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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. VIII.

OTTAWA, (CANADA,) TUESDAY, DECEMBER 1, 1874.

No. 48.

NEWS OF THE WEEK.

His Excellency, the Governor-General, gave a State dinner at the Rideau Hall on Wednesday evening (25th) to Major General Smyth.

A joint meeting of the City Council and the Ottawa City Agricultural Society, was held in Ottawa on Monday evening, the 23rd ult. for the purpose of arranging for the exhibition of 1875, Mayor Featherstone, in the chair. The plans of grounds and buildings were submitted and approved. In order to meet the expenses of building the Mayor proposed the issue of debentures to the amount of \$25,000. Hon James Skord believed the counties in Central Canada would also contribute, and local committees in each of the counties were struck. \$5,000 from each county is expected; from adjacent counties in Quebec as well as in Ontario.

Lieut.-Colonel Ross, the officers and honorary members of the Battalion of the Governor General's Foot Guards entertained Major General Smyth, the Commander-in-chief, at dinner at the Rideau Club on Tuesday evening. The guests present to meet the General were the Hon. the Minister of Militia, Colonel Fletcher, Scots Fusilier Guards, Military Secretary to the Governor General, Lieutenant Colonel Powell, D.A.G., Captain Anderson, R.E., Capt the Hon. Miles Stapleton, A.D.C. The string band of the regiment were in attendance and played a select programme of music.

In the Ontario Legislature on Tuesday 24th ult. Mr. Crooks brought down an order in Council approving of the agreement entered into at the late Emigration Convention held at Ottawa. The provinces contribute as follows:—Ontario, \$2,500; Quebec, \$2,000; Nova Scotia, \$1,000; New Brunswick, \$1,000. The arrangement is to continue for five years.

The Nova Scotia Legislature has been dissolved. The nominations have been fixed to take place on the 10th and the voting on the 17th.

It is said that Hon. L. A. Wilmont, of New Brunswick, has been appointed arbitrator on behalf of the Dominion, on the matter of the boundary line between Ontario and the North West Territory, and Chief Justice Richards has been appointed arbitrator on behalf of Ontario. A distinguished foreign jurist, whose name has not yet been announced, will be appointed an expert between the two Governments.

Thirty discharged soldiers left Winnipeg, Man., Nov., 19th by teams to Moosehead, thence to their homes in Ontario and Quebec; thirty more were to follow the following day. They all appear to be well satisfied with the amount of mileage allowed them by the Government. Many of them expect to return in the spring.

We notice that the London Times indicates the commutation of the sentence of Lepine. It says:—"The political acts of the malcontents of Red River have been wholly forgiven; and the death of Scott was so inextricably associated with the political objects of the rebellion that statesmen can not regard it as an ordinary murder. Lepine's death would add brutality to brutality, and stain the history of Canada with a blot which the children of those most crying for his execution would be ashamed of."

The locks on the Grenville Canal are finished. A large force of men will be kept on this winter to deepen and widen the canal, so that it will be ready for steamers next summer.

The river St. Lawrence has not been so low in forty years as it is now; and the water in the Ottawa is lower by twenty one feet at present than it was last spring.

The Victoria Colonist in speaking of the arrival of miners from Cassiar, the new El Dorado of British Columbia, says that all the miners have money. The results have been good, and everyone agrees that a country more extensive and richer than Cariboo has been discovered. John Giscome, one of the Charity Company on McDanoo Creek, says that the Deloire country will exceed Deese and Thibert Creeks in richness; that there is any quantity of ground that will pay from \$10 to \$15 a day to the land. Nearly all the men will return, which is an excellent sign. The climate in the Deloire country is superior to that of Deese Creek and surroundings.

The water rose in Lake Erie six or seven feet, on the 23rd inst., and burst the locks on the Welland Canal, at Port Colborne. The storm which raged there was the most severe ever experienced in that part of Canada.

The Globe announces that the favorable condition of the market has been availed of by the Premier who has purchased 40,000 tons of steel rails at the low price of \$45 per ton, delivered in Montreal.

A fearful tornado passed over Tuscomb, Ala., on Sunday night the 22nd. One half the town was laid in ruins, two persons killed and several wounded.

Colonel Scott is going to apply to the U. S. Congress, at its next session, for \$70,000,000 to complete the Texas Pacific Railway.

The Sioux Indians are very observant. One of Spotted Tail's followers, who speaks a little English, seeing one of the servant girls of the hotels in New York take of her chignon, exclaimed, "How, white women raise her own scalp! Indian no good here."

The Spanish Government has expressed willingness to pay an indemnity to the United States in the *Virginius* case, settling the difficulty on the same basis as that which satisfied the British Government.

Dean Stanley has been elected Lord Rector of St. Andrew's University by a majority of four votes over the Marquis of Salisbury.

A bill signed by 106 deputies of the Left has been introduced in the Lower Chamber, providing for a grant of \$20,000 annually to Garibaldi.

It is announced that the memoirs of the late President Juarez of Mexico, containing important revelations concerning Bazano and Maximilian, will soon be published.

In view of the Arctic expedition about to be fitted out by the British Government, Lady Franklin has renewed her offer of a reward of \$10,000 for the recovery of the official records of Sir John Franklin's expedition.

The conversion of the Dowager Queen of Bavaria to Rome is now followed by that of Herr Harlesz, who is the Chief Counsellor of the Consistory, and the actual head of the Protestant Church in Bavaria.

Pall Mall Gazette has a special despatch from St. Petersburg, stating that Russia is desirous of enlarging the scope of the new Conference on international usages of war by making the resolutions applicable to a wider territory. The South American States will be invited to participate. It is also hoped that the United States of America will be represented at the Conference.

Late advices from Cape Coast Castle, say it was rumored King Koffee, of Ashantee, had been deposed, and was succeeded by his nephew. This change would have the effect of uniting all the tribes on a friendly footing, and restoring them to their former alliance to the King of Ashantee. The general of the Coast is improving. Heavy rains had fallen.

A body of Carlists attacked San Marcial to day, but were repulsed with heavy loss. Another large force of Carlists has again surrounded Irun, and approached within 50 yards of the walls of the city. They opened a heavy fire to-day, to which the garrison replied with artillery.

WHAT IS "LLOYD'S"?

Of all the queer ways by which men have immortalized their names, there are not many queerer than that by which a certain Mr. Lloyd appears to have done it, and to have done it most effectually.

Little or nothing is known of this worthy, except that some time during the last century he kept a coffee-house in or near Abchurch Lane, London; and as he had the good fortune to be largely patronized by ship-owners and captains, "Lloyd's Coffee-house," or the abbreviated "Lloyd's," came in course of time to be the recognized rendezvous for all who were in any way interested in shipping matters. Mr. Lloyd died, nobody knows when, and his coffee-house has long since disappeared; but his name still shines out in letters of brass at the eastern end of the Royal Exchange, and is familiarly known in the uttermost ends of the earth. The association which originated beneath his roof has developed into an organization having its agents and representatives in every seaport of any pretension throughout the world, and has acquired such importance that the advantages to be derived from an official connection with it are found to be a sufficient inducement to undertake its agency, without any other remuneration whatever. So curiously has the name of the lucky coffee-house keeper come to be identified with shipping interests, that it has in many instances been adopted by various continental associations; while it is said that there are still people who believe that he is the great potentate in shipping matters, and who occasionally write to "M. Lloyd, Londres."

There are at the present time two distinct associations known as Lloyd's, both of them having their head quarters in London, and within a few yards of each other. The one with which the general public are, perhaps, most familiar, is that to which reference is made when a vessel is said to be A 1 at Lloyd's. This association, named Lloyd's Register of Shipping, and the offices of which are in White Lion Court, Cornhill, was founded in 1834, simply and solely "for the purpose of obtaining a faithful and accurate classification of the mercantile shipping of the United Kingdom, and the foreign vessels trading thereto." The original constitution of it has remained without material alteration till the present time. There is a committee for the general management of affairs; there is a sub-committee, appointed by them, for the actual work of classifying ships; and there is a large staff of surveyors, whose duty it is to inspect vessels, to furnish the committee with such reports as enable them to assign each a character. The details of this classification would probably have but little interest for the general reader. It will be sufficient to state that the letters A, B, etc., which are appended to the names of ships, indicate the soundness and sea worthiness of the ships themselves, while the figure which follow the letters indicate the completeness and sufficiency of their equipment—their rigging, boats, anchors, etc. Thus, a vessel which is classed A 1 on Lloyd's Register is not only a good, sound craft, but is thoroughly well equipped. She stands in this class for a term of years depending on the materials of which she is built and the quality of workmanship bestowed on her; and from it she falls, in the usual course of things, into class "A red," for a period of half or two-thirds of the time she stood in the highest rank. From this she goes into B, thence into C, and finally into Class I. When she

is too old and cranky to be retained in this grade, Lloyd's will have nothing further to do with her.

Some idea of the magnitude of the business accomplished by the association may be gained from the fact that in 1872 they had upon the books upwards of ten thousand vessels. The fee for a survey originally was ten guineas, but this was reduced to five guineas. Subsequently, rates were still further modified. The other "Lloyd's" may be found on the first floor of the Royal Exchange. Going in by the eastern entrance of this building, the visitor will at once see the illustrious name shining down upon him over a doorway on the right. The most conspicuous object, however, is a very imposing looking individual in a gorgeous scarlet robe, who guards the entrance, and with the lungs of a S. M. or shouts out, above the din and confusion within, the name of any one of the throng who may happen to be wanted. Only the initiated may pass this barrier; but one may stand without, and see pretty nearly all that is to be seen of this, the oldest of the two institutions known the wide world over as "Lloyd's."

Standing without the barrier, one may see into a handsome saloon, with a richly decorated ceiling, supported on a double row of pillars, and with walls adorned by the arms of the association—a golden anchor on a blue ground. The room contains two enormous ledgers, a self-registering barometer, and an anemometer, which marks with a pencil, upon a sheet of paper, the force and direction of the wind at all hours of the day and night. There are still unmistakable traces of the coffee house period in the history of this institution. The floor, for instance, is occupied by four rows of tables, shut in from each other by little mahogany partitions, in the usual coffee-house fashion; while, until a few years ago, the attendants in the room still answered to the name of "waiter." It is a scene of great bustle and confusion, the room being usually filled with a throng of people who buzz about apparently with the smallest possible reference to anything like business.

The insurance of a ship, unlike that of a house or a life, is usually undertaken by a considerable number of men of firms individually. There are companies engaged in this line of business, but by far the greater part of it is effected with individual insurers, or "underwriters," as they are termed. There appears to be no reason for this beyond the force of custom, which originated at a time when companies for this purpose were by law limited to two, the Royal Assurance and the London Assurance. The monopoly was abolished in 1824, but the practice which had sprung up in consequence of it survived; and at the present time, the greater part of marine insurances in London are effected with the men who are to be found seated at the tables in this large room at Lloyd's.

A transaction in shipping assurance is usually carried on through a broker, by whom the premium to be offered is arranged with the owner or freighter of the vessel. This being determined on, he sets forth on a slip of paper the particulars of the risk—the name, class and tonnage of the ship; the port she sails from, and that to which she is going; the probable length of the voyage, the sum to be assured, the premium offered, etc. The slip is then sent into this large room at Lloyd's, and submitted to various "underwriters." Probably no one of them will assume the whole risk. To do so with any approach to safety, it would be neces-

sary to engage in business on a most gigantic scale. It is sometimes done. Usually the responsibility of every ship insured is divided among a considerable number of men. If the premium the broker offers is considered sufficient, one will append his initials, to the sum of £100, on his slip of paper, another £50, and another perhaps £500, and so on, until the sum required is made up. The broker now draws up a formal policy of insurance, under which those who have engaged to do so writes their names. Hence the insurers are called "underwriters." The second great ledger in the room records the safe arrival of ships; and the contents of the two, together with all other intelligence respecting shipping matters, are published daily in a little sheet entitled Lloyd's List.

Taking the two societies, "Lloyd's and Lloyd's Register," as they are popularly supposed to be, as one great concern interested in all that pertains to maritime affairs, they constitute an agency such as the world has never before seen, and without which British commerce never could have attained its present proportions. At home there is no vessel of importance that escapes their vigilance, and abroad there is no spot to which the telegraph extends with which they are not in frequent communication. There is no port which ships are accustomed to visit where they have not a pair of experienced eyes on the watch, and a representative ready to transmit intelligence, and to act on their instructions.

CHINA AND JAPAN.

Our late Chinese and Japanese mails indicate that the trouble between China and Japan grow out of the invasion of the Island of Formosa by the Japanese is in no way settled, nor the prospect of a war between the two nations in any way diminished. The *Ugogo News* hears that war has been actually decided upon by the Japanese, and says that if it has not been decided upon for some time past, "the repeated passages of the *Delta* and *Madras* between Nagasaki and Formosa, with troops and munitions of war, are altogether inexplicable." The *Nagasaki Express* says that Japan is recruiting her army from all the large cities of the Empire. Warlike preparations are making in Yeddo, Yokohama, and many large towns along the inland sea. The Government has purchased several new ships for use as transports in case of need. The *Express* thinks that a war would be popular with the people who believe that the celestials would be easily whipped. The *China Mail* says:—"The Japanese are said to have demanded the payment of \$2,500,000 from the Chinese Government for the expenses of the expedition, which will be most likely paid. The Chinese are not in a position to cope with the Japanese, and will not be for some years unless they alter their tactics. If they enter into a war now they will most certainly get a tremendous thrashing, and in all probability lose the island. The Chinese troops are only Chinese drill, a mere rabble, and have been receiving from Fort Law and the north a lot of guns of different kinds, some of them useless. Some Krupp guns were landed the other day, but they were in a dreadful state from rust and dirt. The Chinese do not appear to be doing anything. Three thousand five hundred foreign-drilled troops are expected from the north very shortly."

The general opinion of the Chinese and Japanese papers seems to be that China is quite unprepared for war, its army being

badly armed, badly trained, and lazy, and its navy being far below the standard of the Japanese navy. It is thought that China would have great difficulty in rising the funds necessary to carry on a war, as it is next to impossible to raise more money by any of the present methods of taxation. Of the Chinese troops the *Celestial Empire*, one of the leading papers in Asia, says—"The Chinese soldier is not only dirty, ill-armed, lazy, and unpractical, but he has not the remotest idea how to handle even such a rifle as is served out to him—much less of keeping it clean, while the weapons provided for his use are in most instances infinitely more dangerous to him than to the man he shoots at, and are dear to the Government at 75 cents apiece. As the military discipline, it does not and cannot exist in the Chinese army. Eighteen hundred men out of two thousand are mere coolies, and the rest are not much better. The native arms they use are of course less effective still, while as for the native drill—picturesque it may be, but grotesque is no adequate expression for it. War with Japan, for some reason or other, is evidently unpopular with the soldiers; and if it does come to this, that they are called out, we shall witness an outbreak of what has been so long threatened, and a general insurrection will be the result."

And the *Nagasaki Express* adds:—"From what we know of the Celestials and their customs we do not think the above an exaggerated picture. The question naturally arises, how would such a motley crew, armed with weapons the estimated price of which is considered high at 75 cents apiece, shape in a fight with hardy, tolerably well trained, and moderately well-armed like the Japanese? It is a well-known fact that Chinamen lack animal courage, and would rather run a mile that fight a minute. Apart from the Japanese question, the Chinese Empire is in a most unenviable position. What with dissatisfaction on the one hand and a probable war with their powerful neighbour, Russia, on the other, besides the rascally impositions of the military mandarins, China is indeed surrounded with difficulties which will tax the ability, courage, and determination of the Government to the uttermost to bring affairs to an amicable issue. The best possible course for the Celestials to adopt is to settle the Japanese question quickly and quietly, and not haggle over molehills until they seem to be mountains; then as soon as that affair is settled, turn their attention to the difficulty with Russia and bring that to a conclusion before being forced to, for the Russians are not a nation to stand much trifling with, and, besides, may take a notion in their heads that a slice of land off the Chinese Empire added to their territory might be a desirable acquisition. After settling the point at issue with their Russian neighbors, time would be allowed for reducing the country to something like order. Such a course of action might be humiliating to a certain degree, but far better to eat a little bit of humble pie now than be compelled to take an extra dose of it by and by, besides having to fish out a number of dollars by way of a propitiatory offering."

The decrease of emigration has rendered a reduction of the fleets of German Trans-Atlantic steamships unavoidable. The chairman of the North German Steamship Company is now in England, seeking to dispose of the superfluous vessels of that line.

A FIGHT WITH THE COMANCHES AND KIOWAS.

INDIAN TERRITORY EXPEDITION,
CAMP ON DRY FORK OF WASHITA RIVER,
TEXAS, September 25, 1874.
Lieutenant G. W. Baird, U. S. Army, Acting Assistant Adjutant-General.

SIR: In pursuance of orders I have the honor to report the recent service of my Company (I. Fifth Infantry,) having present with it thirty-eight rifles, and of a mounted detachment attached.

I moved, as directed, with thirty six empty wagons, to meet a train with supplies, on the 1st inst. at 2 P. M., from Battle Creek near Red River, Texas, on our trail to Oasis Creek at the Canadian River, 120 miles, arriving there on the morning of the 5th inst. at 9 A. M. Second Lieutenant Frank West, Sixth Cavalry, with twenty troopers, horses much worn, joined me for escort duty on McClellan Creek. Before crossing the Canadian River Lieutenant West with five men was sent forward to hasten the train from Camp Supply. Not meeting supplies Oasis Creek, I moved on next day to Commission Creek, I. T., where Lieutenant West sent me notice of the train, and met me with it on the 7th inst. Seven dismounted men, Sixth Cavalry, and one man Fifty Infantry, also joined me going to the front. The stores were transferred in the midst of a wild storm and rain. Indians were first seen while here, a party of fifteen of whom killed and scalped a teamster named Moore, while hunting near camp on the 6th inst., and quickly disappeared.

While on my return, and on the 9th inst., at about 8 A. M., when we were crossing the divide between the Canadian and Washita Rivers, single Indian vedettes were seen at a great distance on the flanks and in front, and on approaching a ridge which crossed my route, a small party of mounted Indians showed also at a distance on our right front. At about 800 yards from the ridge the train was halted to close up. Fire was opened upon us by a few sharpshooters, when the infantry and dismounted men were deployed, right skirmishers in advance of the train and across its head, firing moderately, and left skirmishers under First Lieutenant Granville Lewis, Fifth Infantry, on its left rear, the train being in two columns about twenty yards apart, prepared to corral.

Lieutenant West collected his mounted men, thirteen in number, (the other horses being unserviceable) who had been covering the train as flankers, etc., and deployed as skirmishers on the right of infantry in front. The command advanced inclining to the left to gain the highest ground, the right skirmishers firing occasionally at long law—say 800 yards. First Sergeant Mitchell of my company, here dropped two ponies whose bodies were afterwards seen still saddled. Lieutenant West advanced rapidly straight forward and soon drove the enemy from his ridge.

Reaching a water hole the train was halted, mules watered and kegs and canteens filled, a fortunate suggestion of Wagon-master Callahan. Lieutenant West recovered his connection, which had become too remote, and the train went on, the skirmishers now moving parallel with the train, and at about 100 yards from its rear respectively. Fire was reopened on us from commanding precipitous hills in front, when Lieutenant West advanced, and with his little party charged up the hills to unseen ground, with a cheer and a rush which the enemy could not stand, and he fled.

Seeing that the train could not pass while

these hills were occupied, I was about to direct Lieutenant West to attack there, when he proposed himself. Though the number on the hills was not great, larger bodies were at hand, and the result was by no means certain. The enemy had apparently intended to make some stand here, from the articles found on the ground, such as bandages and haversacks. The movements of the Indians had been so contrary to their usual habit, in showing themselves openly and boldly like disciplined cavalry, though with something of their own uncertain and objectless riding about, that my impression is their design was to attack the command on the trail not far from the Canadian, and that the accident of our leaving the trail and diverging to our left disarranged their plan.

We now proceeded with our column some twelve miles, Lieutenant West in advance in skirmishing order and infantry skirmishing order and infantry skirmishers out, striking the trail again after some miles; the enemy threatening us in several distant bodies with observers near; when at half past two P. M., and at about a mile north from the Washita River, while the train was rising out of a very bad ravine, which Lieutenant West had passed and had momentarily halted, a small party swiftly ran down from our right front upon the mounted advance, approaching it to within 200 yards, I think, and seemed to be trying to gain the left of the train. They were driven off by the carbines, and returned to their supports at some distance.

A large body had been for some time also hovering nearer on our right. The train having cleared the ravine we were fiercely charged from the rear and right by a mass of some seventy Indians, about whom were as many more in open order. They rode within 100 yards. This occurred on the rear where Lieutenant Lewis had charge. He had skillfully handled his skirmishers according to his own judgment up to this time, and when this attack was making he shifted his line to meet it to the right and rear of the train and opened fire. The enemy swerved around the rear of the train, and accordingly Lieutenant Lewis removed his men across to cover it. Here he was subject to a heavy fire from several directions. Sergeant De Armond, Company I, Fifth Infantry, a gallant and experienced soldier and skilful shot was here instantly killed while in the act of firing. Almost immediately after, Lieutenant Lewis was struck down by a shot through the knee and wholly disabled. The charge was repulsed, but the fire continued. I regard the skilful management of Lieutenant Lewis as having perhaps decided the fate of the train. The corral was not yet completed, and the rear of the train was on the verge of a stampede!

The fall of Lieutenant Lewis, in whom the men had great confidence, somewhat disturbed the skirmishers here but arriving here at the moment the men were easily made to straighten their line and continue their fire. Sergeant Hay, Company I, Fifth Infantry, was put in charge here. The enemy suffered, but their method of carrying off their injured on their ponies, which Lieutenant Lewis saw them practice, prevented our ascertaining to what extent; several riderless ponies were seen.

While all this last was going on, which, however, occupied but a few seconds, the right skirmishers with whom I was, were faced towards the direction of this attack and opened fire, and they contributed to its repulse. The ground was such, however, that a part of them could not effectively

aim their fire in this direction, and they engaged Indians on our right front. They all were subject at this time to a lively fire from our right and front, and as soon as relieved from the pressure at the rear they gave their attention to this so effectually as to prevent much accuracy of aim by the enemy though his fire continued very active till dark, and was partly enfilading. The best practical disposition of them seemed to be to line a ridge which ran diagonally along our right not far from the train, and was to it as the right barb of a broad arrow.

First Sergeant Mitchell, Company I, Fifth Infantry, was now very active, and pluck and skill were conspicuous. He is a pattern skirmisher. The latter part of the day he had charge here. The enemy had opposite here a parallel ridge at about 400 yards, and beyond another and higher one running somewhat circularly at about 900 yards. He occupied these lines strongly, and his fire was constant and severe. He had also good positions at 500 yards opposite the head of the arrow. Happily he fired mostly too high, like other people.

The Indian practice of circling early began around our front, and increased until it became a wonderful display of horsemanship. Savages erect on their ponies with shining spears and flaming blankets, and lofty fluttering head gear, dashed along the ridges with yells and defiant and insulting attitudes, appearing and swiftly disappearing, showing portentous against the sky in the bright sunlight. This wild entertainment appeared to be intended to divert attention from their dismounted firing parties.

Forming the impression that the riders were gathering on our left front, I took a few men away to that side where most of the cavalrymen dismounted were engaged under Lieutenant West, and found the fire there so sharp that we had to lie close, the men getting in their shots along a slope we had there also. The line along here formed the left barb of the arrow, broken inward toward the rear of the corral so as to hold the ground that way. Of course these lines on both sides were faulty in principle, but they were the only ones the circumstances and the ground permitted.

After seeing the men covered as well as practicable, I had dismounted. Opposite the left front lay a high ridge behind which at 500 yards was collected a noisy body of Indians, whose speeches and shouts seemed to indicate preparations to charge. We discussed this subject, but could make nothing of it, and at sunset the ridge became quiet. Rascally high shots crossing over also from behind the train disturbed our equanimity here, striking among the prone blue figures, sparsely flicking the yellow grass, and conspicuous in the slanting sunlight. Lieutenant West was here, and I was told that earlier in the affair he had to be active to preserve composure. Assistant Wagonmaster Sandford was dangerously wounded (stomach) while getting ammunition for this front, where he was actively engaged.

When the corral was first formed, Lieutenant West, who was then a little in advance, dismounted his men, placed his horses within and formed his party as skirmishers along the left front of the corral, as above mentioned. The corral was imperfect. The right column was formed with the usual bugle, but the left column closed in so as to form with the right a concentric curved line, leaving hardly space within for the animals. This circumstance contributed to that particular ground to their security, I think, as the sloping ground swelled upwards on the left hand.

When darkness set in all fell to digging. The corral on the right, front and rear was protected by a series of pits close upon the wagons, and forage sacks, etc., were used to fortify some of these. Four detached enclosed little works, one of which commanded nearly the whole vicinity, were made on the left, and one on the right, at various short distances, at points which seemed appropriate, and were occupied by small parties. Water was obtained from a pool about 400 yards off. No firing occurred on this night. I cannot say if the Indians dug also, but during the next day it appeared that they had cover.

At dawn on the 10th inst., the enemy resumed his fire, and it was actively continued on both sides with lulls and short interruptions, and by spurts at night, until at about 8 a.m. on the 12th inst. In the darkness Indians approached us more closely, and addressed us in language more forcible than complimentary, and announcing that they had "heap Comanches and Kiowas." The replies of my men were even superior in Doric strength, however.

By day the enemy fired from cover, and from all sides, though occasional pony dashes were made until on the 11th two savages were stretched, when this ceased.

On the night of the 10th there was some clamor for water, which had given out, but I declined to risk life for it till real suffering arose, and an unauthorized party of soldiers and teamsters, which attempted to reach the pool, was at once driven in by a volley. Fifty rifle pits covering this water were afterwards counted. Sergeant Singleton, Company A, Sixth Cavalry, was severely wounded in the leg on this night at a pit he had charge of, and where he did good service. Next morning Private Buck, Company I, Fifth Infantry, was punfully wounded on the head, at Sergeant Hay's pit.

Lieutenant Lewis and Wagonmaster Sandford were suffering much from the hurts and the miserable surroundings, and without medical treatment. Considering their lives in great danger, and a brave and showy scout named U. F. Schmalsie volunteering to break through to any supply, and finding it impossible to communicate with our Headquarters, I sent Schmalsie on the night of the 10th to Lieutenant Colonel Lewis, Nineteenth Infantry at Supply for relief. He was chased from the start, but his pluck and shrewdness carried him through to Supply at 9 a.m. on the 12th inst.

During the morning of the 12th the enemy was seen to withdraw a part of his force across the Washita River and over the prairie beyond, variously estimated at 200 to 400 warriors. A light fire, however, continued from small parties until it was decided to skirmish for water. Lieutenant West moved out his mounted men, and Sergeant Mitchell deployed an infantry party of fifteen men. They cleared the ridge beyond the water of Indians; Sergeant Mitchell leading and handling his men beautifully; and rapidly using his own deadly rifle, and the wounded, and choking men and animals were relieved of their thirst.

Soon after rain fell and a violent storm set in, which continued till the evening of next day, and we were now drenched as before we had been dried. The corral was a great puddle. Indians moved all day north and south along our front, singly and in distant parties. Some approached, observed us out of range, and passed on. Towards night, on the 13th inst. a large distant body of men moved in misty column northward in such order that we first took them for cavalry, but we signalled in vain, and

mounted men sent out reported that they were Indians.

During this time my sense of responsibility was enhanced by the fact that the whole command would have exhausted its supplies on the 13th inst., and was depending wholly on this train for rations and forage. I felt almost certain that the head of our column would appear next day, and it was decided not to move in the storm, on account of the wounded, and as several horses had been hit, and twenty two mules had been killed or disabled, and the rest were tottering on their feet, I doubted if they could pull the wagons.

Late at night on the 13th, Schmalsie and five other scouts appeared and announced the approach of Company K, Sixth Cavalry, under Lieutenant Kingsbury, Sixth Cavalry, with medical aid and an ambulance. They arrived at 2½ a.m. next morning, after a most trying march of eighty miles through the storm. Colonel Lewis had most kindly hastened them off on getting my despatch, and they marched to us without a rest. The skillful services of Dr. Gray, A. A. Surgeon, were an immense relief and benefit to our wounded. At 9 a.m. on the 14th we moved out to join the command, and at the crossing of the Washita River met Major Chaffee and Company I, Sixth Cavalry, in the lead of our command, and went into camp.

The Indians whom we met were Comanches and Kiowas who had gone on the war path from Wichita Agency. They were about 400 in number, and it is believed they were directed by Lone Wolf. It is difficult to make certain of Indian casualties. There were thirteen ascertained cases of killed and badly wounded, and, I believe, others.

A few of the teamsters were aimed and did good service. Cartridge cases found in their rifle pits showed that the Indians had our own arms and ammunition, calibre 50, as well as Spencer, Sharps and Henry rifles. They must have expended a great quantity of ammunition. They practiced volley firing at times. Over 100 rifle pits were found, some single, some having capacity for several, many of which were well made, and skilfully placed and covered, and at distances varying from 600 to within 300 yards—a few even nearer. Nine beef cattle which we had with us were stampeded and lost.

On the 9th inst., at Oasis Creek, Lieutenant Baldwin, Fifth Infantry, turned over to me a young white man, who had been brought up with the Kiowas, and with Indian instincts and ideas, and whom he had made prisoner the day before, while the man was on picket mounted on a mule near an Indian camp, on the Washita River. Lieutenant Baldwin moving with three scouts had fallen unexpectedly upon this camp, and snatching the picket, made off only escaping seizure himself by great skill and daring. The prisoner cunningly made the guard believe, though warned, that he was delighted at his release from the Indians, and somehow escaped by getting into the unauthorized night party which attempted to get water, which I was engaged with Schmalsie, who was about to make for Supply.

Besides those persons above referred to, I beg leave to report the excellent service of Sergeant F. S. Hay, Sergeant W. Koepin, Corporal J. J. H. Kelly, Corporal J. W. Knox, and Corporal J. James, Company I, Fifth Infantry, and that model soldier, Thomas Kelly, and I declare that, though some much excelled others: the steadiness and conduct of the whole company were admirable; also Sergeant Kitchen, Corporal Morris and Corporal Sharpless, Company E.,

Sixth Cavalry, and Sergeant Pensylle, Company M., Sixth Cavalry.

My casualties are all above mentioned.

Very respectfully, your obed't ser't,
WYLLIAMS LYMAN, Capt, Fifth Infantry,
Brevet Major U. S. A., Commanding Escort.

REVIEWS.

The Leonard Scott Publishing Company, 41 Barclay St., New York, send us the October number of the *Edinburgh Review*—the last one for the year—which has, as usual with this *Review*, an attractive table of contents:

I. "Scharnhorst." Every element which has contributed to the elevation of Prussia to first class European power is of interest, and the present sketch of General von Scharnhorst, the regenerator of the army after Prussia had been shorn of half her dominions by the first Napoleon, is therefore worth reading. Born in Hanover, and educated in a military school established on the shores of Steinhuder Lake, by Count William of Lippe, he applied himself closely to the study of military science. In 1797, the Count of Berlin pressed Scharnhorst, "now as distinguished for practical skill in the field as for his educational powers," to transfer his services to the Prussian staff, and he became the founder of the military system of that country.

II. "The Book of Carlawerock." Carlawerock Castle, in Dumfriesshire, was in former days a place of no little importance, being the key to the south west of Scotland. It is said to have been built in the sixteenth century, and was the stronghold of the Maxwell family, whose romantic and tragic histories are here briefly sketched.

III. "English Fugitive Songs and Lyrics." This article sparkles with gems, illustrating the styles of various writers of this class of poetry.

IV. "The Census of France in 1872." We have here some striking facts relative to the decline of population in France.

Art. V. brings before us the results of late researches on the subject of Comets and Meteors, with a notice of the most recent theory on the subject.

Art. VI., on "Convocation, Parliament, and the Prayer-Book," argues against the practice of consulting Convocations in making changes in the public services of the Church.

Art. VII. treats of the "Origin and History of the Grenadier Guards," and gives a graphic epitome of their services.

VIII. "Renan's Antichrist." "L'Antichrist" is the fourth of a series entitled "The History of the Origin of Christianity." The article discusses the authorship of the Apocalypse, the time when it was written, and its probable meaning.

IX. "Journal of Mr. Charles Greville." Mr. Greville was Clerk of the Privy Council, and was therefore brought in contact with all the noted men of his day, which was a long one, extending through the reigns of George IV. and William IV. The anecdotes and extracts from conversations given in this article show Mr. Greville to be an observing chronicler of the celebrities of his time.

Art. X. "The Session and the Ministry" criticises with some minuteness the conduct of Mr. Disraeli and his Cabinet.

Our readers will do well to provided themselves for the coming year with one or all of the periodicals reprinted by The Leonard Scott Publishing Co. They are as follows, *The London Quarterly Edinburgh, Westminster and British Quarterly Reviews*, and *Blackwood's Magazine*. Price, \$4 a year for any one, or only \$15 for all.

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD QUARTERS,

Ottawa, 27th November, 1874.

GENERAL ORDERS (31).

No. 1.

ACTIVE MILITIA.

INSPECTION REPORTS.

All inspection Reports made from time to time by Brigade Majors in the several Military Districts, after this date, together with the remarks of the Deputy Adjutant General of the District on each report, are to be sent to Head Quarters, Ottawa, within one week after being received by the Deputy Adjutant General.

All reports made by Brigade Majors since 1st January, 1874, will be sent to Head Quarters, Ottawa, before the 14th December next.

PROVINCE OF ONTARIO.

22nd Battalion, "The Oxford Rifles,"

No. 1 Company, Woodstock.

To be Lieutenant:

Ensign David Marcus Perry, M.S. vice James Cond, who is hereby permitted to retire retaining rank.

39th "Norfolk" Battalion of Rifles,

No. 8 Company, Fredericksburg.

To be Lieutenant, provisionally:

Private William John Heron, vice Alvin N. Montross, left limits.

BREVET.

To be Lieutenant Colonel:

Captain and Brevet Major Henry Burkitt Beard, V.B., No. 1 Company, 22nd Battalion, from 11th November, 1874.

PROVINCE OF QUEBEC.

"B" Battery, of Artillery School of Gunnery Quebec.

Adverting to General Order (5) 6th March, 1874, the precedence therein accorded to

Master Gunner Donaldson, is hereby extended throughout the Active Militia of the Dominion generally.

21st Battalion, "Richelieu Light Infantry."

No. 1 Company, St. John's.

Captain Arthur Charland is hereby permitted to resign his Commission.

By Command of his Excellency the Governor General.

WALKER POWELL, Lieut. Col.

Deputy Adjutant General of Militia, Canada

Chicago, 27th.—An Arkansas City special says a party of the leading chiefs of the Navajo Nation, representing 11,500 Indians, arrived there last night in charge of Ex-General Arneh, of New Mexico. The party is bound for Washington to negotiate the exchange of the northern half of their reservation, which lies in Arizona for an equal area adjoining in New Mexico in consequence of the warmer climate of the latter territory. The party are armed with native weapons and carry with them articles of native handiwork for the centennial exhibition.

On Saturday evening the Civil Service Board gave a farewell dinner at the Rideau Club to the retired and retiring Deputy Heads (Messrs. Lee, Parent, Worthington, Bouchette, Dickinson and Futvoye). Of those gentlemen only four were present, Messrs. Worthington, Bouchette, Dickinson and Futvoye. We understand that early in the week Mr. Bouchette will proceed to Quebec, and Major Futvoye to St. John's, there to resume his practice and position as Queen's Counsel at the Bar of the Province of Quebec.

Mr. J. H. Rowan, C. E., one of Mr. Sandford Fleming's staff, has been appointed to superintend the construction of the Canada Pacific Railway Telegraph Line.

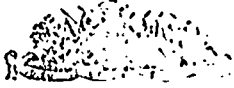
A Brantford man walked a mile the other day in 8 minutes.

A man hailing from Portland, Or., will start on May 1st, '75, on a walk from New York to San Francisco. If he can get over the ground in 100 days he will receive \$16,000, but if he fails the financial results of his journey will be 0.

A very satisfactory despatch has been received from Assistant Commissioner McLeod of the Northwest Mounted Police. It is dated, Fort McLeod, Northwest Territories, Oct 18th, Fort Shaw, Montana, Nov. 20th, and stated that the Assistant Commissioner had sent for and seen several Blackfoot Indian Chiefs, all of whom were most friendly and delighted at the arrival of the force. The force had arrested five liquor traders and had fined them \$700, of which \$500 had been paid, besides causing them to forfeit one hundred and twenty skins. One was held on a charge of having murdered a Blackfoot Indian Chief he had been identified also as an escaped murderer from Chatham. His name is Bond. We understand that the Sheriff at Chatham has been communicated with on the subject.—Ottawa Times.

CONTENTS OF No. 47, VOL. VIII.

PREFACE:—	
Why.....	662
EDITORIAL:—	
German Manœuvres.....	538
The News of the Week.....	539
REGIMENTAL COMPETITION:—	
Thirty-fifth Battalion.....	553
SELECTIONS:—	
The Military Lessons of the War.....	554
The German Manœuvres.....	554
Torpedoes and Ironclads.....	559
Austrian Autumn Manœuvres.....	572
French Autumn Manœuvres.....	582
Inspection of the Montreal Volunteers.....	561
Electricity and Rifle Shooting.....	561
REVIEWS.....	539
MILITIA GENERAL ORDERS.....	530



The Volunteer Review,
AND
MILITARY AND NAVAL GAZETTE

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

OTTAWA, TUESDAY, DEC. 1, 1874.

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

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

Broad Arrow of 10th October, has an article on "Promotion from the Ranks" which we have copied for the benefit of such of our readers as may have been led to suppose that Mr. GLADSTONE and Lord CARDWELL really meant to open the higher offices of the British Army to the rank and file; in other words to the educated and deserving young man without patronage or influential connections, who would be ambitious to serve his country as a soldier and to rise to those commands in the service for which he would be fitted. At the time our contemporary was working himself into ecstatic fits over CARDWELL's insolence to his Sovereign and in doubt as to whether he was a MIRABEAU or CROMWELL, and at Mr. GLADSTONE's "heroic treatment" of the purchase system by overriding the Constitution and insulting the superior branch of

the legislature, we ventured to predict that the whole question would resolve itself into what our contemporary has at last found out—that English soldiers will not follow English schoolmasters—but their natural aristocratic leaders, and if there is to be an English army that will again restore peace to Europe or raise the English name in the estimation of the world, a return to the old system or its equivalent in providing recruits as the contingent for the commission is a first necessity. If *Broad Arrow* would do the State service it must be in the direction its own article indicates, leaving Lord CARDWELL's improvements to be relegated to the limbo of all empirical blunders. Meanwhile Army Reformers and Reorganizers will go on with their schemes forgetting the fact that it is only necessary to offer proper inducements to get the right class of recruits. First, they should be assured that they would be led by gentlemen, and that covers all in their ideas that is necessary; secondly, their pay should be in accordance with the rate in the labor market, and thirdly, the service should be for at least 21 years, with full pay pension to all those who leave the service at that period. In opposition to all rules of common sense the Reorganization scheme defrauded both officers and soldiers, practically debarred the aristocrat from entering the service, and the proletariat scorned to be led by a man no better than himself. It has all ended in heroic treatment and all in the fiasco our contemporary's article has been written to hasten.

"The fashion which has risen up in recent years of discussing projected reforms by the light of foreign experience is attended by many manifest disadvantages, the most obvious of which is the frequent inapplicability of the arguments which govern others to ourselves. Thus, when the distinguished Member for Birmingham and the late Member for Northampton enforced their diatribes against corporal punishment in the army by pointing to its abolition abroad, the merest tyro of debate could furnish a crushing rejoinder in the assertion that there was simply no analogy between the illustration and the thing illustrated; that, in other words, an Army whose lowest ranks are constituted of all the elements of society, as in France and Germany, is neither in a moral nor material sense the same as community, and whose moral tone cannot be expected to reach the purist's level. We will, however, add in justice to our own soldiers that it is extremely doubtful whether corporal punishment would, as in Russia, prove a positive necessity in any Army composed entirely of the same materials as our own, and that if we have been able to dispense with it, it is because those materials happen to be better than the same materials elsewhere. The inapplicability of foreign institutions to ourselves is a point, however, which seems entirely to escape those reformers who, in their frenzy for transplanting exotics to an alien and reluctant soil, remind us so forcibly of that unfortunate visionary Louis XVIII. of France, when in the Hartwell, he fascinated himself with the image of a whole House of Peers, Commons, and other Constitutional paraphernalia, restoring peace and order to Republican France!

"Promotion from the ranks is just one of those cries which receive their chief stimulus from the success which, under exceptional circumstances and conditions, they may attract. The great French Revolution undoubtedly afforded scope for the free display of a vast amount of military capacity which, under a feudal system of suppression, had been hidden from the light of day. On the dissolution of the *regime* the concentrated force burst from its bonds, and separated into fragments of brilliancy which, at all points of the Empire, became centres of light and victory wherever a French Army was assembled. Napoleon's staff of marshals was the exuberant fruit of this emancipation, and the delivery of talent produced a superabundance which filled the world with its fame. From that marvellous eruption, the like of which has not been witnessed since, dates the principle of promotion from the ranks which has been the system in the French Army, and which has, nevertheless, been productive of more military incapacity than could be expected after its astounding success. This cause we consider to be evident, and deserving of the gravest consideration by those who advocate the application of the principle to our own Army. A rule which is perfectly good in itself—as we hold our system of officering the Army to be—is capable of being advantageously broken, but the beneficial violation of such a rule proves nothing against its wisdom or utility. The elevation of exceptional talent from amongst the ranks to a position of command is attended by the best results, but promotions which lack that qualification, whatever others they may possess, are devoid of the only recommendation which can counterbalance the drawbacks of the system, and herein, we think, lies the cardinal defect of the French practice. The principle is disadvantageous, the exception is fraught with advantage. In an Army like our own, where promotion from the ranks is the exception; and not the rule of the Service, undeniable military capacity stands no more risk of being excluded from advancement than does talent in any other profession or calling of life. The point need no oil or discussion inasmuch as the British Army is not without brilliant instances of the elevation of private soldiers to high commands; but is promotion from the ranks the best method of officering the Army, and would it or would it not tend to promote greater efficiency of the whole? To both questions we offer, in the present condition of things, a decided negative. Putting aside the question of a special genius, which has been assumed to be altogether out of the discussion, and dealing with promotion under such a system as the reward of character, efficiency and personal worth, it seems obvious that the mechanical instincts of the soldier, developed by the machinery of drill and untempered by education (we speak of the Army as a whole) qualify him to be led, but absolutely disqualify him to lead. Expansion of mind and knowledge are essential to command, and to the attraction of respect from those commanded; for, though healthy activity of mind and no efficient control where there is a deficiency of education. The incapacity of the French officers is, it has been alleged, and not without reason, assignable to this very cause. Soldiers to be efficiently led must be led by men whom they can both respect and trust, and the influences antagonistic to such a relation would by systematic promotion from the ranks be manifold. A constant jealousy of selection and consciousness of equality would ensue, and either that familiarity between officers

and men which, as in France, is wholly destructive of discipline, or the tendency to tyrannise, which is characteristic of very many who are raised from their fellows to a command over them. A soldier, who was once asked to express his choice between promotion from the ranks and the existing system candidly declared for the *status quo* on the very reasonable grounds that sergeants were always down upon the privates for trivial matters which were altogether outside the legitimate region of control, and concerning which officers were generally ignorant and always indifferent. None delight so much in exercising the petty privileges of power as those who have been subjected to it and are greedy of possessing it. Every one who knows anything of the British Army, is willing and eager to admit that the non-commissioned officers are the backbone of the force, and it is their untiring zeal, efficiency, and pride of rank, which make them so; but, apart from the reasons which we have assigned as barring the way to their admission into the higher ranks, will any candid mind assert that with all their worth, they are the men that the army would prefer to follow, and to whom it would offer its most ready allegiance? Again, if the upper and middle classes are to do any fighting at all under our system of voluntary service, it is clearly in the officers' ranks that they must be found. High personal character, good social position, and superior attainments, in a sense, other than professional, are important *desiderata* for officers of an army like our own. The two latter qualifications are not to be looked for in the ranks, yet without them it would be difficult to ensure to officers that moral influence over men which, we repeat, is indispensable to that discipline and mutual confidence which the French so deplorably lack. Genius is the only other means that we know of to the acquirement of the ascendancy of the leaders over the led, and it is unnecessary to add that genius, whether for war or peace, is too rare to be admitted into the calculation. We may be perfectly sure it would never be overlooked.

"But whilst it is thus easy to cite objections to promotion from the ranks in the case of our own Army, it is well that those who believe in the system should be aware of its restricted operation in the country of its origin. In an official statement issued by the French War Office, it appears that out of a total of 314 generals, only 18 generals of division and 32 of brigade were promoted from the ranks, the remaining 262 having come either from the Polytechnique or from St. Cyr. Truly a marvellous decline! and one which may be expected to fall still lower after the sad experience of the system as a system in recent years. With a higher standard of national education it is possible the day may come when the great objection to promotion from the ranks would be removed; but our army would assuredly in such an event be other than it is, for we hold education of such a character as would justify it to be wholly incompatible with our system of service. The lapse into the German principle of service would be unavoidable. We are sanguine that the moral and discipline of the Army would be irretrievably injured by an attempt under existing circumstances to alter the method of offering it; and with these few observations we are compelled to conclude for the present our comments upon a subject which has of late engaged the paternal attention of more than one zealot in the cause of Army Reform."

We have to thank the courtesy of Lieut. Colonel E. RICE, United States Army now stationed at Fort Leavenworth, Kansas, the talented inventor of the "Rise Torpedo Bayonet" and author of the Formulae for its tactical application as well as of a very valuable pamphlet on "Rapid field fortification for Infantry" also the inventor, of "hooks, hook bands, and hook swivels for attacking rifles, muskets and carbines" as well as author of a pamphlet descriptive of their use for a copy of a "Collection of Tactical Studies," by Major WYLLIS LYMAN of the United States Army. This valuable contribution to military literature consists of an "Introduction" by the author, in which he crystallizes the following: "Infantry tactics in detail from the French of Captain EMILE PORTIER, the German Company column, and Autumn Manœuvres for 1873.

"English formations for attack."

It is at present with the "introduction" which we shall deal and heartily join in the desire of the author that it will "direct the attention of young military men to the comparative study of the tactics of the Field of Battle," and certainly when that study is presented the attraction as well as pleasing style of his little brochure we would not give any officer credit for literary taste on whose mind it would not make a favorable impression.

Major LYMAN lays down as an axiom that "Tactics is a science whose principles are fixed and immutable, but in the application of those immutable elements to new conditions no applied science is today in a state of more active transition and development." In the service to which the gallant author belongs there has been a recent revision and assimilation for all arms" founded on the necessity for constant tactical change, and the fact that in all armies "*Infantry*" is the principal arm, that all others should be assimilated thereto, and that the successful application of what may be called the whole machine depends almost if not altogether on the perfection of such assimilation. In order to arrive at this point the drill or parade movements are confined as nearly as possible to those finding practical application in war," and should consist of:

"1. Movements to reach the field of action.

"2. Means of massing and deploying for action.

"3. Movements of attack while yet beyond or at long range."

In connection with this is what may be called the modern order of battle. "The single rank formation," necessitated by the range and precision of modern small arms, and our author lays it down as a rule that "In the offensive we should have all the rifles in action and no more which from the nature of the ground can be brought effectively into play," this can be attained by assigning "one man to every pace

and a half of the front of attack. In this connection the recommendation of General Sir F. TUNSTON, which has already appeared in the *Volunteer Review*, is noted, and Major General MACDONALD'S rules "*Infantry must advance under fire in open formation.*"

"The same Infantry which has so advanced must be able to resume instantaneously and without confusion their normal close formation before collision" is quoted. The rules adopted by the United States military authorities are as follows:—

(a) "The front of battle of any tactical unit shall always bear a fixed proportion to the number of its component files.

(b) "When men are launched against an enemy in whatever formation the action of each individual man shall be directly to his front.

(c) "If an engaged line requires to be re-enforced it shall be re-enforced directly from the rear.

(d) "If an engaged line requires to be prolonged to a flank this shall be accomplished by fresh troops from the rear prepared for such eventuality, so that the men employed to prolong such line may themselves act individually to the front.

(e) "That the main line of battle in attack however formed shall invariably be preceded by skirmishers.

(f) "A company advancing under fire in open formation shall be so many lines deep, that the front covered by the open formation shall be the same in width as that covered by the company in its usual close line formation."

"The single company is taken for convenience of illustration and the principle may be extended to a front of attack composed of any number of companies."

Major LYMAN had previously pointed out the danger of extending to a flank, under fire, the method of extension from the rear in a great measure obviates the danger arising. Since publishing this pamphlet the gallant author has had the opportunity of practically testing the value of the rule as laid down in the *United States Army and Navy Journal* of 31st October, under the caption of "A Fight with the Comanches and Kiowas"—is a despatch from Major LYMAN detailing a hard fought action with those savages which will be read with interest, especially as the opportunity has been afforded of testing the value of the *Terraille* system or rather formation, and it appears to have answered all ends claimed for it.

We cannot part with our gallant author without expressing a wish that his little book will obtain the full consideration it so richly merits, and we should like to see it in the hands of all our officers capable of appreciating its contents. As an exposition of applied tactics it is the best we have ever read.

The second division of Colonel STRANON'S valuable "Artillery Retrospect," is occupied with the subject of "Sieges and the Changes produced by Modern Weapons" he had previously shown the great effect small fortified places "on a strategic line of road or railway" incapable of producing although in the case under consideration they had been fortified to the requirements of an age when effective artillery practice was limited to one thousand paces and masonry to one hundred. The lesson is not without its value and the lecturer has not failed to turn it to good account at the close of his very valuable pamphlet.

Siege operations are divided into investments, bombardments and regular sieges, starting from those principles we are told "the primary object of fortification was to enable the few to hold their own against the many, the weak against the strong, to prevent surprise and gain time for organized defence. Before the days of artillery massive continuous walls protected unwarlike citizens from the sudden incursions of fierce foes. The great wall of China against the Tartars and that of Agricola to keep out the Picts and Scots, the walls of Babylon and others were of this character. The besiegers raised a large mound of earth to command the walls and surrounded the city with lines of circumvallation to confine the garrison.

The weapon for attack in that age was the battering ram, "a large beam sometimes 100 feet long suspended by ropes"—it acted in a similar manner to a cannon ball—by impact—with this difference that "the force of gravity was in suspension, the weight was enormous, the velocity being low compared to the 1,300 feet per second of a projectile from a rifled gun. The vibration produced by the quick succession of blows on the same spot produced the same results which in modern days are effected by breaching batteries at long range."

"The first step in defence against the battering ram was a ditch which prevented the engine being brought near enough to the walls, and the counter step of attack was to descend into the ditch by excavating a covered gallery mining under the walls, and supporting them by beams of timber which, when set fire to by the besiegers, crumbled away and caused the fall of the unsupported wall. The defence against this species of attack led to the match coat gallery a projection of the upper part of the walls.

"There was spica in the floor of the projecting matchcoat which enabled the besiegers to pour melted lead, boiling water, stones and arrows on the assailants at the foot of the wall."

The development of VARRAN'S system of bastioned flanks was from the projecting towers necessary for flank defence at the corners of the walls, and as the powers of artillery were developed it became a matter of necessity to cover the wall with earth, to

give the whole such a trace that every part could be seen and flanked by some other part" so that when the great engineer VARRAN had completed his first system it became a matter of necessity to find means of attacking it,—this he effected by introducing the system of enfilade ricochet fire at the siege of Ath in 1697—and as it may have been a cause for wonder as a reason urged against fortified places in modern warfare to find the Prussians in every case capturing after a more or less prolonged investment and attack, Strasbourg, Metz, Thionville, Toul, New Brusaeh Schelstadt, Sedan, Paris and Belfort fortresses, with all the advantages the systems of the great military engineer could impart. Colonel STRANON at once shows the reason why "the fall of the French fortresses is attributable to many causes which may seem far fetched to you for instance the geological formation of the Paris basin which repeats itself at Sedan, Thionville, and elsewhere. These valleys caused by the confluence of rivers as before remarked, the consequence of roads and the growth of towns to be in the future fortified by VALBAN. The diameter of these basins were so large as to render the surrounding hills unavailable for the old artillery attack, not so for modern gun whose fire commanded and could converge upon the helpless towns."

In this paragraph the major cause of French failure and German success is crystalized, and it is pregnant with meaning to us as well as other people. The details of the operations before those places are most interesting and I should be chiefly studied by the artillery officer, in fact they are not without instruction for any reader, there is an entire absence of technicalities and the whole subject is made plain to the most ordinary understanding.

The gallant Colonel with his large practical experience is in favor of what may be called the "Moncrieff" system of defence," with which the readers of the VOLUNTEER REVIEW ought to be familiar, and it is notably the best adapted to the requirements of modern artillery as well as most likely to effectually subserve the ends of defence, viz., to protect life and property without unnecessary risk, and that can only be done by keeping the *enfilade* of the fortifications at such a distance from the place fortified as to preclude the possibility of the assailant's fire reaching it.

The inspection and presentation of Prizes to the Governor General's Foot Guards took place in the Rink Music Hall, on Thursday evening last, the 26th ult. The Guards turned out in full force, looking neat and clean, and fell into rank at the word of command with the alacrity and precision of old soldiers. The men were attired in the regular order, and presented an exceedingly fine appearance, their arms and accoutrements being in perfect order, and their

general physique eliciting frequent complimentary remarks. At 8.30 the inspecting officer, Major General SMYTH, accompanied by his aide-de-camp, Captain Miles Stapleton, Colonel McPherson, Colonel Au non, and Colonel Davis, of Toronto, entered the hall, and were received with quite an ovation, the band playing a lively air, and the men presenting arms. The Major General halted near the door, shaded his eyes with his hand, cast a comprehensive glance over the corps, and then remarked—"a fine body of men." The Guards were then ordered to fall back and form a solid body on the west side of the hall, leaving an open space in front. The prizes won by the members of the corps at the late rifle meetings were then awarded by the Major General, in the presence of the regiment. Col. Ross in a few introductory remarks explained the object of the presentation and the manner in which the prizes had been won. The names of the lucky winners were then called out by Colonel Ross, and each man stepped forward from the ranks to receive his trophy from the hands of the Major General. The presentation of each prize was accompanied by a few valuable words of encouragement and praise, and every man as he received his several rewards, after making the proper salute, returned to the ranks, and his place was filled by the next lucky man.

THE PRIZE LIST.

MATCH NO. I.

Association match, open to all members of the Guards Rifle Association. Rifle, Snider Enfield, Government issue. Range 200 yards; five rounds. Entrance free. First prize, silver cup presented by Lieut. Stewart.

Prizes.	Winners.	Value.
1...	Col Sgt Jos Cairns.....	\$30
2...	Pte Gray.....	12
3...	Capt McPherson.....	8
4...	Pte Turcop.....	6
5...	Corpl Clayton.....	4
6...	Sergt Sutherland.....	3
7...	Corpl Deslauriers.....	4
8...	Pte A Cotton.....	2
9...	Corpl Reardon.....	3
10...	Pte R B M Ewan.....	3

MATCH NO. II.

Volunteer Match, open to all efficient volunteers. Rifle, Snider Enfield, Government issue. Ranges 300 and 500 yards; five rounds at each. Entrance, twenty-five cents. Efficiency as in Dominion of Canada Rifle Association matches. Cup, presented by Ensign Bate.

The first prize in this match was won by Lieut. Harris of the O. B. G. A., and consequently was not presented last evening.

Prizes.	Winners.	Value.
2...	Corpl Deslauriers.....	\$8
3...	Pte W Wait.....	6
4...	Pte K Graham.....	5
5...	Capt McPherson.....	4
6...	Col Sergt Joseph Cairns.....	3
7...	Pte Symes.....	3

MATCH NO. III.

Regimental match, open to all officers, non-commissioned officers, and men of the

Governor General's Foot Guards.

Prizes.	Winners.	Value.
1....	Pte Throop.....	\$10
2....	Pte Gray.....	20
3....	Corpl Clayton.....	32
4....	Pt K Graburn.....	12
5....	Sergt Sutherland.....	8
6....	Pte John Heron.....	7
7....	Capt Macpherson.....	5
8....	Lieut Todd.....	4
9....	Col Sergt Jos Cairns.....	3
10....	Capt Walsh.....	2

MATCH NO. IV.

The Governor General's prize: A silver medal to be competed for by all winners of prizes who are members of the regiment. Rifle, Snider Lofield, Government issue. Ranges 500 and 600 yards; five rounds at each. Entrance free. 1st, Private A. Cotton, No. 1 Company, 37 points.

EXTRA PRIZES FOR BAND.

Ranges 200 and 500 yards, five rounds at each. 1st prize, satchell, by Mr. Holbrook and \$5.

Prizes.	Winners.	Value.
1....	Sergt Elliott.....	\$10
2....	Bandsman Hounsell.....	5
3....	Sergt Brewer.....	3
4....	Bandsman Stevens.....	2
5....	Bandsman Connor.....	2

EXTRA PRIZES FOR FIFE AND DRUM BAND.

1st Prize, Drummer McQueen.....\$5
2nd do Fifer Macpherson..... 3
3rd do Bugler Gavin..... 2

AGGREGATE PRIZES.

For the best aggregate score in matches 1, 2 and 3, silver badge of O.R.A. and \$20, 1st, L. Corp. Throop, No. 1 Company, 103 points.

For the second best, cup, Surgeon Malloch. \$10, 2nd Private K Graburn, No. 2 Company, 100 points.

PRIZES WON AT THE DOMINION OF CANADA MATCHES.

First stage, all comers' match—12th prize, Sergeant Sutherland, \$10.

First Stage, Dominion of Canada match—4th prize, Sergeant Sutherland, \$10 and badge.

Affiliated association match—11th prize, Sergeant Sutherland. \$10.

J. H. Steward, Optician, London, prize—1st prize, Sergeant Sutherland, "Binocular field glass.

Highest aggregate scores—1st prize Sergeant Sutherland, \$75 and the medal of N. R.A., England.

Register keepers' match—1st prize, Lieut. Patrick, \$20; 2nd do, Capt. Walsh, \$10; 4th do Corpl. Elliot, \$5, 5th do Surgeon Malloch, \$5.

After the prizes were all distributed Major General Smyth addressed the regiment collectively as follows:—"I have very great pleasure in seeing such a fine body of promising young soldiers as are now before me. I would first say a word to those who have proved successful and to whom I have had

the pleasure of distributing the handsome prizes. The best test of a soldier, next to obedience and discipline, is to thoroughly understand how to use his rifle when loaded with ball cartridge. I hope, if it should be my duty and good fortune to preside at a similar ceremony to this, and a great many of those who have been unsuccessful this year will come to the front rank and obtain prizes next year. It is only by patience and perseverance combined with discipline and instruction that a man can hope to maintain proficiency in a soldier's life. I congratulate you Col Ross, officers, non commissioned officers and the men themselves, upon the very creditable and efficient appearance of the battalion. Their clothing, accoutrements and arms are all in very good order and carefully attended to. I am very much pleased to see such a fine body of soldiers as the Governor General's Foot Guards. I regret that I have not had the opportunity of seeing them by daylight and putting them through a few evolutions to see their field movements. It is rather difficult to see them by the dim light of the lamps. Should occasion arise I have no doubt every one of these promising young soldiers will come forward with alacrity and rally round the viceroy of Her Most Gracious Majesty. (Applause). At the conclusion of the speech the officers and colors were ordered to the front and were inspected. The band then gave some selections, after which the parade was brought to a close.

The following is

THE PARADE STATEMENT

Under arms, six staff officers, fourteen company officers, sixteen sergeant, 199 rank and file, five buglers, nine staff sergeants, two orderlies, forty nine musicians.

Absent without leave.....	24
Sick.....	16
Total actual strength.....	340
Wanted to complete.....	15
Total nominal strength.....	355

Lieutenant Colonel Thos. Ross, Major White, Captain and Adjutant Walsh, Surgeon Malloch, Quartermaster Grant (late Captain 100th regiment), Assistant Surgeon Bell.

No. 1 Company, Lieut. Todd, Ensign Major (colors)

No. 2 Company, Capt. McPherson, Lieut. Patrick, Ensign Bate (colors.)

No. 3 Company, Captain Filton, Lieut. Aumond.

No. 4 Company, Lieut Danlevie, Ensign Fleming.

No. 6 Company, Captain Lee, Lieutenant Stewart.

Paymaster Wickstead, confined to the house with a broken arm being the only officer absent from the parade.

Thirty two of the Turks charged with the recent murders of Montegrans in the province of Albania, have been convicted, and each sentenced to twenty years imprisonment. This punishment, it is considered is too light for their offence and leniency of the Turkish authorities have produced a bad impression in Montenegro.

The N.Y. Times gives a history of the island of Formosa, and the origin of the dispute between China and Japan concerning it: Formosa, one of the largest islands in the Eastern seas, is nominally a political dependency of China. It was discovered and colonized by the Chinese as early as 1430, though the merit of the first named exploit is not specially conspicuous, inasmuch as the peaks of the island are visible from the mainland on any clear day. The Portuguese traded with the natives in the fifteenth century, and gave the country the name 'Beautiful Island,' by which it is better known in their language than by the original title of 'Tai-wan, or "Great Bay," bestowed by the Chinese. A Viceroy, whose principal vocation was to squeeze taxes and tribute from the colonists, went to Formosa from Peking once a year. But, of late years, the viceregal visit has been intermitted, and the colonists who live in a few inconsiderable coast towns—Tainanfoo, Takow, Tam'sai and Kelung—govern themselves, being unmolested by the semi-savage aborigines who inhabit the mountains and eastern coasts. The original inhabitants of the island resemble the Malays; they are savage, cannibal and inhospitable. Chinese and Japanese vessels wrecked upon the island are destroyed, and the crews are massacred, if not also eaten. The coast being dangerous and swept by monsoons, the number of junks annually cast ashore is said to be very great—to the manifest satisfaction of the original Formosans who are altogether bad men. To punish these barbarians, and if possible secure protection to the shipwrecked marines of all nations, the Japanese Government has undertaken an armed expedition to the island. The war junks of ancient Japan play no part in this naval raid; it is conducted wholly by steam vessels, bought or chartered by the Government, and built after approved European or American models. These "fire ships" seem to have alarmed the Formosans, and late accounts say that they fled to their fastnesses in great terror. Admiral Peronok, in a communication to our Government, says the Chinese Government which still retains a feeble hold upon Formosa, has ordered the expeditious forces to leave. Further more it is said that the Peking Government has vigorously remonstrated against the prosecution of hostilities in Formosa, and has given a warlike notice to Japan. There is prospect of war, and both parties are said to be actively preparing therefor. This was anticipated by our Government; and Minister Bingham solemnly warned Americans in Japan against engaging in the expedition, which was notoriously against a Chinese province. Notwithstanding this notice, Gen. Le Gendre, formerly United Consul at Amoy, and a United States officer, Lieut. Cassel, of the Navy, went on the expedition. We do not anticipate, however, that any serious difficulty will arise from this little unpleasantness. China is in a torpid condition. Province after province has slipped out of her possession; Formosa has been semi-independent for a hundred years past. The wide-awake Japanese have attempted to chastise the people in the interest of humanity. China could not do it. The world will be glad if Japan can.

An international exhibition is to be held in China, and a committee has been formed at Shanghai for the purpose of organizing it. All charges of transport will be defrayed by the committee.

THE BEAUTIFUL GATE OF SLEEP.

The beautiful Gate of sleep is barred !
 Oh, Angel within !—
 The pannels of pearl with diamonds starred,
 Give back no sound to my feeble knock ;
 I have no key that will turn the lock !
 How long must I wait ?
 Oh, evermore and forevermore
 Must I stand at the Beautiful Gate ?

My garments are thin—my sandals worn ?
 Sweet Angel within !—
 How piercing the blast—how sharp the thorn !
 The night is cheerless ! the wind is wild !
 My bruised heart sob-like a litful child !
 How long must I wait ?
 Oh, evermore and forevermore
 Must I stand at the Beautiful Gate ?

If I were a queen I'd give my crown,
 Oh, Angel within !—
 Or fined, I would lay my laurels down ;
 Or rich, I'd yield that my treasured gold ;
 For thy sweet shelter from rain and cold !
 How long must I wait !
 Oh, evermore and forevermore.
 Would I pass through the Beautiful Gate ?

TORPEDOES AND IRONCLADS.

(Continued from Page 560.)

The "moored concussion" is exactly similar in its arrangement, singly or in nests to the "electric moored" torpedo, and when fitted with the Austrian, Singer's, the chlorate of potash, or other of the many good exploding contrivances, is a very dangerous affair to meddle with even for its owners.

We have next the "moving electric" or "Lay" torpedo, which from the ease with which it can be managed, the perfect manner in which its attack can be managed, the perfect manner in which its attack can be directed against any part of an enemy's ship, at any distance within the range of vision, and the certainty with which the immense explosive charge which it carries can be detonated, is rendered one of the most useful forms of torpedo for the permanent defence of harbors. Its disadvantages are in the difficulty of its transportation on account its size and weight, and the disarrangement to which its interior would be liable—rendering a certain amount of mechanical skill necessary after relaunching it, in order to prepare it for reliable use. Its great cost is also another point against its exclusive use, while the fact that its approach is made only partially submerged, and its slow rate of speed (seven to eight knots) are also to be considered in using it against fast vessels. The fact that it can be made to dive at the will of the operator can only be looked on as a peculiar advantage when combined with the power to make the dive at the proper moment, and to the desired depth, otherwise there would be danger of diving under the object to be attacked, and thus miss it altogether.

Notwithstanding these disadvantages—the greatest of which is its want of speed, which would enable any moderately fast vessel of war to escape it in a broad channel—it can be made, in combination with the other systems, an invaluable aid to harbor defence.

Among the most remarkable of the improvements in torpedoes, is the invention of Mr. Robert Whitehead, called the "Whitehead Lappin fish torpedo." The merits of this invention consists in its ability to run under water at any desired depth, its rate of speed 600 feet at the rate of eighteen and one half knots per hour, and one mile at the rate of eight and one half knots per hour, and its ability to carry an explosive sufficient to shatter the bottom of the strongest iron-clad. The size of this

machine and its light weight offer every facility for its easy and rapid transportation—which can be performed either by boats or overland by carts—while undistinguishable manner of its approach and the depth below the surface at which it attacks, render it, if properly directed, an irresistible adversary. The small cost of the secret, about one third that originally demanded for the "Lay" patent, and the equally small comparative cost of the machine itself, would seem to recommend it to any government desirous of securing a cheap and effective offensive and defensive weapon. For a coast defence it is simply incomparable—for the ease with which it can be transported from point to point to meet or make an attack, and also for the facility with which it can be manipulated, either from a small row boat, a launch, or even a cart, arranged to run into a certain depth of water for launching it. Aidea of the importance attached to this weapon by European officials may be formed from the fact of its purchase, under extraordinary conditions of secrecy, by the governments of Great Britain, Austria, France, Italy, and that of the German Em, i.e., a large number of the improved machines having been ordered by the latter government at a very recent date; and it is to be hoped that no "mistake of policy" or economy will prevent Congress from appropriating a sufficient amount to enable our intelligent officers of both services to become acquainted with this secret. Our machine shops at Washington and Newport offer every advantage for the construction of the machine at a reasonable cost, and with an expenditure of far less than the cost of a first class iron-clad—in these respects alone—the combined iron clad fleets of the world would find it exceedingly difficult to hold any offensive position along our coast, while their attempt to enter any port defended with these admirable machines, would simply result in destruction to a large number of vessels.

The weak point in this system of torpedo, as in that of the floating concussion torpedo, is its independence of human control after being once shot out from the launching tube, and its subjection to the action of currents, eddies, and other obstacles to its pursuit of a straight line course—a deviation from which would make it equally dangerous to friend and foe, when employed in connection with ships, for harbor defence.

In the quiet water of bays, or in that of the open waters of the ocean, the machine can be directed to its objective point, at very nearly its greatest range, with the same certainty as a projectile from a gun; but when employed in rivers, or channels, the position, direction, and strength of the currents and eddies which it has to cross, must be thoroughly well known, so that proper allowance may be made for them in the pointing. In such cases as these it will, of course, be necessary to launch the torpedo from a point as near as possible to the object to be attacked, so as to avoid in the greatest degree the deflecting causes.

In ordinary regular currents or tides there will be no difficulty whatever in ascertaining by experiment the exact amount of deviation allowances necessary, to strike a vulnerable spot in the bottom of any vessel of two hundred and fifty or three hundred feet in length, at a distance of four hundred yards; and as the rate of speed of the vessel would have to be considered in the allowances, it would be necessary to launch two or more torpedoes at different angles so

as to make sure of her, and in such case there would be very little chance of her escaping uninjured; but in the event of such escape, the ingenious arrangement by which the torpedo is made to sink to the bottom at the end of its run, would deprive the enemy of any benefit which he might derive from its capture, and would at the same time leave the locality free from danger for the operations of the assisting ships. This is an advantage which the Whitehead fish torpedo enjoys over the "Lay," fitted as concussion, and the "floating" and moored concussion torpedoes, and will be of immense importance to the commanders of ships, assisting in the defence of a port. Of course the "electric moored" torpedo possesses the same comfortable feature, as unless the battery is "connected up" there can be no desirable explosion.

Another invention which promises to add a formidable weapon to naval warfare uses, is the moveable torpedo worked with tubular cable; this is still being experimented with by its distinguished inventor, Captain John Ericsson, and consequently few details have as yet been published; it has, however, a satisfactory speed, is capable of being steered and of being made to dive; not being required to carry its own motive power, it has space for a very large explosive charge.

From the foregoing considerations, with a combination of the different systems of torpedoes, *ad hoc*, i.e., the "moored electric" and the "moored concussion," planted in groups and singly, and with the "Lay," the Whitehead, and the floating concussion, as reserves to be used in the case of the failure to explode of the groups or single moored torpedoes, or in case any vessels might escape the explosions of the first, it is evident that any one of our sea ports could be perfectly well defended against any fleets which could be sent against them; while with the "Whitehead" portable torpedo, furnished in proper numbers, at different points along the coast, the rendezvous of an enemy's fleet at any point along it would be accompanied with great danger to his ships.

From an economical point of view, and also to avoid the possible return of a national humiliation like that inflicted on us by Great Britain, when the President of the United States—like Joseph of old, before Potiphar's wife, fled partially uncovered, from the national capital, leaving it, like the portion of the said Joe's raiment, in the hands of the assailant—let our national representatives, instead of voting millions for the construction of yacht sloops to carry nine inch pop guns, and furnish subjects for international ridicule and amusement, devote one half the sum to the purchase of the best known systems of torpedoes, and to the provision of such a store of the same as will enable our Army and Navy to thoroughly defend our harbors and the water approaches to our national capital and our great ports, against the attacks of even the greatest ironclad monsters now so plentiful in European navies.

Some attempts have been made to introduce torpedoes into the armament of ships of war, but beyond the English "Harvey" (towing torpedo), and the "powder on the end of a pole," etc., with which the commanders of ships of war of the United States are sometimes wont to amuse foreign officials, and frighten the fishes by throwing up huge columns of water into the atmosphere little headway has been made. The Austrian and English governments have gone

so far as to fit up gun boats with "launching tubes," from which to discharge the "Whitehead" torpedo. With what success is not known, as all the experiments with that weapon are conducted with the greatest secrecy. But until some equally powerful, but less dangerous explosives than dynamite, or nitro glycerine and gun cotton are discovered, there is not much probability of these weapons forming part in the equipment of a regular fighting vessel of war.

Finally, let us cast a glance at the expensive system by which Great Britain hopes to preserve her marine supremacy, and we shall find that their latest armored ship, their "ne plus ultra" of naval construction, the *Devastation*, with even thirteen or fourteen inch plating, can be pierced by the 12 inch steel shell, which, once within her turret or case mate, and exploding with the force belonging to a bursting charge of 30 lbs. of rifled powder, would produce the most disastrous effects amongst the gun's crews, while the explosion of any torpedo carrying fifty pounds of dynamite, under her bottom, would so shatter it as either to sink the vessel or to render her in a great degree unserviceable. Now the probable cost of a vessel of this description would be some £600,000 (about \$3,000,000), and for this same amount of money there could be built, at the very least, three powerful wooden frigates or sloops, with much finer lines, smaller in dimensions (not having to support the great weight of armor), and yet carrying engines of the same horse power, and consequently capable of increased speed, and also of being armed with the 12 inch guns, which are now found to pierce easily this, formerly impenetrable class of vessel. With the increased speed of these vessels would be joined their ability to seek or to avoid a contest, to choose their position, which, in attacking an iron clad, would, of course, be sufficiently near to enable them to penetrate the plates of the enemy, and explode their shells invariably in the interior of his casemate, while the rifled shells of the iron clad would, in all probability, pass through the wooden sides of her antagonist, as through pasteboard, the constant change of distance between the two ships rendering any certain destructive arrangement of her fuzes almost impossible.

The addition of powerful rams to the bows of these vessels would enable two of them to cope with the iron clad, with a very prospect of success; and we should thus have the anomaly of one half the expenditure in money producing greater effect than that of the whole. Notwithstanding all that can be said in favor of the economy and other probable advantages of the wooden constructions referred to, it cannot be denied that in combats between single ships, the armor plated vessel will have the advantage over her wooden adversary, consequent upon the greater number of effective shots which she will be able to score at all angles of impact; while those of the wooden ship would require to be planted at or very near right angles, in order to ensure penetration and consequent destructive effect; and is probably from this point of view that the British Admiralty consider it necessary to continue construction of this class of vessel in its strongest form, in order to continue the naval supremacy of its nation, and its consequent greatness in any struggle which may arise with a power provided with armored vessels. The United States, on the other hand, possessing no outlying provinces, and its strength not being de-

pendent upon its naval power, can very well dispense with such vessels; but, in their stead, our Navy should consist in a large degree of the effective class of vessels already mentioned, whose power should be such that an injudicious attack on one of them would be a very serious matter even for an iron clad. W. A. K.

BOYTON AT SEA.

The Cork, Ireland, correspondent of the *N. Y. Herald* gives the following description of Captain Boyton's adventure with his new ocean life preserver:—

"When it was announced in the city this morning that an American seaman had in the gale of Tuesday night jumped overboard from a transatlantic liner and, after swimming for seven hours, had landed on the Skibbereen coast, people, while quite prepared to give Americans credit for doing big things were yet unprepared for such a demand on their credulity as this. The thing, however, was done, and the hero of it was Captain Paul Boyton, of the New Jersey Lifeguards, Atlantic City. This gentleman, a professional diver of well known daring, left New York about a fortnight ago in the National Company's steamer *Queen*, taking with him a patent swimming costume. It was Captain Boyton's intention when from two to three hundred miles distant from New York to jump overboard and swim back, but the commander of the steamer was a man of little faith and vetoed the experiment. Captain Boyton had therefore to remain an involuntary passenger until the vessel approached the Irish coast on Tuesday evening, when the commander, having been repeatedly importuned, gave his permission. Captain Boyton drew on his India rubber air tight suit and inflated the air chambers, in his air tight sack he placed food for three days, a compass, a bull's eye lantern, some books (just to beguile the time on the water,) signal rockets and a United States flag. In his inside pocket he placed a mail which the passengers had given him to post, he strapped his bowie knife and axe to his side and grasping his paddle was lowered into the water, amid the cheers of the passengers, at half past nine p. m. It was a wild, dark night, he was close to Fastnet rock, with Cape Clear three miles from him, and Baltimore, toward which he intended to make, was in a direct line seven miles away. He lay on his back paddling vigorously, and now the lights of the vessel were lost in the night. In a quarter of an hour more his spirit almost quailed, when tossed high on the crest of a wave he could no longer see the coast line or any lights. The wind blew, the rain poured down and the tide set against him. He was drifting out to sea, and, to add to the awful loneliness of his situation, and to increase the dreadful peril, a violent gale commenced. That night for many hours no mailboat crossed the Irish channel, and great destruction was done on the coast. And through these awful hours of darkness this man was tossing about at the mercy of the waves some fifteen miles from land. The wind was so violent that he had to give over paddling, and with one hand to shade his face (the only part of his body exposed, from the cutting blast. Once his paddle was wrenched away by a heavy sea, but it fortunately came into his hand again. For several seconds a wave would completely submerge him, when he would shoot on to the crest and take breath before he again was hurled down a sloping

mass of water which seemed 100 feet to the bottom. As a result of this tossing he became seasick, a thing, he says, which never happened to him before. His indomitable spirit, however, conquered everything, and about one o'clock the wind began to blow directly onshore. His paddle was plied vigorously, and at three o'clock on Wednesday morning he perceived he was near breakers, and the rock-bound coast west of Skibbereen loomed up before him. His danger now was not less than it was during the height of the gale, for as a wave would raise him almost on a level with the cliff tops he could discern nothing but a threatening wall of rock. He made his way along parallel to the coast, and fortunately lighted upon almost the only safe landing place for miles round. He saw an opening in the cliffs and propelled himself cautiously towards it. While hesitatingly examining the entrance a sea struck him, carrying him on; another and another followed in quick succession, and, in an almost senseless state he was hurled high and dry upon the beach. It was then four o'clock in the morning, and he had been nearly seven hours on the water, traversing a distance of thirty miles. The apparatus had behaved admirably, and having divested himself of it he stood quite dry in his navy uniform, which he wore beneath. That having been done he let off one of his signal rockets without effect. It showed him, however, a narrow path in the rocks. Up this he clambered and got on to a mountain road, which brought him to the coast guard station. He was hospitably received there and discovered that the place he had landed at was Trefaska Bright, some miles east and south of Baltimore. During the morning he reached Skibbereen and posted the letters entrusted to him, and arrived in Cork on Wednesday night, where he is now the hero of the hour. On Monday he intends to swim out of Queenstown harbor some distance; that will be followed the week after by a little swim across the Straits of Dover, towed by a kite; and to cap all, on his return to the Straits he intends to carry out his original idea of jumping overboard at 250 miles from land and swimming to New York, or Long Island. After his achievements in the gale on Tuesday night these last named experiments, startling as they seem at first, can not be regarded as impossible."

An interesting experiment, says the *Portsmouth (England) Times*, will shortly be made in Portchester Lake in connection with submarine warfare, to which great attention is being paid at present. The object on which the experiment is to take place has recently been constructed in this yard. It consists of three blocks of timber, or rather of numerous planks bound together with iron bands to represent solid blocks, each between 20 and 30 feet in length. Between each there is an interval of three or four feet, but they are all connected by several coils of wire, twisted into one which runs through the centre of the whole and out at each end. The whole construction will be placed a few feet under water and moored at each end. Underneath gun cotton will be laid and exploded, the object being to ascertain the strain it will successfully resist. It is intended, we believe, to be placed across the mouths of harbors in time of war, to prevent an enemy's ships entering, and to the passage of which, it is believed, it would act as a formidable barrier.

MITRAILLEURS IN FORTRESSES.

A well known and somewhat eccentric writer of the present day, declaiming in picturesque language against modern war, describes it as scientific war—chemical and mechanical war—war in which masses of men are taken away from all industrial employments, and provided with destructive machines, varied daily in national rivalry of inventive cost. Such war, he declares, is worse than the poisoned arrow of the savage, but he ends by acknowledging sadly that the progress of science cannot, perhaps, be otherwise registered than by new facilities of destruction.

We might join issue with him upon the comparison between war of ancient and modern times, and certainly cannot agree in his wish that our science might be extinguished in darkness, and a return made to the single combat or hand to hand struggle of the German era. On the contrary, we hold that throughout all ages war has been cruel, and that the facilities of destruction we now possess do not tend to aggravate its horrors, nor to make the modern soldier less brave and chivalrous than those who have fought and died in other ages, slaughtered with more simple weapons.

The progress in science must be accompanied by progressive improvements in facilities for destruction is, however, perfectly clear, as we have daily proof of it before our eyes. Even electricity, first used to carry messages of peace, is now being pressed into the service of Mars; while the very elements are caused to aid red handed war. We impregnate earth with nitro glycerine, call it dynamite, and immediately prepare to blow up our enemy's ships by means of the same. Water we fill our shells with, so that they may more surely burst into many fragments, and we are now trying to make the very air itself take up our scouts for reconnoitring the foe in M. Menier's captive balloon.

Amongst the latest and most deadly of the facilities for destruction that progress in mechanical science has furnished us with, we may reckon the mitrailleuse, the tactical employment of which weapon in the field we discussed at some length in June last. Since the date of that article no improvements worth mention appear to have been made in its mechanism or ammunition, though recent trials at Shoeburyness of the heavier nature of the Gatling gun confirm the views we formerly expressed that our military authorities are quite alive to the value of the mitrailleuse for service in fortresses as well as in the field.

Additions, however, have been made since June to the literature of mitrailleuses which aid us to arrive at more distinct conclusions as to their uses. We allude, in particular, to a small work on machine guns or mitrailleuses by Captain Osen, of the Royal Artillery, ("Machine guns or Mitrailleuses.") in which the first conception of this firearm, its gradual improvement and present tactical use are fully entered into, and also to a short paper on the employment of mitrailleuses for flank defence which appeared in a late number of one of our periodicals. It seems to us that neither of the writers in question have sufficiently pointed out the many important advantages of mitrailleuses for fortress purposes. The economy which would result from the employment of these weapons is very great, and for defending a breach or clearing a ditch of the attacking force they would be invaluable.

Our shrewd cousins across the Atlantic do not spend more money upon their military personnel and matériel than they can possibly avoid, and adhere to cast iron smooth bore guns for economy's sake, even the details at the famous Academy of West Point learning gunnery with pieces which would scarcely hit a haystack were it a mile away. But we see from the report on mitrailleuses presented to Congress by the Secretary of State for War, that nearly three hundred thousand dollars have been appropriated to the purchase of Gatling guns for service in various forts. These Gatlings were to be in position by the end of July in the current year, and their purchase and speedy adoption, as a portion of their garrison armament, show in what high estimation Americans hold them.

The Board of United States officers upon whose report this appropriation was made remark that for flank as well as direct fire in field works, the efficiency of the Gatling is questionable, and in this opinion we find that all who have examined the question seem to concur.

As reasons for adopting mitrailleuses as auxiliaries in flank defence of permanent works, where the flanking fire extends over distances greater than 200 or 300 yards, the Board point out that unless the number of the short howitzers generally used give a rapidity of fire approaching continuity, the combination of the two seems to be superior to either singly, the fire of the Gatling filling up the intervals between the volleys of the howitzer firing canister.

A second Board of Engineer officers drew attention to the case of a simultaneous attack on the curtain and faces of an adjacent bastion, and recommended the supply of one Gatling for each flank of casemated forts, even to the displacement of a howitzer, if the scarp could be readily approached.

In the case of such a simultaneous attack, it would be impossible, they say, to serve the opposite howitzers with the freedom that a good defence would require, from the risk to gunners in the opposite casemates, but the Gatling could be used with entire freedom to flank the bastion and curtains also if directed above or below the opposite embrasure. This, of course, would not apply to counterscarp casemates.

In the exhaustive trials on which these reports were partly based, and which took place at Fort Monroe, the mitrailleuse was pitted against the 12 pounder field gun (bronze Napoleon), a 4½ inch rifle and 8 inch siege howitzer, using case, canister, and shrapnel, and also a detachment of forty men armed with the Springfield rifle. Canvas targets, 9ft. by 46ft., were used, and the contrast in the number of hits was marvellous. In one minute and a half, at 500 yards' range, the Gatling gave 557 hits against 154 of the field gun and 112 of the howitzer; and at 800 yards, 534 hits against 35 and 0 respectively; spherical, case, and musket balls were employed with the gun and howitzer in the case quoted.

The Americans seem to have an exceptionally good ammunition in the new metallic cartridges they have adopted for the arm, for in October, 1873, experiments were made with it to test the power and endurance of the Gatling gun. On the 23rd of that month 30,000 rounds were fired from a single Gatling, and on the 24th 64,000 more from the same gun. No injury was caused to the barrels by this severe proof, nor was any difficulty experienced in extracting the empty cases, though the ra-

pidity of fire was sometimes as great as 400 per minute.

It is stated that after 4000 to 5000 rounds had been fired the fouling did not increase a fact which might, perhaps, have been due to the heating of the barrels.

The data obtained during our trials at Shoeburyness are not less conclusive as to the tremendous comparative effects of the fire from the Gatlings at ranges not exceeding 1400 yards. It is hardly within the scope of a short article to enter into these data, but we trust we have said sufficient to show how important is the question of employing mitrailleuses as an auxiliary arm for the defence of fortresses under certain conditions.

What these conditions are it is for our artillery and engineer authorities to judge, and we may safely leave the solution of the problem in their hands, for they at least have no compunction as to utilizing whatever facilities for destruction modern science may furnish us with.

A interesting experiment, says *Nature*, was recently made, by M. M. Bertrand and Mortillet, directors of the St. Germain Museum in the Camp de Manœuvre. The war implements constructed from designs of Trajan's Column were tested, when it was found that the catapult threw arrows a distance of 300 yards. The mark was hit regularly each time up to 180 yards. The same can be said of the *onager*, which sends stones to a distance of 180 yards with astonishing precision, although weighing 1½ lb. The initial velocity was calculated to be more than fifty metres per second, as the time taken to reach the mark is not more than seven seconds, and sometimes less than five. All these apparatus are to be tried at public exhibition to be given in the beginning of next October. We may add that elaborate descriptions of the catapult, ballista, etc. may be found in "Rollin's Art of War." From experiments which we have ourselves carried out it would appear that the catapult was a powerful engine of destruction superior in many respects to the earlier cannon.

The *Melbourne Argus* had the following among its news from the South Sea Islands:—"On the 50th of April, Captain McKensie observed what he believed was a submarine volcano in state of activity. When about midway between Heabai and Tonga, two of the Society Islands, about twelve miles from land, he observed a large column of water shot up fully 100 ft. into the air. There was a dense cloud of what appeared to be steam rising from the ejected water. Captain McKensie was afraid to go sufficiently near to ascertain whether it was warm water that was ejected, but upon this point there can be little doubt. The spot where he saw the water sent up is marked on the chart as a shoal, and so long as he was in sight the water continued to be sent upwards with equal force.

From information which has been received at the School of Military Engineering, it appears that those engaged under the North American Boundary Commission who proceeded from the school are getting on most satisfactorily with their task. They had reached about 750 miles beyond the Red River, and are now on their way back to Halifax to go into quarters for the winter. The work is expected to be finished in 1875.

A despatch from Shanghai reports that the troubles between China and Japan in regard to Formosa have been settled.