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# The Volunteer Review

## AND MILITARY AND NAVAL GAZETTE.

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

VOL. VII.

OTTAWA, (CANADA,) TUESDAY, NOVEMBER 3, 1873.

No. 44.

### NEWS OF THE WEEK.

The Hon. Mr Hope received a cable telegram announcing the death at London, on Tuesday 28th Oct, of Mr. Wm. Dixon, Chief Emigration Agent in England. His death must have been sudden as letters were received from him at the Department of Agriculture on the 30th.

A Madrid telegram says: "It is reported that the insurgents in Carthagená are completely demoralized, and that their leaders are disagreeing among themselves. On the return of the fleet from Valencia the crews of the *Tetuan* and *Medez* mutinied, and several of them were killed and wounded before subordination could be restored. The engines of the vessels are in a bad condition, and the *Tetuan* is reported to be leaky and making water fast. An attack upon the fort by the Government fleet was expected to begin yesterday. The convict soldiery of the insurgents also revolted and demanded payment and supplies of clothing.

It is reported in Madrid that the Carlists have fired on a British war vessel, killing one man.

Advices from all parts of the Province of Bengal shows the corps are falling and the impending famine cannot be avoided.

Special despatch from Brussels to *Daily Telegraph* says, all the French officers who were there on furlough, have left for France under orders to rejoin their regiments.

Specie in the Bank of France increased to 3,060,000 francs last week.

President McMahon has issued an order of the day to the army, in which he alludes with severity to insubordination. General Bellemor appeals to the patriotism of the soldiers to maintain discipline and support the laws.

The Empress of Austria is ill and her condition is such as to cause alarm.

It has been definitely ascertained that sixty-six lives were lost by the sinking of the insurgent vessel *Fernando et Catalico*.

In the Bazzino trial on 29th Oct. M. Fishout, a messenger, testified that under fear of capture by the enemy he swallowed a

despatch which he was carrying from Thionville and Metz. The despatch was recovered and delivered to the officers at headquarters in Metz, on the 29th of August, but by them thrown into the fire unread.

Lieut. Noguez swore that he fruitlessly attempted to deliver to Bazaine a despatch entrusted to him on the 23rd of August, by the Empress. He admitted, after much prevarication, that he was also the bearer of a despatch to Gen. Bourbak.

The President of the Court severely censured this witness for attempting to conceal facts.

There is another panic on the Bourse of this city. The Government is endeavouring to effect a settlement of the financial difficulties.

The death of King John of Saxony, at the Royal Chateau, at Pillnitz, six miles from this city, was announced this morning.

The total amount invested by the German Government in the United States Funded Loan is eighteen million dollars, of which eight millions was negotiated during the present month.

A meeting in favor of an amnesty to the Fenian convicts was held at Blackheat, Eng., on Saturday. Six thousand people attended.

A despatch from Rome denies that the Italian Government received from the Comte de Chambord the assurances which the *Journal Diplomatique* asserts he gave the foreign powers.

The failure of a house which has been dealing in Erie Railway shares, is announced. The *Pall Mall Gazette* alluding to the occurrence, in its financial article, says that the house lately received an order from Jay Gould, to sell 50,000 shares of Erie, and took the stock personally, as buyers.

Sir Garnet Wolseley has arrived at Cape Coast Castle.

Sir Samuel Baker, who recently returned from Africa, is seriously ill from inflammation of the lungs.

The bark *British Banne* was run into last week by another vessel, and sunk almost immediately. Eight of her crew were drowned.

A despatch from Central Asia brings intelligence of frightful scenes in Khiva. Upon the evacuation of the capital by the Russians under General Kauffmann, the Goumels revolted and plundered the town, after which they destroyed it. In addition to their excesses the Rusbeks slaughtered 1,000 emancipated Persian slaves. The Khan sent to General Kauffmann for assistance to enable him to restore order, but it is not known what his answer was.

Three cures, recently chosen by the old Catholics of Geneva, were formally installed on Saturday.

Nothing has been heard from the *Ismaila*, nearly a month out from New York, for Glasgow. There is a feeling among those immediately interested that the vessels has been lost.

In the trial of the Tichborne claimant the examination of witnesses for the defence closed on Monday, and the court adjourned until Wednesday, when the hearing of the testimony in rebuttal began.

It is stated that nearly all the wire is constructed and the contracts out for the new cable between England and some point in Long Island. The capital is ten million dollars, and the Directory embraces prominent English and American capitalists. When laid the cable in the United States will be connected with the wires of the Automatic Telegraph.

Delegates from the Departments of Dordogne, Cote d'Or, Vaucluse, and Loir-et-Cher, whom President MacMahon refused to receive, had an interview with M. Thiers on Monday. Frequent meetings of Republican Deputies are held. The machinations of the Royalists are causing great irritation in the Provinces. Republican petitions, although prohibited by the Prefects, are circulating everywhere, and being numerous signed by the most influential citizens.

Agrarian outrages were committed in Ireland last week.

Prince Bismark has been appointed President of the German Ministry in the place of General Von Boon.

## EXPERIENCES IN SPAIN.

REPORT OF LIEUTENANT E. W. ALBY ON BOARD  
THE SHENANDOAH, EUROPEAN STATION.

U. S. STEAMER SHENANDOAH  
GIBRALTAR Aug. 22, 1873.

In obedience to Squadron Circular No. 2, I have the honor to submit the following report of my observations during a leave of absence of the past month:

Having become so much debilitated by the hot weather on the coast as to be quite unfit for duty, I left the ship at Malaga on the 10th of July for the purpose of spending a short time at Granada until my health should be restored. My original intention was to remain at that place until strong enough to travel to Cadiz by way of Cordova and Seville, rejoining my ship at that place; but, owing to the disturbed state of the country, I have been kept virtually a prisoner at Granada for over a month. Twice I have been turned back from my attempts to reach the coast by encountering the army under General Pavia, and once I found my self completely cut off from all intercourse with the world by the *Intra-Sigentes*. In order to avoid a narrative of undue length which I fear would be neither interesting nor instructive, were I to detail in regular succession the accidents and impressions of my trip, I will attempt to report what I have observed rather in the order of importance

## THE SPANISH ARMY.

I have said that I was twice turned back by the army. The first time was at Cordova where I arrived on the 21st of July, the day after the troops had taken possession of the city. I found communication stopped in every direction, except over the route by which I had come from Granada; so, after a day spent in examining the curiosities, I returned to my snug quarters in the *Alhambra*. Cordova I found quite tranquil, no opposition having been offered the troops, notwithstanding that the city and surrounding district had but a short time before been declared an independent canton. As near as I could ascertain, there were about 2,500 soldiers in the city, while the remainder of the army, about 5,000 men, were in camp outside in readiness for the march on Seville. As I have had opportunities of seeing American, German, and French armies on the march during war time, I was naturally interested in observing the movement of this body of Spanish troops.

The army had seen but little hard work the greater part having been but little over a week in the field, so that the soldiers were fresh. They appeared well disciplined as far as discipline is carried out in a Spanish army, which at best is very slack. Notwithstanding a prospect of fighting in a few days, there was an entire absence of enthusiasm. The men seemed ready and willing to go wherever they were led, but none were anxious. From what I saw of the infantry at that time, I thought that a month of hard work under a hot sun would sadly impair their effectiveness—an opinion which I found fully corroborated when I met them a second time after the capture of Seville and Cadiz. The first thing that struck me was the clumsiness of the uniform and accoutrements, together with the absolute neglect of cleanliness. An infantry soldier equipped for the march is an object rather for compassion than pride. The coat is a poor imitation of the one worn in the French infantry, made of heavy stuff, with skirts reaching to the knees. In place of being an easy-fitting garment, it is invariably

so large as to be uncomfortable. The pantaloons are well enough; but in place of the light, comfortable gaiter of the French, the Spanish wear heavy, tight leggings reaching to the knee. On the march, in place of shoes they wear sandals, which, although probably the best thing for marching on a road, must be uncomfortable in the extreme among stubble or rocks, as the whole upper part of the foot is left naked and exposed. I can say with certainty that when I saw the troops at Granada, after a month of marching and fighting, at least one man in twenty was lame from cuts and bruises of the feet. The knapsack is perhaps the most unsuitable of the whole outfit, being nothing more than an ordinary square cotton canvas bag with a strap over each shoulder. This strap, instead of being broad and stiff, is made of the same stuff as the knapsack, so that it invariably rolls itself into a slim cord, well calculated to prevent the soldier from carrying any more weight than is absolutely necessary. The ammunition and bayonet are carried at a waist belt, with no support but the hips. Pioneers carry the same accoutrements as the infantry, and in addition to the ordinary rifle, are obliged to carry their picks and crowbars. The other arms of the service are infinitely better off, the cavalry being almost precisely similar to the French, and the artillery differing in no important point except with regard to the saddles. The horses of both cavalry and artillery are the finest that I have ever seen, but the soldier here has no such affection for his horse as is shown in other countries. I saw repeated instances of horses bleeding at the mouth and in evident distress from having sucked leeches into their throats while drinking, yet nothing ever appeared to be done to relieve them. It was some time before I could account for the anomaly of a horse well conditioned and healthy looking, bleeding at the mouth and coughing, until one day, on asking a cavalryman in the cause, he put his hand in the horse's mouth and scraped out two leeches, at the same time shrugging his shoulders and saying that it was no use taking them out, as the horse would have more in his throat in a day or two. The whole appearance of the soldier is slovenly in the extreme, to an amount inexcusable even after a hard march. Not only are the garments always dirty, but so the arms and accoutrements. No care appears even to be taken with their rifles, and I have never seen the manoeuvre of stack arms performed.

When a regiment takes a rest in a street the rifles are leaned against adjacent houses, while in the field they are thrown on the ground. I always found the soldiers quiet and orderly in ranks; but there is nothing like precision anywhere. The same straggling is observable in a corporal's guard relieving sentries as in a regiment at the rout step. I met a great many of the officers, and found them invariably as polite and intelligent gentlemen as can be met with anywhere in the world. General Pavia is a fine looking soldier, apparently not over forty years of age, and even before his successes at Seville and Cadiz he had the affection of his whole army, officers and men.

The second time that I saw this army was when they took possession of Granada, after their victories at Seville and Cadiz. Upon arriving before the city, which is utterly defenseless, instead of marching directly in and taking possession before the volunteers could erect barricades (for the city was almost completely taken by surprise), the troops went in to camp about a

league away and remained there twenty-four hours. I rode out to the camp, but found it impossible to press the line of sentries strict orders having been given to shoot any one found communicating with the soldiers.

The next morning they marched in and took possession, placing the city for a time under martial law. I was prepared to see soldiers badly used up, but not to the degree that they presented. Although they had a day's rest in an olive grove near the banks of a river, and their march of three miles had been made before sunrise, they could scarcely have looked worse after a defeat. About 3,000 entered the city, but did not take possession of the casernes, owing to fears of their being mined. The infantry were drawn up in a few of the narrowest streets, where they would find shade while the cavalry and artillery took possession of the Alameda. But few sentries were posted, and a few detachments stationed at the court house and other public buildings, no movements were made to guard against surprise, although it was known that scattered about in the vicinity of the city there were at least 3,000 volunteers. Not the slightest attempt appeared to be made towards either billeting the men in the houses or getting them into the casernes, and throughout the entire day and night they were kept assembled in regiments under arms. No fresh rations were served out, and in the middle of a rich and well inclined city the men had nothing but hard tack and water. It was a curious sight to look down the streets and see the poor fellows stretched out in the boiling sun, literally sleeping on their arms. They were allowed to go about if they wished, but only a few took advantage of the permission, seeming prefer to lying on the sidewalks, huddled up like sheep, to getting away and cleaning themselves up. Every one appeared completely worn out, and, from their appearance and the way in which they were disposed, missed up in a few narrow streets, I can confidently assert that 200 resolute men, well led, would have not only driven them out of the city, but completely dispersed them. Still there was not the slightest sign of demoralization; the men were as completely amenable to discipline as when I first saw them fresh at Cordova, and they appeared cheerful, but never enthusiastic. They talked of the fight at Seville as a workman would talk of a job which he had done well. The officers, however, were full of fight, and anxious to be taken to Malaga, where they promised to settle up scores of long standing against the cañalle.

From what little I saw of the army I can form but one conclusion: Neither officers nor soldiers lack courage, and I believe that well led they will fight as well as any troops in the world who are not thoroughly enthusiastic in their work. But the art of war is unknown in Spain. The soldiers are left unprovided for, simply because there is no one who knows how to take care of them. Lack of care, hard fare, and a dress calculated to kill a man in a hot climate wear them down in a month more than would be the case with English or Prussian soldiers in a year's campaign. It can scarcely be otherwise, as during the campaign of only a month the sun appears to have been the only formidable enemy they have had to encounter. They have been marching through the most fertile part of Spain unmolested, except at Seville and Cadiz, and even there it can scarcely be called hard fighting with at least 12,000 men engaged

on both sides, the result shows a list of less than 1,000 killed and wounded.

#### THE POLITICAL SITUATION.

With regard to the people I hardly know if I can give any correct idea or keep separated the various parties of Republicans who are each trying to get control without themselves knowing what their own principles are. Leaving out of consideration the politicians who form the central government party at Madrid, and "whose works are past finding out," as far as I have been able to observe, the wealthy and middle classes are perfectly indifferent under what form of government the country is placed. All the ask is to be left alone; even demands for money made by the canaille fail to arouse them to the expression of any decided opinion. It seems to be an article of faith with every true Spaniard to cry, "Abajo los Carlistos!" but beyond that they never venture. It is in consequence of this indifference that even in the most disturbed districts business is carried on without interruption, save when a new party springs up, when shopkeepers close their doors and all peaceably disposed persons leave the disturbed town until quiet is restored, when business is resumed as if nothing had happened. I have seen Granada under the control of three different parties, and have found that these people who should be the controllers are always mere nonentities, simply in favor of the party in power. Nowhere in the world is one more forcibly struck with the application of the old French saying, "Le roi est mort; vive le roi!" In this we have the expression of the feeling of the whole upper and middle classes in Spain. With regard to the lower class, which has taken the burden of provisional government on its hands, it may be divided into three distinct parties. First, the National Republicans, who sprang up on the abdication of King Amadeus, full of the best intentions, without any idea of the meaning of the term republic, their aim being simply to preserve order and assist in carrying out the laws of the new government. They looked with suspicion on the national troops as being favorable to the restoration of monarchy, and were equally resolved on defending the new government from the Communists who flocked into the country. This body was formed principally of the honest working men throughout Spain, and had it not been for their own ignorance and the bad principles of Spanish politicians, the volunteer army would have been an honor instead of a disgrace to the country. This party has gradually been worked upon until, separating from the central government as being one of bad faith, it has caused in several sections of Spain and throughout Andalusia a splitting up into independent cantons. Each city, with its surrounding villages, declared itself independent of all authority of the Madrid government. The national troops, as defenders of that government, were disarmed and driven from the province. No radical change was made in any of the municipal forms, and in no instance, except at Malaga, was this change, accompanied by any disturbance aside from that caused by disarming the troops and even that measure was taken before the cantonal idea had become fully developed. Andalusia has never, since I have been in the province, proceeded to greater extremities than this, and except in a few of the worst sections of the province, as at Malaga and Seville, the third grand party has never found favor.

This party, known as the Intransigente, is

simply one of Communists. I have seen but little of them, but the name defines the party, and its doings at Alcoy and Cartagena are too well known to require explanation. The Cantonal and the Intransigente parties both aim at district governments for the separate states, but the one represented throughout Andalusia; the other, as shown in the province of Murcia, is nothing more than anarchy. I fear that I am digressing somewhat from the province of my report, but I have thought it necessary to give these explanations in order to account for movements that I have observed, and which for a long time were inexplicable to me. The first disturbance that I witnessed was at Malaga on the day after the arrival of our ship, when Carbajal, an Intransigente leader, with two or three hundred of the worst spirits of Seville entered the city in the guise of friend of the people and seized the command without hardly firing a shot. He left the municipal authorities in charge, and troubled himself only with the command and influence over the canaille of Malaga. The archbishop was turned out of his palace, and the volunteers were quartered in the cathedral. This, I believe, was the first real Communist movement in the south of Spain, and was undisturbed by the Malaganians until after the disturbances at Alcoy and Cartagena, when immediately the true feeling of the people was shown. Carbajal and his party were driven from the City and the churches were opened. Since that time (July 25) Malaga has remained nothing worse than an independent canton, liable, however, until within the last week, when troops have been expected, to be troubled by the Communists, who are in great numbers in the city, and have great influence over the canaille. My impression is that when the troops appear they will enter the city and establish the central government without meeting with the slightest resistance. Notwithstanding the vague rumor of disturbances in the villages which Carbajal's action in Malaga has given rise to, I found everything tranquil. As I was very unwell, and my hotel being in the grounds of the Alhambra, quite removed from the city, several days past before I could take any notice of what was going on around me. One morning, on being informed that Granada was to be declared an independent canton during the day, and as trouble was expected, I went down to the city to see what would happen. The shops were all shut, and but few people were in the streets. I asked vainly where and when the canton was to be proclaimed. Some thought it had been, others knew nothing of it and cared less, and after roaming about the streets in the hot sun until I was tired and disgusted, I returned to my hotel, but not before I had seen bills posted throughout the city announcing the foundation of the canton, and promising speedy death to any one who dared speak unfavorably of it. This paper was signed by a president, three vice-presidents, and a half dozen secretaries, none of whom any one knew. There was no disturbance then or at any time afterwards during my stay in the city. The shops were all opened the next day, and the only possible difference, that I could observe in any thing was the addition of a letter in the cap ornament of the volunteers.

It is a matter of the greatest wonderment to an American how absolutely ignorant the people are of what is going on, even in their immediate vicinity.

In spite of railroads and telegraphs, one hears nothing in the shape of news but vague rumors, and during my whole stay

at Granada I was dependent on the *London Times*, a week old, for news from Madrid although the *Correspondencia de Madrid* appeared there the day after its issue. For several days I bought copies, and looked eagerly through them, but all to no use. Important items and local news were indescribably mixed together. One learned that the Shah of Persia had arrived in Paris, or that our estimable friend, Don Fulano, was indisposed; but whether Alcoy was in ruins or Madrid in rebellion, it was impossible to find out.

When I left Granada for Cordova there was not the slightest rumor of disturbance in any part of the country, and yet, when I arrived at the end of my journey, only twelve hours by rail, and with free telegraphic communication, I found that the great canton of Cordova had been upset, and 7,000 troops had already been twenty-four hours in possession of the city. As my leave would permit me to remain absent for some time, and the weather at Cordova was too hot to live in, I returned to the Alhambra and found that there had been queer performances during my two days' absence.

The morning after I left news had arrived that General Pavia was marching on Antiquera, a village almost a hundred miles from Cordova, and quite in an opposite direction from that in which the army was really marching. The volunteers of Granada had been assembled to the number of 3,000, had squeezed \$7,000 from a wealthy banker in order to pay expenses, and had taken possession of the railroad. They were transported to Loja, where they were joined by nearly 2,000 more men, and then started to march to Antiquera, about twenty miles off. After a hot, tiresome march all day with nothing to eat, they became disgusted and turned back. I overtook them that night at Loja, and a more pitiful sight I have never seen. Completely jaded, they straggled along, afraid of their own shadows. Two or three companies came up to Granada on the same train with myself, and the rest came in next day, thoroughly worn out and ashamed of their trip.

The second time that I left Granada I attempted to get to Malaga, but at a little station about four hours away the train was stopped by an insurgent band from Malaga, who took possession and ran off with the cars, informing the railway officials that they had cut the track some distance below to prevent pursuit. This time I was obliged to take my chances in diligences over the mountains to Granada again, taking nearly two days, and using up nearly all my money.

This was the most serious drawback of all, as I was obliged to wait there a week for a draft, and when it reached me I could find no one willing to cash it on account of the disturbance which had driven all the bankers out of the province. At length, however, I managed to arrange matters, and made a third attempt, this time not getting as far as before, when all communication was cut off by the army advancing on Granada.

Again I returned, arriving in the city in the morning. Rumors had been circulated that General Pavia had left Cadiz for Granada, and the volunteers filled the streets, marching about and vowing to stand by the canton to the last. One train brought the intelligence that the army was within a few hours march of the city, and a general panic ensued. The volunteers left the city en masse and took to the mountains. I went through the streets in the afternoon and not a single red cap was to be seen. The next morning the troops arrived before the city, and the Ayuntamiento went out to

treat with General Pavin. Rumor says that after listening patiently to their propositions he replied, "There are only two kinds of republicans in Granada, thieves and cannibals." The Ayuntamiento did not stay for further discussion, but returned to the city, packed up their baggage, and left for parts unknown. The following day the troops entered. The shops were all closed, and during the day scarcely any one was to be seen; but the next day all was busy and quiet as ever. I remained still another day to make sure of a clear road, and then returned to Malaga, where, after waiting nearly a week, I found a steamer bound to Gibraltar, and rejoined my ship.

RIFLE COMPETITION.

DISTRICT OF BEDFORD RIFLE ASSOCIATION.

(Continued from Page 497.)

The sixth annual matches of the association were held at Sweetsburg on the 14th 15th and 16th October. The attendance of competitors was good. The wind was high on the first day; on the other days very favorable, and some good scores were made. The arrangements of the meeting were efficiently carried out by the Executive Committee, Lieutenant Colonels Fletcher, Miller, and Hall; Capt. Hall, Lieutenants Hodge and Bulman, and Dr. Welis. Amongst the many friends of the Association present on the ground during the matches we noticed the Hon. Judge Dunkin, Justice Foster, G. B. Baker, Esq., Esq., M.P.; (on whose farm the ranges were laid out), W. W. Lynch, Esq., M.P., David Mair, Esq., Fred. T. Hall, Esq., G. C. V., J. O'Halloran, Esq., T. C., E. Racicot, &c., &c. The following are the competitions which took place with the names of the winners:—

IV. ALL COMERS MATCH.

Open to all comers, and to all breech-loading rifles—500 yards—7 shots—10 prizes: \$10, \$8, \$6, \$4, \$3, \$2, \$1, \$1.

	Points.
1 Lieut. Bulman, 79th Batt.....	24
2 Sergt. Duffy, 52nd Batt.....	23
3 Private Sweet, 60th Batt.....	23
4 Corporal Curtis, 60th Batt.....	22
5 Lieut. Whitman 60th Batt.....	22
6 Ens. Wright, 50th Batt.....	21
7 Private Tittmore, 60th Batt.....	20
8 Lieut. Devrick, 60th Batt.....	20
9 Private Martin, 79th Batt.....	20
10 Private Sarage, 79th Batt.....	20

V. COMPANY MATCH.

Open to any Company, Troop or Battery belonging to the Association, 5 officers or men from each; Sniders, 400 and 500 yds. 5 shots at each; six company prizes—\$10, \$8, \$6, \$5, \$4, \$3. and two individual prizes, \$3 \$2.

	Points.
1 No. 2 Company, 79th Batt.....	156
2 " 1 " 79th " .....	142
3 " 2 " 60th " .....	135
4 " 6 " 60th " .....	123
5 " 4 " 52nd " .....	117
6 Bromo Troop of Cavalry.....	97

VI. BATTALION MARCHING MATCH.

Ten officers or men from each battalion, 10 rounds each, to be fired by squads on the march, advancing or retiring at any distance from 300 to 600 yards, at the discretion of the officer commanding the squad, the score to be taken only after each squad has fired the ten rounds. Two prizes—1st, a Challenge Cup, presented by Dr. Wells, and \$10 by the Association; 2nd, \$5 cash. The Secretary, Lieutenant Colonel Fletcher, acted as squad commander.

	Points.
1 79th Batt.....	202
2 60th " .....	168

VII. CONSOLATION MATCH.

Open to all unsuccessful competitors; range, 400 yard, 5 shots each. Prizes, two copies of the *News and Frontier Advocate* for one year; two copies of the *Cowasville Observer* for one year, presented by the respective proprietors, E. R. Smith, Esq., and Messrs. Massie, and ten cash prizes by the Association.

	Points.
1 Ens. Abbott, 60th Batt.....	17
2 Lieut. Colonel 52nd Batt.....	16
3 Lieut. Colonel Rowe, 60th Batt... 16	
4 Capt. Mayette, 79th Batt.....	16
5 Capt. Hall, 60th Batt.....	16
6 Private Jamieson, 60th Batt.....	16
7 Ens. Nichols.....	15
8 Private Whitman, 60th Batt.....	14
9 Mr. Johnson, St. Johns.....	13
10 C. M. Davis, Sherfford.....	13

AGGREGATE PRIZES.

To the highest aggregate scores made in the first, third and fourth matches. Two prizes—1st, a Silk Hat, presented by Messrs. J. & H. Black, St. Johns, and \$6 by the Association; 2nd prize, \$5 cash:—

	Points.
1 Lieut. Whitman, 60th Batt.....	63
2 Ens. Ryan, 60th Batt.....	60

—*Montreal Gazette.*

INGERSOLL RIFLE ASSOCIATION.

The reputation the matches of the above association have acquired in the past was fully sustained last Wednesday and Thursday, the 22nd and 23rd ult., on which occasion the fourth annual matches were held. During Tuesday evening competitors from a distance began to arrive, and by Wednesday morning quite a number were in town, and many being in the uniform of their various corps, made quite a gay appearance. The weather was very propitious, being fine, warm, and there being no wind, was all that marksmen could desire. Thursday was not so favorable, there being a strong wind in the morning, and a heavy shower while firing at the last range; some splendid shooting was however, made, the white disc being continually out, as will be seen by referring

the following list - W Hiscott, of the 22nd Battalion., making the following score; 19 at 400 and 19 at 500 yards, being 38 out of a possible 40:

MATCH NO. 1.

Ranges 200 and 500 yards, 5 shots each.

	Points.
1 Geo. Galloway, I.R.A.....	\$15.00 35
2 S. Denison, 7th.....	11.00 33
3 Ens. Armstrong, 26th.....	9.00 30
4 W. E. Hiscott, B. M., 22nd.	7.00 30
5 D. White, 13th.....	6.00 30
6 C. Sheppard, 10th Royals .	5.00 29
7 T. Glasgow, 3rd G. T. R. .	3.50 29
8 Lieut. Choate, 26th.....	3.00 29
9 J. Wilson, Wardsville.....	2.50 29
10 J. Little, Toronto Rifle Club.	2.00 29
11 Capt. Ellis, 22nd.....	2.00 29
12 Capt. Brown, 26th.....	2.00 28
13 Lieut. Col. Lewis 7th.....	2.00 28
14 " " Attwood, 26th..	1 75 28
15 J. Ormond, 13th.....	1.50 28
16 J. Millar, 7th.....	1 50 28
17 Corp. Hancock, 13th.....	1.50 28
18 Dr. Korns, I.R.A.....	1.00 28
19 Dr. Carroll, " .....	1.00 27
20 Sergt. McRoberts, 13th.....	1.00 27

MATCH NO. 2.

Ranges 300 and 500 yards, 5 shots each.

	Points.
1 W. Mummery, 7th.....	\$16.00 34
2 John Little, T. R. C.....	13.00 33
3 Sergt. McRoberts, 13th....	10.00 32
4 Lieut. Col. Lewis, 7th.....	8 00 31
5 J. Wilson, Wardsville.....	7.00 31
6 Corpl. J. Gordon, 22nd.....	6.00 31
7 C. Sheppard, 10th Royals... 5.00 31	
8 Capt. Mollins, 22nd.....	4.50 30
9 Capt. Ellis, 22nd.....	4.00 30
10 W. E. Hiscott, B.M., 22nd..	3.50 30
11 D Anderson, G.T.R.....	3.00 29
12 T. Glasgow, " .....	2.50 29
13 R. Turnbull " .....	2.50 29
14 Geo. Galloway, I. R. A ....	2.00 29
15 R. A. Woodcock " .....	2.00 29
16 T. Cruit, Toronto Rifle Club	2.00 29
17 Ens. Ingersoll, 22nd.....	1.50 28
18 W Telford, 22nd.....	1.50 27
19 Corpl. Hancock, 13th.....	1.50 27
20 S. Denison, 7th.....	1.00 27

MATCH NO. 3.

Ranges 400 and 500 yards, 5 shots each.

	Points.
1 Lieut. Choate, 26th . . . .	\$14.00 33
2 W. Cruit, T.R.C. . . . .	12.50 33
3 Lieut. Col. Lewis, 7th . . . .	10.00 32
4 R. Turnbull, 3rd, G.T.R. . . .	8.00 31
5 Lieut. Col. Attwood, 26th..	6.50 29
6 Ens. Waters, 25th. . . . .	6.00 29
7 W. E. Hiscott, 22nd. . . . .	5.00 29
8 Major Caswell, 25th.. . . .	4.00 29
9 Capt. Morden, 7th.. . . .	3.00 28
10 D White, 13th . . . . .	3.00 27
11 G. Glasgow, 3rd, G.T. R. . . .	3.00 27
12 D. Anderson " . . . .	2.00 27
13 J. J. McLanders, 25th.....	2.00 27
14 C. Sheppard, 10th . . . . .	2.00 27

15 Lieut. Col. Moffatt, B.M.,...	2.00	26
16 Ens. Armstrong, 26th.....	2.00	25
17 Sergt. McRoberts, 13th....	2.00	25
18 Capt. Ellis, 22nd.....	2.00	25
19 Dr. Carroll, I. R. A.....	2.00	25
20 W. Mummery, 7th.....	2.00	25

MATCH NO. 4.

Ranges 400 and 500 yards, 5 shots each.

		Points.
1 W. E. Hiscott, 22nd.....	\$15.00	38
2 Capt. Morden, 7th.....	10.00	37
3 Lieut. Choate, 26th.....	10.00	36
4 Dr. Kerns, I.R.A.....	6.50	35
5 J. Wilson, Wardsville....	6.00	34
6 C. Sheppard, 10th.....	4.50	34
7 S. Denison, 7th.....	3.50	33
8 Sergt. McRoberts, 7th....	3.00	33
9 Dr. Carroll, I.R.A.....	3.00	33
10 J. Thom, Stratford.....	3.00	33
11 W. Mummery, 7th.....	3.00	33
12 Ens. Ingersoll, 22nd.....	3.00	32
13 T. Glasgow, 3rd, G.T.R....	2.50	32
14 T. Cruit, T.R.C.....	2.50	32
15 D. White, 13th.....	2.50	31
16 Corp. Hancock, 13th.....	2.50	31
17 J. Little, T.R.C.....	2.00	31
18 Corp. Gordon, 22nd.....	2.00	31
19 Lieut. Col. Lewis, 7th....	2.00	30
20 Major Casswell, 25th.....	2.00	30

AGGREGATE.

		Points.
1 W. E. Hiscott, B.M., 22nd.	\$10.00	127
2 Lieut. Choate, 26th.....	10.00	123
3 Lieut. Col. Lewis, 7th....	10.00	121
4 C. Sheppard, 10th Royal.s..	7.00	121
5 T. Cruit, T.R.C.....	6.00	110

SPECIAL AGGREGATES.

Confined to residents of the County.

		Points.
1 Geo. Galloway, I.R.A., Badgo and.....	\$20	113
2 W. E. Hiscott, 22nd.....	18	127
3 Dr. Carroll, I.R.A.....	10	111
4 Capt. Ellis, 22nd.....	8	111
5 Dr. Kerns, I.R.A.....	4	106

BATTALION MATCH.

Ranges 200 and 300 yards, 5 shots each, 6 men.

		Points
1 Capt. Morden.....		27
2 Ens. Laing.....		26
3 S. Denison.....		33
4 W. Mummery.....		26
5 Lieut. Col. Lewis.....		28

Total..... 140

2ND 26TH BATTALION, \$15.00.

		Points.
1 Lieut. Col. Attwood.....		28
2 Capt. Brown.....		28
3 Lieut. Choate.....		29
4 Lieut. Brown.....		18
5 Ens. Armstrong.....		30

Total..... 133

3RD 22ND BATTALION, \$10.00.

	Points.
1 W. E. Hiscott, B.M.....	30
2 Capt. Ellis.....	29
3 Ens. Ingersoll.....	18
4 Captain Mollins.....	26
5 Corp. Gordon.....	26
Total.....	129

LEPINE EXAMINATION.

Tuesday Oct. 14.

Court opened at 10.30 a. m. Mr. Justice Bétournay on the bench.

More than usual interest was seemingly taken in this morning's proceedings as instanced by the unusual number of spectators. The prisoner was brought into court about 11 o'clock; and on his appearance Justice Bétournay proceeded to give his decision.

JUSTICE BÉTOURNAY'S DECISION

This is preliminary examination upon a charge of murder preferred against the accused, Ambrose Lepine.—First. On the part of the defence it was urged that there was no proof of the death of Scott. Second. That if Scott was murdered there is no proof that he was murdered by Lepine, and, that besides it was an ordinary murder, but the action of a then existing government.

Objection has also been taken to my having jurisdiction in the case.

As to the first point, there is conclusive proof of the arrest and imprisonment of Thomas Scott, and his detention by a party, of whom Lepine was apparently the leader. It has been sufficiently established by the evidence that Scott was shot on the 4th of March, 1870, by a party under the command of the accused, who, it appeared, had charge of Scott on the occasion.

As to the second point: The presence of the prisoner on the occasion of Scott's death, and his participation of the crime of which he stands accused, render him guilty of it, and sitting as I do now in this matter I cannot recognize such a pretended government as that claimed by the defence. Now, as to the question of jurisdiction: I cannot sustain the views of the defence; it is my duty under the law, to see if a sufficient case is made out to commit. It will rest with a higher tribunal to determine the question of jurisdiction.

I find a made out case Therefore my judgment is: That you, Ambrose Lepine, stand committed to the common gaol of this Province until the next Criminal Assizes for the Province of Manitoba, of Oyer and Terminer and General Gaol Delivery, when bills of indictment will be preferred against you for the offence with which you stand charged.—*Manitoban.*

A NEW MONCRIEFF GUN CARRIAGE.

A private trial of a hydro pneumatic gun carriage for a 64 pounder rifled gun took place on Wednesday at the butts, Woolwich, in the presence of the inventor, Major Moncrieff; Lieut.-General Sir J. Sinton Simmons, Colonel Philpott, R. A., Colonel Heyman-R. A., Secretary to the Moncrieff Committee, and some others. The carriage was manufactured at Elswick for Major Moncrieff, and consists of an oscillating cylinder in which a piston descends when driven down by the recoil, and by this the air in part of the cylinder is compressed. When upon the gun being loaded under cover, a bye pass is opened, the compressed air, acting on the water in contact with the piston drives up the gun into the firing position. The carriage can be used not only on the Moncrieff protected barbette principle in this manner, but also as an ordinary siege carriage for the same gun; but if required to be used in the former way, much less strength is required to meet the recoil, and in that case the carriage can be made considerably lighter. Six rounds were fired, one with a charge of 8 lbs. of powder, two with 10 lbs., and three with the maximum charge of 12 lbs., the ordinary charge for this gun being till recently only 8 lbs. The results that were obtained from this trial were all that could be desired, and elicited the admiration of every one present. It is believed by some that this invention of Major Moncrieff's is even of greater importance than that which has been already adopted in the service, and that it will inaugurate a new era in siege artillery.—*Volunteer News.*

The Carlists claim a victory over the National forces on the 19th inst.

Malta is reported to be the new headquarters of the Jesuits lately expelled from Rome.

The Lisbon police have seized a quantity of arms intended for the Carlists, and arrested the parties who had them in charge.

The Bonapartist organ at Paris yesterday, published a document signed by many deputies, protesting against the restoration of a monarchy without consulting the country.

The Spanish Government has addressed a note to the foreign powers, complaining of the interference of a French gunboat at Cartagena, and thereby precipitating a late naval combat.

Prince Bismark and Emperor William visited the Vienna exhibition on Wednesday, and took much interest in the construction and working of the machinery in the American department.

John C Heenan, the prize fighter, died of consumption on Saturday morning near Rawlin's Station, on the Union Pacific Railway, en route for San Francisco.

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## The Volunteer Review,

AND

### MILITARY AND NAVAL GAZETTE.

"Unbribed, un-bought, our swords we draw,  
To guard the Monarch, fence the Law."

OTTAWA, TUESDAY, NOV. 4, 1873.

**TO CORRESPONDENTS.**—Letters addressed to either the Editor or Publisher, as well as Communications intended for publication, must, invariably, be *pre paid*. Correspondents will also bear in mind that one end of the envelope should be left open, and 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.

The following description of the *Siege Gun* carriage, invented by Major MONCRIEFF, is taken from the *Broad Arrow* of the 4th Oct., and is suggestive of a novel system of fortification, by which the position of the gun could be changed after every discharge, and that would be effected by connecting the *gun pits* by a line of railway placed at the bottom of a ditch or covert way; by this means a regular fortification could be devised covered at every point by the fire of its guns and the disadvantages of existing systems obviated,—the weakest and least defensible points of which are the ditch and dead angles. By shifting the position of the gun the latter serious disability is got rid of, and as the ditch is occupied as the actual defence—the assailant has nothing to fire at. And if the command is over a terreplein affording no shelter, it would be hardly possible for an enemy to approach the works at all; the only thing that could affect such a system

would be vertical fire, but that could be used by the defence in as great a quantity as could be opposed to it.

Moreover, the advantage of a converging fire would be denied to the assailants, from the fact that the works would only show a prolonged face.

Major MONCRIEFF has furnished the artillery with a gun carriage that does not need a parapet, and entirely obviates the necessity for the expense of a *barbette* battery, while it retains all its advantages. It only remains to the Military Engineer to supply a system of fortification by which the full value of the gallant and talented officer's invention will be utilised. The machine furnishes the hint for its profitable application.

"On the afternoon of Wednesday last, the new Moncrieff gun carriage on the hydro-pneumatic system was tried at Woolwich. A large party of officers of both Services, as well as a number of others, had assembled to witness the experiments, and it was the general opinion that they had been highly successful. Major Moncrieff's idea is to adapt to the attack the system he has been elaborating for our coast defences. He digs a hole and buries his gun in it. The soil when it is excavated is carried to the rear, and the enemy has no mark to guide his aim; after each discharge the gun sinks out of sight, and the indications of its precise whereabouts vanishes with the smoke. In the sieges in the late war the Germans found that they must withdraw their batteries to immense distances, whence the fire was vague and relatively ineffective. Major Moncrieff undertakes to place his guns within 500 yards of the enemy's works. By his well-known idea of the counterweight he had attained his object of elevating the gun out and restoring it to cover, and so enabling the gunners to work in comparative safety by storing the force of the recoil. But the objection to applying the system to siege operations was the unwieldy weight of carriages fitted with the counterweight, where lightness and facility of movement were primary considerations. The hydro-pneumatic system dispenses with this ponderous counterweight, replacing it ingeniously with a simple cylinder only containing air and water, which oscillates between the cheeks of the gun-carriage.

"It is a feature in the carriage that it can be secured on an improvised platform without any heavy and costly appliances. It was fastened on this occasion as it is intended to be fastened in actual service, by a chain passed loosely round some balks of timber buried in the ground, and the fastening acts as a rude pivot, on which it revolves. The gun was a rifled muzzle-loading 64-pounder; it was fired with twelve pounds of powder, and the carriage very much any ordinary siege one. When in position for firing, the gun is raised to the height of some seven feet upon a pair of arms or elevators which lay hold of the trunnions, and their action is regulated by racks, which are arranged to work in connection with a radial connecting rod. Between these is the head of the piston which works in the hydro-pneumatic cylinder. With the discharge of the gun the head of the cylinder sways backwards, the piston is forced down by the recoil, and, as the piston slowly goes down in this cylinder, the gun descends with it to the normal position for loading. The internal adjustments of the cylinder are, of course, the essence of the invention. The piston descends in a

tube of water, communicating at the bottom of cylinder with a couple of side chambers which are filled with air. As the water is forced down in the central tube, it necessarily rushes into the side ones, and the elasticity of the air it violently compresses is the motive power that is to be stored for use. There is just sufficient water to fill the central cylinder and to cover all the valves and joints, and there is nothing but strong and solid metal in those parts of the side chambers in which the compressed air is to be confined. At the bottom of the cylinder, between it and the air valve, and immediately in rear of the latter, is a "throttle valve." The throttle valve consists of a small circular, perforated cylinder, revolving within a larger one, and its purpose is to neutralize, by the application of water friction, any excess of energy in the recoil. Indeed, next to employing air and water, as light and convenient materials of enormous power to work those heavy siege guns, the idea is to use those elements so as to avoid friction and concussion. Instead of the violent recoil which threatened to shake the strongest carriage to pieces when it was arrested sharply by the resistance of screws and iron, according to this hydro-pneumatic system the recoil is made to exhaust itself upon air springs and water cushions. The first shock is broken upon the mass of water in the middle cylinder, and the throttle valve disposes as it were of any of the subsequent vibrations. Theoretically, therefore, if we may use the expression, the recoil should be all self-contained, and it was found to be very nearly so in practice on Wednesday: the carriage moved slightly to the first shot, as the chain tightened that secured it to the timber balks; but the shots that followed made no perceptible change in its position. It must be remembered that under the old system, and before Major Moncrieff had invented his counterpoise or thought of his hydro-pneumatic cylinder, the gun would have wrenched itself away from any such rough and ready fastening. When the piece is raised for firing, it is managed by a wormwheel at the side, which regulates the angle of elevation and which turns easily to the touch of a lady. If this invention has proved successful with the heavy 64-pounder siege guns, *a fortiori* it must succeed with the 40-pounder to be employed for our coast batteries, as suggested in Major Moncrieff's pamphlet on our national defences."

"TRUTH IS OFTEN STRANGER THAN FICTION."

—The following announcement from the *Broad Arrow* of 15th September, will amuse those of our readers who are familiar with that inimitable burlesque which appeared in *Blackwood's Magazine*, entitled a "True Reformer":—

"We cannot vouch for the correctness of the rumour that Sir Henry Storks is about to proceed to Constantinople as Ambassador from Great Britain to the Sublime Porte."

The vortex of that almost prophetic extravaganza makes Sir MORDANT BUNLEY to be shelled by appointing him to "the Government of the *South Pacific Islands*," instead of a mission to the Grand Turk, and says:—"The appointment fortunately presented peculiar attractions for him inasmuch as this important settlement had hitherto been conspicuous for the dearth of accurate statistical information available regarding it. It was not even known so BUNLEY told me,

what proportion the children of mixed parentage bore to the total population, or what percentage of the converted inhabitants belonged to each religious denomination. To rescue the islands from this deplorable condition was therefore a congenial task, and my friend started for his new appointment full of ardor with an extra cabin full of blue books and several dozen specimen samples of blank forms to be filled in on arrival." Some time ago the *Athenaeum* in reviewing the *True Reform*, pointed out how accurately the character of the inventor of *Controul* was depicted. This was strenuously denied by *Broad Arrow*, and the assumption argued down with some asperity. The truthfulness of the sketch is however evident, as another extract will show:

"The old state of things was faulty, in this way that the Commander-in-Chief was kept at a distance, while all the other departments of the army were brought into the War Office, so that was liable to be criticised and overruled at any point by the perfectly irresponsible understrappers who surrounded the War Minister and acted in his name. The result was not only that the branches of army administration, thus presumably represented at the War Office, got to have undue influence, but they were allowed to interfere inordinately under the pretence of exerting financial controul with the executive business of the army with which properly they had nothing to do. There was hardly a conceivable question submitted by the Commander in Chief upon which Sir MORDANT BURLY or his predecessors did not manage to have their say, so that the power and responsibility of the former as executive head of the army were being continually encroached upon."

We have only to turn over the pages of *Broad Arrow* since Sir H. STONKS organised the famous *Controul Department*, to find an exact parallel for everything the writer of that exceedingly clever burlesque has so well described, as well as the utter worthlessness of the system judged by its effects in the Autumn Manoeuvres.

We recently reviewed the celebrated *March to the Sea*, and the coincidence it afforded with the operations of the Marquis of CORNWALLIS in 1780-81, under the title of "Strategy of Invasion." Amongst the varied incidents attendant on the concluding portion of General SHERMAN'S MEMOIRS the burning of the capitol of North Carolina the rich and populous city of "Columbia" was the most remarkable, and has occasioned the most acrimonious controversy. Our own opinion on this subject has been given in the articles referred to, and there does not appear to be any reason why it should be changed; we hold to be the duty of a soldier to thoroughly discharge his obligations to his country, and if the destruction of any city which has fallen into his power would conduce thereto directly or indirectly it is not any part of his business to weigh what the moral or sentimental consequences may be in the eyes of the world, or what the effect may be in the future of the non-com-

batants of the vanquished party, his only consideration should be the value of the operation to his own country. The latest development of this case is taken from the *United States Army and Navy Journal* of 20th Sept., and are as follows:

"The following additional and most conclusive testimony as to the responsibility for the burning of Columbia has been called out by the controversy raised by the publication of the testimony on the subject given by Wade Hampton before the British American Mixed Claims Commission. The testimony of General Sherman before this same commission, in regard to the burning of Columbia, was published in the *Army and Navy Journal* of May 17 and 21, 1873.

WAR DEPARTMENT,  
WASHINGTON CITY, Aug. 22, 1873. }  
Major H. C. McArthur, Memphis, Mo.

DEAR SIR,—You will remember that you were a member of the party which, on the morning of the 17th February, 1865, by my orders crossed the Congaree river in an old flat-boat, and, with a detachment of men from the Thirteenth Iowa, proceeded to the city of Columbia, being the first troops of the Army that entered that city, planting the flags of the Thirteenth Iowa, one on the old and the other on the new Capitol building. You will remember well the first fire which occurred during that day and evening in the city of Columbia. Charges have been made that said fire was originated by the Federal troops. Unless my recollection fails me, cotton piled in the streets of Columbia by the rebels was burning when you entered the city.

I will be greatly obliged to you if you will, without delay, send me a statement—in the shape of a report if you choose—giving your own recollection of the facts connected with the crossing, and your entrance into the city, and the occurrences which took place there, especially with reference to the burning of cotton, and the departure of a portion of the rear guard of the rebel troops from the city.

As it is probable these statements may be given to the public, I request that you will refresh your memory so that your statement may be entirely correct, and not open to correction hereafter.

I have sent a similar letter to Major William H. Goodrell and Colonel J. C. Kennedy.

Very truly yours,  
WILLIAM W. BELKNAP,  
Secretary of War.

UNITED STATES INTERNAL REVENUE,  
ASSESSORS' OFFICE, THIRD DISTRICT MISSOURI,  
MEMPHIS, September 4, 1873. }

Hon W W Belknap, Secretary of War, Washington, D. C.

In reply to your communication of the 22nd ult., in relation to the firing of the city of Columbia, S. C., February 17, 1865, I would respectfully submit the following report:

On the morning of February 17, 1865, under your order, Colonel J. C. Kennedy, with a detachment of men of the Thirteenth Iowa, together with Major William H. Goodrell and myself, of your staff, crossed the Congaree river, in front of Columbia, in an old flat-boat, and proceeded at once to the Capitol buildings, within half or three-fourths of a mile of the Capitol. We secured a buggy of a citizen, and Colonel Kennedy, Major Goodrell, "color bearer" (with flag),

and myself, took horse and buggy and proceeded rapidly on our way to the State-house.

We struck Main street, several blocks from the Capitol buildings, and found cotton piled in contra of the street about midway of each block. I saw rebel soldiers pulling out tufts of cotton and firing the bales; cotton was pulled out and scattered over the piles, evidently with a view of starting easier, and it is my belief, had we not appeared when we did, the city would have been on fire before our army took possession of it.

I saw others breaking open and pillaging stores. Upon our appearance the rebels fled, taking with them what they could carry. One squad of four cavalymen fired at us as we passed up Main street.

The fire in the cotton piles was supposed to be extinguished several times during the day, but would break out in different places at different times. It was very hard to toll, in fact seemed impossible to toll, when the fire was entirely out. Rebel citizens were arrested during the day for firing business houses. I am fully impressed that the fire that destroyed the city originated by the rebels firing the cotton. Every act of the retreating enemy satisfied me their intentions (some at least) were to destroy the city (especially the Cotton), before the Federal Army entered, and I am sure the little band of four that dashed up Main street that eventful morning will ever believe the city of Columbia was fired and pillaged by the rear guard or stragglers, of the rebel army, the statements of their general to the contrary notwithstanding. No rebel general was visible on Main street that morning when we entered. It is a little too "thin" for them to come now and claim the Union Army fired the city. I know cotton was being fired by rebels when we first appeared on Main street, and I know those same cotton piles would blaze up at different times during the day; and when the wind raised in the evening (as it did), the slumbering element was fanned into blaze which was communicated to the buildings and destroyed the city.

I am very truly yours,  
(Signed) H. C. McARTHUR.  
IOWA CITY, Aug. 30, 1873.

Major-General W. W. Belknap, Secretary of War, Washington, D. C.

DEAR SIR,—I have to acknowledge your communication of 23rd inst., requesting a report of the capture of Columbia, S. C., on the 17th of February, 1865.

On the evening preceding the occupation of Columbia, an order was issued by you to Colonel J. C. Kennedy, Major McArthur, and myself, to cross the river as an advance guard and take possession of the city. Pursuant to said order, Colonel Kennedy, Major H. C. McArthur, and myself, with a force of eighty-five men, started before daylight, and reaching the river, procured an old flat-boat, on which we carried the command to the Columbia side of the river.

After reaching the latter side of the river we procured an old buggy, into which got the three men last mentioned, and started with the flag of the Thirteenth Iowa Infantry to place it on the dome of the Capitol of South Carolina, leaving orders to the men to follow on as rapidly as possible. After getting through the lower part of the city, and reaching one of the main streets, and the one on which the Capitol is located, several blocks distant from it we came upon a large number of cotton bales scattered along the middle of the street for nearly the length of the block. The bales were cut or ripped



open and burning slowly when we reached them, at about 9 or 10 A. M. of said 17th of February.

Beyond the burning cotton, and bativ. en us and the Capitol, a squad of thirty or forty rebel cavalry were drawn up, and after we had passed the burning cotton about half a block the rebels fired a volley at us, and would have captured us, but the negroes placed themselves between us and the rebels, and tearing up the pavement presented such a threatening aspect that in the course of five or ten minutes the whole force galloped off and left the city. We then went on and raised the flag of the Thirteenth Iowa Infantry over the Capitol of South Carolina in advance of all others.

After raising the flag, I was in the city the entire day and following night, until 4 A. M. the next morning. During the day the fire smouldered in the cotton bales until about 4 or 5 o'clock in the afternoon, when the wind became violent and furious, and burning flakes of cotton were caught up by it and carried to a great distance, igniting many of the adjacent buildings, and from them gradually spreading until, during the course of the night, it embraced a large portion of the city.

After we had planted our flag, I was in company with Kennedy and McArthur the remainder of the day and part of the night, and most of the time at or near the neighborhood of the burning cotton, and from my own knowledge I am sure the cotton continued to burn from before we entered the place until the wind arose and commenced scattering the fragments over a large portion of the city. I am certain no building caught until some time after the wind raised. At the time the first buildings were ignited, I was in close proximity to them, and from the fact that I was observant of all that was going on, I am certain that the fire started from the burning cotton bales we found on the street when first entering the city.

At the time the fire began in the buildings the Fifteenth Army Corps was on duty in the city, and all the streets were closely guarded by sentinels from that corps, so that I am confident the Federal soldiers could not or did not ignite the fire. After it had commenced I was on horseback during the whole night, until the time I left with my command the next morning, and during the time was in all parts of the city, and in not a single instance did I see a Federal soldier apply the torch to a single building of any description whatever.

I will further state that the rebel cavalry that fired on us were regular Confederates, soldiers belonging to Wheeler's Cavalry, and wore the regular Confederate uniform.

In regard to setting fire to buildings I will state an incident that came under my observation during the night. A German, who was a resident of Columbia, and therefore, a citizen of the Confederacy, set fire to his own building, saying that he did it for the purpose of revenging himself on the rebels for what they had made him suffer, and by burning his own house he would cause the burning of many others.

One fact I omitted to state in the proper place. That Kennedy, McArthur, and myself were the first men in the city, and thereby had excellent opportunity of seeing and knowing everything that transpired during the day and night, and until our departure with our command the following morning.

I have the honor to be your most obedient servant.

(Signed) W. H. GOODRELL,  
Late Captain Company B, Fifteenth Iowa Infantry.

BOONE, IOWA, Sept. 4, 1873.

General W. W. Belknap, Secretary of War,  
Washington, D. C.

Sir: In reply to your letter of August 23, asking for a statement in the shape of a report of the occupation and burning of the city of Columbia, S. C., will say that for the present I have not time to make as full a report as circumstances would require, should one be made, but will send you in this a communication that I sent to the *Chicago Evening Journal* last May, which gives part of the facts of the burning of the cotton and city. If this published letter will be of service to you, I shall be glad, and if a detailed report is necessary, please let me know, and I will furnish it as soon as I have time so refresh my memory and write it out.

In haste, very respectfully, your obedient servant.

(Signed) J. C. KENNEDY.

Late Lieutenant Colonel Thirteenth Iowa Infantry.

In the article in question Colonel Kennedy gives a circumstantial account of the crossing of the river by his party, and shows that he was the first man to enter the city. He says:

"My regiment—the Thirteenth Iowa Infantry—crossed the river in flat boats opposite the city, and, as the mayor was leaving Main street, going north, to surrender the place to General Logan's forces, who had crossed four miles above, entered, drove out a few soldiers and stragglers we found plundering stores and out-houses, had our colors flying over the State-house three quarters of an hour before Logan's troops arrived, and before the surrender was effected. It was after we had reached the State-house and before the other troops had joined us, that the cotton piled in the street was fired. I cannot for my life see how Wade Hampton and Beauregard are so positive that Sherman's soldiers first set fire to the cotton, for not one was near it when the fire first started, and certainly neither Hampton nor Beauregard was within 'gun-shot' of either the cotton or the State-house."

The circumstances under which the capture of the city was made are here explained. The surrender was made to the forces of General Logan, Commanding Fifteenth Corps, which had crossed the Congress by pontoon bridges above the city, and were marching into it by a detour down its left bank when met by the mayor and a deputation of citizens with a white flag. In the meantime General Belknap had ordered a party of the Thirteenth Iowa (which was immediately opposite, the city), Colonel Kennedy, of the Seventeenth Corp, to cross the river in an old flat-boat, and they entered the city as stated in the extract from General Sherman's report and in the order of General Giles A. Smith, Division Commander, Seventeenth Corps, published below.

Extract from general Sherman's report page No. 677, "Military and Naval History of the Rebellion," published by Appleton, 1866:

"About the same time a small party of the Seventeenth Corps had crossed the Congareo in a skiff, and entered Columbia from a point immediately west."

HEADQUARTERS FOURTH DIVISION,  
SEVENTEENTH ARMY CORPS,  
NEAR COLUMBIA, S. C., Feb. 17, 1865.

Brigadier-General William W. Belknap, Commanding Third Brigade, Division, Seventeenth Army Corps.

Sir: Allow me to congratulate you, and through you Lieut. J. C. Kennedy, Thirteenth Iowa Veteran Volunteers, and the men under his command, for first entering the city of Columbia, and the morning of Friday Feb. 17, and being the first to plant his colors on the Capitol of South Carolina. While the Army was laying pontoon bridges across the Saluda and Broad Rivers three miles above the city, Lieut. Colonel Kennedy, under your direction, fitted up an old worn-out flat-boat, capable of carrying about twenty men, and accompanied by Lieutenants H. C. McArthur and William H. Goodrell, of your staff, crossed the river in front of the city, and boldly advanced through its streets, sending back the boat with another, procured on the opposite shore, for more troops, and on their arrival, with seventy-five men in all, drove a portion of Wheeler's Cavalry from the town, and at 11:30 o'clock A. M. planted his two stands of colors, one upon the old and the other upon the new Capitol.

The swift current of the Congaree river, and its rocky channel, rendered his crossing both difficult, and dangerous, and in the presence of the enemy, but in what force is unknown, rendered the undertaking still more hazardous. Lieutenant Colonel Kennedy and his regiment are entitled to great credit for its successful accomplishment.

I have the honor to be, very respectfully, your obedient servant.

GILES A. SMITH.

Brevet Major-General Commanding.

HEADQUARTERS ARMY OF THE UNITED STATES,  
WASHINGTON, D. C., Sept. 12, 1873.

To the Editor of the Chronicle.

DEAR SIR: When you applied to me some time ago for material bearing on the controversy of "Who burnt Columbia?" I gave you two printed pamphlets, which I had obtained from Judge Holt, containing all the testimony taken in the cotton cases growing out of that event and submitted to the mixed commission appointed to adjudicate those cases under the treaty with Great Britain. Judge Holt could have obtained the testimony of all the 8000 or 10,000 officers and soldiers who were at or near Columbia when the conflagration occurred, but he thought he had enough without putting the government to the expense of bringing more witnesses from a distance. I suppose he did not summon Col. Stone, who commanded the leading brigade of the Fifteenth Corps, because he did not know where to find him. I surely did not know his whereabouts till he voluntarily published his statement. In my official report published before the close of the war when Gen. Wade Hampton was fighting us, and not when, as he alleges, he was a prisoner of war, I referred incidentally to a fact of which I had knowledge, that a small detachment of the Seventeenth Corps had passed over the Congaree, had entered Columbia and hoisted a flag on the new State House in advance of the regular entry of the Fifteenth Corps, which had made a circuit to cross the two branches, Soluda, and Broad, which make the Congaree. I treated the performance of this detachment as somewhat irregular, but the men who composed it now become important witnesses; and I

herewith enclose copies of their written statements, together with the official reports, which explain the whole affair. These witnesses go back to a time three-quarters of an hour before the entry of the head of Stone's brigade, and about two hours ahead of the time, I personally reached the piles of burning cotton, of which there were many, and I invite your careful perusal of their statements, for they are positive that they saw rebel cavalry soldiers ripping open the bales of cotton, and applying fire. They also saw rebel soldiers plundering the stores on Main street, which Gen. Hampton attributes to our men, and they positively assert that Hampton had already gone out of Columbia so that he could not and did not see his men applying fire. Now Hampton admits that the cotton was rolled out in the streets "for the purpose of burning," but that he forbade the burning, lest the fire should extend to the houses, and I reiterate that no matter what his orders were, the men of his army, either his rear guard or his stragglers, did apply the fire, and that this was a sufficient cause for all else that followed.

With great respect, yours,  
W. T. SHERMAN, General.

### REVIEWS

We have to acknowledge the receipt of a neatly printed pamphlet of sixteen pages from the "Gazette" Printing House, Montreal, the subject matter of which is "Comments on the Proceedings and Evidence on the Charges preferred by Mr. HUNTINGTON, M.P., against the Government of Canada,"—but as the REVIEW professes to be non-political, we forbear offering any opinion on its contents.

The *Phrenological Journal* for November has been received, and find it on perusal quite equal to any of its predecessors. It has a capital life-like likeness of the Rev. Dr. J. BLANCHARD, President of Wheaton College, Ill.—a man who had labored more assiduously, perhaps, than that of any other in the United States in the cause of the liberation of the Slaves of the South. In its pages will always be found a large amount of interesting and instructive reading. SAMUEL R. WELLS, 389, Broadway, New York, Editor and Proprietor. Price—50cts. a No. or \$3 per annum.

*Wood's Household Magazine* for November has been received. The contents of which are:—A Sermon on a Skimmer; Mrs. Pomeroy's Pin Money; The Nest over the River; Upon the Stand; Max Kromer; Pianissimo; Growing Aged Together; Codfish and Potatoes; Beautiful Leaves; How a Monkey made a Man; A Little Club Affair; In the Rough; Misery Jippeau; A Babe in the Wood; Children's Evening Hymn; The Nail; The Family Servants. Editorial—How we Found the Light. Correspondence—Cottage Design; Past, Present, and Future. Literary Notices—Our Housekeeper; Laughing Stock.

Price of Magazine, one dollar per year—with the Chromo "Yosemite," one dollar and a half. Address—*Wood's Household Magazine*, Newburg, N.Y.

*Blackwood* for October contain the following articles:—The Parisians; Book IX.; Narrative of Prince Charlie's Escape; A Railway Junction, or the Romance of Ladybank; Vienna in Exhibition twice; Edgar Waryrie's Escape; Republic or Monarchy in France; Autumn; Sayings and doings of the Recess. The Leonard Scott Publishing Company, 140, Fulton Street, New York.

### CORRESPONDENCE.

*I do not hold myself responsible for individual expressions of opinion in communications addressed to the VOLUNTEER REVIEW.*

To the Editor of the VOLUNTEER REVIEW.

DEAR SIR,—Permit me briefly, but in all courtesy, to say thanks; for your very flattering appreciation of the hasty, sketchy inconclusiveness of my infliction upon the REVIEW, and at the same time to disclaim any pretence to the heroic attributes inferred from their spirit, tone, or tenor. That a soldier should occasionally, by word or pen, evince his approval of a good blow, gallant deed, or generous act, is arrogating no exclusive merit, such as idiosyncrasy, being as natural to his vocation, as it is inseparable from every soldierly instinct.

Having inadvertently lifted upon military ethics it may be curious, if not instructive to note an aphorism imputed to the first Napoleon. "Allow me to write a peoples song, and let who will make their Laws." Now, was this the mere ebullition of a chafed and crushed spirit seeking some solace for shattered Fleets and routed Armies, in Napoleonic epigram? Or did a genius—which dictated those stirring appeals to the Legions of France; rousing them to a frenzied pitch of military enthusiasm—imagine that in Debben's Sea song there breathed a talismanic analogous to that of itself, and, therefore, a solution to Nelson's victories? These conjectures are not derogatory to so great a warrior, that very greatness entitling him to indulge in crotchets of which we see so many instances in lesser men.

How far the invincibility of our gallant tars has been stimulated by the inspiring strains of "Rule Britannia," or the popular epic of "The Saucy Arethusa," I am not prepared to decide. My limited knowledge of the brave reckless dog, is, that the current of his strains have a strong hand set. Driven by the green bushes, a favourite cruising ground, where he backs and fills, making good weather of it too, with a heavy consort in tow. Whilst the hirsute cavalry men breaks no squares, routes no squadrons, but, will, with absurd perversity, insist

upon being a "Butterfly born in a bower"—with a decided weakness for flowers. Perhaps the ignoring of the warlike is the delicacy that eschews the shop. Nor is it desirable either service should bore society by fighting their battles over again—"shouldering a crutch to show how fields are won." But to the youthful mind there is a deep fascination in the recital of daring adventures by land or sea. And it may be no excessive optimism to believe, that were the achievements of our Army and Navy—in some abridged form to occupy a prominent place in our elementary school literature, it might have a salutary influence, inasmuch as it—intuitively at least—inculcates a generous courage, self-abnegation and natural spirit. There need, alas! be no dread of a too rampant military spirit, and less, if possible, of a subservient hero worship in an age, the spirit of which is—*Nil admirare*.

SABREUR.

New Hamburg, Oct. 30th, 1873.

The Chicago Bank have resumed specie payment. On their account \$68,000 silver coin was received there on Saturday from the Philadelphia mint, and one private bank and one national bank are paying it out at par.

A fire broke out in Canestoga N, Y., on Sunday night, which was quenched next morning after burning over six acres of territory, destroying three hotels and thirty-two dwellings, and between forty and fifty places of business. The total loss is estimated by insurance agents at \$150,000 total insurance at \$90,000. The fire was undoubtedly the work of an incendiary.

A Memphis special says the situation is greatly improved, and a better feeling prevails among all classes. It is having fallen almost constantly for nearly twenty-four hours, it is doing a good work in cleansing the streets and gutters.

A young couple were married in a balloon above San Francisco on Saturday.

Secretary Richardson expects to issue this week about \$20,000 of silver in the regular course of business, but this will depend somewhat upon circumstances. A gold should go up, silver would not be paid out, nor would it if it were to be paid to bankers for speculation purposes. It is not to be expected that the treasury will begin just now to pay out silver coin for every purpose and thus exhaust the entire amount held by the Government.

A London despatch says a private letter from Borneo, dated August 12th, says Livingston is a prisoner in Central Africa, held by a savage tribe, and is, unable to pay the ransom which has been demanded for his release.

The Right Hon. Sir William Boville, Lord Chief Justice of the Court of Common Pleas is dead.

The mills in Newburg, N, Y., have closed indefinitely, and 400 persons are thrown out of employment,

The following beautiful lines appeared in the *Maritime Monthly* for October, the writer was formerly the editor of the *VOLUNTEER REVIEW*.

ISLE OF MEMORY

L'ultimo, lasso, de miei glori allegri,  
Che pochi no vido in questo, vlor brevi.  
PETRARCA, SONETTO CCLXXIV.

O, most dear to memory  
Is that Island in the sea,  
Where the tessellated wild caper blooms,  
There the breezes sink to sleep,  
On the bosom of the deep,  
Made drowsy with the weight of sweet perfumes.

There the towers of St. John  
Brood above the subject town,  
Where the banner of the Master floats no more;  
And the sound of convent bells  
From the valley upward swells,  
And the lotus eaters dream upon the shore.

There a Saint's uplifted hand  
Pours a blessing upon the land,  
And pilgrims kneel before the lighted flame;  
And the old heroic past  
Throws a shadow dim and vast,  
Like a giant's from the mountain to the plain.

Now my heart beats faint and slow  
In this land of storm and snow,  
As I babble to myself of that sweet scene,  
But the beautiful was mine  
In the land of song and wine  
And my soul rejoices now that such has been.

Ottawa, Sept. 1872.

CARROLL RYAN.

THE FORTIFICATIONS OF PARIS.

A correspondent of the *Scotsman* writes from Paris as follows:—

It is always a question of fortifying this, that, and the other—the new frontier, the coasts, the capital, and so forth. The fortified barrier which Vauban made has been highly considered by some military authorities, and condemned by others. According to some writers these strong places permitted France to act on the strategic principles of the badger; she could venture out to fight, and, if beaten, retire into her box. However, it must be admitted that the fortresses did little for France during the invasion of the allies, who left troops behind to watch them, and marched boldly upon Paris. During the last war, too, only one (Belfort) successfully resisted the Germans; all the others gave but little trouble—made, in fact, so poor a resistance that nearly all the commandants were censured by court martial. The advocates of forts, however, plead in the latter case that the places so easily captured were not provided with the proper means of defence, and that the fault did not lie in the system of forts, but with the administration which had left them without guns, ammunition, or garrison, and quite unprepared to meet the attack of modern artillery.

A military writer studying this question, to-day asks what the "fortified barrier" has ever done for France? He says that at the end of the reign of Louis XIV., a big war, dreaded by Vauban, placed the monarchy in face of a formidable coalition. Though successful at first, France was in the end obliged to defend her own territory, and after the battle of Blenheim, she lost 100 leagues of country, and was obliged to evacuate Germany. The war was then carried into Flanders, where Villeroy lost the battle of Ramillies, with that defeat all Britain and Flanders had to be abandoned, and the enemy entered Brussels, and captured Antwerp, Ostend, Menin, Ath, Dendermonde, Malines, Ghent, and Courtray, only leaving the French masters at Mons and Nimur, which fell later in the campaign. After Malplaquet, another batch of places fell without having been of any use in the general defence of the country, but quite the contrary. Marshal Villars, who had succeeded Villeroy,

was constantly receiving orders from Court to cover Arras, or some other place considered essential for the protection of Versailles, and by furnishing garrisons, posts, &c., he weakened his army in the field.

On their side both Marlborough and Eugene would have treated the fortresses with the contempt they deserved, but for the Dutch, who, as in the days of Canning, were fond of giving too little and asking too much. Not only did Holland try to humiliate the great king who had so cruelly treated the Low Countries, but its Government was obstinate to a degree, and blinded by mercantile cupidity. The Dutch made a secret treaty with England, by which all the places captured along the French frontier should be handed over to them, and receive a Dutch garrison and a Dutch governor. The consequence was that when Eugene and Marlborough desired to take the field and fight the French, the deputies of the States of Holland always interfered, and insisted on the siege of Douai, Bethune, or some other place. It was with the greatest difficulty that the allied generals could obtain the authorization to fight the battle of Malplaquet. It is clear that, but for the avaricious conduct of the Dutch, the northern line of places would have aided France but little, and that if Eugene and Marlborough lost time in undertaking sieges, it was contrary to their desire.

However, one now-a-days remarks that the Prussians, who are a practical people, are spending vast sums of money in forts, and are rapidly completing a system of works, not only to protect Alsace and Lorraine from a sudden irruption on the part of the French, but to guard against attacks on the part of England, Russia, or Austria.

Round Paris we had some experience of forts during the siege. It is true that the Prussians neither stormed Vanvres nor Issy, nor any of the other works seriously attacked, nor did they effect a practicable breach (though that would have been done had the siege continued a few days more), but the French suffered heavily, and the gunners were driven away from their pieces. When the armistice was signed there were half a dozen forts in such a crippled condition as to be hardly able to reply to the fire of the enemy, whose rifled guns were brought to bear on the embrasures with fatal precision.

I believe that the question of how Paris is to be retortified has not yet been decided, though the probability is that we shall have a new line of forts pushed a little further out than the present ones. However, this system would not prevent the capital being starved into submission if deprived of railway communication.

DEMOLITION OF A MARTELLO TOWER.  
BY GUN-COTTON AT HYTHE.

The Royal Engineers' Experimental Committee attended at Hythe on Monday and proceeded to carry out their operations against No. 10 Martello Tower, which had been condemned at the instigation of the Seabrook Estates Company (Limited), who contemplate when the new branch from the South Eastern line of railway is completed, building here a splendid watering-place that shall outrival Scarborough in the beauty of situation, if it does not in popularity. Martello towers are very unsightly structures, and would certainly be anything but an ornament to a Seabrook marine parade of the future. It was, therefore, highly necessary that such an obstruction should

be removed; its removal also afforded another opportunity for our military engineering school to experimentalize on a large scale and determine the effect of a supposed improved explosive force. Gun-cotton has been, we know, an invaluable agent of the engineer. From time to time it has been improved, and when scientifically handled it is one of the best explosive powers we have at command, its force, weight for weight, being nearly five times greater than gunpowder, as was demonstrated a short time back at Hastings.

2. The following was the official programme, made under the superintendence of Captain V. G. Clayton, R. E., the secretary of the Royal Engineer Experimental Committee at Chatham:—"150lb. nitrated gun-cotton, wet, were placed in three equal heaps on the floor; a primer of half-a-pound of dry nitrated gun-cotton was placed in the centre of each heap, into each primer two detonating fuzes were inserted—the fuzes were connected in continuous circuit—and the charges were fired by means of the Service pattern dynamo-electric machine."

Previous experiments have shown (1) that 200lbs. of gun-cotton, manufactured at Stowmarket, were sufficient to destroy a Martello tower; and (2), a better effect was produced by sub-dividing the charge into three heaps, than by using it in one mass only. The experiment of Monday last was intended to try if three-quarters of the amount used previously would effect demolition, the cotton used being nitrated, and of Waltham Abbey manufacture. Two fuses were used for each heap to ensure firing in case any defect of insulation, &c., should render one fuze useless.

By the time appointed (two o'clock) the whole of the arrangements were completed, and with the aid of a company of the Royal Engineers from Shoreham and the Kent County Constabulary the ground in the vicinity of the tower was cleared of curious spectators who had assembled to see the novel sight. The signal being given, a loud report followed, and the tower was suddenly enveloped in a dense mass of smoke. As this gradually cleared the tower became visible, at a distance appearing a little unshapely, and with some terrific rents and cracks in its walls, but still a dangerous looking ruined tower. A close inspection showed that the effects of the explosion had been to sever the walls longitudinally from base to crown in eight different places. A tremendous crack extended the whole of the circumference, about two-thirds the total height from the ground, and the upper portion was displaced as if it had received a sudden wrench.

Masses of brickwork, weighing several tons had become detached, and fallen on the beach on the southern side. The central pillar of solid brickwork which supported the roof was entirely demolished, and with it, of course, the roof had disappeared. The tower had apparently been skinned of its outer course of bricks for a considerable distance, on its upper surface, while the base of the building, with the exception of the longitudinal cracks previously mentioned, appeared little worse for the strong convulsion it had undergone. It is noteworthy that none of the fragments appeared to fly any great distance, and although several articles and debris were scattered about in the immediate neighbourhood of the tower, none appeared disturbed by the explosion. The explosion hardly effected the result desired, but this is more owing to the accidental sustaining force lent by each separated

mass of brickwork to the other after the explosion than to any want of force in the agent employed. The experimenting committee appear to have arrived at the exact quantum of explosive matter required for the demolition of this class of building, and that their theory should be thus far borne out by actual result is a matter of congratulation both to them and the country.—*Broad Arrow.*

#### A NEW EXPLOSIVE.

We are indebted for the following to the *Times*.—

“Shortly after the discovery of gun cotton in 1846, attempts were made to increase the explosive force of that substance by impregnating it with a solid oxidising agent such as saltpetre. The preparations of gun cotton were saturated in a solution of the salt, and the water was subsequently evaporated, but the quantity of the ‘nitrate’ or ‘chlorate’ which could be introduced by this, the only practical mode of treatment, was so small as to be of little value. The system of reducing gun cotton to a fine state of division by the pulping process has, however, afforded the means of readily incorporating the substance with an agent sufficiently rich in oxygen to oxidise the whole of the carbon in the gun cotton preparation. This requires a comparatively large proportion of saltpetre, or other analogous salt, and Mr. Abel succeeded three or four years ago in obtaining some very promising results in this direction.

“The general mode of producing ‘nitrate’ or ‘chlorate’ preparations of gun cotton may be briefly described as follows:—

“The requisite proportion of the oxidising agent, such as saltpetre, is reduced to a very fine powder, and is then intimately mixed with the finely divided or pulped gun-cotton, by steeping the latter in a saturated solution of the salt. The mixture is then granulated or compressed into any desired form by the usual method now followed at Waltham Abbey in the preparation of Abel’s compressed gun cotton.

“The product obtained in this way, especially in the disc or compressed state, possess several important advantages over ordinary compressed gun-cotton. The nitrated material forms very hard masses, which are much less liable to break up or give off dust when roughly handled than the ordinary substance. This comparative hardness is probably due to the particles of the mass becoming firmly cemented together by the crystallisation of the salt on the evaporation of the water during the process of drying. Indeed, it has been found that the application of considerably less pressure than is required to produce very compact cakes of ordinary gun-cotton suffices to furnish masses decidedly superior both in hardness and compactness. Moreover, the cakes, or discs, of the nitrated preparation, when dry, are found to have become coated with a hard film of the salt, which acts as an additional protective against mechanical injury, renders the surface less dusty, and thus less readily inflammable than the ordinary kind.

“Again, it has been conclusively demonstrated by several experiments, continued for considerable periods, that the nitrated preparation is more stable when exposed to the action of high temperature than the unimpregnated gun-cotton.

“So far, therefore, as concerns the question of storage and transport, the nitrated material possesses several important advantages over ordinary compressed gun cotton,

but on the other hand, it has two drawbacks.

“It has now being decided—wisely, we think—to store all large supplies of gun cotton in the wet state, in which condition the material is perfectly unflammable by ordinary heat. For this purpose the discs of gun cotton are packed in large wooden waterproof tanks, fitted with means of drainage. A tank holds a ton of gun-cotton discs, each disc being three inches in diameter by about two inches in depth, and the ordinary material is wetted by simply filling the tank with water, and allowing the latter to drain off.

“With the nitrated preparation, however, it is desirable that a weak solution of saltpetre instead of pure water should be used in wetting the gun-cotton.

“We do not urge this as a serious drawback, but it is evident that the process of wetting, and re-wetting when necessary, a store of ordinary gun cotton is a comparatively simple process, whereas the same operation might, in the case of nitrated gun cotton, be attended with more or less difficulty under certain circumstances of storage.

“Again, the wet nitrated preparation does not dry so readily as the ordinary material; but, on the other hand, this objection is almost negated by the fact that wet gun cotton, whether nitrated or not, can be detonated, and made to produce equal, if not superior, effects to the substance in the dry state. Gun-cotton has been detonated with most destructive effect under water, by simply filling a bag net with discs and exploding them by means of one dry disc enclosed in waterproof envelope. The detonating fuse is inserted in the dry disc and its detonation determines that of all the remaining discs, although the latter are absolutely immersed in, and in contact with, the water.

“In comparing the explosive action of equal weights of compressed gun cotton and of the ‘nitrate’ mixture, it must be borne in mind that a considerable percentage of the total mass of the latter is formed of a material of about one sixth the cost of pure gun-cotton. Thus a ‘nitrate’ mixture, prepared with the full theoretical proportion (about 35 per cent. by weight) of the oxidising agent, will not quite equal the effects obtained from the same total weight of ordinary compressed gun-cotton. In other words, the force of the explosion of, say, 100lb. of a material which consists of 35lb. of nitre and 65lb. of gun-cotton will not equal that of 100lb. of pure gun-cotton. Here the loss of force due to the replacement of about one-third of the gun cotton by the salt used is not fully compensated for by the extra work obtained from the complete oxidation of the remaining two-thirds of gun cotton. If, however, about three fourths of the theoretical amount of the salt be employed, the mixture will, weight for weight, equal ordinary compressed gun cotton in explosive effect, although, as we have said, a considerable proportion of the gun-cotton has, in the nitrated preparation, being replaced by a comparatively inexpensive substance. Thus the use of nitrated gun cotton will be attended by material advantage in point of economy.

“But if equal volumes of highly compressed gun cotton, and of the ‘nitrate’ or ‘chlorate’ mixture, similarly compressed, are compared, the explosive force of the latter will be found to be much greater. Chlorated gun-cotton is decidedly more violent in its action than the nitrated mix-

ture, but it is more costly to manufacture, and more dangerous to store and use. The ‘chlorate’ salt is comparatively high in price, and more of it is required to furnish the requisite amount of oxygen; it is, moreover, very susceptible of ignition by friction or percussion, and is, therefore, comparatively dangerous. For these reasons, it does not compare favourably with the ‘nitrated’ preparations. Of the latter the best is that in which saltpetre is used. It is the most readily prepared, and its tendency to absorb moisture is not appreciably greater than that of ordinary compressed gun cotton.

“We understand that important experiments have been, and are being, instituted jointly by the Special Committee on Gun-Cotton, the Torpedo Committee, and the Royal Engineer Committee, on the comparative explosive properties of ordinary gun cotton, both in dry and wet state, and of nitrated gun cotton under similar conditions.

“Some of these experiments are made by exploding under water equal weights of the several substances under identical circumstances, and registering the resulting pressure or blow by a ‘crusher’ gauge somewhat similar to the pressure gauge used by the Committee on Explosives in determining the explosive force of gunpowder in the chamber of a gun.

“Experiments have also been made to ascertain the rapidity of detonation; in other words, the rate at which a string or row of gun cotton discs placed close to one another, will successfully explode if detonated at one extremity. For this purpose the beautiful chronoscope invented by Captain Andrew Noble F. R. S., has been successfully employed. This instrument is designed to measure very minute portions of time, and by arranging the primary conducting wires at equal intervals along a long row of gun-cotton discs a register is obtained of the time occupied in successively breaking the wires at the explosive wave flashes along the row. It has thus been ascertained that the rapidity of the detonation of gun cotton is about 20,000 feet per second.

“The expansive velocity of the gases generated by the explosion of gunpowder has been reckoned at about 7000 feet per second, so that, according to this estimate, gun cotton has about three times the explosive rapidity of gun powder. It is probable that the destructive force of an explosive substance bears a close analogy to the rapidity with which the explosion is transmitted, and the experiments we allude to may possibly furnish most interesting and valuable results. But whatever may be the method followed in experiments, the considerable advantage which nitrated gun cotton possesses, both in point of cost and power, added to the fact that it is so rapidly susceptible of ignition by detonation, renders it highly probable that this preparation of gun cotton will be largely substituted for the ordinary compressed material in many of its applications.

“Moreover, the circumstance that carbonic oxide, a poisonous gas which is produced in considerable amount upon the explosion of ordinary gun cotton, is present in the products of explosion of nitrated gun cotton in scarcely higher proportion than in those of gunpowder, appears likely to remove that objection to the employment of gun cotton in military mines which arose from the large quantity of carbonic oxide developed when heavy charges of gun cotton were exploded.

"Altogether, the War Department may fairly congratulate themselves that they did not allow the Stowmarket catastrophe to lead them to abandon a material which is eminently suitable for military purposes, and daily gives fresh proofs of its economical and efficient character."—*Broad Arrow*.

#### LORD ELCHO ON MOUNTED RIFLEMEN

The question of the proper training of mounted riflemen was treated by Colonel Wood, V.C., in his recent lecture, with special application to the regular army, in which he sought to have a small contingent of the new arm formed at once on the model he proposed. But it was well understood that his remarks applied with even greater force to the auxiliaries, and especially to those so called Yeomanry cavalry regiments which are the heritage of a bygone age, useful rather in an historical point of view as monuments of feudalism than for any practical purpose in their present gaudy and wholly unserviceable shape. This does not appear, however, to have been the application made of Colonel Wood's study by the chairman, Lord Elcho, who followed up the discussion by a correspondence, since published as a pamphlet, in which he advocates the making a great part of our cavalry—the Hussars at least—more or less mounted riflemen, armed with a light long ranging, breech loading rifle, and trained to act on occasion as infantry skirmishers. In a letter to the Duke of Cambridge, which heads the correspondence, his lordship not only offers his suggestion, but anticipates and replies to the objections which he knows may be raised to it, and more especially to that important one that "as cavalry they would learn to trust to their rifle and not to their sword." We need not follow his arguments here. That on which he evidently relies is the existence of the admirable little corps, or rather troop, of Hussar Volunteer Horse, commanded by Colonel Bower, who manage to carry their rifles on the saddle without difficulty by the aid of the contrivance known as the Namaqua bucket, and yet says truly enough, cavalry armed only with the carbine would be no match at a long range for such a force; and he proceeds to argue that the present dismounted drill might be easily modified, and the improved weapon carried as described, without hindering the efficiency of the force as all theory is against this view; and the argument he attacks rests not only on physical causes, but on that moral element which organisers cannot overlook without failure. In short, he seems to us to leave this old question of the possibility of making cavalry infantry at will pretty much where he found it. Some sharp correspondence seems to have followed on this letter to the Commander-in-Chief; and a special inspection took place of Colonel Bower's volunteers, to the details of whose practice the Horse Guards raise certain objections, though, it is added, either as a compliment or in irony, that the "field marshal has no desire to interfere or make any change in the system or equipment." This, if sincerely meant, was by way of balance probably to the desire implied that no change at all should be made in our present cavalry system in the direction Lord Elcho suggests. Possibly enough, the military authorities at Pall Mall are rather sore at an obvious shortcoming being indicated by a civilian. Indeed, his lordship, though apologising with much humility for intruding into the professional arena, hardly took the best way to conciliate them when, in arguing for his position, he pointed ever so lightly to that obvious blun-

der of our most recent cavalry regulations which still shows the possibility of the silly practice of skirmishing with the carbine on horseback: "than which," as he most justly observes, "a more wasteful expenditure of ammunition cannot be conceived, it being a relic of the days of inaccurate firearms, when the best chance of hitting an enemy was not to aim at him." The truer such a remark, the more certain it is to wound those whose obstinacy is answerable for the maintenance of the folly.—*Pall Mall Gazette*.

#### TRIAL OF THE DEVASTATION.

At length the *Devastation* has made an exceeding good and satisfactory trial, meeting off the rough headlands which project into the Atlantic from the coast of Berehaven with a strength of wind from 7 to 8—moderate gale force—and with seas having a maximum height of twenty three feet, but somewhat deficient in length. The *Devastation* had never previously met with so much wind or sea since she has been afloat, and the very creditable way in which she came out of the day's trial comparatively with the ship accompanying her, the *Agincourt*, the flagship of Rear-Admiral Hornby—a ship whose sea going qualifications are known and admitted to be of the best character as an ironclad—would appear to fully confirm opinions which have been previously given in the columns of the *Times* upon the monitor's stability and seaworthiness.

From the time of the *Devastation's* return to Berehaven anchorage on Tuesday evening last week until Sunday evening the wind had held light from north-north west, with an occasional fly out to west or west south west for a few hours. On Sunday evening, however, a heavy blow suddenly set in, after a day's heavy rain, and increased to a strong gale towards midnight. Second anchors were let go by the *Agincourt*, the *Devastation*, and the *Sultan*, but by seven o'clock the following morning (Monday, the 15th) the *Agincourt* and the *Devastation* were weighing theirs again, again, to give the monitor a day's trial, the *Sultan* remaining at the anchorage. Rear-Admiral Hornby, accompanied by Flag Lieutenant Bruce, embarked on board the *Devastation* before eight a. m., and the two ships were soon afterwards clear of Berehaven, and steaming out to sea, on a course parallel with the land, for Dursley Head and the Calf Rock Lighthouse. Between Berehaven and Dursley Head the wind was found strong, with a higher sea than was found in the same position by the *Devastation* and the *Sultan* on the previous Tuesday, but there was not as yet nearly so high or long a run of the sea as had been anticipated as the results of the very strong wind during the night. The rate of steaming started with from Berehaven would have given the ships about eight knots in smooth water, but, steaming now, as they were, with the sea breaking a point or two on their starboard bows, the log showed their speed to be reduced by the sea to about six and a half knots, the two pitching very heavily at times, but the *Devastation* certainly pitching less now than she did in the more broken and irregular seas on Tuesday, although she was now contending with much greater seas and with a very much stronger wind. At about 11 30 a. m. when Dursley Head was abeam on the starboard hand, the *Devastation* made the heaviest pitch she had yet made since leaving her anchorage, making 6 degrees a. each end, or 12 degrees from "out to out." She

took a great quantity of water on board as a matter of necessity, but it ran off and overboard again nearly as quickly as it came on. The *Agincourt* was pitching not a whit less than the *Devastation*—in fact she now and then appeared to excel the *Devastation* in her performances in this respect. After passing Dursley Head and the Calf Lighthouse the speed of the ships was kept up at about the same rate, but to do this the speed of their engines had to be increased, the *Devastation's* being advanced from 45 to 51 revolutions per minute; but some time afterwards the speed of the engines was reduced again, this time to 40 per minute, to observe the action of the vessel in meeting the seas at the two rates of speed. At the lower rate, of course the *Devastation* moved along more easily, the wind and the sea being kept about three or four points on the starboard bow. This position of the sea and the wind to the *Devastation's* bows when she may have to steam against a sea is undoubtedly her best point, but the same may be said of all ironclads. The ships were afterwards gradually edged off the wind, observations being taken of their action, until she was brought dead on to the broadside, when the engines were stopped and the ships kept lying in the trough of the sea for some time, to ascertain the amount of roll which could be got out of them, the estimate maximum height of the waves observed during the time being 23ft. These observations were taken on deck by battens, and were quite independent of the diagrams being made below by Mr. Froude's automatic apparatus.

At 2 p. m. with the engines stopped and the sea breaking dead on the starboard broadside, the *Agincourt's* signalled return was—rolls per minute, nine in number; maximum roll from out to out, 17 deg.; mean of all rolls from out to out, 4 deg.

*Devastation*, 2 p. m.—Rolls per minute, 9·2 in number; maximum roll from out to out, 14·74 deg.; mean of rolls from out to out, 4·5 deg.

The next observations of the two ships were taken with the engines driving them ahead again, when the results were found—*Agincourt*.—Rolls per minute, 9·5 in number; maximum roll from out to out, 11·5; mean of rolls from out to out, 6·5 deg.

*Devastation*.—Rolls per minute, 9·2 in number; maximum roll from out to out, 14·74 deg.; mean of roll, out to out, 3·2 deg.

Shortly afterwards the course of the two ships was altered for the land and their return to Bunry Bay, bringing the wind and sea four points abaft the port beam, and observations with the batten indexes were again taken to get the roll of the ships in going before the sea, or nearly so. The results were as follows:—

*Agincourt*.—Roll per minute, eight in number, maximum roll from out to out, 19 deg.; mean of rolls from out to out, 11·4 deg.

*Devastation*.—Rolls per minute, 9·2 in number; maximum roll from out to out, 13·75 deg.; mean of rolls from out to out, 4·1 deg.

In steaming in Bunry Bay both ships gave an occasional roll of quite an exceptional character. Those of the *Agincourt* were not signalled, but three made at different times by the *Devastation* reached 25·0 deg., 25 deg., and 26·75 deg., from out to out or through the entire swing.

The maximum length of the waves may be taken at 300ft. On board the *Devastation* their maximum height was estimated at 23ft., but on board the *Agincourt* they were estimated at 27ft.