, and up to the drying stage is in a wet state, and at the final stage of leaving the press contains from 16 to 20 per cent. of water. It is throughout in every stage perfectly unflammable, and no danger can possibly result from its manufacture (with the exception of drying) in any locality, whether in or near a town, or otherwise.

The operation of drying, as followed at Stowmarket, seems to be open to some objections, but the committee have not discussed these objections, apprehending no difficulty in the devising a safe and simple method easily applicable to any locality. Under these circumstances the committee felt no hesitation in recording their opinion that there is no reason why the War Department should relinquish the manufacture of compressed gun-cotton; and we are happy to be able to record our satisfaction that such should have been the result of the first portion of their labors. Those somewhat behind the scenes have known from the first that the arguments based on the explosion, nay, and the very explosion itself, arose not from the necessary course of manufacture of gun cotton under Mr. Abel's patent, but from evil motives to which the name conspirator would be a term of extraordinary mildness—*Broad Arrow*.

NORWAY A THOUSAND YEARS AGO.

In July next the Kingdom of Norway will celebrate a national festival, on account of its being 1,000 years since its various provinces were united into one kingdom. A. D. 872 King Harald Haurfagor defeated the independent Norwegian Princes in the battle of Havnstord, and made them subject to him, united the whole land into one Kingdom, with Harald as its King. In memory of the above feat a national monument will be raised, in the month of July, on the mound near Hougessund, where King Harald lies buried. Under these circumstances a sketch of his life will undoubtedly be read with interest.

A. D. 863, Harald succeeded his father Halfdan, King of the Southern part of Norway. The western and northern parts were ruled by many petty kings, each of whom was independent in his own dominions. According to the "Tales of Snorro Sturleson," King Harald would, in all probability, have remained satisfied with his own share of the country, if he had not fallen in love with princess named Gyda. He sent a messenger to demand her in marriage of her father; but she answered that she would not throw her self away by taking for her husband a King who had no other Kingdom to rule over than a few districts. "It is wonderful," she said, "that no King in Norway will make the whole country subject to him, in the same way King Gorm did in Denmark, and Erik at Upsal. Tell King Harald these my words: I will only agree to be his wife on the condition that he shall first subject to himself the whole of Norway, for then only can he be called the King of a people."

When the messenger came back to King

THE DOMINION OF CANADA.

Harald and brought him the answer of the Princess, he said, "She has reminded me of something which it appears to be wonderful that I did not think of before. And now," he added "I make a solemn vow not to clip my hair until I have subdued the whole of Norway, or have died in the attempt." Then he gathered his army, and crossing the mountains of Doore, he conquered the northern part of Norway around Trondheim (Thronheim). Then he went against the Kings on the western coast of Norway. Many were the battles he fought, until at length he, in the year 1072, conquered the united forces of the petty Kings in the great battle of Hufursfjord, after which he became the sole King of Norway. Then he imposed new burdens on land owners and insisted on their doing him service for their lands, as was the custom in other European countries. This was very displeasing to the Norwegians who loved their liberty dearly, and a large body of them fled from the country, and carrying with them families and goods immigrated to Iceland, which was at that time uninhabited. Others went to the Orkneys, Scotland, and Faroe Islands, which they peopled, thus these desolated countries became the homes of noble and proud Norwegian families. It is somewhat singular that the Icelanders appear, after their self expatriation, to have formed very different tastes and habits from other Norwegian emigrants. They became skilled in commerce and learning, they wrote many of the Norwegian tales, among them were to be found most of the scalds, or poets, who frequented the different courts of Northern Europe, where they were held in the highest estimation. Settlers in the Orkneys and Shetlands, on the contrary, were much addicted to piracy, oftentimes landing in Norway itself, and plundering its coasts. King Harald, enraged thereby, sailed with many ships to the Orkneys and Shetlands, made a great slaughter among its vikings, and then returned to Norway. After this he made a law which prohibited piracy on the coasts of Norway. Rolf, son of Ragnvald Tart of Sondniore, nevertheless plundered on the southwestern coast; therefore King Harald forced him to leave the country. He went to France, where he, in the year 911, became Duke of Normandy, William the Conqueror descended from him.

When King Harald had become sole King of Norway he sent messengers to the proud Gyda to remind her of her promise, and she accompanied them back and became his Queen. Harald had many sons. Some of them equipped ships, swept the seas in quest of spoil, and committed great ravages in Scotland and Ireland: one of them was for a long time King of Dublin, but at length he was slain by the Irishmen.

The youngest of Harald's sons was Hakon, who, in the year 938—two years after the death of his father—became King of Norway and was the first Christian King in that country. Hakon was christened in England by the Anglo Saxon King Athelstane, to whom his father had sent him. There he was educated and lived, until the Norwegians sent for him to be their King, instead of the oldest son, Erik, whom they disliked and sent away.

King Harald Haarfaugr died on the Island Karmoen, south of Bergen, in the year 936, and was buried in a great mound at Houg-sund, on that Island.

A national monument is now to be placed on his grave, and the sons and friends of Norway, on both sides of the ocean, are exhorted to contribute to the erection of that memorial.

"The recent announcement from Halifax, that a secret treaty had been concluded between Great Britain and the Canadian Dominion, providing for cutting Canada loose from the mother country in the event of trouble between England and the United States, may not have been authentic. But it expresses an intention which has been frequently the subject of discussion among British statesmen, as well as in the English reviews and daily press. At about the period of the formation of the Dominion these utterances by the English press were so pointed as to give immediate alarm to the Canadians, who conceived that they were about to be thrown upon their own resources before they were prepared to stand alone. Should the separation of Canada from England occur after war was threatened, as a mere means of foiling the United States, in anticipating military operations, the act would stand before the world as a military ruse, or fraud, of very much the same character as the act of a bankrupt who secretly disposes of his property to prevent its seizure by the Sheriff on process already issued or impending. Instead of such an act being a protection to the property concerned it only marks it as more clearly the debtor's, and, therefore liable to seizure. If Great Britain designs such a separation of Canada as will protect the latter from seizure during war by the United States, the separation must be fully consummated before the war is threatened. Such a measure, carried out in good faith during peace, would be clearly wise for both countries, and is, on that account, very likely to occur at any moment. One by one, English regiments and British influence have been withdrawn from Canada, until now England has scarcely a soldier left in the Dominion, and none whatever out side of Halifax. Great Britain exercises so little influence over Canadian Legislation that her products enjoy no favours in Canadian markets over those of other nations, and not a dollar of tribute, direct or indirect, passes from Canada to the mother country.

"In view of the probable early severance of all political connection between England and Canada, it becomes the American press and people to assume a proper position towards our new national neighbor. There is a small minority of the American people who would not be content to see any independent powers formed on the American continent unless they had the physical strength to defend themselves against the United States. But this filibustering proclivity expresses the feelings of but a small portion of our people. It is a more barbarous doctrine than has prevailed for many centuries in Europe, for there the principle of "balance of power" has secured the independence of the feebler States. Canada has more of the elements essential to the maintenance of her own independence than Mexico, Cuba, or even any of the South American Republics. She has a population larger than the United States contained when they entered upon the list of nations. She has statesmen trained to the independent conduct of all her affairs, external as well as internal. She has enjoyed all the practical blessings and burdens of independence for half a century. She has a united national or Canadian feeling, which would shrink from alliance with the United States as subjugation. She has long had her own revenue and her own economic politics, her own judiciary, her own public works, public lands, educational system, Indian policy, commerce, navigation, and manufactures. She understands

all the questions bearing on her own local interests better than any of her neighbors could understand them for her. She has a very small debt—none, in fact, but what her public works have cost—and her rate of taxation *per capita* is only about one fifth as much as our own national and local rates amount to. She has therefore a strong financial interest in being independent of us and in steering clear of our burdens. Looking at these facts fairly, it is our duty to encourage the feeling on the part of Canada that, on this continent, as well as in Europe, the rights of the lesser nations are as sacred as those of the stronger. The pretended sympathy with liberty which encourages guerilla ravages in Cuba in the name of revolution, but holds the sword over the peaceful revolution by which Canada would become an independent American Republic, is more than absurd. It is doubly brutal in encouraging slaughter, where it can accomplish no freedom, and in discouraging republicanism where it can be had without slaughter.

"Canada is essentially a Republic. She will not like France, lean upon the life of a despot, and vibrate between aristocracy and riot. She will not like Mexico, make Republicanism synonymous with highway robbery. Her career as a virtual Republic will do honor to a name which has been too often disgraced.

"Nor will our interests suffer by pursuing the path of honour. It is pretty evident, in all parts of our country, that it is already as large as we can govern well and wisely. Human capacity does not expand with the area and numbers it is called upon to govern. As our country grows unwieldy, the crimes, blunders, and incapacities of our statesmen become more apparent. The argument against assuming new burdens is ever overwhelming. All we need of Canada is reciprocity in trade, and freedom of transit for ships and goods through her territory. This granted, her forests will build our cities, and her farmers will feed our manufacturers. Each will be enriched by the other, and, if any unity of government shall ever result, it will be after years of mutual confidence and peace have given rise to a more perfect unity of national sentiment and interest."—*Chicago Tribune.*

WOOL CROP OF THE WORLD.—The following figures taken from the Paris "Journal des Economists," are of interest, as showing the estimated production of wool in those countries which contribute to the European and American consumption of that staple:
Estimated wool production of the world in 1871, in pounds of 454 grammes.

England	159,969,000
Australia	152,500,000
Van Dieman Land	6,136,000
New Zealand	28,875,000
Cape of Good Hope	38,000,000
La Plate	138,000,000
East Indies	18,796,000
Russia	90,660,000
Sweden	6,082,000
Norway	6,395,000
Greece	7,618,000
Denmark	7,031,000
Germany	52,080,000
Holland	6,136,000
Belgium	3,500,000
France	91,108,000
Spain	74,423,000
Italy	24,840,000
Austria	31,075,000
Switzerland	1,230,000
United States	177,000,000
Total	1,131,519,000

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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 4, 1872.

The science of field fortifications is properly divided into primary and secondary parts, the first has been already considered, the second accessory thereto may be defined as the adaptation of natural or artificial obstacles to the defensive purposes of the first.

As the object to be attained by obstacles is to embarrass the advance of the enemy and keep him under fire for the longest possible period, anything by which his attention is diverted to his own circumstances within reach of the fire of the assailed will have effected that desirable object, it follows that the proper disposition of obstacles is in advance of the ditch within short rifle range, say 200 yards.

Marshes, rivers, water courses, wet ditches, precipices, woods or in Canadian parlance bush, may be regarded as obstacles and be artificially rendered available to prevent an advance.

As previously pointed out, the great secret of successful defence, will be the adaptation of the site, with reference to its topographical features, and the part the position must play in the strategy of the campaign.

The skill of the military engineer will be tested by the nature of the works, the success attending his efforts, to reduce the

points of approach to the smallest possible number, and the thoroughness with which all cover is destroyed; all hollow roads, dry ditches, banks, and small elevations, should be carefully levelled; while trees, under wood, enclosures, and houses should be entirely removed, and this should extend on all sides for fully one thousand yards or even more.

If on the approaches there are permanent bridges, fords, or roads, equally serviceable to the defence, they should be carefully guarded and enfiladed by the fire of a work erected for that special purpose, but if at all possible it would be much better to include the defence of accessories in the general design.

The principal artificial obstacles are: *trous-loups*, *abattis*, *chevaux de frise*, *small pickets*, entanglements, caltrops, inundations and mines.

Trous-loups are pits of a conical form, six feet in diameter at top, six feet deep, and eighteen inches wide at bottom; a heavy stake pointed at top is firmly fixed in the pit and reaches within a few inches of the surface, they are placed in front of the ditch in such order that the intervals between each pit is covered by one in the next row, the earth excavated being taken out and formed into hillocks in the passages between the pits. When there is plenty of brush wood the *trous-loups* may be covered over with hurdles, on which a layer of earth is placed, they are sometimes placed in the ditch.

A rifle pit is simply a *trous-loup* with earth formed into a cover in front to enable the occupier to use his arms.

Abattis formed by the branches of trees pointed and interlaced is a very serious obstacle, if wholly artificial, that is, if the trees have to be transported to the position in which they are to be employed, the trunks must be well bedded in the soil and secured by a *crochet* picket.

Wherever the wood grows naturally the best plan is to fell the trees so that the branches will interlace, cutting in such a way that the trunk will hang to the stump, which latter may be left high enough to cover a man sitting over it, the ends of the branches by a little labour in artificially interlacing and pointing may be made impassable. In 1758, Montcalm defeated one of the best equipped British Armies this continent has seen with 5,000 Canadian militiamen behind an *abattis* of this description; the assailants numbered over 16,000 men, axes in the hands of the Canadians of to day would improvise a defence of this kind which could not be easily forced; in a few hours.

Palis des and stakes about ten feet long of a triangular form, pointed at top, the end set in the ground, either slightly inclined or vertically, they are placed about three inches apart with one edge outwards, a strip or riband of thick plank is placed horizontally below the ground about a foot from

the surface, to which the palisade is nailed; another riband is placed eighteen inches below the top, it is sometimes used as a primary means of defence in front of a small banquetto and parapet.

Fraise and stockade works have been already described. *Fraise* is sometimes formed of strong branches of trees placed under the parapet the ends projecting over the berm and escarp.

Chevaux de frise are formed of a horizontal piece of scantling square or hexagonal, termed the body, in length about nine feet, and from five to twelve inches in diameter, it is perforated by holes two inches in diameter and five inches apart; round pieces termed lances, ten feet long, shod with iron points, are inserted into the body so as to project equally from it, crossing each other at right angles; at one end of the body a ring and chain are attached; at the other a hook and chain; for the purpose of attaching several lengths together. It is useful on rocky ground.

Small pickets about three feet in length and pointed are driven into the ground in rows about twelve inches apart, the intervals of one row being covered by the other; the pickets project irregularly and interlaced with grape vines, cords, brambles form an excellent entanglement.

The *crows foot* is formed of four points of iron, each spiko about two and a half inches long, and so arranged that when thrown on the ground one spiko will be upwards, technically they are known as caltrops. Boards with sharp nails driven through them are also useful.

Inundations are formed by damming back shallow water courses, this operation demands nice scientific judgment and skill, it tests the powers of the military engineer to determine, the class of waters, weirs, sluices, dams, and other appliances necessary to effectually accomplish the object in view, and at the same time prevent the enemy destroying the works.

The general rules are that, if possible each weir or dam should be entirely covered with water, and in no place above or below it should the depth be less than six feet, the dams should, in all cases, be under the fire of the place, or of a work especially constructed for the defence, if it is possible to fill the ditch with water additional security is thereby gained, but this whole question of inundation, altogether singularly effective, must be left to the judgment of the military engineer and the requirements of the site.

As mines are very little used in the defence of field works it will not be necessary to enter into a full description of their *modes operandi*, but there is one variety known as the *stone fougasse*, which might be of singular advantage in the defence of ditches and salients. It is an inclined funnel shaped excavation made to the depth of five or six feet; a cask or box containing 50 lbs. of powder is placed at the

bottom, with which a *time fuse* communicates; a strong shield of wood formed of battens nailed together is placed in front of the box; and three or four cubic yards of pebbles, small stones, chips or broken brick bats filled in against the shield; earth is then rammed in at top and behind to prevent the explosion taking place in the wrong direction. A *sausage* of this size when sprung will scatter the pebbles over a surface of sixty yards in length and seventy in breadth.

Small casks or large shells loaded with powder lightly buried in the soil covered with a board and fired by a *slamming* compound; the blow communicated from the tread of troops over the boards to a piston or by ordinary friction fuse have been lately used with good effect, like all the operations, however, their effect is rather uncertain.

In the issue of the *Volunteer Review* of the 19th January, an article from the *United States Army and Navy Journal* of the 10th inst., has been inserted, in which the editor of that able journal distinctly states the utter inability of the Naval force to defend the country, and admits, that the boasted monitors are little better than a mass of scrap iron; and that, in the event of actual hostilities, even with Spain; the protection of the coasts and maritime cities of the United States would depend alone on torpedoes, the writer using whatever comforting assurance the episode of the French Naval operations, in the late war afforded; assuming, therefore, that torpedoes were the most effective means of defence after all, and that no need existed for the construction of a costly ironclad fleet.

The value of the torpedo was fairly shown in our issue of that date to be nothing; and singularly enough the *Army and Navy Journal* in its issue of the 24th ult., admits the definition to be perfectly correct, under the caption of "Our Ironclad Fleet," the whole article will be found in another page.

The utter inability of the United States to go to war with the most feeble power in Europe it amply demonstrated by the report of the secretary of the Navy, and the admissions contained in the two articles under consideration. It demonstrates a considerable amount of astuteness in her politicians to put forward the impudent and insulting propositions in support of her case at the Geneva Conference, and they reckoned on the actual imbecility of the English Administration, the ignorance and stupidity of the people, the greed and cupidity of the commercial class, to escape with impunity and acquire profit.

In fact, the internecine war had so completely exhausted the resources of the country and so impoverished its people, that any measure of relief would be sought with avidity; it was tried at first to force annexation on the Canadian people, the avowed purpose being that of "helping to pay the

war debt" of the Yankees, but as that could not be effected by force or fraud, the next attempt to saddle England with the expenses of the last two years of the war under the plea of consequential damages has been tried and will probably be successful.

Cursed as that country has been with an administration of doctrinaires, supported by interested cotton spinners and their ignorant slaves of the working class, represented in the Commons by men like Dilke and others; it is little wonder that diplomacy has only helped to legalize dishonest claims and to place her at the feet of the most contemptible of her rivals.

That the foregoing is no over drawn picture the *Broad Arrow* of the 10th ult., introduces its readers to a Mr. Eastwick, M. P. for Falmouth and Penryn, who appears to have combined in his own person all the gullibility of the conventional John Bull with an imbecility peculiarly characteristic of the mass of the radical members of the English House of Commons of the present advanced period.

It seems Mr. Eastwick has done the United States, or America, as his class affectedly and falsely calls that slice of the Northern continent, he has also done one of the Navy yards, acquiring in the process a vast amount of knowledge known in Yankee slang as "having the wool pulled over his eyes," in duty bound he imparts to his constituents his experience and they must be a queer lot if they are any way worthy of their honorable representative.

According to *Broad Arrow* he "warned the Falmouthians against the consequences of an Anglo-American war. The Americans were now in a much better position than they were before the Southern war"; a fact, to the *Broad Arrow*, Mr. Eastwick and a few people who lead public opinion in England without the slightest knowledge of the facts they dogmatize about, but at no period of her history except at the time when Whig treason rent these two colonies from the British Empire, was the United States in such a state of exhaustion, financially and politically, or less able to go to war than at the present time.

Mr. Eastwick says: "we have been twice in America, but we could not do as we had done before. No army could land again on American soil in such a manner for it would be utterly destroyed."

He got as far as Washington at the Navy yard, there he fell in with old Admiral Goldsborough, an astute Yankee, who thoroughly appreciates English imbecility and treats it accordingly: he tells the gullible Briton "you have got a large fleet, we have a small one, but we can turn out a great number of ships in a short time." Mr. Eastwick found out that there are six such yards in what he calls America but what we would call Yankee land, and he pictures in glowing terms the dreadful results to British commerce, the Mosquito fleet, created by

Yankee ingenuity and industry, would effect; and intimates that it would be better to pay the whole Yankee bill than encounter the contingencies of possible hostilities.

The first article referred to from the *United States Army and Navy Journal* declares that Laird's establishment in England contains more dry dock accommodation than is to be found in all the boasted Navy yards of the United States; with boundless pretensions, unparalleled impudence, and consummate assurance, that power has managed to bully or coerce Great Britain into concessions alike detrimental to her interests and her honor; and in this course she is assisted by the fatuity of individuals of the Dilke-Hughes-Eastwick class.

In the face of the official declarations of her own administration, the disciples of the Manchester School will still try to deceive the people of England as to the power and resources of the United States, and will try to subject the Empire to humiliation and loss for fear their dividends on Yankee investments should suffer; the future of a people represented by such selfish imbeciles cannot be brilliant nor their ultimate fate hard to conjecture.

The English Volunteer force has been very unfortunate in its organizations, the idea was most decidedly correct, but the mistake lay in subordinating it to the regular service, as a force it should possess an autonomy entirely its own; and although at its first inception it was perfectly right to secure the assistance of trained regular officers; those should not be constantly controlled by the Staff of the British Army.

In fact, in order to make the volunteers anything, they should have had their organization complete without being under the necessity of resorting to the regular service for Brigadiers and staff officers on the occasion of field days or other service.

Sir H. P. Grant did his best to disorganize the force by his famous report and the sweeping condemnation bestowed on the *Exeter-Monday Review*. As a general rule, officers of the Regular service forget that the duties of the Volunteers are Home Defence, that it is not absolutely necessary they should be barrack-yard soldiers, and that their opportunities for acquiring tactical knowledge, if fairly treated, are just as good as those Prussians whose merits are so persistently dianned into every one's ears that (mentally at least) every thinking man is deafened by the clangor.

Does any one in their common sense suppose that a Prussian peasant or small shopkeeper is superior to the Englishman of corresponding grade in physique, courage or intelligence, or that if the latter was free from the trammels of red tape, old foginess, and the stupid intermeddling of superannuated martinets, choked with the absurdities of an exploded system, that he would not make with ordinary opportunities as good and efficient a soldier?

We profess great respect for the late Sir J. F. Burgoyne, but it is reasonable to suppose that even he had not thoroughly grasped the revolution which mechanical science has effected in modern warfare; it has entirely modified its conditions; instead of the massive formation moving with the regularity of clock work, the loose and scattered array presenting the least possible mark to a bullet is now the order of battle; instead of the heavy volley at stated intervals a fusillade of the most deliberate and often desultory character in which every shot has been correctly aimed, not at a mass, but at an individual, is the necessity of the hour; and instead of being drilled "to keep the touch with eyes shut," and the alignment unbroken by a corps of rigid *martinettes*, the loose quick step, the instantaneous dash for cover, and the rally for and immediate rush to the charge are all that can be required.

How is it possible that veterans of thirty or forty years standing, taught to drill their men into machines, can at once realize all this change or act fairly to a force from which efficiency in the requirements of modern warfare in defence of their own homes is alone demanded.

As a consequence we have a general officer with a very brilliant, and no doubt, capable staff, attempting to handle 24,000 of those troops (a force he probably never had under his control before) and disgust the men by making a most miserable failure thereof in which operation he was ably assisted by his staff.

In the usual course a report appears in which the errors are placed to the account of the Volunteers and their great Review, the only chance they had annually of learning the major part of their business condemned as useless and demoralizing.

As Sir Hope Grant did not figure with great advantage in the Hampshire Campaign, it is only fair to assume that the blunders arose from his own want of tactical knowledge on a large scale, but it has given rise to a good deal of discussion as to the value of the Easter Monday Review.

As we have developed a Volunteer force in Canada, and as we demonstrated the utility of such gatherings when intelligently carried out, we would advise our English friends to hold fast their volunteer organization, to cut it adrift from the regular army, and to have its affairs administered by its own staff officers; its great trouble has arisen from peripatetic commanders, if manœuvred by its own officers there will be no complaints; existing evils will be practically developed and means at once found to eradicate them, while a great want that of trained staff officers will be supplied by the best of all schools, for the proper place to train them is with the troops in the field.

Amid the Babel of army reorganization, we look with hope to the volunteers alone as being the only force on which England can really depend, and its friends should

bend their energies to make it totally independent of the regular service, as well as complete in equipment, and every branch of the service, as a national organization, they ought to have sufficient influence to do so.

LIVING in close proximity to the United States, enabled to study and thoroughly understand the principles on which her social and political machinery is constructed, obliged to come into contact with her people socially and commercially. Canadians, above all others, have the best opportunity of appreciating the value of her institutions, and above all others decline to accept or admire them in whole or part.

This feeling, the result of intimate acquaintance, is not confined to any class in the community, but pervades the whole mass of the people with a deep-rooted aversion to Republican institutions, with their license to folly and crimes; and it is very doubtful if a plebiscite of the whole population was taken whether one thousand persons in Canada would declare for a closer union between the two countries; and so thoroughly has this feeling come to be understood in the States that all talk of annexation by consent has long since ceased; and the readiest method of insulting a Canadian is to talk of it, and that is neither a safe or profitable operation.

In all negotiations with the United States British diplomatists appears as if they were acting under the influence of a spell; they seem to imagine that this continent is the sole property of the boasting and thievish Yankees, and that their power is only limited by their modesty; hence all kinds of ridiculous concessions have been awarded a people utterly impotent to enforce the smallest portion of their pretensions; the sacrifice of Canadian rights, territorial and otherwise, was the general result arrived at up to the famous Treaty of Washington, and as this country could not be ignored or cajoled, the Whig radicals, were obliged to place one of its most prominent Statesmen on the Joint High Commissions, and we owe to that fact the only redeeming feature of that piece of imbecility.

That the interest so cleverly conserved is of far greater importance than generally supposed, and that its reservation for disposal by the Parliament of the Dominion was a Statesmanlike act, the following extract will tell:—

"Newfoundland is par excellence, the great fishing Province. In 1870 the value of the export was \$6,984,543. This is a decrease in the value as compared with 1869 of \$316,094. It is also stated, the fisheries do not increase in proportion to the increase of population. In Nova Scotia it is different. We are rapidly catching up to Newfoundland, and are exhibiting a very marked increase in our annual catch. In 1871 the catch amounted in value \$5,103,030, being a gain of \$1,080,606 over the catch of 1870, and being more than what it was in 1869, in which the catch was \$2,501,507. This is a most gratifying exhibit, proving as it does, among other things, the value of the regu-

lations that have been enforced for the reclaiming and reservation of spawning grounds.

"It is also gratifying to find that New Brunswick has made good progress, the catch having been, in 1871, of the value of \$1,185,033, a gain of \$155,950 over 1870.

We have not the statistics of P. E. Island, nor those of British Columbia. But the product of the four Provinces of the original confederation is set down at \$17,000,000 a year."—*Reporter*.

We have republished under the caption of "Opinions of the Press," the utterances of our local journals on the Washington Treaty and the imbroglio arising out of the United States Bill for "indirect losses," satisfied that by so doing we were endeavouring to convey to our English brethren the real opinions of our Canadian people on that subject, because the Urban Press does not represent the opinions of the mass of the people, only that of the mercantile community, which, by no means controls (as it does in England) political issues, and that is the only portion of our newspaper literature that reaches Great Britain.

In every extract from all shades of local politics, Tory and Clear Grit, Liberal, Conservative or Reformer, the opinion and sentiments are the same; that the "honour of England must be upheld at all hazards, that the demands are infamous, and that the people of Canada will stand by the mother country in resisting them." In fact, that the last sentiment is almost identical in words with an article which appeared in the *Acadian Recorder*, a journal, distinguished for its ability and bitter opposition to our present Government.

Although sure to be obliged to bear the whole brunt of hostilities, Canada will not fail Great Britain should this dispute be brought to the arbitrament of the sword, and the majority of our people are persuaded that is by far the cheapest and most easy way to settle it.

In the hands of unscrupulous Yankees it will always be a source of disturbance, and the tactics to be followed are in accordance with the usual practice foreshadowed in following extract:—

"American journals are already discussing the probable action of the United States Government in the event of England withdrawing from the Conference. The Boston papers announced that Government has definitely settled that in case of England refusing to continue the arbitration, a bill will be introduced in Congress to appropriate the sum of thirty millions of dollars for the settlement of the Alabama Claims. That a Fund will be established in the Treasury Department entitled the indemnity Debt of Great Britain to the United States, which shall bear interest for twenty years and at the expiration of that time be presented to the British Parliament for a settlement. That a commission will be appointed by our government to undertake the management of this fund, and in case of a refusal to liquidate the debt when due, with interest at six per cent., a reprisal will be made on the Dominion of Canada and the Provinces."

For our own part we would be very well

content to settle it as proposed; and if England had kept the Marquis of Ripon and his colleagues at home, handed over the whole matter to Sir T. A. Macdonald with *carte blanche* to treat it as he thought proper, our Fenian claims would have balanced those of the Alabama, and the Empire would not be bullied, dishonored, and outwitted.

As for taking Canada by way of reprisal, that operation might eventuate in the same manner as the redoubtable hero that went to take the Tartar, but could not get away as the Tartar took him. Jonathan tried that before, and got so well thrashed in the operation that he kept the peace to all Britishers for sixty years; if he tries it again the lesson may serve his descendants for six hundred. Will the people of England never learn what a boaster he is, and dishonest withal.

An article from the *Chicago Tribune* which will be found in another column takes a far more liberal and just view of the position of the Dominion of Canada on this continent and its future relation to the United States than is generally admitted by the people of that country.

While fully endorsing the idea that mutual free Trade, unrestricted by Legislative Treaties or absurd Custom House regulations, would be for the direct and immediate benefit of all parties, and appreciating the political foresight and perspicuity which enables the *Tribune* to foresee the impossibility of any future political relations between Canada and the United States, we are not prepared to admit that the "Independence" pointed out would be desirable for this country or Great Britain, or that it could, under any circumstances, be the result of strategy in view of threatened hostilities with the United States.

As a dependency of the Empire in the supposed conflict, Canada would play a very important part indeed, by compelling her antagonist to expend his whole force in defensive precautions, having to protect his Littoral and Lacustrine frontiers; in other words, it reduces the action of the United States during the contest to that of defence and totally precludes the possibility of offensive operations.

If English Statesmen are ever so far afflicted with stupidity as to sever the connection, it will then be possible for the United States to assume offensive operations against her, and the first campaign would in all probability extinguish her power in the West Indies.

At present Canada has her hand on the throat of the States in a Military point of view, and we are too astute a people to forego the advantage it would give us, while we have reason to believe it is both understood and appreciated in London.

As long, therefore, as England maintains the present connection Canadians will not sever it; her quarrels are ours, and we are quite as well prepared to morrow to fight in

her cause as we would be if it were our own; if a change is forced in us our neighbors may rest assured it will not result in the election of a *four years' mob puppet* to govern us; our people are monarchists to a man, and there are Princes enough of Queen Victoria's family to spare us one as King or Emperor of British North America.

The United States *Army and Navy Journal* whose leading article will be found in another column, takes comfort for the total failure of the monitors in the fact, that although they were constructed in defiance of all natural laws governing naval architecture, "they established principles all their own" which was forced on every nation in Europe. Examples are thus given of the English, Russian, and French turreted monitors, but we confess to reading the lesson in an entirely different way.

Our lively neighbors have talked themselves into the position of authorities in mechanical science and construction, and in this case of ironclad vessels, after breaking two commandments of the moral law; by stealing poor Captain Cole's invention and then adulterating it, they produced a class of vessels whose chief recommendation appears to have been (for they are things of the past) an aptitude to seek the bottom of the ocean rather than labor over its surface, and any that would float were more dangerous to friends than foes.

The result is the old heap of scrap iron at League Island; as far as the United States are concerned. In England matters are very little better, and we expect to hear of Mr. Goschen any day putting up his turreted monitors as *gong, gong, gone*, for what they may fetch; the utter failure of the French fleet is notorious, and that good friend of the model Republic, the Czar of all the Russias, has been done for with an impartiality which would be admirable if it was disinterested; in fact, the monitors are a total failure, and as great humbugs as wooden nutmegs or basswood hams.

If Captain Ericsson has totally failed in providing the United States with a proper ironclad navy, he fully appreciates the fact of her defenceless condition, and is quite right in saying that any English ironclad sea-going vessel could pass up to the wharfs at New York despite what Yankee invention might do to prevent it. In fact their safest defence is the well grounded hope in the imbecility of English politicians and this quality has befriended them more than once.

The whole question of those floating batteries, for they are nothing more, is proved by experience to involve a series of scientific and practical paradoxes which no skill can overcome, they are too heavy, unable to keep the sea, and cannot venture into rough water; seamanship cannot save them, and their efficiency for the very purpose for which they were intended is more than doubtful, they have never been tried.

In fact the fight with the *Merrimac* in Hampton road turned the heads of the people of England, and they are paying pretty dearly for an experiment based on an indecisive action between two unmanageable floating batteries.

REVIEWS.

We have to acknowledge the receipt of the *New Dominion Monthly*, for March, it is as usual replete with instructive articles.

The *Phrenological Journal* for March contains a vast amount of useful knowledge.

Wool's Household Magazine for March is a splendid number, and contains two historical notices of some value, it is published at Newburg, State of New York. Subscription, one dollar per annum.

We have to acknowledge the receipt of the *Edinburgh Review* for January, it is as usual, full of valuable articles, with all the reviews and periodicals, it is published by the Leonard Scott Company, 140, Fulton Street, New York.

The disastrous explosion which took place at Messrs. Prentice's gun-cotton works, at Stowmarket, England, in August last, led to the appointment, by the British Secretary of State for War, of a committee to investigate certain points connected with the manufacture and employment of gun-cotton; and this committee has just issued a brief preliminary report in which they state first that the various reports of the Royal Engineers on the use of gun-cotton, and the evidence afforded by officers who were examined, were conclusive as to the suitability of the material to be employed as an explosive agent for military purposes, such as for mines, torpedoes, etc., and second that gun-cotton manufactured by Professor Abel's process can be far more thoroughly purified from the free acids than gun-cotton made from long staple cotton and produced in the form of ropes or skeins; while evidence has been afforded that gun-cotton in this latter form has been stored for long periods, in some cases long as nine years, and under varying conditions as to exposure etc., without alteration. Considerable quantities of gun-cotton, have been sent out during the past three years to hot and damp climates, and on voyages to India and Australia without, so far as the committee can learn, any accident ensuing; while gun-cotton supplied from Stowmarket in 1870, and subsequently forwarded to Calcutta, has been stored at the latter place for some months without, according to the last received reports, showing any signs of change. With regard to the manufacture the committee speak very briefly; their conclusions, however, being that as the gun-cotton in all the stages of manufacture, up to drying, contains large percentages of water and is perfectly unflammable, all the preparing processes, with the exception of the drying can be conducted in any locality without danger. In conclusion the committee state that they "feel no hesitation in recording their opinion that there is no reason why the War Department should relinquish the manufacture of compressed gun-cotton."—*Broad Arrow*,

THE ENCHANTED SHIRT.

BY COL. JOHN BAY.

Fytte ye Firste: wherein it shall be shown how ye
Truth is too mightie a Druge for such as
be of feeble temper.

The King was sick. His cheek was red
And his eye was clear and bright;
He ate and drank with a kingly zest,
And peacefully snored at night.

But he said he was sick, and a king should
know,
And doctors came by the score.
They did not cure him. He cut off their heads
And sent to the school for more.

At last two famous doctors came,
And one as poor as a rat—
He had passed his life in studious toil,
And never found time to grow fat.

The other had never looked in a book;
His patients gave him no trouble,
If they recovered they paid him well,
If they died their heirs paid double.

Together they looked at the royal tongue,
As the King on his couch reclined;
In succession they thumped his august chest,
But no trace of disease could find.

The old sage said, "You're as sound as a nut."
"Hang him up," roared the king in a gale—
In a ten-knot gale of royal rage;
The other leech grew a shade pale;

But he pensively rubbed his sagacious nose;
And thus his prescription ran—
The King will be well if he sleeps one night
In the Shirt of a Happy Man.

Fytte ye Seconde: telteth of ye search for ye
shirt and how it was nighe founde but was
notte, for reasons qu; are sayd or sung.

Wide o'er the realm the couriers rode,
And fast their horses ran,
And many they saw, and to many they spoke,
But they found no Happy Man.

They found poor men who would fain be rich,
And rich who thought they were poor
And men who twisted their waists in stays,
And women that short hose wore.

They saw two men by the roadside sit!
And both bemoaned their lot;
For one had buried his wife, he said,
And the other one had not.

At last they came to a village gate,
A beggar lay whistling there;
He whistled and sang and laughed and rolled
On the grass in the soft June air.

The weary couriers paused and looked
At the scamp so blythe and gay;
And one of them said, "Heaven save you
friend!
You seem to be happy to-day."

"O yes, fair sirs," the fascal laughed
And his voice rang free and glad,
"An idle man has so much to do
That he never has time to be sad."

"This is our man," the courier said;
"Our luck has led us aright."
"I will give you a hundred ducats, friend,
For the loan of your shirt to-night."

The merry blackguard lay back on the grass,
And laughed till his face was black;
"I would do it, God wot," and he roared with
the rest,
"But I haven't a shirt to my back."

Fytte ye Third: Sheweth how His Majestie ye
King came at last to sleepe in a Happie
Man his shirte.

Each day to the King the reports came in
Of his unsuccessful spies,
And the said panorama of human woes
Passed daily under his eyes.

And he grew ashamed of his useless life,
And his maladies hatched in gloom;
He opened his windows and let the air
Of the free heaven into his room.

And out he went in the world and toiled
In his own appointed way;
And the people blessed him, the land was glad,
And the King was well and gay.

OUR IRON-CLAD FLEET.

(From the U. S. Army and Navy Journal.)

In our editorial of Feb. 10th on Our Naval Resources, we stated the conclusion to which our Navy Department seem to have come in regard to the present condition of

our iron-clad Navy, this conclusion being that a majority of them are only fit for the scrap heap. That the fifty-one vessels classified under the head of iron-clads in the Navy Register make a very poor show everywhere but on paper, is unfortunately too true; but we should have a care how we are misled by this fact into such a wholesale condemnation of the system of iron-clad construction upon which we have thus far proceeded, as some of our naval authorities seem inclined to indulge in. Chief Constructor HANSCOM, for one, tells us in his annual report that our monitors "were built in violation of established principles of naval architecture; have been of no practical service to the country, unless the name of iron clad has spread terror through the earth." That they were built in violation of "established principles of naval architecture," we presume not even Captain ERICSSON will assume to deny. So was the first vessel which depended for motive power upon a kettle of hot water in the hold, instead of upon masts and sails and shrouds above deck; and like the steamboat, our monitors have established principles of naval construction all their own, and have compelled every nation in Europe to adopt these principles in the construction of iron-clad vessels. With sixteen turreted vessels afloat in the English service, fifteen in the French, and nineteen in the Russian service, it will not do for our Chief Naval Constructor to thus lightly set our monitors aside. The iron-clad navies of the world bear testimony to the fact that the resources of science have been exhausted in vain in the endeavour to supersede the Monitor as a means of offensive or offensive-defensive warfare on the water. The judges on Naval Structures at the conclusion of the Paris Exhibition expressed the opinion that "a monitor with a single turret and an unincumbered deck is the most perfect structure for naval defence."

Our endorsement of the advice to dispose of the iron clads at League Island had no reference to the monitors Dictator, Passaic, Montauk, Lehigh, Catskill, Jason, (Saugamon) Nahant, Nantucket, Canonicus, Wyandotte, Mahopac, Manhattan, and Saugus. All of these, except the Dictator, ought to be at once hauled out of water and thoroughly repaired, the armour backing removed, and solid armor introduced in place of the present laminated plating on the turrets as well as on the sides. It is greatly to be regretted that the Monitor fleet, considered by Admiral DAHLGREN to be in a perfect working condition at the end of the war, was not then hauled out of water and the bottoms of the vessels repainted. We warned the Navy Department at the time against the blunder of keeping iron vessels of 600 tons burthen in the water exposed to corrosion, which, even in fresh water, will in a short time prove destructive. Placed on land and properly taken care of, the machinery put in motion—say, once a year—vessels like the monitors are good for a generation.

Respecting the "Light Draughts," it should be observed that while the hulls are useless, their turrets (if strengthened by solid plating), as well as their machinery, might be rendered useful for harbor-defence vessels, for, be it remembered, such vessels need not have great speed. The work to be performed by them is that of attacking the enemy's ship, not on the coast, but after the entrance of the hostile vessels, and while taking up a position in the interior of the harbor for the purpose of shelling.

Captain ERICSSON is quoted by the London Times as saying that at the present moment the English iron-clads could, in spite of our

forts and 15-inch guns (without available carriages), steam up to the Battery. We have quite too much faith in the possibilities of Yankee ingenuity under the pressure of war to believe that this will ever be done, but certainly there is nothing in the present condition of our means of defence to disprove the statement. Protected by the iron netting which the English have lately devised for harbor attack, our proposed torpedo boats, with their twenty feet poles with a powder bag at the end, would be laughed at by our assailants, nor would stationary torpedoes prove any certain protection against an enterprising enemy employing mechanical means for destroying these contrivances and clearing and buoying the passage as he advances. No doubt a stationary torpedo suspended in the channel at a proper depth below the surface of the water is a very dangerous obstruction, but we must not shut our eyes to the obvious fact that these structures are of such a frail character that they may be easily destroyed unless we have some means of protecting them against interference. And thus far there is no evidence to show that any other means of auxiliary defence equals that of light draught vessels carrying impregnable turrets protecting guns of the heaviest calibre. Such vessels cannot be run down by sea-going iron-clads, as their light draught would enable them to lie in shoal water by the side of the channel, from whence the approaching vessels could be attacked while entering a harbor. Hence it will be well to reflect before we destroy the turrets and machinery of the light-draught monitors at League Island. If their hulls are worthless, let them by all means be consigned to the scrap-heap at once as we have already recommended, but it will be time enough to discard our monitors altogether when our naval and military doctrinaires have proven in actual practice that they have provided us with more efficient means of defence.

THE TRADE IN FIRE-ARMS.

(From the New York Times February 13.)

The business of buying and selling arms though an important one before the civil war, during the rebellion, reached to an enormous extent. Since that period, with occasional lulls, it has been a very constant one. Save England and Prussia, there is not a single country in Europe, Africa, Asia or South America that has not been a large purchaser of arms from the United States. South America and Mexico seem to be wanting something to blow their heads off with, or to rip out their vitals with all the year round. They may be described with Cuba as being always on the market. Lead in musket balls is never heavy in these parts, and lines of guns are always going off. An insatiate desire for every kind of weapons of destruction seems to influence them. In Mexico revolutions and counter revolutions can be counted upon with the same certainty by the trade as grocers are sure of disposing of their extra stock of plums and citron about Christmas time. Minor South American States are always making pronunciamientos, and all such long sounding terms have for their interpreters gun shots and sabre-strokes.

The revolutions made of late years in breech loading pieces did for a while unsettle the market, yet there is demand for muzzle-loaders. Even the old fashioned "Brown Bess," with the gaping muzzle and gun flint arrangement, at present considered as a pre-Adamite weapon has its admirers. In fact there is a good demand for them. Did you hunt the market through you could

not find 3,000 of them. East and west coast of Africa want this kind of gun, and when they can be found, they may be shipped to our African brothers with a goodly chance of profit. Some time ago a paragraph ran through the American press in regard to a large quantity of very fair muskets bought at a very low figure, and shipped to China and Japan. They found no sale there, the Chinese and Japanese disdaining anything less than new breech loaders.

The business is one requiring enormous capital, and no end of acuteness. Credits are out of the question. If war is a pleasant amusement, it must be settled for, as far as powder and guns go, on the spot. "No money no fight," seems, and very properly to be a rule with the trade.

The enormous character of the business can hardly be appreciated at a single glance. It is perfectly impossible to say what a country may want after a single engagement. A defeat costs millions on millions of dollars, and a victory but little less. A house in this business may be called on at a moment's warning, not only for guns, but for clothes and shoes, for batteries and harness, and must be prepared to add even subsistence to the category of wants. Rapidity of execution is everything. It may be worth while to pay, in order to get 5,000 guns at a certain place at a given time, a million of dollars, when a delivery a week later would be worse than useless. The scope of mind, the power of combination, the precision as to detail acquired by the leading houses in this kind of trade partakes of the miraculous. Once an important contract given them the utmost care is taken so that not only the quality of the arms shall be such as is required, but that all the minutiae of detail as to delivery and shipment shall be strictly followed.

The profits in this business must be immense. When times are peaceful, stocks may be accumulated at very low figures. Good guns may be had then at prices ranging from one dollar and even less up to five or seven. They may stay in the warehouse one or two years or more, when suddenly the rage for slaughter seizes on some unhappy country, and they become eager purchasers of these arms at four to ten times their original cost. Cannons costing two cents a pound, bought when bombardments were at a standstill, go off like hot cakes at ten to twelve cents a pound.

Ammunition is harder to handle. With a variety of gauges and different forms of projectiles, saving for certain accepted styles, the market is a more difficult one to manage. Though the deterioration in metallic cartridges is very small, in the old fashioned paper cartridge it is considerable. Bargains, however, are frequently picked up, the value of the lead paying a profit, even when the powder is worth nothing more than the saltpetre in it. The manufacture of metallic cartridges has become so important, and the consumption of copper so much increased by their use, that it is asserted that the late rise in this metal is mainly due to this cause. In the United States the manufacturers of metallic cartridges are busy all the year round, and such is the perfection and rapidity of machinery employed, that unlimited quantities can be produced at a moment's warning. It is quite a question whether our Government would not do better if they discontinued entirely the manufacture of either arms or ammunition. It seems apparent every day, that the only use the Government have for such establishments is to try the arms and projectiles furnished by competing manufacturers.

THE NEW "GATLING" MITRAILLEUR.

The "New Battery Gun," which was received from Sir William Armstrong & Co's factory, at Elswick, a short time since, has been despatched from the Royal Arsenal to the United Service Museum in London, there to be inspected by His Royal Highness the Duke of Cambridge, with a view to its introduction into Her Majesty's service. A series of experiments has been conducted at the proof butts of the Royal Arsenal, Woolwich, under the supervision of a special committee selected for this purpose. Colonel Wray, C. B., being the president of the same, for the purpose of ascertaining the range and capabilities of the new gun. The first experiment was made within a short distance of an earthen butt, and a "drum" containing 352 cartridges having been placed upon the summit of the apparatus containing the locks, the crank was turned as rapidly as possible. The balls poured out at the velocity of 4 per second. It is stated however, that as many as 5½ per second had been obtained on a previous occasion. This would nearly empty the drum in one minute. The effect upon the butt was most destructive, funnel-shaped holes being torn in the surface as the mitrailleur traversed from side to side. The gun was then withdrawn to 300 yards distance from a target 30 feet square. An elevation of 40 minutes being given and the traversing arrangement having been disconnected, single shots were fired one after the other, all striking the target upon or in the vicinity of the bull's eye so soon as the proper range was obtained. At 500 yards distance, with one degree of elevation, at 800 yards with 1.57 degrees, and at 1000 yds with 2.33 degrees of elevation, the results were correspondingly good, both with single shots and eight or ten fired in rapid succession, all striking the target within a very short radius from the bull's eye. There were no miss-fires. The feeding arrangements from the "drum" appeared to require some slight modification to render it more easy in working; otherwise the new "machine" gun may be pronounced to be a success. The steel screen does not appear to be of much service. A portion of it was placed at a short distance from the gun during the firing, and was penetrated in a moment.—*Volunteer News.*

ARMY MUSICIANS.

We have received a printed appeal urging that our Army musicians should be raised above the grade of enlisted men, to which they are at present confined. It is proposed to require of those who may hereafter offer themselves for the position, certificates as to character and ability, and such examination as competent authority might deem sufficient, and of those already in the Army as chief musicians, one year's service and the recommendation of the regimental commanders as to the character, behaviour, and ability of the applicants. To such as could offer the endorsement of their officers, it is proposed to give the uniform of second lieutenant (or the uniform to be prescribed which will denote his position) with a commission as band leader, chief musicians, or professor of music, at the rate of pay now allowed the chief musician; the rank to be given merely as an acknowledgment of social standing, and neither to open the way for further promotion, nor provide for increase of pay. To protect the interests of regiments which may have expended considerable sums in equipping bands, it is further proposed to debar resignations for a limited period save upon surgeon's certifi-

cate of disability. By improving the position of musicians we can, it is urged, encourage a better class of men to offer themselves for future vacancies, and elevate the standard of music in the Army. The argument is a sound one, and we are heartily in favor of any plan which promises to bring our officers and men under the influence of good music. The argument for this particular project is thus tersely stated by General DOUBLEDAY in his endorsement of it: "The genius and talent required to be a chief musician is such as to render him the equal of any officer in social position. He should have the rank of a commissioned officer. To make him an enlisted man is to attack the whole musical profession. If the teacher of drawing at West Point has the rank of major, it is hard to see the justice of making the teacher of music hold the rank of sergeant. It both lessens his standing and usefulness, and subjects him to the captious criticisms of every green lieutenant who arrives at the post. The injustice should be remedied by a combined effort of all the musicians in the country."—*U. S. Army and Navy Journal.*

At the end of the Naval Appropriation bill the House has inserted an additional section on motion of Mr Hale, authorizing the sale of useless vessels and materials. No provision is made for the employment of the funds accruing from such sales for the construction of new vessels, because the appropriations committee is of the opinion that such legislation ought to emanate from the committee on Naval Affairs, which had already agreed to a bill of the kind. The following is the section added to the bill:

"That the Secretary of the Navy be, and is hereby, authorized and directed to sell, at public sale, such vessels and materials of the United States Navy as in his judgment are not suitable for or capable of profitable use, repair, or fitting out: *Provided*, That before any such sale shall be made, public notice shall be given by advertisement in some leading newspaper or newspapers in at least four of the principal cities of the United States, which advertisement shall state the number of vessels and the amount of materials proposed to be sold, with a description thereof, so far as the same shall be practicable, together with the time and place when and where such vessels and materials can be seen and examined. And the Secretary of the Navy shall at the opening of each session of Congress, make a full report to Congress of his acts under the authority given by this section, which report shall contain a statement of all vessels and materials sold, the parties buying the same, and the amount realized therefrom, together with such other facts as may be necessary to a full understanding of his acts; and all net proceeds of such sales shall be carried into the United States Treasury: *Provided further* That nothing in this section shall be construed as compelling the Secretary of the Navy to accept any bid or offer which in his judgment is grossly inadequate to the value of the vessel or materials offered for sale.

In Paris during the siege, they found out how to make artificial milk. The following is the recipe; Dissolve one and a half ounces of sugar in a quart of water; add one ounce of albumen and from 15 to 40 grains of soda, and then make an emulsion of the whole with from one and a half to two ounces of olive oil. Gelatine may be substituted for albumen. Slaughter-house fat was used in Paris for the olive oil. It is said that one firm in Paris made daily 132,000 gallons of this sweet mixture.

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD QUARTERS.

Ottawa, 1st March, 1872.

GENERAL ORDERS (5).

No. 1.

Communications by Telegraph.

Adverting to that portion of Paragraph 213 of "Regulations and Orders for the Active Militia," &c., 1870, directing that "Communications by Telegraph are only to be made in cases of emergency, or when the information sought, or ordered to be conveyed cannot be received in time by post," and to Circular No. 29 from the Department of Militia and Defence drawing attention to it—notwithstanding which, resort appears to have been had to the Telegraph line in a large number of cases seeking or conveying information which was not rendered necessary by any emergency, or which could have been received in time by the ordinary postal conveyance. Notice is, therefore, hereby given to all Militia Officers, that no accounts for such service will in future be paid, except in cases where a strict adherence to the regulation, above referred to, has been observed.

No. 2.

ACTIVE MILITIA.

Enrolment and Discharge.

With reference to the expiration of periods for which militiamen have volunteered to serve in corps of Active Militia, it is the duty of Captains to endeavour to keep their corps full by the enrolment from time to time of other men, to fill the places of those whose period of service has expired and do not desire to re-enrol for a further period, or who have been discharged. Such men as complete their full period of three years continuous service in any corps, are entitled to discharge in time of peace without giving six months notice.

No. 3.

PROVINCE OF ONTARIO.

Governor General's Body Guard for Ontario, Troop of Cavalry.

To be Captain:

Lieutenant Frederick Charles Denison, C. S., vice Edwin P. Denison, who is hereby permitted to retire retaining rank.

To be Lieutenant:

Cornet Orlando Dunn, C. S., vice F. C. Denison, promoted.

Cornwall Troop of Cavalry.

To be Lieutenant provisionally:

Quarter-master John D. Annable from 59th Battalion.

To be Cornet, provisionally:

Alexander King McDonell, Gentleman.

Stormont Troop of Cavalry.

To be Lieutenant provisionally:

Private Oscar C. Ault.

To be Cornet, provisionally:

Private James Aitken.

27th "Lambton" Battalion of Infantry.

This Battalion is authorized to assume the additional designation of "St. Clair Borderers," also to bear the motto "*Semper paratus et fidelis*."

*28th "Perth" Battalion of Infantry**No. 5 Company, Blanchard.*

To be Ensign, provisionally:

Sergeant John Cameron, vice Anderson, resigned.

*40th "Northumberland" Battalion of Infantry.**No. 7 Company, Colborne.*

To be Ensign, provisionally:

Quarter-master-Sergeant John Jameison Campbell, vice T. W. Cumming, left limits.

*42nd "Brockville" Battalion of Infantry.**No. 6 Company, Pembroke.*

The "Pembroke Infantry Company" is hereby attached to this Battalion as No. 7 Company.

*56th "Grenville" Battalion of Rifles.**No. 4 Company Ottawa.*

The "Ottawa Rifle Company" is hereby attached to this Battalion as No. 5 Company in place of the "Farran's Point Infantry Company" struck off the strength of this Battalion and attached to the 59th Battalion.

*59th "Stormont and Glengarry" Battalion of Infantry.**No. 5 Company Farran's Point.*

No. 5 Infantry Company (Farran's Point), 56th Battalion Rifles, is hereby struck off the strength of the 56th Battalion Rifles and attached to the 59th Battalion of Infantry, as No. 5 Company, in place of No. 5 Company Cornwall, which has been removed from the Active Militia.

BREVET.

To be Major:

Captain and Adjutant William F. Bullen, M. S., 26th Battalion, from 26th October 1871.

PROVINCE OF QUEBEC.

Huntingdon Troop of Cavalry.

The formation of a Troop of Cavalry is hereby authorized in the County of Huntingdon, with headquarters at Havelock. Arms and the necessary equipment will be furnished when the Department of Militia and Defence is in a position to do so.

To be Captain:

James Barr, Esquire, M. S., G. S.

To be Lieutenant, provisionally:

George Fiddes, Gentleman.

Missisquoi Troop of Cavalry.

The formation of a Troop of Cavalry is hereby authorized in the County of Missisquoi, with headquarters at Clarenceville. Arms and the necessary equipment will be furnished when the Department of Militia and Defence is in a position to do so.

To be Captain provisionally:

Ensign Hiram C. Brush, from No. 2 Company, 60th Battalion.

PROVINCE OF NEW BRUNSWICK.

*New Brunswick Brigade of Garrison Artillery.**No. 1 Battery, St. John.*

To be Captain, from 23rd February, 1872.
1st Lieutenant John Alexander Kane, G. B., vice Pick, promoted.

No. 2 Battery Carleton.

To be Captain, from 23rd February, 1872.
1st Lieutenant James Alfred King, G. B., vice Peters, promoted.

67th "The Carleton Light Infantry" Battalion.

The Grand Falls Infantry Company is hereby attached to this Battalion as No. 6 Company in place of the present No. 6 Company, which becomes No. 8 Company, and the Petit Sault Infantry Company as No. 7 Company.

By Command of His Excellency the Governor General.

P. ROBERTSON-ROSS, Colonel,
Adjutant-General of Militia,
Canada.

REMITTANCES Received on Subscription to THE VOLUNTEER REVIEW up to Saturday, the 2nd inst.:-

BELLEVILLE, Ont.—James Wilson, Esq., \$1.00.

CHATRAM, N. B.—Lt.-Col. Caleb McCuller, \$2.00.

(Per Lt.-Col. Lovelace, Agent)

VANKLEEK HILL.—Surgeon W. Harkin, \$3.00.

CAYUGA.—Lieut.-Colonel W. Farrell, \$1.00.

PICTON.—Capt. E. Johnson, \$3; Lt. Tennant, \$3.

HAMILTON.—Capt. Armstrong, \$5.00.

KINGSTON.—Lt.-Col. Kerr, \$2.00, Major Duff, \$2.00.

ST. CATHARINES.—Surgeon A. Jukes, M. D., \$2.00.

MONTREAL.—The Hon. Capt. H. Aylmer, \$2.00.

OTTAWA.—Ensign Joseph LeTolle, \$1.50.