

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Title on header taken from: /
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments: /
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X



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, AUGUST 26, 1872.

No. 35.

NEWS OF THE WEEK.

During the past week Belfast, the chief manufacturing town in the North of Ireland, has been literally in the hands of a lawless mob of rioters—the municipal authorities appear to have been wholly incompetent to preserve peace or restore order, and although nine stipendiary magistrates and over 5,000 soldiers are on duty rioting still continues—over 100 wounded have been taken to the hospitals, how many have been killed are not known.

For the first time in the annals of Irish political rows revolvers have been used, and the concealed weapon of the Yankee ruffian effectually employed in what would without it have ended in a stone and bludgeon fight.

It is quite probable martial law will have to be proclaimed, and the city handed over to the control of the military authorities before the rioting will be suppressed.

The Irish people have subscribed £14,000 sterling to indemnify Captain Nolan for expenses consequent on the Galway election contest; he is to be prosecuted by the Government along with a Roman Catholic Bishop and several priests for improper interference with the elections.

The agricultural strike still continues; Government have been obliged to give the farmers the assistance of a portion of the troops to save their crops.

The riots at Belfast were occasioned by an attempt of the Roman Catholic population to celebrate the anniversary of the passing of the "Emancipation Act" of 1829, the day on which it became law was the 15th August in that year.

The Portland *breakwater* which was declared finished on the 10th inst., had been building since 1849.

The Autumn Manœuvres of the British troops will commence on Salisbury plain on the 1st of September.

Messrs. Gladstone, Ayrton and Lowe being eminently practical men, resolute in the interest of the economists of the Manchester school, determined to cast all scientific humbug to the winds and to treat in their own way the explosive force of gun cotton. Accordingly they had a post erected in the gar-

den of their official residence at the Treasury, Whitehall, in which a number of holes were bored and filled with gun-cotton; the result was not encouraging, although some of the Radical papers say it was what was aimed at as far as the post was concerned, as it was *split*, at a cost of some hundred pounds sterling in broken glass and a fright to Mr. Gladstone as great as the declaration of war by the Emperor of the French occasioned him in 1870. This is another evidence of Whig economy and efficiency.

The body of the Duc de Guiso has been buried in the family vault at the Chapel of the Chateau of Dreux (Euro-et-Loire); he was the last surviving child of the Duc d'Angoulême, and one of the Bourbon heirs of the French throne.

It is reported that the Germans will not give up Belfort notwithstanding the payment of the indemnity, and it is very certain they are doing their utmost to render the recapture of Strasburg and Mentz a work as nearly impossible as man can make anything earthly.

The Carlists still cause uneasiness in Spain. It will be many years before that unhappy country can boast a government of law and order.

The Geneva Board of Arbitration is still in session, but nothing trustworthily respecting its decisions has transpired.

Rumours from Florence state that there has been a serious difference between the Pope and Cardinal Antonelli, the leading statesman of the Vatican, who, it appears, is willing to accept the situation and close with the terms offered by the Italian Government and lend the aid of the Church to the consolidation of the Italian kingdom. To this the Pope will not consent believing in the restoration of his temporal sovereignty, and it is reported he is about to seek an asylum in Belgium.

There is to be a meeting of the Czar, Kaiser and the Emperor of Austria at Berlin on the 28th. It is said a part of the object is to provide for the election of a Pope, as Italy, France, Spain and Austria can each exercise a *constitutional veto* on the election of any supreme Pontiff inimical to their several interests. Other questions of international policy will be discussed, and the outcome will astonish Europe. One of the projects is said to be the dismemberment of France.

A project for constructing a harbor at Helligoland has been agitated by the German press. It is, as our readers are aware, a very small island in the mouth of the Elbe belonging to Great Britain. The cost of the work would be over half a million sterling, but the German Government would cheerfully pay the cost; it is clear, however, that they will not be permitted as it would give rise to awkward claims at a future day.

The Mikado of Japan is about to visit Europe. The English resident at his court has been making himself supremely ridiculous, if reports speak truth, he has hauled down his flag because the Japanese Emperor chose to receive him sitting or squatting.

From the United States the chief news of interest is the failure of the *wheat corner*, a ring at Chicago, the result being the bringing down a whole covey of *lame ducks*. The financial crisis induced by such rascally proceedings cannot fail to be most injurious to the best commercial interests of the country.

An Indian War in Utah territory is imminent.

Twelve thousand persons attended a *Fenian picnic* at Jones Wood New York.

The Germans will fail to incorporate the present generation of the people of Alsace and Lorraine with the *vaterland*. Eleven hundred of them have shipped for Lower Canada, and as they have the reputation of being good and thrifty subjects at home, they will doubtless make a very desirable acquisition to our population, and the change of allegiance will be in name alone.

Our gracious Sovereign has been pleased to appoint the Right Hon. Sir J. A. Macdonald, K.C.B., to her Privy Council; an honor well deserved and earned, and a note worthy event in the history of the British Empire as it solves in a constitutional way the question of Colonial representation in its councils.

Her Majesty has also been pleased to confer the dignity of a baronet of the United Kingdom on Sir John Rose, K.M.G., a piece of promotion, so to speak, which has also been earned by good service to Canada and Great Britain.

An attempt has been made to recruit *filibusters for Cuba at Montreal*, it has however been defeated by the vigilance of the Executive.

The elections for the House of Commons are not yet over.

It is reported that a party of border ruffians from the United States have located themselves four miles south of Edmonton House on the Sackatchewan, with the express purpose of selling liquor to the Indians and that they avow their determination to resist any effort to dislodge them by erecting a fort or stockade. As they are in British territory they will be taught to respect British law, but a frontier police has become a necessary

UPON THE OFFICERING OF TROOPS. U. S. SERVICE.

(From General Hazen's work, "The School and the Army.")

Our plan of officering from a military school is excellent as far as it goes. The additional officers who are required should be selected from the whole body of educated young men, with reference to a picked standard of excellence. At West Point there is very little or no selection at first, as cadets are usually appointed by the caprice of individuals, and the subsequent winnowing is made by applying the single test of plodding labor.

Our present plan for supplying the remainder is perhaps even worse than the French—none could be worse than ours. We actually appoint men at the mere wish of influential persons, without any evidence of a single qualification; and it is not surprising that they sometimes possess none. There seems to be a prevalent idea, that to be a good soldier requires some miraculous gift, differing from what ordinary men possess, and not susceptible of the same tests. My observation has been, that a man in the military profession, as in every other, is worthy in proportion as he is sensible, cultivated, industrious, and moral. The French promote men for bravery, although they may possess no other qualification. To be brave is essential, but not sufficient to make an officer. We did the same; and during the last years of the war, when men had been tried and estimated, one could look down a whole column of the names of brigadier-generals in the register without finding many holding commands in the front.

Our selections of men were made by neglecting all the usual tests and checks which are usually resorted to by other armies and civil corporations to secure efficiency. Governors of States had not the facilities for applying these tests, and some of our commanders were destitute of the capacity to appreciate their value. This was happily not the case with those generals who led our armies through the final glorious close. Upon the intelligent exercise of this discriminating faculty, and upon the resolute determination that promotion be given to those that earned it, greatly depend their success.

In the German army it is made nearly impossible for an unworthy and inefficient man to become an officer. Bravery and patriotism are esteemed at their true worth, but they alone are thought to constitute no valid claim to a commission. Duties and responsibilities of such a character are imposed upon all officers, that no incompetent man can remain in service, while the poorest shirk with us may hold his commission all his life if he does no flagrant act and signs his pay accounts regularly.

Justice as impartial as human fallibility can administer, regulates the appointments and defines the duties of Prussian officers, and neither woman, statesman, nor king ever interferes with the exact operations of the law.

The Prussians have also a just system of rewards for service. With us duty goes for little, compared with personal favor. An officer may shirk for years, and then claim by virtue of his rank, and gain the best post of his grade in the service, to the exclusion of those who have all the while labored faithfully. The effect of any system that rewards alike those servants who do their duty and those who do not, can be readily imagined, and in the end, will as it should, destroy itself. In the Prussian army service

is certain of due recognition and reward, this is the strongest stimulus to its proper performance. With us, those who do honest rough duty uncomplainingly are very likely to do it all their lives.

Our legislation discriminates against the regular Army. At the close of our late war a law was passed reorganizing the Army, and providing that half the field officers should be volunteers. There were twenty-seven officers of the regular Army commanding military divisions, departments, armies in the field, and army Corps, while there were but three others who held commands of like grade. The result of the law is, that some colonels of volunteer regiments in the war are now colonels of regular regiments, while their former Army corps commanders are their lieutenant colonels.

In 1870 a statute was passed requiring that all officers of the regular Army should be officially addressed by their full rank, leaving in force the law requiring volunteer officers who are not in the regular Army to be addressed by their highest brevet rank. Some volunteer officers are accordingly addressed as generals, while we of like brevet rank who are attached to the service, and have elected to give our lives to it, are known officially as colonels, lieutenant colonels, and majors.

These evils will in time correct themselves by the inevitable working of the spirit of reform and progress. When this rectification begins, public opinion will be satisfied with nothing short of rigid and strict economy in all branches of the public service. But nowhere will this be so difficult to execute as in the administration of the army, for the evil to be dealt with is not "corruption," but want of business capacity. Numbers of our staff possess a high order of talent for they are among the best graduates of the Military Academy. They are rigidly upright, have superior qualities, are in every way personally most worthy. It is the system, and its effects upon them and the army of which I speak. The greatest fault in the system is that these men, by being so widely separated from the Army, lose the true character and spirit of soldiers, and gain no experience in business. At the breaking out of war, the nation finds that these departments, instead of being vigorous auxiliaries, are legal impediments to the administration of affairs. Before the evil can be removed, much time is lost, and vicious systems are inaugurated which are corrected afterwards with difficulty.

This want of business experience leads to great extravagance. The waste, from want of care of property, needless transportation of troops on public conveyances, the unlimited purchase and use of stores not strictly necessary, and the entire failure to hold officers to a cash responsibility for their carelessness or stupidity, are some of the evils that will at last certainly work their own cure. If these matters are reported, as they sometimes are, no especial notice is taken of them, and no one is held responsible. A board of officers is called to investigate and report, and if its action is not satisfactory to the party charged, he calls for another board, and so on till at last a report is obtained in which the board relieves him by its recommendations. There is a disposition among staff officers to stand by each other, which is apt to be stronger than the wish to serve the Government.

The cost of the army may be divided into two parts: the specific, such as the pay and allowances, fixed in amount by law, and the general costs, such as arms, equipments, quarters, transports, and general incidental wants not specified by law, but left to dis-

cretion. It is in the latter division that restriction is necessary. At present the storehouse of any Army quartermaster will be found to contain almost every known article of merchandise, the connection of much of which with an army would puzzle the best soldier living to find out. These general supplies are issued on a requisition which requires only the approval of the commanding officer. There is no definite check or limit to the purchasing power, and no necessity for care, as new articles are readily procured to replace the old. Thus it is common to see an officer living under five times his number of his allowance of tentage or going on a scout with more than his allowance of waggons.

It is a popular thing to advocate retrenchment in the army, and to effect this, the Army register is scanned, and the Line of our Army plucked here and there of a regiment and there of a major, an adjutant, or quartermaster, or the pay of the soldier is reduced. The administration, which is the real source of expense, is never touched. The present Secretary of War ruled that but five thousand civil employes be kept in service, but nothing was said as to grade or amount of pay. The poorly-paid clerks were discharged but the clerks, agents, store-keepers, and masters of all kinds who rank in pay with lieutenants of the Army, were scarcely disturbed. There are thus in the quartermaster's commissary, and pay departments, some seven or eight hundred—nearly as many as there are lieutenants in the army. These men form a sort of staff for these officers, often remaining with them for years, and finally carrying on all the business of their chiefs.

There are also a large number of forage masters and warrant officers appointed by the quartermasters-general, of nearly the same pay—a relic of the war—who seem to have been overlooked. Some of these men are necessary, but they should be enlisted as sergeants, at about one fourth the pay now given, and rated as accountants, calculators, and store-keepers. These places should not be given to old soldiers as rewards, but like the position of sergeants in the signal service, to the bright and educated young men of the country.

The grand fault of our army administration is, that it is too much centralized, everything being directed from our central office in Washington. Such a plan cannot be practically efficient, where the work is so far from the authority directing it, I feel certain that all this will be corrected. The country will not remain content with anything short of the best systems, even for our little army. Unless these reforms can be brought about, and the country satisfied that our Army is earnest, capable, and above all economical, it will turn out that the staff has been and is now digging its grave in which the whole service must soon be buried.

It is common to hear that our systems are good enough, and there is no need of their being better—that they carried us through the war—and many like sayings. This position is not tenable so long as our system is not the best.

If our system required a million men on the rolls of the army, under the pay of the nation, which was losing their industries to get two hundred and fifty thousand men in the front line with muskets in their hands when we might have had the same number of muskets there with but a half a million on its rolls, then our system was not the best. If we had seventy five thousand officers under commission and pay, when we only required fifteen thousand, then our system was not the best. If we paid for

the best quality of clothing, blankets hats, stationery, and a long list of necessary articles, and received only shoddy and shams, then our system was not the best. If we cost half a million of lives, when by some other course we could have conducted the war as effectively and lost but a hundred thousand, then our system was not the best. If our war cost six hundred millions of dollars, when it need not have cost more than two hundred millions, then our system was not the best.

A CENTENARIAN.

On Saturday last we enjoyed a celebration such as it was never our pleasure before to enjoy, and may never be again—the celebration of the one hundredth birthday of Mrs. Bogart of Adolphustown. So rare an instance of longevity seldom occurs, and as the venerable lady has been for more than two generations a resident of this country and very widely known, it was resolved to commemorate her centenary, with more than usual festivities. It had been arranged that the relatives and friends should meet in a beautiful grove in Adolphustown, on the farm where she had nearly all her life time resided, so as to give ample space for all who wished to attend so rare a celebration. Not much less than 1,000 persons were present during the day, nearly 400 of whom were related to the heroine of the occasion. A steamer was chartered especially to bring a load from Bellville, where a large number of her descendants reside, another steambent came from Picton, and another from Napanee, each bearing its quota of friends and acquaintances. A band was also in attendance and a photographer. Everyone seemed anxious to do honor to a lady whose name and virtues have been familiar to so many in this county from the days of infancy.

Mrs. Bogart was the eldest daughter of James Lazier, and was born in New Jersey, near New York, in 1772 while it was yet a British province. With her father she came to Canada in 1790 and settled in Adolphustown, where a small company of the United States Empire Loyalists had previously located. The family soon after moved near North Port, in Prince Edward County, where numbers of the relatives yet reside. The mode of travel in those days and the difficulties and hardships of the journey from New York to Canada, would be an interesting chapter. The idea of a steambent had not yet been conceived, and the dream of a railway no one had entertained. By small boats the journey was accomplished up the Hudson, and then the many hundred miles of travel through the wilderness to Oswego, involved fatigue and dangers such as few young ladies of 18 would now feel able to face. At 24 years of age she was married to Abraham Bogart, an energetic young man of Adolphustown, one of the U. E. Loyalists who left New York and came to Canada by way of Quebec after the close of the American Revolution. She is represented at that time as being one of the prettiest young women of the Province. The youthful pair reached their new home on the Bay of Quinte in a boat, and set up house keeping in a log house, 75 years ago. She has never moved from near the same location since. She has survived her husband 20 years. Their offspring to the present time has been 11 children, 45 grand children, and 86 great grand children, making in all 142 descendants, a great proportion of them are now living. The sons have been very respectable enterprising men, and most of them possessing considerable

wealth, such as a mother might well look upon with honest pride and thankfulness. Freely the blessings of a ripe old age, with years of peace, surrounded by her children and her children's children, to the third generation are hers. She was always highly respected and beloved by all who knew her—a woman of great energy and industry, and real piety. She still retains her strength and buoyancy of spirits to a remarkable degree, and still sews and knits with wonderful industry. The events of half a century ago seems fresh in her mind and she loves to converse of them.

As she was brought on the ground on Saturday, a small platform had been erected covered with a rich carpet and here on her throne, she held a reception such as few Queens have ever given. Surrounded by over two hundred of her relations, by birth or marriage, and by the descendants of her former neighbors and friends, to the number of many hundreds more, it was truly wonderful to observe how well she seemed to know them all and how cheerful and how delighted she was to meet them. It has been feared that there would be too much nervous excitement for one of such great years on so trying an occasion, but it was well remarked that "she was born before nerves came into fashion." Though she remained some hours in the woods, there seemed to be but little fatigue such as other of half her years complained of. At a later stage a photographic group was taken with the venerable mother in the centre, supported on either hand by a brother, each just past four score years, and behind them by the sons and their children, while grouped at her feet were almost scores of her great grand children. We never before witnessed such a family group. May she be surrounded by an unbroken family when all the days of her earthly pilgrimage are past.

At a later stage two poems prepared for the occasion, were read by her grandson, Rev. G. Meacham, A. M. of this town. It is our purpose to publish one or both of those in a future issue, afterwards an appropriate speech was delivered by W. W. Dean Esq., of Bellville, another grandson, after which the company dispersed. To give an idea of the wide extent from which her descendants had come to celebrate the birthday, we give the location of those present—Chicago, Toronto, Clatham, Lindsay, Picton, Belleville, Napanee, and the various townships of the surrounding countries.—*Napanee Express*.

GERMAN PLANS FOR STRENGTHENING THE FORTIFICATIONS.

Strasburg July 3, Correspondence of the London Echo.

Gen. Ducrot with serious persistence, urged upon Louis Napoleon the necessity of erecting detached forts around this city; but then the Emperor and his men of war, were so thoroughly convinced of the "Military promenade to Berlin" character of the war projected by them, that they looked upon the erection of forts round Strasburg as a foolish work of supererogation. The German Government was of a different opinion. Field Marshal Moltke was, accordingly, charged last year with the task of devising means to render Strasburg as unassailable as Metz. I think, I have pretty good authority for asserting that he fixed upon sixteen different points round the city for the erection of a series of detached forts thereon. These points are all of them situated some

which besides the invaluable advantage of five or six English miles from the city, shielding Strasburg in future from the horrors of another bombardment, will also permit the widening of the present girdle by about two English miles all around, and will then afford ample room for a very considerable extension of the place. With the immense natural advantages of position, the old Argenport, or "city on the crossing," may be expected to double and treble its present population.

Of the sixteen forts projected, five only have been taken in hand as yet, to wit, Reichstetten, Susselweirsheim, Niedorhausbergen, Oberhausbergen, and Wolfisheim. It is intended, in the first place, to push the present girdle on the north of the city about two English miles outward up to the canal which connects the Ill with the Rhine. A port is to be constructed here, and a new canal to facilitate the conveyance of men and material over from Kehl. On the eastern front an extensive fortified camp is to be constructed, capable of accommodating an army of 200,000 men. The five forts now taken in hand will secure also the connection between their camp and the city of Strasburg. The earthworks of these five forts are sufficiently advanced now to allow the masonry work to begin. To day being the anniversary of Field Marshal Moltke's final decision on the projected plan had been originally fixed for the ceremony of laying the foundation stone of the works in the Susselweirsheim Fort. For some reason or other, however, known only to the highest military authorities here this ceremony has been postponed until to-morrow.

The fort of Reichstetten situated about five English miles north east from the new girdle, will command the road to Lauterburg on the east, and the line to Paris on the west, also two new projected lines, intended the one to connect the forts among themselves, the other to connect them with the city. About two English miles from Reichstett lies the fort of Susselweirsheim, partly on the road to Wissenburg, partly on the railway to Paris. A thousand yards south east of Susselweirsheim lies the fort of Lower Hausbergen, on the road from Strasburg to Buaweller; while the forts of Upper Hausbergen and Wolfisheim, lastly, command the Sarve and Paris roads and the Brussels canal.

Even these forts will suffice to render Strasburg very unassailable, at least on the north side, from which the most effective assaults were directed against the city in August and September 1870. All the new forts, the five already in course of erection, as well as the other 11 to be taken in hand at a later period, will be constructed in the star form. Breissach is also to be made into a first class fortress, with a strongly fortified bridge across the Rhine. A railway line over Freiburg to Utmand Donauesthingen, will secure the free connection and communication of the fortress with Trans Rhenish Germany.

The line Metz Didonboten, more especially Metz itself, is already as strong now as to be all but unassailable. Still the Germans are indefatigably at work there also to make doubly sure.

With Strasburg Breissach, and Metz Didenhofen thus almost absolutely secured against the remotest chance of a successful attack upon them, and affording ample shelter to some 500,000 to 600,000 men it will be some well nigh out of the range of possibilities that France should madly rush into the renewal of the war for the recovery of her lost provinces.

BRITISH INFANTRY—ITS FUTURE ORGANIZATION AND TACTICS.

On this subject, in connection with the instruction of officers at garrison towns, Major P. A. A. Twynham, 2nd Battalion 15th Regiment, delivered a lecture in the "Prince Consort's Library," Aldershot, on Thursday evening, the 28th ultimo. There were present about two hundred officers (including Lieutenant-General Sir J. Hope Grant, G. C. B., commanding the troops at Aldershot; Colonel G. C. Chesney, Royal Engineers; Major-General J. W. S. Smith, C.B.; Colonel Dunne, 9th Regiment; Colonel F. Hammersley, Director of Military Gymnastics), several ladies, and a large number of non-commissioned officers. The following is an outline of the lecture:—

Having quoted some appropriate paragraphs from the writings of Col. Hamley, the lecturer referred to the Franco-Prussian war of 1870-71, which was fresh in the memory of his audience. It was not because of any superiority of the German race, as asserted by some people, that one nation was left stranded. During the campaigns of Napoleon the First, in the years of 1805, 7, &c. the German soldier of those days was as much inferior to the French soldier as the former has proved himself to the latter in the recent campaign. Coupled with a high order of intelligence, the Germans understood the art of war. In the French army there was an absence of discipline and training. It was imbued with democratic ideas, and paid more attention to politics than to military duties. He next directed the attention of his audience to the organization and tactics which the British infantry ought to adopt. Great modifications are necessary. He (Major Twynham) selected the infantry for his subject, because it is the branch of the service to which he belongs. He would not be dogmatic; he would only throw out suggestions. From our past military history, the British infantry, it would appear, was equal to that of another nation. From 1809 to 1815 it distinguished itself in the war against Napoleon the First. The recent campaign in France demonstrated that we must modify our military system. In India and China we have established our superiority. It has been asserted that India furnished a school for the art of war, in the same way that Algeria furnished a similar field for the French. The recent war proved how ineffectual was the training derived therein; and we would find ourselves in a similarly pretty fix, if suddenly called upon to face a highly organized army. In former days six hundred yards was the maximum range of artillery, and the final assault could be made without reinforcements. Wars then were of long duration. The first campaign was simply a training field, and during its continuance there was ample time for preparation. Napoleon I. had unlimited control, yet the army which he assembled at Boulogne, for the invasion of England, was not completed before the expiration of twelve months. In our days large armies are concentrated, and numerous victories are gained in few weeks. Nowadays a soldier can carry his dinner in his waistcoat pocket. Mechanical arts are nearly perfect, roads are more numerous; there are railways and telegraphs, and other means of transit and communication, that did not exist in the days of the first Napoleon. In addition to these every military individual is supposed to be endowed with more intelligence; weapons are of great accuracy, and capable of sending a deadly missile one thousand yards; cover is eagerly looked for, and movements must be more rapid. Compared with the present period, the pre-

parations for the Crimean war were slow. On the 27th of March, 1854, war was declared against Russia. England and France sent a contingent of 20,000 men each. The first gun was fired off Odessa, and on the 20th September, 1854, the first battle was fought on the river Alma, against 40,000 men—that is, about five months after war had been declared. In the recent campaign two battles were fought within eighteen days after the declaration of war by Napoleon III. The lecturer next sketched the campaign of 1814 on the Meuse, Moselle, and Rhine. Napoleon had 87,000 men, defended a line three hundred miles in extent. The Germans, with Austrians and Russians, had 300,000 men, and a reserve of 50,000 men; yet not until April was Napoleon driven towards Paris. Napoleon III. had 264,000 men; the roads at his command were more than double the number in existence in the days of his uncle, besides a network of railways connected with Paris. The Germans had 450,000 men concentrated in a few days, and had ample means for bringing up reserves, together with 1450 guns. On this occasion they had no assistance from Austria. The campaign opened on the 2d of August, 1870. In a month Napoleon III. was ruined, in six weeks Paris threatened. They made their infantry attack in columns, covered by skirmishers. In the beginning the long range of the chassepot gave the French a decided superiority. The Germans soon found this out and that within a range of 1200 or 1400 yards, there was safety. The French infantry was overloaded. At the battle of Woerth about half-past two p.m. a lull occurred, and the French on the right were ordered to proceed with all haste to the scene of conflict. To facilitate their progress they were ordered to leave their knapsacks behind. During the heat of the engagement they remembered that in their packs they had left their ammunition! The officers and men of the French showed want of intelligence and incapacity to understand the nature of the country through which they passed. Attempts have been made to attribute the cause of these defects to promotion from the ranks, which has been carried on to a greater extent in the British than in the French Army. Nothing was to be feared from the system of promoting men of good morals and intelligence from the ranks; when a man is so promoted he ought to be made sensible that, in moral worth and other qualities, he is not inferior to any officer in his corps. The lecturer next quoted from the Duke of Mecklenburg's account of the battle of Gravelotte, which sealed the fate of columns. In that action six thousand men fell in ten minutes. The Saxons turned the enemy's right. Owing to a dense mist, objects could not be seen beyond five hundred yards. The German soldier marched straight to the front fully confident in the intelligence of his comrade—who would take care that none of the enemy remained on his right and left. He peeps into vineyards, looks into hedges, examines buildings, farmyards and coppices, and sees that no enemy is concealed in his route. The Germans generally carried their knapsacks, but not so full as ours. The British army landed in the Crimea without knapsacks, and it was soon learnt that a great mistake was committed; they carried their blanket and great-coat folded and strapped in them, were one shirt, one pair of socks, one razor, and a knife and fork. The Germans sometimes carried the great-coat *en banderole*; their ordinary day's march is from sixteen to twenty-four miles. They avail themselves of the shelter of anything in the shape of a building, in which they lie like herrings in a barrel. We are averse to

changes. In advocating any changes we have to contend with feelings, and some will cling to long-established usages. Modern warfare lays down two short definitions—short and decisive. We ought to have three armies of 40,000 men each ready to take the field. Men who do not wish to join the Militia ought to join the Volunteers. France gives two per cent. to the army. We ought to have the nucleus of an efficient army. He would divide the subject, "Tactics," into three heads. First he would show how a regiment and its reserve should be constituted, he would divide it into four battalions—Mr. Cardwell's scheme was a great step in advance. Many of the apparent difficulties connected with it will vanish, the service will become more popular, and each regiment will have a home; desertion will be done away with, and the nation will take greater interest in the army. An attempt to encourage recruiting was made as far back as the year 1872; but the localization was not carried into effect. The lecturer entered fully into Mr. Cardwell's plan, and highly commended it. He next dealt with what is called *esprit de corps*, which he translated as one liking his own regiment best, hiding its faults, and hating every other regiment. He trusted such narrow ideas would soon vanish, and that an *esprit de corps* would pervade the whole army. He would have each regiment divided into first and second battalions, and two battalions of Militia, with one battalion of Volunteers. By this plan two battalions, at war strength, could be always at home. A sufficient number of men to serve abroad for pension can be always found. Our battalion companies are too small; a battalion ought to consist of 800 men, divided into four companies of 200 men each; captains ought to be mounted. Their present small companies they can hardly superintend while skirmishing. One major to each battalion ought to suffice; and the adjutant ought to perform the duties of musketry instructor. Training does not mean more drill; it is after the drill-sergeant has done with the recruit that his duties should commence. The lecture-room should go hand-in-hand with the barrack-square and our officers ought to keep pace with the times. Under the second head, "Equipments," he would include arms, accoutrements, &c. During the siege of Sebastopol the officers discontinued wearing steel scabbards, because they furnished a mark for the Russian gunners. Knickerbockers would be more suitable than trousers, because it is below the knee a man is more liable to become wet, and by wearing the knickerbockers he could dry himself more quickly. Each company ought to have a pack-animal to carry ammunition. It could follow anywhere and get more easily under cover than a wrgon. A sergeant returning from a wrgon with his hat and hands full of cartridges loses one half of them. Tactics he would divide into two heads. He has no faith in the loose system of drill. In modern drill the touch ought to be dispensed with, and more reliance placed on the intelligence of the soldier. He denied that an artilleryman or a cavalryman was more intelligent than a man of the infantry. A man ought to be taught to march up to a point without regard to the touch; not to fire unless under cover or lying down; supports and reserves in line ought to open out, like a fan, but to keep ranks until the last rush for the final assault. Skirmishers, as at present, to advance in single line, and the section alternately one section covering another, and all to take advantage of cover. He would divide a company of 200 men into four sections of 50 men each, the first and third sections to be

selected men for outpost duty and sharp-shooting. Ho trusted that our Line would never be abolished wo may modify it, because it wants flexibility in rapid movements. Each company to take up 100 paces; 430 paces for the front; then allow more freedom, say ten paces between each company. All formations to be as compact as possible, until within range of fire, then open out. A position cannot be taken by a direct assault, without being accompanied by a flank attack. During the late war no direct attack succeeded without being aided by a flank attack. The final blow is given by a combination of small attacks and knots of men along the whole front. It seem to be a natural sequence of all attacks that the angle is towards the enemy. In moving the third section should support the first section; supports, except in case of difficult ground, should not be more than 400 yards in rear of the skirmishers. As the enemy's position is approached, the leading sections ought to be reinforced, and the position rapidly enclosed, the line should pass through the skirmishers, then give the final assault by converging towards a point, and closing in. The lecturer condemned our system of flying into square at the appearance of cavalry, and instanced how French skirmishers in the late war annihilated the German carabiniers. The lecturer concluded, amid great applause with another apt quotation from Colonel Hamley.

NAVAL STEAM ENGINES.

In a paper "on Steam in the Navy," before the Cleveland, England, Institution of Engineers, Mr. R. C. Oldknow, R. N. one of the Engineers belonging to Her Majesty's yacht *Osborne* said:

Although the Committee on Naval Design that I before alluded to, recommended that none but compound engines be in future, built for Her Majesty's ships. I am myself in great doubt whether this will be found practicable in the case of the largest engines with only one screw. Consider for a moment what an enormous low pressure cylinder would have been required in the *Blonde*, guaranteed to work up to 7,500 horses, had she been supplied with the two cylinder variety of compound engines, which are the only ones hitherto successful in the royal navy. Getting a perfect cast iron cylinder of the necessary size could have not been depended on, and even if the casting were all right, the odds are ten to one that one or more serious cracks would make their appearance very shortly after they were set to work, as has been the case in so many of our largest cylinders already. If then it is determined, that cost what it may, compound engines are absolutely necessary to the complete efficiency of ships of war, it seems to me that we are landed on the horns of a dilemma—either the plan of increasing the number of cylinders must, with all its disadvantages, be adopted or the material of which the cylinders are made must be changed. If the former course is decided on, the French system of one high pressure cylinder between two low pressure ones seems to promise the best

chance of success; and I am not without hope that some day, increased skill in forging will give us cylinders in wrought iron, or else that some suitable form of bronze or gun metal alloy will be discovered which may enable us to combine the advantages of a perfect casting of the largest size with durability and smoothness of working. Of course, the consideration of prime cost would not be allowed for one moment to interfere with the production of a perfect cylinder of enormous diameter. Wrought iron and steel in combination with cast iron have been tried, but the inequality of expansion appears to me to be an almost in-comparable objection to this plan. With very large horizontal cylinders extreme care and watchfulness are necessary, or they will get scored and cut like a piece of curdurey. This used to be especially the case when the piston had nothing but the front rods to bear its weight. Whatever the designs of the engines may be, a back trunk for support is now considered a necessity for large pistons. I am inclined to think there is a tendency with some makers to reduce the depth of their pistons almost below fair limits and that this has had something to do with the scoring of cylinders. It has been held for many years almost a *sine qua non* that the cylinders of a screw ship of war should be horizontal; but lately the protection afforded by bolts of armor has induced the Admiralty to approve of some vertical inverted cylinder engines, which are now in course of construction. This is a matter for congratulation, as there can be no doubt that the perpendicular is the natural normal, and most proper position for a piston and cylinder where there is no potent objection to its adoption. Attention to detail is being more and more studied by engine builders, and so it ought to be. If I had my way, I would never allow a man who had not been to sea to have any hand in designing the smallest and seemingly most unimportant bit of a marine engine. No single bolt or nut, or split pin is unimportant. I can remember some years ago when Her Majesty's ship *Pelican* broke down in a gale of wind on the North coast of Africa. An iron bound shore was under her lee, the sails were useless, there was no haven of refuge for 500 miles, and the engineers had simply to run a race with death, which I am happy to say they succeeded in winning by about twenty minutes. A very little while back some makers always put on their smaller covers and bonnets with screws instead of studs and nuts. Nay, I am credibly informed that such misguided or malignant manufacturers may still be found in various parts of these dominions. If they were to be shipmates for three years with such doors or bonnets they would never fasten them with screws any more."

INCREASED PRODUCTION OF GOLD.—The largely increased production of gold in the world was shown by a letter to the *Economist* to-day from Mr. Thomson Hankey. During the last ten years he says, "the export of gold (exclusive of gold coin) from the Australian colonies has not been less than

about 17,000,000 oz., or equal to £68,000,000 and the gold coin exported from the same colonies would add about £20,000,000, making a total of not far short of £88,000,000. The export from the Australian colonies during the previous ten years—says from 1852 to 1862—was at least equal to that during the past ten years ending 31st December last: if so the total export of gold from the Australian colonies since the first discoveries of gold cannot have been much less than £170,000,000 to £180,000,000, and if the export from California during the like period has been only £120,000,000, we have a gross total of not less than 300,000,000 of gold added to the stock of gold in the world since 1852-'53. Here is only reckoned the gold produced in Australia and California, the production of gold in other parts of the world, previous to 1852, was considered to be equal to from £3,000,000 to £5,000,000 value annually, only reckon it at three millions, there will have been a further addition of £60,000,000, so as to make a grand total of at least £60,000,000 and possibly considerable more, to the gold already in the world before the discoveries of gold in California and Australia."

The monument in memory of Prince Albert has been formally opened by Queen Victoria. The remarkable features of the work are the four groups at the corners, representing Asia, Africa, America and Europe. Of the way in which America is honoured, the *London Standard* says: "America, by John Bell, whose many careful and poetic conceptions have raised him to the highest position among modern sculptors is the finest of all the groups in our own as well as in general estimation. Its superiority is particularly manifested in the composition and in the delicacy of the sentiment, as well as in the distinctness with which the story it tells is expressed. The representative figure of America riding on the wild and shaggy bison is a fine and spirited conception, whilst the frank admission of the United States leading the way in the affairs of the Western Continent, whilst Canada, with true loyalty, still presses the rose of England to her breast, displays a prominent and estimable fact, acknowledged alike by sovereign and by people here. Asia is the least to be admired by the English, and there is some complaint because Australasia is not down somewhere. The smaller groups represent the industries and various devices of peace and war by which England has grown so great."

A DETACHMENT of the U. S. Coast Survey Corps, under the command of Captain A. M. Harrison, U. S. Army established there camp at Porryville, R. I., August 8, and will continue the topographical survey of the coast of Rhode Island, from the termination of the work last season, near the Magee Weedon farm toward the Connecticut line. The survey of Narragansett Bay has already been completed by the Captain and his assistants an engraving of a large and finely-executed chart of which is already finished, and soon to be issued from the department at Washington. The work has been carried southward and westward a distance of four miles beyond Point Judith, at which point it is about to be resumed. The survey extends inland about three miles and a half, and presents a minute and detailed delineation of the topography of the country included within the area of the survey. The party was on duty during the last winter on the eastern coast of Florida below St. August line.

CONTENTS OF No. 31, VOL. VI.

POETRY.—
There is no death 408

EDITORIAL.—
Coal and Iron 404
The Navy of the Future 404
Election Blobs 408
Emigration Agents 411
United States Courts 417
Naval Administration 417
Importation of Coal into England 408
The Militia of the Dominion 408
Reception of Canadian Volunteers 408
Hullax Imports since Confederation 418
Reviews 407
News of the Week 309

CORRESPONDENCE.—
Militia matters in Halifax 401

SELECTIONS.—
The Service Small arms of Germany and France 402
Movements of the Adjutant-General 402
Recent Experiments at Shooburness 402
German Corvettes in-tailor battle 403
Comparative table of time required to fire breech-loaders 403
Nicaragua Ship Canal 408
A new Cannon 410
Armour or no Armour 410

REMITTANCES 403

S. M. PETTENGILL & Co., 37 Park Row New York.

GEO. P. ROWELL & Co., 40 Park Row, New York.

Are our only Advertising Agents in that city



The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

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

OTTAWA, MONDAY, AUGUST 26, 1872.

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

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

In the last issue of the VOLUNTEER REVIEW the effect produced on our industrial resources by the rise in price in Iron and Coal was discussed. Recent advices state that one Railway Company has actually imported Belgian coal, and it is not at all improbable that "bringing coals to Newcastle" will not be the work of supererogation the proverb was meant to illustrate.

There is moreover another aspect of the

case which nearly concerns this country, and that is the effect an advanced rate of wages will have on Emigration, and consequently on the class from whom the soldiers for the reorganized British army must be recruited.

It is evident under the circumstances that England cannot compete with the lower priced labor and material of Continental Europe in the markets of the world, and that her true policy would be to direct surplus capital to the development of her colonial resources. It is also apparent that a large withdrawal of capital now embarked in the industries connected with the iron and coal trades must be effected at no distant day, therefore the action of the Home and Colonial Governments should be directed towards inducing its investment in the Colonies, where abundant material easily accessible will, to a great measure, restore the balance of manufacturing power in her favor and enable the skilled labor in danger of being lost in pauperism to be profitably employed. It is by measures having this tendency that we hope to see a stronger tide of Emigration setting in. The only fear we have is that English statesmen are not practically equal to the requirements of the hour; hitherto the legislation of the party in power has been altogether theoretical, no practical benefit has resulted from it, and with a mere pedagogue at its head famous for vacillation if not for *coup de theatres* nothing also could be expected.

The *British Quarterly Review* for July last has an article on the "Agricultural Labourers' Strike," which is suggestive as to the value of the statesmanship of the Whig Radicals. After describing the condition of the English peasant and shewing that the manufacturing class had managed to throw a large part of the local taxation on the agricultural interest as well as burdening it with the proportion of their own general taxation, and by retaining an over population in the large towns for the purpose of making labour cheap, and bringing into competition with English agricultural produce that from countries not blessed with manufacturing monopolies, rendering it impossible for the agriculturist to compete with this cheap labour and compelling him to turn his broad acres into pasture lands—(for it must be remembered that this operation did not take place before the repeal of the corn laws, a measure altogether for the manufacturers benefit)—thereby rendering the condition of the peasant hopeless. The result of all this mismanagement is that the most energetic and active emigrate, and their places are supplied with a worse class of Irish and Germans.

If all this mismanagement were not enough the interests of the manufacturing classes was consulted in the reorganization of the army as it had been consulted in all the measures which led to the colliers, iron workers and agricultural labourers strikes by which the price of labour was enhanced

and material in a corresponding degree; while the selfish legislation and dishonest policy of the Whig Radicals and their masters of the Manchester school has evoked an avenging Nemesis to punish their folly.

It was held forth to the people of England that the aristocracy had eaten up the land, had monopolized the Army, Navy and all the learned professions—forthwith the first effort must be made to revolutionize the Army and Navy—the result, as shown by the *British Quarterly* which cannot be expected to have any very great liking for the aristocracy, is suggestive; at page 88 it says:—"Again one of the most serious consequences which will arise from any notable improvement in the material condition of the peasantry is the effect it will induce on the organization of the Army. It is not too much to say that the system of voluntary enlistment requires for its success that the mass of the agricultural labourers should be on the margin of subsistence. The English army is the costliest in the world. It presents, however, very few attractions to any but the least prosperous and least hopeful of the laboring classes. It is only from a section of the laborers that this army can be collected, for the hot atmosphere of factories and workshops renders the manufacturing towns the very worst nurseries for recruits. It is therefore from the agricultural districts that supplies of men must be obtained.

It is notorious that the expatriation of the Irish and the clearance of the Scotch Highlands have very much limited the numbers of those from whom recruits were once abundantly obtained; and the present scheme is a grand effort to organize a system under which recruits can be collected at the various military centres. The military reasons which have induced the selection of those centres are notoriously those of offering the opportunity of enlistment in regions where labor is abundant and wages are low.

If, however, wages rise under the operation of the present movement, it seems impossible but that the whole scheme should collapse and that the project for reconstructing the army will rapidly become antiquated and impossible.

"Under the present condition of things in the agricultural districts the plea of enlistment for short periods is an experiment of more than doubtful efficiency. It is not without a serious element: for soldiers taken from the ranks of agricultural labor drilled and sent back to his calling after a period of five or six years will undoubtedly be at a disadvantage when put into competition with such laborers as have been continuously employed and have therefore not suffered in the industry with which they had become familiar to become rusted.

"Now it needs no great intelligence to predict that a section of the population which has been subjected to military drill and the regular diet of barracks, will be likely to be exceedingly disaffected and even

dangerous, if after the period of service it is dispersed among the villages, to find that it will have to acquiesce even in lower wages than those with which the agricultural population is now familiar. But if, on the other hand, a considerable rise in the wages of agricultural labor takes place it seems clear that the project will break down *ab initio*, and that the centres will prove a failure because the existing state of things will offer no attractions to the recruits. Nor does it seem possible that the army can be made more costly than it is under the present system of voluntary enlistment without exciting great public discontent. There is then good reason to believe that the success of a movement for increasing the rate of agricultural wages will be fatal to that peculiar form of a standing army which this country has maintained for more than a century and a half, and that Government will be obliged to accept that kind of military force which many army reformers have strenuously advocated in which a thoroughly well organized scientific corps is kept up, officers carefully educated, and the whole or a greater part of the population drilled on the Swiss system."

This is a radical view of the consequences of Whig legislation, the conditions on which the army of Great Britain is to exist, and without a standing army she cannot retain her foreign possessions is the starvation of the British peasant; and it is the first time in history that such a circumstance furnished a *military reason*—it is one of the new ideas of the Radicals.

Now the question will arise as to what interest a standing army so constituted conserves? the answer must be the manufacturing and commercial interest; for, when England was without either, her peasantry were the first soldiers in Europe.

The Radicals forget in their selfish anxiety to put the commercial interests of the Empire above all others that its defence and protection must be paid for. If, therefore, the rise in the wages of the agricultural laborer makes a standing army impossible, no protection will be afforded and the wealth of Manchester, London, and the great commercial centres will be at the mercy of the first ambitious Berlin Tunker who dreams the interest of the vaterland will be served by their plunder.

The cost of the British army is £15,000,000 sterling per annum, the manufacturing and commercial interests for whose benefit four fifths of that cost is incurred, have a surplus profit of eighty to one hundred and eighty millions sterling for reinvestment each year, the obvious inference would be that they should be compelled to double, or treble if necessary, the cost of the army, before being allowed like the Greeks of the Lower Empire to accumulate it for the benefit of another Sultan Mahomet the Great in the person of the German Kaiser when it shall please him to fight the battle of Dorking and sack London; both probabilities the friends of the

British Quarterly Review are working hard to render possible.

It must be evident that a great and thorough revolution in the social politics of England has commenced—if directed by the agricultural interests the honor and greatness of Great Britain will be assured—if guided by the commercial instinct her fate as one of the Great European powers is foreshadowed by the article from which we have quoted.

Our contemporary the *Broad Arrow* in his admiration for Mr. CAWDELL's genius and his contempt for constitutional law, did not dream of the Nemesis dogging the footsteps of all revolutionary leaders.

One thing is practically illustrated by the development of the social political life of Great Britain, and that is the predominant interest of any country must be its agricultural interest.

One of the very first political contingencies consequent on the admission of the North West territories and British Columbia into the Canadian confederation is that presented by the aboriginal tribes scattered throughout the country. Originally driven towards the vast Prairies of the North West by the pressure of civilization, the Indian is now in the position of the inhabitants of the British Isles when the last cohort of the Roman legions were withdrawn, with the difference that the displacing population would far rather absorb than destroy him. The problem his condition presents to the Canadian people ought to be of easy solution. The opening of the country between Ottawa and the shores of the Pacific will destroy the hunting grounds of the Red man and also his means of subsistence; it is in the direction of compensation therefor that the demonstration of the problem lies.

At first sight it would seem no easy matter to provide subsistence for tribes of wandering savages owning no homes or fixed localities and whose previous habits of life are so diametrically opposed to everything connected with civilization. But there is a function those very tribes are capable of fulfilling which would aid the advancement of the progress of that civilization, and under a well devised system render what now seems a serious obstacle one of its chief agents.

Security for life and property is the condition of rapid settlement, as it is of good government, and our North West territories demand an efficient frontier police force.

With every desire to live on terms of amity with our neighbors the peace of both countries has been and will be seriously threatened by the lawless acts of the ruffians who, in a great measure, comprise her pioneer settlers, and over whose actions her Executive Government appear to exercise no control whatever. She has also managed to roll before her in the onward march from the Atlantic to the Pacific a large force of hostile Indians. For the safety of her own operations it will be necessary to press those sav-

ages back on our frontier, and consequently dangers will arise to our people of a very grave character. The Indian tribes with which she has dealt so hardly are able to impart to those in our territories their notions of the wrongs suffered, and notwithstanding we have dealt fairly and honestly with them hitherto, it must at least awaken distrust in their minds to find our people spreading on every side of them.

While the territory was under the control of the Hudson's Bay Company the increase of white population was hardly perceptible and could awaken no fear in the mind of the Indian; now however the matter is changed, he is at the mercy of the rapacious and vulgar white trader intent on gain, he is plied with fire-water till drunk and then cheated. If he at all becomes troublesome an outcry is raised and the seeds of future evils sown with no sparing hand. At Fort Garry already his presence is looked upon as a nuisance, and at Fort Francis the Commissioner found it a matter of grave difficulty to appease the collected tribes. It is true in the latter case that the agitators were Red Lake Indians from United States territory who should have been sent back with all speed to their own location, as they are a treacherous and murderous lot, but the Commissioner had no force at hand to compel obedience to his orders.

It is evident then that the Indian has equitable claims on this country for subsistence—that in giving it care should be taken to make it subservient to his advantage and in the next generation to his civilization.

As a frontier police is a necessity the plan would be to place one thousand of those warriors of the best class under pay for that duty—their cost need be little over one half that of a white contingent of the same number—they should be officered by white men and employed as cavalry. Scattered in bands of say fifty along the frontier from Fort Garry to the Rocky Mountains they could not fail to perform service well worth the money they would cost, and with a little trouble could be made good soldiers perfectly amenable to discipline. At the first organization all the non-commissioned officers should be whites, but after a little time native intelligence and shrewdness would furnish a valuable class of non-commissioned officers.

The remainder of each tribe should be gathered on proper reservations, proper farms marked out for each family, houses built, furnished and the farm stocked; each group should be under the government of an educated white man whose business with proper assistants would be to teach them how to till their farms, and his wife should be capable of instructing the Indian women in household affairs, the management of a dairy, and other matters connected with agricultural life.

A very extravagant estimate would place the whole of the tribes with which we should have to deal at 30,000 individuals; the cost

of the measure proposed need not exceed \$600,000 per annum for three or four years, exclusive of the military outlay, at the end of that period the Indian would know enough to be able to hold his own.

It is not necessary to enter into any details of the internal regulations of the settlements; outside the most stringent enactments should prohibit the sale or use of liquors to Indians, and the markets held for agricultural or other produce should be managed by the white overseers of the settlements.

There is also a necessity of having a garrison of Canadian troops at Thunder Bay, another at Fort Francis, and probably one at some intermediate point for the purpose of repressing any movement of the United States Indians.

It is as well to remark that the officers of the United States army largely avail themselves of the services of Indians to keep their men from deserting—they are always enlisted soldiers and uniformed as the others are, but are mounted on Indian ponies.

The scheme proposed would be far cheaper than one month's hostilities. We must give over the idea that the aborigine is a child who can be amused with glass beads and begin to treat him as a reasonable man, and a shrewd one too.

In another column will be found an article entitled "the Doom of the Iron clads," from the *New York Times*, in which the conclusions arrived at long ago by the VOLUNTEER REVIEW with reference to the value of the heavily armoured vessels of the British Navy is illustrated and enforced.

Our readers will remember that the very simile of the man-at-arms and the introduction of the new projectile was used to illustrate our belief that armour would have to be abandoned for its weight alone if no other practical or mechanical objection existed, and our reason for all this was derived from a practical knowledge of the requirements of a sea-going man-of-war.

As far as *torpedoes* are concerned the *Times* prescribes their full value, they can only be used against slow vessels, defenceless and utterly unable to prevent a swift and light vessel from closing, conditions not likely to exist at any time where costly vessels are concerned, if they are properly equipped, but possible enough if the vessels are armed with guns of the pattern and value of those on board the *Hercules*.

The principal reasons why the experiment of heavily armoured vessels will prove a failure, are their great size, rendering them utterly unmanageable in a sea-way; the *Micotauro* and *Bellerophon* are evidences of this, and all the recent disasters are due to the same cause; the rapid deterioration of the metal of which they are built renders renewal once in ten years a necessity, the life of an oak built vessel being fully fifty

years and often one hundred; the small amount of work they are capable of doing without an utter failure of their costly armaments, the impossibility of using them in any inshore operation, their utter want of stability, the impossibility of fighting them in a sea-way, and the difficulty of finding them sufficient water to keep afloat in within the effective range of their guns.

In effect they cannot be manœuvred in line of battle and are thoroughly useless as cruisers.

Having described all their shortcomings we do not think that Great Britain should at once get rid of the nuisance, they are formidable and powerful looking objects and both qualities are often as valuable as efficiency.

The United States people are in the condition of the travelled monkey who lost his caudal appendage and wished all his friends to denude themselves of those useful attachments in order to hide his own deformity, the mass of old scrap iron at League Island should teach others to beware of a similar mistake.

Not only has the war vessel of the future to be constructed, but the Naval Gun has yet to be designed, the present costly failure is not even a step in the right direction, and it is evident that no attempt has been made to fulfill any of the conditions of the weapon required by the exigencies of Naval warfare.

Mechanical science has rendered it feasible to employ a gun of great weight and strength, in fact concentrating the power of a whole broadside in a single weapon; now the question arises whether under the changed conditions of affairs such ponderous engines are necessary, or even applicable to modern naval warfare?

A vessel mounting only two of the thirty-five ton guns would be far more heavily armed than the first-rate line of battle ships with 120 guns fifty years ago, but ten of those guns might be disabled in action and the offensive power of the vessel not affected materially thereby, if one of the larger guns were disabled half her fighting power was gone, and if as in the case of the *Holspur* she only mounted one she would be utterly useless.

All this points to the necessity for mounting a greater number of guns in the warship of the future, and it also directs attention to another peculiarity in modern artillery; the great danger to be encountered is the chance of the failure of the weapon from the energy of its charge—muzzle-loading guns—as all the heavy guns are, appear to be peculiarly liable to this disadvantage; the reason is not far to seek, the shot is less in diameter than the bore, cannot be centered with it and leaves the gun by a series of rebounds, shattering the internal surface of the bore, and finally destroying the machine.

Ingenuity has hitherto failed to devise a remedy for this, whether with studded pro-

jectiles, grooved or barred bolts, it was all the same, the shot was liable to break up or the gun to burst.

The only remedy appears to be something in the shape of a support of easily expanding material attached to the shot and resting on the powder which would receive the first impact of its energy, and before the shot had obtained momentum would fill all the grooves thereby preventing the expansion of the gas in or about it.

There are many mechanical difficulties not easily overcome in applying this to large muzzle loading guns, none at all to breech-loaders, many substances have been proposed for this purpose, but we confess that we see at present none so likely to fill all the conditions as a sabot of compressed saw-dust as prepared and tried by a Mr. MACKEY of Liverpool.

The value of rifled artillery as a naval weapon is more than doubtful, engagements at sea will be fought at comparatively close quarters, and a *smashing* projectile is the weapon required, a smooth bore with a spherical shot for short ranges and shell for long seems to be the best adapted to the service, but in order to preserve the gun, it should be a breech loader, and the shot armed with a sabot to fit the bore accurately.

Strong well-constructed vessels of wood to sail or steam indifferently, built in water tight compartments, are the war vessels of the future, and the armament breech-loading smooth bores.

Our lively neighbours appear to be rousing themselves to swallow a slice of Mexico in the vain and futile attempt to appease their insatiable earth hunger.

It would be a blessing to the Mexican people and to the civilized world if the United States would absorb or annex the whole of that unhappy country, its lawless and unruly population would give all the lawless ruffians in the Union employment for the next twenty years, and if, like the Kilkenny cats, they mutually annihilated each other society would not regret the event.

The Boston correspondent of the *St. John Globe* appears to know the ropes and is accountable for the following:

"A Congressional Committee is now engaged in ascertaining whether any outrages have been perpetrated by Mexican robbers and outlaws upon American citizens on this side of the Rio Grande. This is a far more important work than it would seem to be upon the surface. In fact, it is the first step towards the annexation of the Rio Grande country to the United States and the report of the Committee will be among the documents accompanying the President's message to the next Congress, with the view of calling the attention of that body to placing our relations with Mexico on an entirely new basis, and putting an end to the disorganized condition of affairs on the border. The importance of this *coup d'état* to the United States cannot be overestimated."

It is to be hoped Congress will favorably entertain the idea conveyed by the President, and also offer inducements to their warlike Fenian citizens to engage in the Mexican expedition as a sure and certain base of operations by which *Ould Ireland* could be wrung from the grasp of the bloody Saxon.

There can be little doubt that the United States would have been engaged in this business before if it would pay, campaigning in Mexico is not particularly profitable and our only fear is Brother Jonathan knows that right well.

A report by the captain of the Russian corvette *Boyarin*, published in the *Cronstadt Messenger*, gives some curious details on the present state of the naval armaments of Japan. On the 14th of July, 1871 (he says), five Japanese ships of war entered the harbor of Yokohama. One of these ships is a corvette of English construction, armed with six long cast iron guns and two bronze guns. The second ship is an ironclad ram, the *Stone-wall Jackson*, formerly part of the Confederate fleet. It is armed with a 300-pdr. and two Armstrong rifled 70 pounders. The three other vessels are screw gunboats of English construction, each armed with three guns. The crews of these vessels are composed exclusively of Japanese, with a uniform exactly the same as that of English sailors. On the 28th March a case-mated Japanese corvette, *Reuzekan*, armed with eight guns, also entered the harbor. The Japanese Army is equipped and armed in the French manner, and its rifles are according to the Albini system. In the Gulf of Yeddo there is an arsenal, situated on a terrace cut into the side of a mountain. This arsenal is provided with a large dock, 407 feet long, 82 feet wide, and 21 feet deep. The largest ocean steamer can enter it for repairs. The water of the dock is exhausted in ten hours by three large steam-pumps. Its construction occupied eighteen months and cost the Japanese Government 240,000 Mexican dollars. Thirty vessels have already been refitted in this dock. Another dock of small dimensions is being constructed by the side of the first for ships of small tonnage. The Admiralty also has a rope manufactory, a foundry, a boiler manufactory, a mechanical forge, a sawing machine, and all the necessary appliances for repairing ships. Engines and boilers are now being constructed for river steamers. The arsenal was built by a French engineer, M. Verny, who has been retained as manager of the establishment. Thirty Frenchmen are attached to it in the capacity of foremen, assistants, and instructors. The maintenance of the works costs 300,000 Mexican dollars a year; and since they were begun, five years ago, the expenses of the establishment have amounted to \$1,500,000.

The new Empire which force has added to civilization appears to have the aptitude for what our neighbors would call *go a head activeness* in them.

I will be well for the interests of humanity if the Japs are not tinctured with some of the qualities of the *mild Hindoo*, and some fine morning the *foreign devils* at Yeddo and elsewhere might awake with their throats cut, whenever their unwilling hosts finds themselves sufficiently strong to face the music.

However the rumoured visit of the *Mikado* to Europe may be sufficient to impress the aristocracy of Japan with the fact that resistance would now be futile.

In the event of consolidation of the power of that wonderful Empire and the peaceful civilization of its people, a great future will be opened to Eastern Asia by their means. There can be little doubt of the effects produced on the Chinese and the surrounding nations, in all of which Japan will necessarily take the lead owing to the wonderful aptitude of its people for acquiring knowledge.

Let us hope in the interests of humanity that the great revolution now progressing may be brought to a peaceful conclusion.

Our readers will be pleased to hear that the Right Honorable Sir JOHN A. MACDONALD, K.C.B., has been named a Privy Councillor of Great Britain, and will shortly leave for London to take the oath of office.

Sir JOHN ROSE has also been created a Baronet of the United Kingdom.

The Canadian people feel particularly gratified at the deserved honors conferred on their leading Statesmen, and the fact that Sir J. A. MACDONALD has a seat in the Privy Council is an evidence of the desire to draw tighter the bonds which connect us with Great Britain as well as to give Canada a position and influence in her Councils.

The circumstance may be looked on as the first step to a solution of the difficulties surrounding a Federation of the Empire in a Constitutional manner.

This event has an historical importance and a constitutional value of which we cannot realize the full bearing. It is a plain intimation that the opinions of the Canadian people are to be heard from the lips of their leading Statesmen in the Constitutional Council of the Empire and in the presence of the Sovereign, although not the Executive Council which is extra constitutional, the Privy Council exercises commanding influence on all great questions of foreign policy and with the issues of that policy our interests are more immediately concerned.

The Right Honorable Knight has written his services to Canada and the Empire in unmistakable characters on the history of both.

REVIEWS.

The *Westminster Review* for July has been received—The contents are:

Sovereignty: Royal and Representative.

English Philology.

Greek Lyrical Poetry.

Dr. Newman: the Difficulty of Protestantism.

The Politics of Aristotle.

Andrè Chenier, Poet and Political Martyr.

Recent experiments with senses.

Contemporary literature, re-published by the LEONARD SCOTT Publishing Co., 140, Fulton-Street, New York.

Experiments of a very interesting character took place last month in Wales to test the qualities of an explosive called "dynamite," invented by Mr. Nobel, of Hamburg, and which has been largely used for mining purposes in Europe. Dynamite is a compound form of nitro-glycerine, by adding to the latter 25 per cent. of infusorial earth called *kieselguhr*. The new compound, while possessing an equal if not greater explosive force than pure nitro-glycerine, avoids the excessive danger of the latter, which explodes so easily by concussion. Its disruptive power is so great that three quarters of a pound of it placed in a mass of wrought iron fifteen inches by nine inches—precisely as it would be used by a miner in blasting rock—rent the metal in twain. It also fractured a block of wrought iron seven and a quarter inches square by five inches in thickness with five pounds of the material simply placed upon it. In the former case it was calculated that to rend the metal must have required a force of not less than three hundred tons to the square inch. The facility with which pure nitro-glycerine explodes was fearfully demonstrated near the spot of these experiments, some three years ago, when a box of it happening to fall from the footboard of a cart an explosion took place which blew men, horses, wagon, and even a portion of the road to atoms. To test the dynamite in this respect, a box containing half a hundred weight was dropped from the quarry side, a height of sixty feet then a five-pound box was thrown from a height of 130 feet on to a bare rock, and lastly a 200-pound weight was dropped sixty feet on to a box containing the material. In neither case did any explosion occur.

A travelling correspondent of the *Troy Times*, who has been making a tour in the Dominion, tells the people of the United States of Canada's resolve to work out her own destiny in her own way, apart and distinct from the Republic. "I am satisfied say he, "that 99 out of every hundred of the people are opposed to annexation; they dream of an independent nation. The people who rule are loyal to Great Britain but hope some day to build here a Greater Britain. Johnny Kanuck is willing that his Cousin Jonathan shall visit him, on condition that the Yankee pays double price for everything, but under no circumstances will little Johnny consent to sleep in the same bed with big Jonathan. This antipathy is natural. We need not be a sponge among nations, absorbing, like water, all our weak neighbors. Give them a fair show. Let those English speaking sons of the North do their own work in their own way; let them, if they can, hew out of this wilderness a nation compact and friendly, and then perhaps will follow, not annexation, for that signifies the swallowing of the lesser by the greater, but consolidation which implies mutual concessions and mutual privileges. "We thank our Yankee cousins for these liberal, brave words.

LIEUTENANT LUFF.

All you who are too fond of wine,
Or any other stuff
Take warning by the dismal fate
Of one Lieutenant Luff.
A sober man he might have been,
Except in one regard.
He did not like soft water, Sir,
But took to drinking hard.

Said he "Let others fancy sloop
And talk in praise of tea
But I am no Bohemian,
And I don't like *Bohea*,
If wine's a poison, so is tea,
Though in another shape,
What matter whether one is killed,
By canister or grape.

According to this kind of state,
Did he indulge his drouth,
And being fond of port, he made
A port-hut of his mouth.
A single pint he might have sipped,
And not been out of sorts
In geologic phrase, the rock
He split upon was quartz.

Full soon the sad effects of this
His frame began to show,
For that old enemy the gout,
Had taken him in tow,
And joined with this an evil came,
Of quite another sort.
For while he drank himself, his purse
Was getting something short.

For want of cash he soon had popped
One half that he possessed,
And drinking showed him duplicates
Beforehand of the rest.
So then his creditors resolved
To seize on his assets,
For why? They found that his half-pay.
Did not half-pay his debts.

But Luff contrived a novel mode
His creditors to chouse,
For his own execution he
Put into his own house,
A pistol to the muzzle charged
He took devoid of fear,
Said he "This barrel is my last,
So now for my last tier.

Against his lungs he aimed the stugs,
And not against his brain,
So he blew out his lights, and none
Could put them in again.
A jury for a verdict met,
And gave it in these terms!—
"We and as how us certain stugs
Has sent him to the worms."

RIFLE MATCHES.

Notwithstanding the excitement yesterday, (August 14) the representatives of the Victoria Rifle Club were on hand at the ranges early this morning to do battle against the Dufftown volunteers. The Scottish eight fired on Tuesday morning, and cabled Mr. John Proctor that they had made 467 points or an average of 58 points each, the average number of points at each range being 156. At 200 yards the Victorias made 165 points, and at 500 yards, 157 points, but at 600 yards the wind began to blow in fitful and variable gusts, and in consequence 113 points were made at this range and the match was lost. Mr. J. J. Mason heads the list with an excellent score, Mr. Robt. Omand (who has just returned from Wimbledon) being second. The following are the details of the shooting here:

CONDITIONS.

Eight competitors on each side; Snider Rifles; 200, 500 and 600 yards; seven shots at each.

	200	500	600	Total.
Mason, J. J.	22	26	20	68
Omand Robt.	23	22	15	60
Mitchell, John ...	19	18	19	56
Mitchell, William..	22	22	10	54
Gibson, J. M.	20	15	18	53
Murison, George ...	21	23	9	53
Little, John.	19	14	13	46
Schwarz, F.	19	17	9	45

Totals. 165 157 113 435
Captain Henry efficiently discharged the duties of umpire.—*Hamilton Times.*

The Fifth Prize meeting of the Stadacona Rifle Association, Major Allyn, 8th Batt., V. M.R., President; Cols. Forsyth, Parret, Grant, and C. F. Smith, Esq., Vice-presidents, took place at Levis Rifle Range, near Quebec, on Tuesday, 6th August and following days. We give below the names of the winners, to gether with the scores made, copied from the *Chronicle*:—

No. 1.—ASSOCIATION MATCH.

Prizes

No.	200 yards; 7 Rounds.	Total.
1.	Qr.-Master Thomas, 54th Batt..	26—\$20
2.	Mr. R. Heap.	25— 15
3.	Ensign Johnson of N. Brunswick..	24— 12
4.	Capt. Harder, G. T. R. B.	23— 10
5.	Sergt. Shaw, 54th Batt.	22— 8
6.	Capt. McKenzie, do.	22— *
7.	Corpl. Cleveland, do.	21— 5
8.	Major Amyot, A.D.C., 9th Batt.	21— 5
9.	Pvt. White, G. T. R. B.	21— 5
10.	Ensign Thorborn, 54th Batt.	21— 5
11.	Paymaster Frew, 8th Batt.	21— 5
12.	C. F. Smith, Esq., Press Rifle Association.	21— 5
13.	Capt. Patterson, 8th Batt.	20— 5
14.	Capt. Morgan, do.	20— †

* Album presented by R. Morgan.
† Butter-Cooler, presented by Pierca and Patterson.

No. 2.—LIEUT.-GOVERNOR'S MATCH.

Prize

No.	500 and 600 Yards; Five shots each Range.	Total.
1.	Capt. Scott, 8th Batt.	31—\$20
2.	Capt. Morgan, do.	29— 15
3.	Sergt. Dunkin, 54th Batt.	29— 12
4.	Capt. McKenzie, do.	28— 10
5.	Capt. Harder, G. T. R. B.	28— 8
6.	Major Amyot, A.D.C., 9th Batt.	26— 5
7.	Sergt. McElvare, 55th Batt.	26— 5
8.	Mr. G. O. Goodhue.	26— 5
9.	Corpl. Pallen, New Brunswick.	25— 5
10.	Lieut. Andrews, Vict. Rifles.	25— 5
11.	Lieutenant-Col. Lamontagne, B. Major.	24— 5
12.	Mr. R. Heap.	24— 5

No. 3.—SWEEPSTAKES.

Prize

No.	500 Yards; 7 shots.	Total
1.	Lieut. Andrews, Vict. Rifles	26—\$15.30
2.	Paymaster Frew, 8th Batt..	24— 9.18
3.	Ensign Johnson, New Brunswick.	23— 6.12
4.	Sergt. Holloway, 8th Batt.	23— *
5.	Ensign Ployart, 54th Batt.	22— †

* A Camp Wash-Stand, presented by Mrs. Kane.
† Plated Mug, presented by Belanger and Garipey.

No. 4.—THE HAMILTON MATCH.

Prize.

No.	600 Yards; 7 Rounds.	Total.
1.	Captain Scott, 8th Battalion.	23—\$20
2.	Sergt. Shaw, 54th Battalion.	22— 15
3.	Sergt. Hawkins, 8th Batt.	21— 12
4.	Sergt. Holloway, do.	20— 10
5.	Sergt Major Snelling, R.E.	20— 8
6.	Major Amyot, A.D.C., 9th Batt.	20— *
7.	Lieut. Andrews, Victoria Rifles.	20— 5
8.	Lieut. Miller, 55th Batt.	19— 5
9.	Mr. G. A. Shaw.	18— 5

* Pooks presented by C. E. Holiwell.

No. 5.—COMPANY MATCH.

Prize.

No.	400, 500, and 600 Yards; 5 Shots each Range.	Total.
1.	No. 1 Co., 54th Batt.	167—\$20
2.	No. 2 Co., 8th Batt.	151— 15
3.	No. 1 Co., do.	148— 10

Highest Individual Score.

4.	Capt. McKenzie, 5th Batt.	46— 8
5.	Sergt. Baxter, 8th do.	45— 5
6.	Sergt. Dunkin, 54th do.	43— 2

No. 6.—BATTALION MATCH.

Prize.

No.	500 and 600 Yards; 7. Shots at each Range.	Total.
1.	54th Battalion.	212— *
2.	Nil—there being less than four competing Battalions.	

Highest Individual Score.

3.	Sergt. Shaw 54th Batt.	45— 10
4.	Lieut. Balfour, 8th do.	43— 8
5.	Sergt. Baxter, do.	41— 6
6.	Qr.-M. Thomas, 54th do.	37— 4
7.	Sergt. Dunkin, do.	36— 2
8.	Capt. Scott, 8th Batt.	35— †

* Silver Cup and \$20.
† Silver-mounted cane, presented by S. Corneil.

No. 7.—CONSOLATION MATCH.

Prize

No.	200 Yards; 5 Shots.	Total
1.	Corpl. Ray, 8th Batt.	15—\$20
2.	Capt. Thompson, 55th Batt.	14— 15
3.	Mr. W. T. Scott.	14— 12
4.	Sergt.-Maj. Sutherland, 8th Bat.	14— 10
5.	Ensign Mahoney, do.	14— 8
6.	Lieut. Scott, do.	13— 6
7.	Bugler Norris, do.	13— 5
8.	Capt. Hamel, 17th Batt.	13— 4
9.	Sergt. McIntosh, 55th Batt.	12— 3
10.	Lieut. and Adj. LeSueur, 8th Batt.	11— 2
11.	Sergt. Magnon, Co. Q. Batt.	11— *
12.	Montgomery, 55th Batt.	11— †
13.	Corpl. Argue, 8th Batt.	11— ‡

* Forage Cap, presented by J. Darlington.
† Photographs—P. Vallee.
‡ Winners' Photographs, presented by J. L. Jones.

Prizes for the highest aggregate score in Matches Nos. 1, 2, 3 and 4, with the Snider Rifle.

No.	Total.
1.	Lieut. Andrews, Victoria Rifles 89—\$20
2.	Cap. Scott, 8th Batt. 88— 10

The fifth annual tournament of the Stadacona Rifle Association is now over, and although, from press of election and other business, we have been unable to attend, we learn that it has been quite a success. There were no misunderstanding or complaints which so frequently occur on these occasions, and usually emanate from disappointed competitors, but all went off pleasantly and well.

The scores as handed us by the Secretary we give above. The first four matches were gone through the first day, Wednesday, with the exception of some ties which had to be fired off, and the remaining three, as shown on the programme, were fired early on Thursday, when an impromptu sweepstakes was got up by some of the gentlemen on the ground.

The Rifle Range is a very lovely spot, and possesses all the necessary conveniences for rifle shooting, erected by the Royal Engineers,

and has, besides its little lakes and arbours for loungers, its beautiful scenery, which would well repay a visit. It was unfortunate, but unavoidable, that the arrangements to have the band there on the last day of the match were not carried out, but as the officers and men of B Battery had themselves hurried to be withdrawn, their presence being required at the Citadel, the absence of the band will be understood.

We notice with pleasure that the old friends of the "Stadacona," with commendable perseverance, come again and again to its rescue. His Excellency the Lieutenant-Governor heading the list of subscribers—hence the Lieutenant-Governor's match, the Hamilton match, &c. We are informed that the prizes were more evenly distributed this year, and that \$535 were given in money prizes, besides some useful articles. We may mention that Qr.-Master Thomas, Ensign Johnston and Corporal Eden, of the Canadian Wimbledon Team, were amongst the competitors, who numbered 51 in all.

We have quite recently given the readers of the VOLUNTEER REVIEW a complete list of the vessels comprising the British Navy as it existed in April last.

We now furnish them with a list of the Navy of the United States for which we are indebted to the *Army and Navy Journal* (U.S.) as it existed in July last.

"The U. S. Navy, according to the July 1, 1872, Register, is composed of 1,676 officers on the active list, and 199 cadet midshipmen and engineers, as follows: 1 admiral, 1 vice-admiral, 12 rear admirals, 25 commodores, 51 captains, 90 commanders, 155 lieutenant commanders, 210 lieutenants, 100 masters, 30 ensigns, 137 midshipmen, 15 medical directors with relative rank of captain, 15 medical inspectors with relative rank of commander, 50 surgeons with relative rank of lieutenant commander, 25 past assistant surgeons with relative rank of lieutenant, 52 assistant surgeons with relative rank of master, 13 pay directors with relative rank of captain, 13 pay inspectors with relative rank of commander, 51 paymasters with relative rank of lieutenant commander, 33 past assistant paymasters with relative rank of lieutenant, 29 assistant paymasters with relative rank of master, 10 chief engineers with relative rank of captain, 15 chief engineers with relative rank of commander, 37 chief engineers with relative rank of lieutenant commander, 97 first assistant engineers with relative rank of lieutenant, 80 second assistant engineers with relative rank of master, 4 chaplains with relative rank of captain, 7 chaplains with relative rank of commander, 7 that of lieutenant commander, 4 chaplains, 3 professors of mathematics with the relative rank of captain, 4 with that of commander, 1 that of lieutenant commander, 2 secretaries with relative rank of lieutenant, 1 naval constructor with relative rank of commodore, 1 that of captain, 3 that of commander, 3 that of lieutenant, 7 assistant naval constructors that of lieutenant, 7 civil engineers, 53 boatswains, 61 gunners, 35 carpenters, 39 sail makers, 80 mates, 184 cadet midshipmen, 15 cadet engineers.

The retired and reserved list numbers 243 and the marine corps retired list 11, and the active list 93 as follows: 1 brigadier general commandant, 5 general staff, 1 colonel, 2 lieutenant colonels, 4 majors, 20 captains, 30 first lieutenants, 30 second lieutenants. The volunteer officers numbers 15, as follows: 1 acting master, 1 acting ensign, 2 acting past assistant surgeons, 11 acting assistant

surgeons. The number of seamen and petty officers is about 7,000. The number of vessels is 178 of all rates and classes, 99 being men of war of various sizes, 51 iron clads, and 28 tugs, hulks, etc. There are at present 54 vessels in commission. The 51 ironclads are, with but few exceptions, laid up in ordinary in several Navy Yards. Four are on the stocks unfinished. Most of them were built during the war when well seasoned wood was so scarce that white oak and other soft woods had to be used in their construction. Of the men of war 7 are yet on the stocks unfinished, 11 are repairing at different yards, 28 are laid up in ordinary, 4 are on duty as school ships at the Naval Academy, and 7 are used as receiving ships at the various Navy yards. The others are used as store ships and are on special service, the *Yantic* is outfitting at Norfolk, the *Omaha* and *Richmond* at Philadelphia, and the *Hartford* at Brooklyn. The following is a complete list of the men of war of all rates, and their stations:

FIRST RATES.		
Name.	Guns	Station.
Colorado	45	Flag-s'p As. Fleet Yokohama, July 1.
Wabash	45	Flag s'p Euro'n Fl. Southton, July 31.
SECOND RATES.		
California	21	Flag-s'p Pac.Fl., Panam, July 6.
Lancaster	22	Flag s'p S. Atlantic, Fl ^a Rio June 18.
Brooklyn	20	European Fleet, Southampton, July 31.
Pensacola	22	Pacific Fleet, Callao, June 27.
Congress	16	European Fleet, Southampton, July 31.
Worcester	15	N. At. Fl., Hampton Roads.
Powhatan	7	Portland, Me.
Saranac	11	Pacific Fleet, Panama, July 5.
Alaska	12	Asiatic Fleet, Shanghai, June 2.
Benicia	12	San Francisco.
Plymouth	12	European Fleet, Southampton, July 31.
Lackawanna	10	Sailed for Japan, June 22.
Ticonderoga	11	S. Atlantic Fleet, Southampton, June 18.
Canan'gua	10	N. Atlantic Fleet, Key West, July 28.
Shen'doah	11	European Fleet, Southampton, July 31.
Omaha	12	Philadelphia, fitting out.
Richmond	14	Philadelphia, fitting out.
Hartford	18	New York, fitting out.
THIRD RATES.		
Ossipee	8	Left Payta June 6 for Boston.
Iroquois	6	En-route for Asiatic Fleet.
Wachusett	6	European Fleet, Southampton, July 31.
Wyoming	6	N. At. Fl., Aspinwall, July 20.
Tuscarora	6	Sailed June 22 for Pacific.
Narrag'sett	5	Pacific Fl., Honolulu, June 23.
Resaca	7	Pacific Fleet, cruising S. Sea Islands.
Ashuelot	6	Asiatic Fleet, surveying inland sea.
Monocacy	6	Chee Foo, June 4.
Kansas	3	Special Service. At Key West, July 27.
Nipsic	3	North Atlantic Fleet, Samana Bay, July 28.
Saco	3	Asiatic Fleet, Shanghai, June 4.
Shawmut	3	At Key West.
Yantic	3	Fitting at Norfolk.
Michigan	18	On the Lakes. Detroit, July 27.
FOURTH RATES.		
Frolic	18	Vice-Admiral's Flag-ship, New York.
Wasp	1	South Atlantic Fleet, Montevideo, June 26.

Palos	16	Asiatic Fleet, Ningpo, June 4.
Tallapoosa		Special Navy-yard service.
IRON-CLADS.		
THIRD RATE.		
Terror	4	North Atlantic Fleet, Key West, July 6.
FOURTH RATE.		
Canonicus	2	North Atlantic Fleet, Norfolk, Va.
WOODEN SAILING VESSELS.		
SECOND RATES.		
New Hamp-shire	15	Receiving-ship, Norfolk, Va.
Ohio	5	Receiving-ship, Boston, Mass.
Vermont	16	Receiving-ship, Brooklyn, New York.
THIRD RATES.		
Constella'n	10	Practice ship, New London, Ct.
Independ'e	22	Receiving-ship, Mare Island, California.
Idaho	7	Store-ship, Yokohama.
Santee	49	Gunnery-ship, Naval Academy.
Portsm'th	15	Sailed from Rio for New York, July 29.
St. Mary's	16	Pacific Fleet. Probably at Honolulu.
Sabine	36	Receiving-s'p, Portsm'th, N.H.
Dale	8	Practice-ship, Naval Academy
Pawnee	12	Store-ship, Pensacola.
FOURTH RATES.		
Onward	3	Store, Callao, Peru.
Supply	6	Sailed from Rio for New York, July 10.
America	—	Naval Academy.
† Howitzers.		
<p>The whole number of Popes from St. Peter to Pío Nono, is two hundred and fifty seven. Of these, eighty two are venerated as saints, thirty three having been martyred; one hundred and four have been Roman, and one hundred and three natives of other parts of Italy; fifteen of France; nine Greeks; seven Germans; five Asiatics; three Africans; three Spaniards; two Dalmatians; one Hebrew; one Tracian; one Hollander; one Portuguese; one Candiot and one Englishman. The name most commonly borne has been John; the twenty-third and last was a Neapolitan, raised to the office in 1410. Nine pontiffs have reigned less than a month, 30 less than a year, and eleven more than twenty years; only five over twenty-three years.</p>		
<p>The difficulties hitherto experienced in measuring the speed of ships by any devices thus far produced, are said to be overcome very satisfactorily by the ingenious instrument called the rhyssimeter. The indicator which resembles a barometer in size and appearance, is located in the captain's cabin, a column of mercury showing constantly by its variation the speed which the vessel is making. Its accuracy is said to be perfect, there being no appreciable interference by friction or otherwise; and, as the machine is self registering, it may be made to keep a complete record of the ship throughout the voyage. The log, and all substitutes for it heretofore employed, have been found untrustworthy, especially in changeable weather or under a heavy sea.</p>		

THE DOOM OF THE IRON CLADS.

(New York Times, Aug. 9.)

Between the iron clad ship and the iron-clad man there is a singular resemblance, which bids fair to be carried out by the former like the latter, becoming obsolete. Armor was disused because the penetrating force of projectiles, constantly increasing and calling for thicker plates to resist them rendered such defence practically idle. Now, ships are going through much the same experience that the men at arms did of old. As fast as the plates have been made thicker, guns have been made bigger and more powerful. A few years ago the English *Warrior* was pronounced impregnable; but soon after plates like those that cover her were easily riddled with shot. Then, the *Lord Warden*, then the *Bellerophon* and the *Hercules* passed through the same experience. Finally the *Glatton*, the last and most invulnerable of ships, has been found to be no more exempt from the possibility of penetration. The guns have steadily advanced with the plates, so that at last a thirty five ton gun throws a 700 pound shot propelled by one hundred and ten pounds of powder. We have thus been brought to the point which sagacious engineers, some time back suggested as probable. It is now proposed, that is to say, to abandon armor as a defence for guns, and even to a great extent for ships, and no less an authority than Sir William Armstrong is found among leading advocates of the change.

It is not alone because of the increased perforating power of guns that the change is recommended. The highest class of gun is always very costly, and requires a very costly ship to carry it. Even the thinly armored ship still, in a general or average way, be far safer from the largest, or any guns, than a ship not plated at all. The coming danger, however, is not from above water but below. The new torpedoes, and especially that known as the "Motino," have undergone great development, and from these destructive engines the heaviest armored ship that floats is no more safe than a New York pilot boat. It is pretty certain that the torpedoes will come into general use. Horrible as they seem, there appears no more logical reason why they should not be used than other implements of war. But iron-clads, from their comparative slowness and unwieldiness, are especially liable to the attack of torpedoes. Hence a return to the old idea of getting lightness and speed, and an abandonment of the futile effort to be invulnerable, is likely to be applied to vessels just as it was once to men, and for very much the same reasons. The general principle is, that all additions to defensive weight must be attended by a diminution of armament and speed, unless the size of the ship be increased in very rapid proportion. According to the new lights, it would seem that a country with a little sea coast and limited merchant marine might find her account in still having a few and very large and powerful vessels to cope with hostile fleets; but powers like the United States or Great Britain are likely to have far less relative need of them. For such powers are recommended much lighter and faster craft than either our own *Declator* or the English *Warrior*; and there are many naval engineers who now agree with Sir William Armstrong in holding that "swift vessels of iron divided into numerous water tight compartments, with boilers and machinery below the water line, and only very partially

armored, constitute the class of seagoing ships which it would be most prudent to build, under the present prospect of the progress of artillery and the science of attack."

In surveying the march of scientific improvement in its relation to naval warfare, it is undeniable that these countries have the most to congratulate themselves upon which hesitated to embark in large outlays, on armored ships, pending the experiments of the last few years, and have waited to profit by the experiments of others, and put off preparing an iron clad navy until in the actual presence of necessity. Still such a course of economy is very hazardous, and might lead to grave misfortune, and mara-timo Powers of the first rank owe it to their own self respect to keep abreast of the world in all matters of naval architecture and engineering. Meanwhile it is tolerably certain that the building of light, swift steamers of the best model, and in compartments, is hardly ever likely to be unwise or superfluous. A monitor may be superseded by the growth and deadly efficacy of torpedoes or other sea monsters, but this is hardly ever likely to be the case with an *Iroquois* or a *Kearsarge*.

The following interesting sketch is given by the *Lindsay Post* :—

"We met at the residence of Mr. John Chisholm here, on Monday last, a namesake of his—a Mr. Hugh Chisholm—who if he lives till next Christmas day, will have completed his 105th year! In conversation with the venerable old gentleman, we ascertained that he was born at Johnstown New York State, on the 25th December, 1767. His father was a native of Scotland, who when the American Revolutionary War broke out, adhered to the British cause, and when the royal party were defeated, came to Canada, and like the other U. E. Loyalists, received a grant of land in the eastern part of Ontario. Mr. Chisholm distinctly remembers many of the stirring events during the latter part of the war of Independence—in particular the surrender of Lord Cornwallis at Yorktown and the recognition by Britain of American nationality. He was then a lad of 16 years of age, for all this occurred in 1783. The old gentleman was a volunteer during the war of 1812—11—we forget in what regiment—but at all events he expressed a very high opinion of Sir Isaac Brock and a very poor one of Sir James Yeo, the British admiral on the lakes at that time. Soon after peace the Canadians heard of Bonaparte's escape from Elba, that he was conquering the world, and that the "tight little isle" was about giving up in despair the task of subduing the hero of Austerlitz and Jena. Mr. Chisholm and a number of the men of Glengarry then determined to cross the ocean and assist in maintaining in the east as they had done in the west, the honor of old England; and before this project could be carried into execution news came that the battle of Waterloo had been fought and that peace once more reigned over Europe. Mr. Chisholm grows animated when talking over these old events. He is a fluent speaker in Gaelic, his native tongue, but has not a very good command of the English. He is still in apparent good health—his eyesight and hearing alone being a little defective. He is now living on a farm of his own on the Severn River in Muskoka or in the neighborhood of it and since his residence there has been in the habit of coming into Lindsay about twice or three times a year.

THREATENED WAR BETWEEN AUSTRIA AND RUSSIA.—A Vienna correspondent considers war between Austria and Russia highly probable in consequence of Russia's oppressive designs, and adds: "It is certain for some reason yet unknown, Austria has determined on strongly fortifying Galicia against the possibility of a Russian attack, and the sum to be spent for the purpose as well as the extent of the projected fortifications, seems to indicate that Austria must have serious grounds for their application. It is almost certain that delegations will grant the credit required seeing that the two governments are agreed in demanding it. Rumors of arms and ammunition and of Russian hostile intentions have been current of late here among all classes of people and in the press. In any case, the discovery of the Pan Slav society its organization and its manner of setting to work, happening just at the moment it became known that Austria was preparing to fortify the frontier most exposed to Russian attack, has caused a sensation here. Until lately it has been generally supposed that the Emperor Francis Joseph's visit to Berlin would be undertaken purely from motives of courtesy, in return for the visit the German Emperor made here last year. Few people believed the visit would have any political significance, and the few who did attach some such meaning to it, supposed that the subject for discussion would be Rome and the election of the present Pope's successor. Austria is one of the four countries which claims the right of veto in the case of a cardinal obnoxious to her being elected. This right has not, I believe been used in this century, but in the present state of church affairs, it may be considered certain that Austria as well as France, Italy and Spain will exercise the right if they see fit. It is supposed here by a few persons, that Bismarck is anxious to make the interests of Austria and Germany also identical in this matter and thus indirectly, through Austria, prevent the election of any Pope specially inimical to Germany. The Hungarian papers declare the approaching meeting of the Emperors is arranged solely to further the ends of the much spoken of triple alliance of Austria, Germany and Italy, the chief object of which will be to hold Russia in check. They say that the round of visits between the members of the three reigning families will be completed by the meeting of Victor Emanuel and this Emperor, next September.—U.S. Army and Navy Journal.

The demand for iron ships in Great Britain accompanied by a revival of commerce has led to some results worthy of notice. Pig iron has risen \$7 to \$10 a ton and rails and sheet iron have advanced \$15 to \$20 per ton. The wages of the iron workers have risen ten per cent., while their hours for work have come down from ten to nine. These changes, it is noticed, are equivalent to a rise of 20 per cent. in the cost of labor. In consequence of these important changes we learn from the English reports that the cost of constructing an improved propeller has risen within a year from \$135 to \$155 a ton, and is still rising. The Clyde builders have been compelled to open mines in Spain and Norway. These facts go far to reduce the discrimination against builders in the United States, and if Congress would remit the duties on ships, building materials and other taxes now imposed, the ship builders would have an opportunity to carry on their business on a more extended scale than ever.