

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

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

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

Cover title missing/
Le titre de couverture manque

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

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

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

Showthrough/
Transparence

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

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

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

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

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

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

Title page of issue/
Page de titre de la livraison

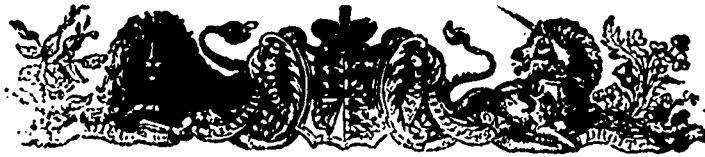
Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments:/
Commentaires supplémentaires:

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

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



The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. VII.

OTTAWA, (CANADA,) TUESDAY, DECEMBER 9, 1873.

No. 49

NEWS OF THE WEEK.

The storm of Thursday last was the most severe one of the year. It blew a perfect hurricane the whole day, doing an immense amount of damage to life and property. It was particularly severe in the neighbourhood of Richmond and Carleton Place. Several houses were blown down, others unroofed, bricks from chimneys flying through the air in all directions, and making a perfect reck of telegraph poles thereby cutting off all intercourse with the outer world. Loud Boreas ruled supreme. It is said that at Carleton Place piles of sawn lumber were carried through the air like bits of paper, and one man was seriously injured by a falling board. Another man named Alex. McRea, while in the act of closing the door of Mr. Byer's barn, Richmond road, was instantly killed by the door being violently swung open by the action of the wind striking him a fearful blow on the head. The casualties in and around Ottawa are too numerous to particularise. We doubtless shall hear more of its doings when the telegraph gets again into operation.

This year has been more than unusually prolific in marine disasters, and its close is marked by the loss of the *Ville de Havre*, by which two hundred and twenty persons have perished. The *Ville de Havre*, a large and magnificently fitted steamer, plied between New York and Brest. At two o'clock on the morning of the 23rd of November she came into collision with the British ship *Lockern* from Glasgow, and sunk in ten minutes, being only time to save eighty-seven persons.

The President of the United States has presented his annual Message to Congress. He begins by referring to the financial crisis, and that the relations of the United States with other nations continue to be friendly and cordial. He then refers to the settlement of the *Alabama* and other claims by the Geneva and Washington conventions growing out of the late Southern rebellion, and recommends the appointment of a special court to consist of three Judges who shall be empowered to hear and determine all claims of aliens upon the United States arising out of acts committed against their per-

son or property during the insurrection. The next subject of importance is that of the capture of the *Virginus*, by Cuban authorities, and of the settlement of the difficulty with the Spanish government; and asserts his "conviction that the existence of African slavery in Cuba is the principal cause of the troublesome condition of the island." Suggests a better method of electing the President and Vice President of the nation—the establishments of Clearing Houses, and to secure a larger proportion of the Carrying Trade—the revision and codification of the Tariff laws, and the opening of more Mints for coining money—the necessity of the Navy being increased and put in a better condition for sea service—recommends the repeal of the Bankrupt law so far as it provides for involuntary bankruptcy on account of the suspension of payment. These constitute the principal items shadowed forth in the Message.

The Quebec Legislature was opened on the 4th, and that of British Columbia is summoned for the 15th.

Since our last, the following additional members of the Cabinet have been elected: The Hon. Isaac Burpee, Minister of Customs; Hon. R. J. Cartwright, Minister of Finance.

During the investigation into the loss of the steamer *Bacarian*, the ladies' maid swore positively that the large boat, in which was the pilot, Napoleon Dufour, and several Frenchmen, was rowed away without making the slightest attempt to save any one; also that it only took five minutes to bail out the boat, and that it would have held more. She was in the boat, and the water only came over her boots. The evidence of Mr. Parmenter, Toronto, was to the same effect. All the witnesses testify to the suddenness of the disaster. Communication between the two ends of the vessel was entirely prevented, which added to the confusion.

It is said there is a large emigration from the United States to Manitoba.

A firm in Montreal has this season shipped 30,000,000 feet of lumber to Monte Video. Buenos Ayres, and 20,000,000 feet to the United States.

A considerable portion of the surveying force in the Northwest has been discharged

for the winter, on account of the exhaustion of the appropriation, although the Government are retaining as many as possible, for which a supplementary estimate will have to be obtained.

A deputation from Manitoba is coming to Ottawa to negotiate with the Dominion Government for the enlargement of the "Prairie Province," in accordance with an act passed by its local Legislature at its last session. It is proposed to extend the Province eastward to the boundary of Ontario, which is yet undefined, and also to the north and south for a considerable distance.

A report from the Cape Coast says another engagement has taken place with the Ashantees, in which 40 Englishman and native auxiliaries were killed and wounded. The Ashantees boldly attacked the British position, but were driven off.

The British Government experiences great difficulty in obtaining recruits for the army.

The Washington correspondent of the *Boston Journal* says that army officers, returned from the Yellowstone expedition, report that the greater portion of the land near the line of the Northern Pacific is valueless.

Stanley, of African notoriety sailed recently, as a correspondent of the *London Times*, for the west coast of Africa, taking with him a large steam launch.

During the recent hurricane at Tortugas, West Indies, it is said a solid bar of iron weighing 1,500 pounds, was carried 200 yards over the parapet of the fort.

The sardine fisheries in France at present employ 20,000 sailors and some 18,000 men, women and children on land to prepare the fish for market.

Fully two-thirds of the writers on the New York press are under thirty-five years of age, and nearly one-half are scarcely thirty.

Captain Cameron, of H. M. North American Boundary Commission, and Lieut. Colonel French Commissioner of the North West Police force, reached St. Paul, Minn., on the 5th en route for the Manitoba.

By late advices from Fort Garry, Manitoba, we regret to learn of the total destruction by fire of the Parliament Buildings; nothing having been saved but the books.

THE BATTLE OF LEPANTO.

THIRD ARTICLE.

(Continued from page 538.)

And now each fleet was in order of battle, in the form of a half-moon with its horns in advance. On the right of the Christians was the famous *Doria*, with some sixty Sicilian Genoese, and Maltese galleys; on the left the *proveditore* Barbarigo, with a like number of Venetians, while the centre, or *battle*, as it was then called, composed of eighty of "the best vessels that had ever been built," was led by Don Juan himself with the great Colonna on his right, and the veteran Veniero on his left, who notwithstanding his disagreement with his commander-in-chief, seconded him, on this occasion, loyally and well, thus setting the seal of honor upon a long life devoted to the service of his country. The reserve of thirty-six vessels was conducted by the chivalric Don Alvaro de Bazan, marquis of Santa Cruz; and just astern of the *Real*—the designation then given to the ship of a Spanish admiral in-chief—was Don Juan's old preceptor in the art of war, Don Luis de Requesens, commander of Corsica.

The battle of the Turkish fleet consisted of ninety-six vessels, of which the right centre was led by Ali, the left centre by the Bushan Perten. The right wing was intrusted to Mehemet Sirocco, Viceroy of Alexandria; the left to the Calabrian renegade Uluch Ali, Dey of Algiers. In rear of the battle was a strong reserve, commanded by Amurath Dragut, an officer of approved capacity, experience, and valor.

When the two fleets had approached within a mile of each other, they ceased rowing, in mutual admiration, for the day was bright and beautiful. Not a cloud disturbed the repose of the blue sky above, nor a solitary ripple that of the placid waters below, and the mid-day sun shone with resplendent lustre upon lance, and shield, and helmet—upon glittering breast-plates and helmets of burnished steel. The great banner of the League, with its piteous crucifix, at the foot of which were to be seen the arms of Venice, Spain, and the Pope, bound together by a circular chain, was not more conspicuous than the green standard of the Prophet, all covered with verses from the Koran, in letters of silver and gold. The red flag of the corsairs of Algiers, with its hateful device, the head of the fierce Hali, son-in-law of Mohammed and the dreadful enemy of all the Christians of his day, was well met by that of the knights of Saint John, whose presence on the battle-field was ever a terror to their foes. And along the whole infidel line the ancient Byzantine crescent, now appropriated by the Turk, and suggestive of devastation and death, was nobly opposed by the pure, white cross inscribed on every banner in its front, teaching the story of the life to come.

A gun was fired by Ali, and, as if aroused from slumber by its report, the Christian fleet began its move, and opening from the wings and centre, unmasked its six leviathans—for such the Venetian galleasses must have appeared to the eyes of the astounded moslim—whom, passing through the gaps left for them, now rowed slowly and majestically forward until they had got a half-mile in advance, when they lay on their oars, while the vessels that had made way for them resumed their stations, and the line was closed as before.

Then a deafening cheer arose from the whole Christian front, followed by cries of

bitter reproach and insult to the Moslem; yet not for this did the Turks, who were already in motion, cease for a moment in their career. On the contrary, brandishing their weapons and striking their shields together, after the manner of their remote ancestors when engaging in battle, they replied to the taunts of their enemies with loud shouts of *God is great! Mohammed is his Prophet!* and urging their galleys to their utmost speed, advanced steadily and in splendid order to the encounter.

Their extreme right, piloted by a Genoese renegade, who knew the soundings of every foot of the gulf of Lepanto as an astronomer knows the stars, boldly dashed through a narrow and intricate passage between two coral reefs over which the sea was even then breaking, and assailed the Venetians in flank while Uluch Ali rapidly extending toward the left, endeavoured to turn the Christian right. Foiled in this by his adversary, the descendant of a long line of distinguished admirals, and himself the most experienced of the Christian commanders, the redoubtable corsair, who well deserved the name afterward bestowed upon him by the Sultan, of *Al Kilich*, or the Scimitar, made directly for the Maltese galleys, which during the manœuvring necessary to prevent the right flank from being turned, had become widely separated from their consorts, and sinking some of them and disabling others, carried off their largest vessels in triumph. Then passing through the line and attacking it in rear, he forced Don Alvaro de Bazan, with all his strength, to hasten to the relief of the outnumbered and overpowered Genoese, whose vessels, sorely beset on all sides by the Algerines, were fast falling into infidel hands.

While such was the success of the Turks on the left, on the right, where they had commenced the fight under such favourable auspices, fortune was preparing to set her face against them; for the *proveditore*, far from being dismayed at the approach of his enemies through a channel which his own pilots had told him was impracticable, ordered his flanking squadron to make a half-wheel to the left, in readiness to receive them; while he himself, with his remaining squadrons, advanced, in unbroken line, to attack Mehemet Sirocco, who had opened a tremendous fire on his front. For three long hours the battle was carried on, in this quarter, in the most vindictive spirit by both parties, while the old lion of St Mark, restlessly impelled by the breeze to and fro, above Barbarigo's head glared fiercely down upon the crocodile, whose distended jaws served as a beak for the Egyptian viceroy's riddle. The fight between the flagships was sustained with equal valor on both sides, and each admiral was gallantly supported by all the vessels of his command; but Barbarigo, falling to the deck, pierced through the eye by an arrow, the crews of his vessels became disheartened, and, disregarding the remonstrances and threats of their officers, prepare to strike flags to the Egyptians. The cry for a surrender has passed from ship to ship, and in a few moments, on the left, on the extreme right, the cross will cease to fly in presence of the crescent. What hope then of saving the Christian centre? "Christ will descend to save his people!" cries an Italian friar, who, holding aloft the crucifix, oppose his single person to the hosts of Egyptians now pouring aboard their fancied prize—the Venetian flag-ship. A hundred arquebuses are levelled at his breast, and a hundred scimitars flash above his head; but lo! unscathed, he still remains, erect, wav-

ing the holy symbol high in air. Encouraged by the *miracle*, the Christians now furiously turned upon their assailants, while the Turks, seized with mortal terror, first waver, then fly! Sirocco and his chief captains nobly endeavouring to rally them, are either slain or desperately wounded, and victory at last declares in favor of the Venetians.

The centre vessels of the Turks, opening to the right and left, and pulling at full speed by the galleasses, whose broadside batteries made sad havoc among them as they passed, now formed in close order, and steered for the Christian centre, from which, when the infidel drew near, a single galley, having carved upon its bow the armorial bearings of the House of Austria, rowed forth, and, in token of defiance, fired a blank cartridge in the air, as in the late rebellion of the Moors of Granada, which Don Juan had brought to a termination so glorious for himself and his country, when hostile forces met, a solitary Spanish volunteer was wont to ride to the front of his command to dare to single combat the Moorish knight who appeared as the leader of the opposite party. Stung to the quick by the *bravado*, the impetuous Ali bore up at once for Don Juan, and, as his vessel was under full headway when she struck the *real*, the bow of the latter was severely injured by the collision and Don Juan, who was standing on the fore-castle at the time, must have been crushed thereby had not an old seaman picked him up and carried him in his arms as far aft as the fifth bench of rowers. Ali's galley felt the shock from stem to stern, and his officers and men suffered fearfully from the fire of the *real*, whose defenders were fast falling under the deadly aim of the Turks. To right and left now, along the whole line the battle raged with terrific fury. The roar of the artillery was incessant, and heard for many miles, and volley after volley of small arms sounded the death-knell of hundreds of gallant soldiers and seamen both of the Turks and of the Christians. The Marquis of Santa Cruz, occupied, as we have seen, with Uluch Ali, could render no assistance to Don Juan; while the Turkish reserve was fully engaged, it appears probable, in preventing the galleasses from falling upon Ali's rear; for upon no other hypotheses can we account for our not hearing anything of it at this most important juncture when the addition of a few fine ships to the Turkish centre must inevitably have turned the scale against the Christians, and caused the defeat of that portion of their fleet upon which the safety of the whole depended; for the battle had now become a *melee* wherein everything hung upon the number and strength of the contending vessels and the courage, endurance, and discipline of their crews. In such a conflict the great point was to keep the head of one's galley ever pointed towards the foe and its crew well in hand, in readiness to board or to repel boarders, as opportunity might offer or occasion require. If a vessel became disabled in her motive or steering power, straightway she was *rammed* by several enemies at once, and went to the bottom with all on board; or firebrands or burning darts were thrown at her from every direction, and in an instant she was all ablaze, her men either perishing miserably in the flames or jumping overboard to be despatched by the sweeps of some hostile galley. Here was seen a Christian vessel, her decks covered with the dead and the dying, whose flag was being lowered by unchristian hands; there a Turkish galleon,

with battered sides and scuppers running blood, borne off in triumph under the banner of Venice or Castile. Ere long, however, the fleets were so enveloped in smoke that these piteous spectacles were no longer visible; yet the noise of the cannonade continued, intermingled with that of falling masts and spars, the crash of colliding vessels, and the fierce cries of the combatants of "Down with the unbelievers!" "Strike for Christ and the Virgin!" and ever and anon was borne upon the breeze the triumphal shout of the venetual Venetian—"No quarter to the flying Turk! Remember Famagusta!"

MARSHAL BAZAINE AND THE POLITICAL CRISIS IN FRANCE.

The extraordinary position assumed by the French Government in bringing to trial Marshal Bazaine is well illustrated by the leading article of *Broad Arrow* of 1st Nov., the perusal of which will give our readers a far better idea of the value of the proceedings and the events on which it is based than the perusal of the evidence. It is as follows.

We have before remarked that it is not Marshal Bazaine alone but France that is on her trial at Versailles. This is made clearer every day by events, and it is curious to observe how the political crisis and the facts in question relative to the Capitulation of Metz illustrate each other. When hard pressed a few days ago by the Duc d'Aumale on the subject of his negotiations with the enemy, Bazaine said:—"My position was unprecedented, I was, in a certain sense, my own Government. The duties of a military chief are strict when the legal Government exists; but I by no means admit that to be the case in the presence of an insurrectionary Government. There was no Government then—there was nothing."

This being his view of the situation caused by the events of September 4th, Bazaine negotiated for an armistice "in order to bring about the establishment of a regular Government." The question arises whether his view of the crisis was either an unmilitary or an unpatriotic one. To answer this question fairly we must honestly place ourselves in the position of the Marshal at the period, knowing nothing of what was to transpire subsequently. Metz was a hotbed of political agitation, and even so late as the 15th of September, there were numbers within the walls who refused to give credence to the rumours of what had occurred, alleging that the statements of the Germans relative to the captivity of the Emperor and the revolution in Paris were made for their own purposes. Bazaine kept silence. The army was at first overwhelmed by the magnitude of the disasters of which they were vaguely told; but very soon this feeling of dismay was succeeded by the *furor* of personal politics. The officers began to ask of each other, "Who or what are we?" "To whom do we owe allegiance?" Coffinières, the Commandant of the city, resolved the doubt by proclaiming that he recognized in the events of the 4th of September "a new manifestation of the national will." He affirmed that if the Empire had preserved its adherents it would certainly have exclaimed anew, that it was impossible to ignore the captivity of the Emperor and the flight of the Empress, and that he could not understand why the King of Prussia declined to treat with any authority

but the Regency, considering that in his first proclamation he had declared he was at war only with the Empire. This the reader is aware, was a deliberate falsehood, the declaration of the King of Prussia having been that he was at war only with *soldiers*. The lie of course recommended itself to the rats who had fled from the sinking ship, and it was all of a piece with the ineffable meanness of the argument that the Empire no longer existed because the Emperor was a captive, and the Empress Regent had been driven by brute force out of the capital in the absence of the regularly constituted forces. What a contrast with the conduct of Frenchmen high in office, when Francis I. was taken prisoner at Pavia, and he wrote to the Queen Mother, "All is lost save honour!"

Marshal Bazaine's plea that the circumstances were unprecedented, and that he was obliged to be, as it were, a law unto himself, was rebutted in a singularly dramatic manner by the President of the Court, who exclaimed, "What! France, then, no longer existed!" The ineradicable vice of all Frenchmen could not have received a finer illustration. In point of fact, France did not exist, politically, at the moment when Rochefort, taken out of prison, was borne in triumph by an excited mob to the Hotel de Ville, and when a well known delegate boasted that "Paris once more gave the law to France." *En passant*, what a striking illustration also does such an incident afford of the difference between the conduct of a British and French court martial!

The problem suggested by this incident is a most important one for the future military commanders of France. Bazaine and the entire force at his disposal were the sworn soldiers of the Empire, and by consequence, of the Empress and the Council of Regency at Paris, when the Emperor went into captivity as a prisoner of war. The Empress, the officers of the Government, and the very Chamber, had been scattered by an armed mob, and a Government had been extemporised of such materials as Paris, in a state of revolutionary excitement, could throw to the surface—its title to respect was proved afterwards by the second siege of Paris and the Communal war. General Trochu had allowed himself to be proclaimed the chief of this revolutionary Government, that he might, if possible, prevent it from degenerating into mere anarchy. Thus the Government of National Defence was constituted, not by France, but by Insurgent Paris and besides the enemy marching with rapid strides on the capital, it found itself confronted with the Social Republic in the streets.

In this state of confusion Bazaine alone, at the head of 180,000 men, resolved that it was his duty to wait events, and preserve his army, if possible, for the restoration of the social and political fabric which had been so rudely overthrown. On the other hand, Coffinières, the commandant of Metz, hastened to proclaim the advent of a Republic which, in fact, did not exist, and the officers of that army which the Marshal held to its allegiance began to ask of each other what authority they were to obey. Who, then, were the traitors? If Bazaine was wrong in supposing that his Army would be needed for the restoration of order, was Chanzuy right when he actually marched his army to restore order? If Bazaine was a traitor because he declined

to lend himself at a moment's notice to the designs of the gentlemen at the Hotel de Ville, on what principle is MacMahon at the present moment to be acclaimed loyal when he declares that he will resign his functions if the old Conservative majority of the chamber should be elected on the vital question of the future constitution of the Government?

It is in vain that we look for a guiding principle in these entanglements, and if in other illustration be needed, we might refer to the incident of General Bellemare. MacMahon concludes his General Order issued to the army *apropos* of that circumstance by observing, "As soldiers our duty is clearly laid down for us, and is indisputable: under all circumstances we are to maintain order, and cause legal decisions to be respected." What are legal decisions in France? Marshal Bazaine would not now be on trial for alleged treason against the nation, if his accusers did not hold that the Insurgent Government of the 4th of September was legal which government, however, had established itself by the authority of a mob, while the armies of France were in the field holding the enemy at bay, or flying before their conquerors? What are legal decisions worth when an Assembly convoked for one special purpose, and endowed with special functions, at this moment usurps the national sovereignty, assumes other functions which that sovereignty had expressly denied it, and rejects an appeal to the nation? Must not every high functionary be compelled to say with Marshal Bazaine, that he is compelled to be, "in a certain sense, his own government?" We call attention to the parallel between the crisis in 1870 as illustrated by the trial of Marshal Bazaine, and the monarchical crisis at the present moment, because no one can say how soon another French Marshal may be called upon to decide, at his peril, who and what is the legal authority he is bound to obey.

Mrs General Robert E. Lee died on Thursday morning November 6, at her home at Lexington, Va. She was the grand daughter of Colonel John Parke Custis, son of Washington's wife by her first husband. Her father, Mr. G. W. P. Custis, married and settled at Arlington House, and here Mrs. Lee, his only daughter, was born. When General Lee assumed command of the Southern army, she went to Richmond and remained there until the contest was over, after which she accompanied her husband to Lexington, Va., where she continued to reside up to the time of her death. She had been an invalid for about ten years with a rheumatic affection. The funeral of Mrs. Lee took place November 8, in the Memorial Chapel in Lexington. Her three sons, W. H. F. Lee, Custis Lee, and Robert E. Lee, Jr., and her daughter, were present, besides a large concourse of friends. Her remains were deposited by the side of her husband's, in the memorial room. Mrs. Lee was sixty seven years of age. Buisness was entirely suspended in Lexington, many places being draped in mourning, and the obsequies were very imposing.

River Monitors.—The two iron clad Rhine monitors which are being constructed at Bremen will be completed next spring. They are armed each with two 15 centimetre guns, and their armour is one inch in thickness, which is stated to be sufficient to protect them not only against infantry fire but also against field artillery. They will draw only one foot of water, and be therefore able to operate as far as Mayence. They will be stationed at Cologne.

RIFLE COMPETITION.

HASTING RIFLE MATCH.

An interesting rifle match took place at Hastings on Thursday last, which was, in every sense of the word a success. A good deal of interest was manifested in the match, there being a large number of entries, quite a few from Norwood being present; and we doubt not, if there were more cash prizes, the attendance from the neighborhood would have been greater:—Captain Howard, of that village, certainly deserves praise for the pains and expense which he must have gone to, to ensure the success of the match, and he is, we trust, amply repaid in the good results attained. We were glad to notice that the Captain was materially assisted by the leading merchants of the village, Messrs. Peters, Learmonth, Kempt, Jones and the Fowlds Brothers working actively and taking the utmost interest in the proceedings; the ladies too, although the day was a little cold, turned out in numbers, encouraging the red-coats, and testifying to the popularity of the worthy Captain of No. 6 company of the 57th.

Below we give the names of the successful competitors, with the prizes and score attached:

NO. 6 COMPANY MATCH.

- 1st, Ladies' prize, silver medal, Ensign M. Howard; points, 33344, 32233—29.
- 2nd, Cinet stand, A. Buchanan; points 22233, 32402—23.
- 3rd, Bohemian Goblet, Sergeant English; points, 30020, 43002—17.
- 4th, pipe, Capt Howard; points, 23020, 43002—16.

VOLUNTEER MATCH.

- 1st prize, Gun, Pt Richardson, 40th, points, 42244, 33144—34.
- 2nd, field glass, Pt Dingman, 40th; points, 2332, 3332—26.
- 3rd, Lady's hat, Sergt, English, No. 6 57th; points, 32223, 22043—15.
- 4th, a woollen scarf, Pt Hawley, 40th; points, 43423, 40432—25.

ALL CONERS.

- 1st prize, 2 suits underclothing and jacket, Pt Hawley, 40th; points, 23233, 34232—27.
- 2nd, set of Furs, Cpt Howard; points, 23432, 32333—27.
- 3rd, Lady's shawl, W Minaker; points, 33432, 04233—27.
- 4th, 2 1/2 yards tweed, Pt Lawrence, 40th; points, 42223, 03334—26.
- 5th, pair Bohemian Vases, Sergt English; points, 22430 33423—26.
- 6th, Lady's cloud, Pt Dolman, 40th; points, 42223, 33304—26.

CONSOLATION MATCH.

- 1st prize, poplin dress, Pt Steele, No 6 57th; points, 33333, 00203, 23323—33.
- 2nd, pair blankets, Pt Bush, No 6 57th; points 22222, 40302 22333—32.
- 3rd, Vest and tie, Ensign Howard; points, 33332, 30323 02230 - 31.
- 4th, prize, Lady's gloves, T. R. Learmonth; points, 30002, 32300, 32333,—27.

CHALLENGE MATCH.

Percy Volunteer company.....148

Norwood	do147
Hastings	do102
Civilians	 97

Captain Howard desires us to return his sincere thanks to the merchants of Hastings for assistance kindly rendered, and to Dr. Clarke for his voluntary attendance during the match, should his services be required in case of accident, but fortunately no accident occurred.

The band of the 57th was present in the afternoon, and enlivened the proceedings by playing some selections of music.—*Norwood Register* Nov. 1th

GORE OF DOWNIE SHOOTING MATCH.

The annual shooting match took place on the Fifth of November last. Sides were chosen, officered respectively by Captains Robert Boyd and John Tucker, the former leading his command to victory. After the day's fatigues, the sportsmen assembled at Mr. Richard Chown's hotel, and enjoyed a good supper, winding up with a dance. The following is the score:—

CAPT. BOYD'S SQUAD.

Robert Boyd.....	13	Total
Wm Thom.....	17	
Wm Dunsmore.....	10	
Jackson Morrow.....	12	
Wm Dunseith.....	15	
Thomas Baker.....	9	
James Boyd, jr.....	11	
Thomas Douglass.....	10	
Robert Richardson.....	8	
Samuel Morrow.....	10	
Jhon Thom.....	15	130

CAPT. TUCKER'S SQUAD.

John Tucker.....	15
Wm Boyd.....	15
Alex Thom.....	7
John Wilson.....	8
John Brown.....	13
Ira Boyd.....	13
Thomas Dunseith.....	12
Wm Douglass.....	11
Thomas Mutton.....	11
Samuel Wilson.....	5
James Hannan.....	9
Total.....	119

—*Stratford Herald*, Nov. 12.

DRUMBO VOLUNTEER SHOOTING MATCH.

The Annual Match of the Drumbo Light Infantry Company came off at the range, on Captain Landlaw's farm, on Saturday last. Owing to the shortness of time in making arrangements, and the principal efficient officer residing at a distance, the competition was restricted to members of this Company. The day was highly unfavourable to good shooting, "a raw and gusty day," the wind, accompanied with showers, occasionally, of sleet, blowing fitfully across the uneven ground from West to East. Nevertheless, as will be seen by the scores, the mark-men of the Drumbo Company maintained their fair fame, won on former days,

in spite of the most unfavourable circumstances of wind and weather. The distances were 200, 300, and 400 yards, 5 shots at each, the nature of the ground further back occupied by teams ploughing not permitting the extent of 600 yards as intended: The following is the aggregate

SCORES OF THE PRIZE WINNERS:

	Totals,
1. Corp. McLaughlin.....	48
2. Sergt. J. Cockburn.....	44
3. Ensign Fair.....	42
4. Corp. W. Cockburn.....	41
5. Lieut. Pattullo.....	41
6. Priv. L. Kennedy.....	37
7. Priv. R. Wilson.....	26
8. Sergt. Sharp.....	26
9. Sergt Fisher.....	24
10. Priv. Lewis.....	33
11. Priv. Jas. Brown.....	13

The Prizes to the amount of \$83.00 were distributed in the above order, the highest, a beautifully chased silver vase (value \$6), presented by Lieutenant Pattullo, being awarded to Corporal McLaughlin, who earned it with a good score, considering the state of the weather. At the 300 yards he made five bulls eyes in succession, and others made nearly equally as good work, although the wind was blowing a stiff breeze all the day.—*Paris Transcript*, Nov. 14th.

A trial has been made of the Griffiths four-bladed screw in the Indian troopship *Euphrates*, but it may be doubted whether it can be considered satisfactory on every point. There was less vibration than with the old two bladed screw of the same make, without the modified tip, and this will be an advantage. The construction of the blades has the effect of reducing the friction in the water, but more revolutions are required, apparently, to maintain the same speed. of 10,742; with the new one it took, on Monday, possibly owing to force of wind, 41.2 revolutions to reach a mean speed of 10,600. Further experiments are evident all necessary, the questions involved being of grave moment.

Marshal Bazaine, before he enlisted as a private soldier, was rejected from the military school of St. Cyr. When he had become a Marshal, and was one day examining some cadets who were preparing to enter St. Cyr, he made a grimace at the weakness of their replies. Noticing that one of the youths was annoyed by his partial failure, Bazaine said: "Bah! don't torment yourself about that. They would have no hing to do with me at St. Cyr, and yet here I am all the same."

In the Russian army, during the six years ended in 1871, the number of sick per thousand was, on the average, 591 a year, and the number of deaths 161 a year. The mortality among soldiers who are treated in the civil hospitals is considerably greater than when they are treated in the military hospitals, being as five to two. The proportion of deaths among the best troops who are permanently stationed in the provinces is twice as great as among the appears, and one and a half times as great as among the moveable infantry.

GUN COTTON.

(From the New York Times.)

Early in the year, commissioners, representing both the Army and Navy Departments at Washington, were sent to Europe to examine and report upon the various arsenals, dock-yards, and munitions of war in England, France, Austria, and Germany. One of these officers has already returned, and the others are said to be on their way hom. There is reason to believe that the results of their inquiries will be of considerable value, and the report is accordingly looked forward to with much interest. Some time, however, must elapse before it can be made public, and in the meanwhile we may anticipate it in some measure by calling attention to one result of a long series of experiments by the British War Department, which promises to be of great importance to any further system of defence, especially in its application to torpedoes.

For some time after the properties of what has since been known as gun cotton were made public, experiments were carried on in all directions to test its value as a substitute for gunpowder. The result was so unsatisfactory that those experiments ceased almost as suddenly as they had begun. It was only in the arsenals of two European nations that the idea that it might yet be utilized was at all persistent; and it is only in England that the subject has been unremittingly studied down to the present time. Three committees have had it under special consideration, and the conclusion reached through their labors tend to give gun cotton in its present shape a very prominent place among the explosive materials of war. The rapidity with which it burns destroys its usefulness for guns of any kind, but for other purposes it is found, under certain conditions of preparation to have advantages which gunpowder does not possess. By means of the chronoscope invented by Captain Andrew Noble the rapidity with which an explosive wave flashes along a column of gun cotton has been shown to be 20,000 feet per second, while the expansive velocity of gunpowder does not exceed 7,000 feet per second. This property which renders the cotton useless for moving projectiles, is valuable in military engineering, and from experiments still in progress, and about which no report has consequently been made, it seems probable that it will be applied with extraordinary effect in the torpedo.

To secret has been made of the method by which the best results are attained. The gun cotton is reduced to a pulp and then mixed with saltpetre in a fine state of division; after which, on being allowed to dry, it is either granulated or compressed into hard masses of any required form. That found most convenient is a disk three inches in diameter and two in depth. These are stored in tanks in the wet state, and they are retained in that condition by the repeated addition of a weak solution of saltpetre. In this way the dangers of explosion are very much lessened, and transport is also facilitated. It was at first thought that such a method of storage would be inconvenient as involving much trouble in preparing the cotton for use; but it has quite recently been found not only that wet gun cotton prepared in the way we have said can be exploded, but that its effects are apparently greater than when it is used in the dry state. A bag-net filled with wet discs and immersed in the water has been exploded with most destructive effects by means of one dry disc inclosed in a water

proof envelope, so that even contact with water does not impede the explosion when once it is begun.

The application of saltpetre does not increase the cost. The theoretical proportion in which it would be used is thirty-eight per cent. If a hundred pounds of the cotton so prepared be exploded the result is not so great as it would be from the same weight of unprepared gun cotton; but by using only three-fourths of the theoretical amount of the salt, the explosive force of the material is then found to be equal to that of pure gun cotton, and the cost is less.

As already stated, the experiments which have brought this matter into notice are still in progress. The final results cannot therefore be known. But enough information has leaked out to show that a discovery of great moment is being perfected, and while we are giving special attention to defensive appliances in naval matters, it is well worth the attention of engineers and others in the War Department.

No absolute statistics are before us, nor do we think that any have been yet prepared to show the relative powers of gun cotton and gunpowder in the purposes for which torpedoes are to be used; but in the absence of precise information, it is thought that for equal weights the destructive force of the cotton is at least seven times greater than that of powder. This must not be taken as exact. Perhaps it may turn out to be barely approximate. But at the least it indicates a difference quite sufficient to justify full inquiry. The torpedo experiments hitherto conducted by our government have had more to do with the form of the machine itself than with the explosive material to be used. This, however, may prove to be fully as important as the other, for if the prepared gun cotton present all the advantages now being attributed to it, a simplification of the mode of applying it is very possible, and thus many of the difficulties presented in the use of torpedoes will be solved, to the immense advantage of maritime cities.

HAVANA, Nov. 30.—The news of the settlement of the *Virginus* question between Spain and the United States, and the terms upon which it is based, was received here with much excitement, but perfect order prevails among the people and volunteers. The chief authorities of the Island, assembled in conference, have sent a manifesto to the Spanish Government, asking it to wait until it shall have received the protocol about the *Virginus* case, which shows the right of capture and justice of subsequent proceedings. The mass of the people oppose the surrender of the *Virginus*, or any yielding to pretensions which may dishonor the Spanish flag. The tone of the press is in accord with popular feeling. Extraordinary means and resources are being created to resist any aggressive act, although thinking people do not expect it, knowing the prudence of the American Government.

A mournful feast was that which was partaken of in Paris, by an artist, named M. Rubellis. This gentleman recently dined alone in one of the principal restaurants at a table on which had been placed covers for 13 persons. The explanation of the ceremony is that he is the only survivor of a party of 13 literary men and artists who arranged 20 years ago that its surviving members should dine once a year, and that the places of the dead should be conspicuously vacant. Among the members were Alfred de Musset, Theophile Gautier and Count de Flehac.

John A. Dix, Governor of New York; Taurlow Weed, one of the oldest editors in the United States and Daniel Drew, the millionaire are all pensioners on the Government, having been soldiers in '62. Weed played his fife Dix carried the flag, and Drew carried a musket.

The Princess Royal of England (Crown Princess of Prussia) will be present at the marriage of the Duke of Edinburgh with the Grand Duchess Marie as representative of the Queen. This is the immediate cause of the journey of the Crown Prince and Princess to St. Petersburg.

Considerable excitement exists at present in the town of Murthorough, Queen's county, from a rumour having gained circulation that the recent Roman Catholic curate of that parish had eloped with a daughter of the County Inspector of Constabulary. The rumor turns out perfectly correct, for within the past few days their marriage was celebrated by the district registrar, at his office, Angrier street, Dublin; immediately after which the happy couple started for the "land of the West." The bride, who was a Protestant, is very plain, and has seen fully forty summers. The bridegroom is also plain, but much younger.—*Derry Sentinel*.

England annually puts 3,000 street boys under training for her navy. At 17 they commence a ten years' period of service, and at 27 they are free. There are 20,000 now in the service, and the experiment has succeeded so admirably that it is strongly urged that the system be extended, and 10,000 a year be taken to train for soldiers, engineers, and artillerymen.

The Fenian amnesty demonstration held on Blackheath, was attended by about five or six thousand people. A letter from Mr. Butt, M.P., was read in favour of the release of the forty Fenians, and resolutions were passed protesting against the "cruelty and injustice" of keeping these men in prison, and pledging the demonstrators to oppose any candidate for Parliament who will not bind himself to vote for immediate and complete amnesty.

LONDON, Nov. 29.—Special despatches to the *Times* and *Standard* give the particulars of the bombardment of Carthage on Wednesday. The arsenal and barracks were the chief marks for the besiegers' artillery, but the cathedral and hospital were also struck. On Friday the theatre, the Protestant Church, and two entire streets were destroyed, and two hundred persons killed and wounded within the city. The insurgents have raised the black flag on the forts. At the last accounts the fire around the city was subsiding. The loss of the besiegers has been exceedingly small. The officers of the foreign squadrons succeeded in obtaining an armistice of four hours on Friday night.

It is understood that the final protocol has been agreed upon between Secretary Fish and Admiral Puri for the settlement of the *Virginus* question; the terms of which are that the *Virginus* and all the surviving crew shall be immediately delivered up; that a salute to the United States flag shall be fired on the 25th of December unless it shall be shown before that date that the *Virginus* had no right to the protection of the United States flag; but if this point be established, the owners of the *Virginus* shall be proceeded against, and that the question of reclamation for damages is reserved for future consideration.

There are twenty five ships for the British navy now in course of construction in England.

CONTENTS OF No. 43, VOL. VII.

PART IV.—	
The Christiana Slave	571
CORONALS:—	
Prospects of the British Army	570
The Virginia Complication—Navy of United States and Spain compared	571
The News of the Week	573
INDEPENDENCE:—	
J. R. W.	538
RIFLE COMPETITION:—	
Rifle Match for Scott's Medal	540
SELECTIONS:—	
The Battle of Lepanto	566
Repair of Guns at Foreign Stations	589
Trial of Marshal Bazaine	574
REVIEWS	573



The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

"I trusted, ambitious, our swords we draw,
To guard the March, hence the Law."

OTTAWA, TUESDAY, DEC. 9, 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.

PUBLISHER'S NOTICE.

The end of the present month closes Volume VII. of the VOLUNTEER REVIEW; and during the year we have made out and forwarded accounts to nearly all our Subscribers in arrears for Subscriptions to the Review. Some have promptly paid up their indebtedness—who will please accept our thanks—but by far the larger number have paid no attention to it—to those we give notice now, that if their accounts are not settled before the 1st of January next, we will be under the painful necessity of handing them over to a Lawyer for collection.

The following letter on the tactical formations of the *torpedo* has been addressed to the United States Army and Navy Journal by Rear-Admiral DE ROHAN, R.N.

To the Editor of the Army and Navy Journal.

Sir—The Navy Department has recently issued a pamphlet—"Notes on Movable Torpedoes"—in reference to which I should like to say a word.

While agreeing in the main with the conclusions arrived at in the pamphlet mentioned, I, however, differ from them in thinking that "the employment of torpedoes in tactical formations is 'inadmissible'" because that I conceive the proper form and management of the torpedo is far from being satisfactorily decided upon; until that be done, it must be considered an open question.

Torpedoes will not, I think, with what we as yet know of them, be capable of successful and precise management as self-acting weapons of naval warfare in any but comparatively smooth and currentless water, and under such circumstances which will admit of their being under absolute control either from the shore or shipboard, chiefly because the object to be attacked would in most instances be moving, and from the fact of the irregularity of rates in its movements.

There must be a torpedo boat so built and of such form as to be itself difficult to be hit and not readily seen by an enemy. Take, say, the "cigar" form: build a boat which shall have at its forward end a gate or trap opening at its after end into a "torpedo-room"; this room to be solidly bulkheaded from the main body of the boat by a water-tight door; prepare the torpedo in the "room"; when ready open the bulkhead door and launch it into the "trap," which cone, close and secure the door, and at the proper moment open the gate of the trap for the egress of the torpedo, project it as desired, then close the gate, pump the water out of the trap, and proceed as before.

Is this practicable? I believe so, with the sort of boat suggested, built of solid material, of a defective form and of such size and general handiness of movement as will make her difficult to hit; of course she must have great speed, as the greater the speed of the object the less liable to be hulled or captured.

In manoeuvring she would be laid end on to an enemy, open her gate, discharge the torpedo *point blank*, and back astern at full speed till ready for another discharge; she might have a double keel to give her steadiness, with, perhaps, her screw between the two keels, out of harm's way from shot, somewhat on the plan of the French ram, *Taureau*, designs for which I sent the Emperor Napoleon in 1862.

I consider some such plan the only feasible one for successfully employing torpedoes in naval warfare; a merely passive or even an automatic torpedo without a continuous controlling agency of the kind suggested above, will hardly ever be capable of being handled with sufficient certainty either to warrant its employment, as a rule, in ordinary naval attack and defence in open sea, for without that continuous power of control a self-acting torpedo would be quite as likely, by any slight departure from, or defect in its intended working, to injure the ship from which launched as the ship of an enemy; toy machines of the kind sufficiently demonstrate this.

Very respectfully,

WILLIAM DE ROHAN.

Washington, Oct. 21, 1873.

We have expressed our opinion of the little value which could attach to such a weapon in naval warfare and from the same journal we take the following article, which will go far to verify our assertions. To be at all valuable as a weapon, it must possess all the velocity and a good deal of the pene-

trating force of a shell. It confessedly has neither. As long as the object of attack is at rest and will make no resistance, it will be treated like the hulk in the following:—

On the 13th ultimo an interesting series of experiments with torpedoes were made at Newport for the instruction of the officers of the *Monongahela*. After completing the experiments from the vessel and with the towing torpedo, a spar torpedo was exploded from the ship going at the rate of six knots against a hulk anchored off Brenton's reef. The following is an extract from the official report:—

"While running out again to the hulk, the towing of the spar in the water was observed, and its tendency to rise to the surface, when going six knots was very evident even with the spar braced four points on the bow. An extra weight of one 11 inch stand of grape did not entirely overcome this tendency. This is in some measure due to the lead of the forward guy which led up to the bowsprit end. More experiments are needed in order to overcome this difficulty, and I shall make my next experiment with the forward guy led through the hulk-hole.

Practice was made with the spar in topping it out of water and letting it go "by the run," and I have recommended to the captain to carry his spar topped up out of water a short time before using the torpedo.

All necessary trials having been made for the purpose of exhibiting the towing of the spar, the vessel was headed for the hulk. The hulk being at anchor head to wind, it was impossible to pass ahead of her without fouling her hawser. To have passed directly across her stern would have placed the *Monongahela* to leeward, where she would have received a large quantity of the water and the debris which would have been created by the explosion of the torpedo. Accordingly a course was shaped to make the contact under her starboard quarter. All hands were ordered under cover and the vessel was carefully coursed to the desired position, when the torpedo was exploded.

The effort had been made to have an immersion of the torpedo of 10 feet, but from appearance of the topping lift, the immersion could not have been more than seven feet. The hulk was drawing 10 feet aft, there was then about one foot water cushion between the torpedo and the bottom of the hulk. The effect of the explosion was to cut the hulk in two vertically above the point of the explosion. The whole stern was lifted out of water, a portion falling forward on her deck, the stern frame falling into the water. The sea was rough, and its action aiding the shock received by the rest of the hull, induced an instant disintegration of the whole fabric, which fell off frame by frame, until the whole was a mass of shapeless wreck drifting wildly on the water. The stern and breast hooks sank with the end of hawser. The kegs being buoyed, was recovered with all the hawser, except 15 fathoms, which was the depth of the water in which the wreck sunk. The effect of the explosion as respects the *Monongahela* was to wet her deck fore and aft and to throw on board two large pieces of timber and a large quantity of small pieces of wood. One piece of timber held five large spikes about one foot long; this piece landed on the fore-castle. No large body of water was thrown up. It was evident that the line of least resistance was directly through the bottom of the hulk. Had any portion of the

hulk remained afloat it had been designed to run at it with a "loaded Harvy torpedo, but the want of a target prevented this part of the programme from being carried out."

Our contemporary *Broad Arrow* in its issue of the 18th October, has an article on the exercise of patronage in the regular service, which exhibits a curious phaso of Whig Radical management and throws a flood of light on the cost of the non-combatant branch of the army. Our readers will recollect that this utterly useless appendage cost the British people over £6,000,000 sterling, while the fighting or active force costs a little over £9,000,000; that Whig-Radical economy has robbed the soldier of a pension, and shortened his service, in order to provide patronage for their relatives, friends and dependants, and that the whole result of their policy has left England without an army; while the cost of what is called a military force has been increased by the whole cost of the non-combatant class. Regimental paymasters should always be combatant officers. It is not only injudicious, but actually the means of promoting demoralization in the service, to put their duty on the shoulders of company officers; and as CAIDWELL'S Army Reform Bill has lowered the tone of the class who will in future seek commissions, if the responsibility is to be thrown on the shoulders of the company officers, defalcations will be the result; for the simple reason, that those men are already underpaid, and, while the temptation is within their reach, there is not behind family name or historic pride to act as a counterbalance. The arrangements for paying troops should be entirely apart from their command, and the officers should be filled by a combatant officer who had served. The following is the extraordinary article referred to:—

"It is understood to be the policy of the Government to increase the responsibility of combatant officers in respect to those duties which have hitherto been mainly discharged by regimental paymasters; and yet it is no less evident that there is another distinct policy quietly working its way, namely, the appointment of civilians, either from the War Department or from out the Service altogether, to the various new posts which are now perennially cropping up in the continual yearning for some new thing in administration. Paymasterships and other administrative appointments were formerly the natural refuge of deserving combatant officers when they could no longer hold, with advantage to themselves, the commission of a lieutenant or captain; and this old policy of providing for the continued employment of good officers under the various charges of their career was sound, and should be developed rather than curtailed. It has been said that soldiers are no accountants, and it is true enough that some have sufficiently proved their incapacity in this respect. But it might have been equally said that soldiers were no mechanics, no mathematicians, no chemists, no geographers, no linguists; and if now an officer must not be wholly innocent of all those things, pray why is it to be

assumed that, as a combatant, he must essentially lack the capacity for that amount of simple arithmetic required for the construction of a pay list? By all means let the Government require from each sub-lieutenant proof that he can put two and two together. He will require to know something of arithmetic if he ever become a general officer; and it will be as well even, before that period, that he should know the consequence of signing a bill bearing interest at 5 per cent. per annum; but the natural result of this additional qualification should be that every single appointment to the Pay Department of the Army should be filled by transfer, from the combatant ranks, of those who, perhaps for domestic reasons, cannot continue satisfied with a single barrack-room or the third part of a bell tent. One of our correspondents last week remarked (but we cannot confirm his statement) that "ninetieths of the paymasters have been civilians *ab initio*." Such a state of things would have been a scandal to any Government professing to be guided by the requirements of the Service and justice to all ranks; but it is bad enough as it is, and for the future there can be no excuse for considering the pay branch of the Service a subject of snug private patronage, unless the selection of the patron be restricted to those in the ranks of the Army who have been ready to shed their blood for their country, as well as their ink, and who are unquestionably entitled to whatever post may be available, of a more easy and less dangerous character when their duty is past for leading a forlorn hope.

The United States Army and Navy Journal of the 1st November, has an article on the value of contests similar to that recently carried on at Creedmoor, especially as respects the selection of the best and most suitable weapon, in which occasion is taken to laud the Remington rifle as being superior to the weapon used either by French, German or English armies. We are quite willing to believe that it is possible to invent or produce a weapon of greater accuracy and more complicated adjustment than those in the hands of the soldiers of the nations named, but we must see better work done at Creedmoor by the Remington Rifle before we are willing to accept our contemporary's valuation of it as a superior weapon.

The Snider-Enfield is not furnished with fine sporting sights, but it is able to beat the Remington in accuracy of fire, is a better soldier's weapon, and is itself inferior to the Martini-Henry, to the improvements in which the proprietors of the Remington laid claims, if we are not mistaken. Military rifles, as a general rule, do not need fine sights, simply because their work will be done at from one hundred to fifty yards. Sporting rifles, by which a partridge's head can be shot off, or a turkey's eye knocked out at 200 yards, require elaborate sights; but no such machinery is required to fire against a line of men, or a gun detachment and its horses. We give our contemporary's article in full as follows:—

"Not the least useful result of Creedmoor, by any means, will be the practical lessons it has already taught in the impor-

tant matter of small arm excellence and the improvement which will necessarily follow its practice, in the perfecting and sighting of our military as well as our sporting rifles. Up to the Wimbledon era the English-Enfield was sighted with respectable correctness to a 400 yards range, but beyond that was issued to the soldier a thoroughly unreliable piece so far as this now important feature was concerned. The fault which a successful Rifle-practice Association has corrected in the English armament, unfortunately still exists in the United States military rifle and the military Remington. We are assured that in future the Remingtons will be sighted as they ought to be, and we know that their present defect is due to a compliance with the demands of Ordnance Boards. Regarding "questions of arms" the *Forest and Stream* remarks as follows:— "The great use of the rifle range is that it must demonstrate whether an arm is good or not. Skill may have a good deal to do with the merit of a high score, but as the weapon used come into the hands of not only experts, but of second and third class shots, the use of Creedmoor or any other range must determine the average excellence of any gun. The Remington rifle has been fully tested and has been found to be excellent, not only as a military but as a sporting rifle. In many of the matches as may be seen on examining the scores, the Remington has held its own with the most delicately adjusted arms. Rifles like the Rigby and Metford have most carefully adjusted sights, were allowances all made for effects of wind blowing across the line of fire, &c. The use of all such adjustments are perfectly in order, and should be encouraged in every way. If a rifle as was remarked by *Pitch* in speaking of the complicated arrangements of the Wimbledon expert, 'had a steam engine at one end and a windmill at another,' so much the better, if in a range of a thousand yards, the marksman can improve his score a single figure. There is not then the least doubt that when the Remington rifles have adjusted to them these finer sights, that they will not only shoot quite as well, but possibly out shoot either the Rigby or Metford. In comparing it as a military arm with the arms used by either the English, French or German, we must declare it to be superior as to accuracy. Its penetration was also remarkable, shown by a shot passing through 3 feet of solid packed dirt, perforating a thick block of wood, and then falling spent with its shape still almost perfect. Subsequent general matches yet to come may bring in prominence some other rifle, but for the present, for all work, we are inclined to think that with a steady hand, and clear sight, whether the marksman be a soldier or a sportsman, the Remington has clearly proved itself the best arm of the day. The Sharpe rifle, especially in the press match, showed its excellence, and is a weapon of great merit. In judging of all rifle contests, our readers not familiar with the subject should always bear in mind that a windy day always affects the shooting. In concluding our remarks on the first American rifle contest, we believe that the time will come when Creedmoor will be far too small for the concourse of people who will assemble from all parts of the Union to witness this National pastime."

A RECENT correspondence of the VOLUNTEER REVIEW performs the functions of a note of interrogation in its issue of 25th Nov., and in a short paragraph asks eight very important questions, beginning with—First, What

"Is the use of a soldier that can't shoot?"

2nd. How should he be taught to shoot?

3rd. Why should not an officer have a rifle?

4th. How many Canadian Volunteers can judge distance?

5th. Is there any benefit in small bore shooting?

6th. There are a good many Martini-Henry's in the country—why are they not more used by their owners?

7th. What is being done to improve rifle shooting in this country.

8th. What has the Dominion Rifle Association accomplished in this way? and winds up by assuming that our columns are devoted to matters of dress and drill instead of rifles, steel barrels, drawn bullets, targets, trajectory and lots of kindred subjects.

If "R" had attentively read the *Volunteer Review* it would be plain to his perception that more information, on the very subjects he so slipperily assumes we neglected, is to be found in its columns than in that of any military paper in existence; and in support of this assertion we could call in the testimony of some of the most distinguished officers of the British Army; but as our correspondent has wittingly or unwittingly opened a question of great importance to the the Canadian Army, we have no hesitation in answering his queries put in the not very courteous phraseology of his communication.

1st. In the composition of an army the soldiers that *can't shoot* (which we take to mean a man that make bull's eyes or centres with every shot at 600 yards) is often more useful than the individual who can.

If an army can boast of 33 per cent of the whole force as *marksmen*, it is exceptionally strong with respect to shooters; and "R" must have paid no attention to the articles on the papers read at various times before the Royal United Service Institute, which have appeared in our columns, or the reports of the officers of the German Army dealing with this very question.

The rank and file of an army comprises necessarily all grades of intellect, and as *man* is not *born* equal in any respect, notwithstanding the declaration of independence, it must follow that other qualities beside quickness of perception and steadiness of nerve will distinguish the mass of the items of which it is compared. Experience has taught the lesson that physical endurance is fully as great a requisite in the composition of the soldier as those qualities that make him a good shot, and if he can be brought to *charge with the bayonet*, and not be afraid of the consequences, he is like to do quite as much, if not more, to win a battle than the crack marksman who can make nineteen points out of a possible twenty. Neither are battles won by the mere effect of correct shooting alone, but by the skill with which the mass of troops are thrown on decisive points of the enemy's position. After an

action commences in earnest there is little opportunity and less need for a display of individual skill with the rifle, the smoke and constant changing of distance puts the best and most accomplished marksman out; and the very fact that only six per cent. of rifle bullets are effective, and that it takes as much lead to kill a man as he will weigh, is proof positive that in this respect at least the rifle has nothing to boast over the old musket—Brownness—and that its real use is in the hands of the *soldiers* of an army to keep artillery at a distance and make certain *zones of fire* dangerous, such zones lying between four and six hundred yards—sixty-six per cent. at least of any army would be more incapable of taking a more profitable position in a skirmish line—but thoroughly competent to charge a line, storm a battery, or capture artillery within their range as well as throw up held work and perform all the other duties under discipline which a campaign demands. The soldier that *can't shoot* is as quite as useful as the soldier that can, and his necessary complement.

2nd. The rules for teaching a soldier to shoot are to be found in the red book, and are too well known to men engaged in military service to need description.

3rd. An officer's duty is not to be discharged by using a rifle in action he commands his men, and if he performs that duty well he will be fully employed. He is also accountable for their lives in action, and it will exercise the whole of his wits to enable him to properly complete the operation he is engaged in, without an unnecessary waste of life. The present company of 55 officers and men is quite large enough for three officers to look after. The duty of the captain is to command the whole, of the lieutenant to see that his orders are carried out, and of the ensign with the supernumeraries to attend to the supply of ammunition, the removal and care of the wounded. If those duties are discharged properly no officer will have time to play the fool with a rifle.

4th. The answer to this query is that such a question in statistics is not known; but as Canadian Volunteers are presumed to have brains as well as others, about the same number can judge distance as those who are marksmen.

5th. To our mind there is no benefit whatever to be derived from the practice of "Small bore shooting," and we have condemned it in every case as a mistake, a delusion, a mockery, and a snare in military practice. If our correspondent had read the *Review* attentively, he would find how easily the celebrated Tyrolean marksmen in the Austrian service were disposed of by the French rank and file armed with a very inferior weapon at the battle of Solferino. The only weapon permitted at a rifle match should be the Regulation Rifle, any other is a positive nuisance.

6th. Our correspondent had better ask the

owners of the *Martini-Henry* rifles for a reply to this question. If it is meant as an *intuendo* against the weapon, it only shows a want of knowledge of its value.

7th. Our correspondent should make his meaning clear. We will answer this interrogatory by another question. Can rifle shooting be improved? So far as practice goes there is no evidence to show that the query need be put—all the machinery for the purpose is in practice—and the "General Orders" of the Canadian Army furnish a proper detail of every part.

8th. For answer to this query we must refer our correspondent to the report of the "Dominion Rifle Association," of which we dare say our gallant friend the Secretary Lieut Colonel Stewart, Assistant Adj. General of Militia Department Ottawa, would not object to give him a copy, if he applies for it in the proper way.

As to the *ola podrida* with which our correspondent closes his letter, we have neither time nor inclination to enter into such a discussion, desiring that matters of dress and drill, especially the latter, are of more importance to the rank and file than questions affecting the armourer and scientific officers of the service.

Our readers will be instructed in the following, which we republish from the *United States Army and Navy Journal* of 15th November.

"New York State has purchased eight Gatling guns, to be distributed among the troops of the First and Second divisions. At this time we cannot state how these guns are to be disposed of—whether they will be attached to the different infantry commands or take the place of the mounted batteries. The present condition of the howitzer batteries of the First division is rather low, and the inspector-General may recommend their disbandment; still we do not think this policy advisable, for in the National Guard howitzer batteries are less expensive to the State, and their utility over the mounted batteries, as at present organized, is plain to any one who understands the uses of a National Guard in large cities. There is a disposition on the part of the few of the infantry commands of the First division to organize howitzer batteries, and the Seventh has already an efficient howitzer section attached to the regiment, the men being detailed for this duty. On the occasion of the Seventh's encampment at Saratoga the howitzer section was very popular, and won deserving praise for the excellence of its duty. Last season this section devoted considerable time to drill, and gave several informal exhibitions at the armory, and the men seemed to "talk" remarkably to the change from the monotonous infantry drill. The Ninth is now organizing a howitzer section, and manifest interest is taken in the "new development."

"The introduction of the Gatling, in the National Guard shows that New York is progressive, and the organization of Gatling batteries will be an new and welcome feature to the State service. Our Government is now having these guns thoroughly tested, and with the most striking and satisfactory results. The appearance of a Gatling gun or battery in our streets on parade will be

novel to many, and as the utility of these guns—well, we trust neither New York city, Brooklyn, nor any other cities, will ever have cause to try them. It would be a risky time for any street mob which should get in front of one of them. Other States follow the lead of New York in procuring these guns."

The *National Guard* is simply the State Militia, our neighbours are fond of extraordinary names, but with that we have nothing to do; our reason for publishing the extract is to see whether any of our readers would give us an article on the plan the *Gatling* should occupy in the economy of a National Army.

We direct attention to the Prospectus for 1874 of the *Aldine*—an illustrated Monthly Journal—and in the language of the Prospectus, universally admitted to be the handsomest Periodical in the world. Its illustrations have a world-wide celebrity, and its wood-cuts are of the highest perfection attainable. Every subscriber to the *Aldine* for 1874 will be presented with two beautiful chromos, entitled "The East" and "The West"—the first is a view in the White Mountains, New Hampshire; the other the Cliffs of Green River, Wyoming Territory. Either of these are worth more than the year's subscription (\$5.00) to the *Aldine*. No handsomer or more appreciable gift could be presented to a friend for a Christmas or New Years present than a bound volume of the *Aldine*.

REVIEWS.

We have to acknowledge the receipt of No. LXXIV, Vol. XVII. of the "Journal of the Royal United Service Institution." It contains the following papers. "Report of a Reconnaissance of the North West Provinces and Indian Territories of the Dominion of Canada, and Narrative of a Journey across the continent through Canadian Territory to British Columbia and Vancouver Island; communicated by Col. Robertson Ross, Commanding the Militia of Canada and Adjutant-General of Militia in 1872.

"Observations on the Moncrieff System of mounting Ordnance by Lieutenant T. English, R. E.

"Further observations on the Moncrieff System of mounting Ordnance, by Major Moncrieff, F.R.S.

The Tactics of the Sheer Arms, as modified, to meet the requirements of the present day, by Captain H. Brackenbush, R. A.

"Kifing for heavy guns, by Capt. J. P. Morgan, R. A.

"On the best mode of defence of the protected territories on the Gold Coast of Africa, &c., by the Earl of Landerdale, G. C. B.

"Field Railways and their general application in war, by Captain C. E. Luard, R. E.

"An Improved Life Buoy, &c., by Mark Hamilton, B. A., M. D., Surgeon, R. N.

"Griffith's Bow and Stern Screw Steam Ship, by Griffiths, Esq.

"Proposed method of attack in skirmishing line, by Capt. F. G. S. Parker, 5th Regiment.

"Note on alleging the rights of Ordnance when laying for an object, by Lieutenant H. H. Greenfell.

This number of the Journal contains many excellent papers—that on the Reconnaissance of the North West with its admirably got up Map by our late Adjutant General is well known to our readers and deservedly occupies the first pages of the number—we have already reviewed it, but the other articles are of considerable importance and deserves extended notices which shall be duly given, especially those on Tactics and Drilling.

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD-QUARTERS.

Ottawa, 5th December, 1873.

GENERAL ORDERS (28).
No. 1.

ACTIVE MILITIA.

MILITIA STAFF.

ARTILLERY.

The resignation of Lieutenant Colonel George Arthur French as Inspector of Artillery and Warlike Stores for the Dominion, and as having Regimental command of the Artillery in the Province of Ontario, is hereby accepted.

PROVINCE OF ONTARIO.

ARTILLERY.

Officers having command of Corps of Artillery in the Province of Ontario, will, until further orders, forward all communications direct to the Brigade Major of Division.

"A" Battery of Artillery and School of Gunnery, Kingston.

To be Commandant, until further orders. Assistant Gunnery Instructor Major De la Cherois T. Irwin, vice Lieutenant Colonel French, whose resignation as Commandant of the School of Gunnery, is hereby accepted.

1st Battalion, Governor General's Foot Guards

To be Lieutenant: Ensign Frederick William Mills, M. S., vice John Stoughton Dennis, whose resignation is hereby accepted.

To be Ensign, provisionally:

Frank A. Fleming, Gentleman, vice Mills, promoted.

The resignation of Lieutenant and Adjutant John Rhodes, is hereby accepted.

2nd Battalion of "Queen's Own Rifles," Toronto.

To be Captain:

Lieutenant James Reid Foster, M. S., vice John Erskine, who is hereby permitted to retire retaining his rank.

7th Battalion, "The London Light Infantry."

To be Assistant Surgeon.

James Simpson Niven, Esquire, vice Henry Arnott, whose resignation is hereby accepted.

44th "Welland" Battalion of Infantry.

Major Thomas Macklem is hereby permitted to retire retaining his rank.

CONFIRMATION OF RANK.

Supernumerary 2nd Lieutenant James Wilson, temporarily attached to the Kingston Field Battery of Artillery is hereby confirmed in his rank as a second Lieutenant of Artillery, from 15th June, 1873.

PROVINCE OF QUEBEC.

63rd "Missisquoi" Battalion of Infantry. No. 2 Company, Clarenceville.

To be Ensign, provisionally:

Sergeant Daniel Ryan, vice William G. Hawley, left limits.

PROVINCE OF NOVA SCOTIA.

63rd Halifax Battalion of Rifles.

Major and Brevet Lieutenant Colonel George R. Anderson, is hereby permitted to retire retaining the rank of Major.

By Command of His Excellency the Governor General.

WALKER POWELL, Lieut. Col.

Acting Adjt. General of Militia Canada.

One hundred and ninety more miles of the Northern Pacific road have been examined and accepted by the Government Commissioners. This makes in all four hundred miles which have been accepted, and on which patents for land grants will be issued. The Erie road loses \$200,000 per year from employes and others who steal from the freight cars.

One eighth of the people of England are members of friendly societies, such as Odd Fellows, Foresters, etc.

TRUE RICHES.

I am a poor working man, yet a stranger to care,
As I sit like a king in my own cosy chair,
For my mind is my wealth that my Maker as-
signed;

And the joys that I reap from the storehouse of bliss—

Few potentates know of a rapture like this.

Contented and happy—to love for a fall—
I strive to 'vee friendly with one and with all;
I reckon not of rank, for my mind can supply
Enough for my mind, for my brain, for my eye,
The books that I read, and the thoughts that they

give.

Afford me the wealth that I labor to have.

Though obscure and unknown 'mong the ranks
of the great,

Though my vote be unsought and my words have
no weight,

Though the waters be rough over which I must
cross,

And the winds may assail, and the wild waves
may toss—

Yet, the fiercer the blast, the sweeter 'tis to feel,
And the sweeter the rest that awaits me on the
shore.

I envy no treasure, I covet no sway;
My wants are supplied as I need them each day;
And my life can create and into life bring
Things costly and rare, as belong to a king.
So poor man that I am, no frown do I fear,
For my mind is well stored, and my conscience
is clear.

When the shades of the evening of life close
around!

When in Hope's morning star no sweet promise
is found!

When the scenes from without lose their power
to instil,

The food to sustain, the soul's cravings to fill—
'Tis then from within that I get my supply
of strength for the day and of light for the eye.

I sit close by the fire in my own easy chair,
And I puff my clay pipe with a mind free from
care.

Contented to take what my father will send,
He it knave as a foe, or a deal man as a friend,
So, while wealth waves her wand, I expect that
I'll find

The wealth that's exhaustless—contentment of
mind.

TRIAL OF MARSHAL BAZAINE.

(Continued from page 526.)

FOURTEENTH DAY, OCTOBER 22ND.

On the court resuming its sitting this morning, *General Soleille* was the first witness called. He did not appear on account of ill health, and his written evidence relative to the military operations was read in court. The Chief of *General Soleille's* staff deposed that the consumption of ammunition up to the 16th August was estimated at about one third of the total supply; whereupon the Government prosecutor remarked that the figures relative to the supply of ammunition furnished by *General Soleille* were much below those contained in the report. In reply to a farther question the chief of the staff said *General Soleille's* opinion was that the proportion of the ammunition up till the 16th had been from one third to one-half, in consequence of this *Marshal Bazaine* was afraid lest the ammunition should fail.

General Lebrun, in reply to questions with regard to the advance of the troops and the erection of bridges, declared that several orders were given to consult the staff on the subject, and contradictions and confusion necessarily arose in the instructions given. A long discussion ensued upon the exact date when *Marshal Bazaine* assumed the chief command of the army of the Rhine.

Marshal Bazaine, in order to contradict *Gen. Jarras's* evidence to the effect that the marshal had not issued orders on the 13th, demanded that the order of march signed by him on that day should be read. The marshal also observed that he gave general instructions for the advance of the troops, and that it rested with the commanding officers to choose the best roads. The sit-

ting was concluded at 2.45 pm., when the court adjourned till Friday (yesterday).

(From Broad Arrow, Nov. 1.)

FIFTEENTH DAY—OCT. 24TH: EXAMINATION OF WITNESSES CONTINUED.

The court resumed on Friday, as arranged when the question put to the witnesses, who were civil and military engineers and station masters, turned chiefly upon what was or ought to have been done about the Moselle bridges.

M. Scale, the inspector of the railway at Metz, deposed that on the 22nd of August *Marshal Bazaine* might easily have captured by a *coup de main* numerous pieces of siege artillery, and a large quantity of provisions which had been stored by the Germans in the vicinity of Metz, but that the marshal, believing that he would shortly be attacked by the Germans, declined to avail himself of that opportunity. The same witness added that it would have been easy to seize at Courcelles 1500 wagons of provisions stored by the enemy, as well as a large quantity of flour, forage, and grain in the adjoining villages. He stated that the marshal was reported to have said that such a movement would be useless. *Marshal Bazaine* here remarked that the army was not ready to take the field, adding that information furnished by the witness had not been confirmed from any other source.

General Coffinieres, the commander of the Engineering Department of the Army of the Rhine, recalled, stated that he did not inform the marshal of the state of the bridges or of the existence of the seven different paths for crossing the river. The Government commissioner mentioned that *General Coffinieres* consented on the 15th of August to grant an armistice of two hours to bury the dead, and that armistice, by being prolonged, was only beneficial to the enemy. *Marshal Bazaine* was not on the spot at the time.

Quartermaster-General Wolff deposed that *Marshal Bazaine* sent him at first to Verdun to collect provisions, and that he returned afterwards to Montmédy to get fresh supplies in view of emergencies.

Colonel Villenoisy (Engineers) deposed that he went to *General Jarras* to impress upon him the fact that the choice of the Gravelotte Road alone would cause great obstructions, and he suggested the Saulny Road as a second route; but he was soon convinced that *General Jarras* as well as himself was utterly powerless against the obstinate decisions taken in higher quarters.

Quartermaster-General Prevul, in his evidence, stated that on receiving an order from the marshal to disband the auxiliary convoy, he thought the matter of such importance that he asked to have the order in writing.

SIXTEENTH DAY—OCT. 25TH—EVENTS OF AUGUST 18TH.

Colonel Lewall, of the Staff, deposed that he was sent by *Marshal Bazaine* on the 18th on a reconnaissance in the neighbourhood of Metz, and that the positions occupied by the troops indicated that it had been decided to withdraw on the Briey Road.

Captain Yung, who was the next witness, stated that on the 18th of August *Marshal Bazaine*, on seeing the troops abandoning their position, exclaimed, "What can be done with such soldiers?" This witness was followed by *Captain Chalus*, who stated that he had been sent by *Marshal Canrobert* to request *Marshal Bazaine* to send reinforcements and ammunition; that the marshal

told him he would send a division of the Guard to the assistance of *Marshal Canrobert* but *Marshal Bazaine* having received word from a general that everything was going on well with the 6th Army Corps, the Commander in chief abandoned his first intention.

Commander Beaumont deposed that *Marshal Bazaine* on the 18th of August, about four p.m., gave him an order requiring *Gen. Bourbaki* to return to Metz, but that he (*Commander Beaumont*), in order that no misunderstanding might arise, asked the marshal to repeat his order. On the other hand, *Captain Mornay* (*Marshal Bazaine's* aide de camp) swore that the marshal instructed *General Bourbaki* to hold his ground. *Commander Beaumont*, nevertheless, maintained his assertion.

Captain Lacaze (*General Bourbaki's* aide de camp), was the next witness called. He deposed that on meeting the defendant at about four p.m., he heard from him that *General Bourbaki* was about to return to Metz.

Captain Latour Cupin, of *General Ladmirault's* staff, deposed that in the afternoon of the 18th of August *General Bourbaki* gave orders to his troops to proceed to support the 4th Army Corps. The court then adjourned to Monday.

SEVENTEENTH DAY—OCT. 27TH: INCIDENTS OF AUGUST 6TH—BATTLE OF FORBACH.

When the Council resumed to day, *M. Lachaud*, the Marshal's counsel, expressed his intention of cross-examining the witnesses with regard to the battle of Forbach. The Government prosecutor then stated that he only intended to bring forward evidence in support of the indictment against the marshal for his conduct after the 12th of August. The president, however, decided that the witnesses should be examined, as requested by the defendant's counsel.

General Montaudan deposed that on the day of the battle of Forbach he was at Sarreguemines at six a.m., he was only able to arrive at an intermediary point by 7.30 p. m.

General Castagny deposed that at five p. m., on the 5th, *Marshal Bazaine* told him to place himself at the disposal of the commanders of the first line of battle, among whom was *General Frossard*. He narrated that during the day of the 6th he heard guns firing, and at first thought it was thunder. He subsequently believed it his duty to hold himself in readiness for a battle which he considered probable on the morrow, but as the firing continued he commenced marching and arrived in the evening on the heights of Forbach. He added that on the 6th he received no advance or orders from *General Frossard*.

General Metmann said *Marshal Bazaine* ordered him on the 5th to place himself at the orders of *General Frossard*. At 7.30 he received a request from *General Frossard* to go to his assistance. He arrived at Forbach at nine p. m.

From these depositions it is made clear that on the 5th of August *Marshal Bazaine* ordered his general's of divisions to support *Frossard* in case of need, and is not responsible for these orders not having been carried out.

Captain Locmaria moreover deposed that he was sent to *Generals Metmann* and *Castagny* to tell them to reinforce *General Frossard* on the 6th of August.

Gen. Frossard himself deposed that on the 5th of Aug. he was informed that the corps was placed under the orders of *Marshal Bazaine*; consequently, on the 6th, as soon

as he was attacked, he sent a despatch to the marshal informing him of the fact, and continued sending him messages during the day. Marshal Bazaine gave distinct orders that he should be reinforced, but these instructions were not obeyed by the generals of division. Other witnesses gave evidence respecting various details of the military operations, but nothing of importance occurred. At the opening of the sitting the president, the Duc d'Aumale, had M. Regnier summoned, but that gentleman did not appear. It is said that it is intended to arrest him for writing a letter of an insulting character to the president of the court but he is reported to have taken refuge in England.

EIGHTEENTH DAY.—OCT. 25TH: COMMUNICATIONS WITH CHALONS.

On Tuesday witnesses were examined with regard to the different communications which passed between the Army of the Rhine and the Army at Chalons.

M. Vasselias, the director of the telegraph at Metz, deposed that the lines were broken on the evening of the 18th of August, and that he requested General Coffinieres to lay a cable in the canal as far as Thionville, but his demand was not granted.

M. Brandy, a forest ranger, was called, and stated that he started on the 20 of August with a despatch from Marshal Bazaine, and arrived on the 22nd at Verdun.

M. Scalabrino deposed that he was at Metz from the 18th until the 22nd of August and repeatedly offered his services without avail, for carrying despatches. He, therefore, returned to Verdun on the 22nd, and on the 23rd he was entrusted with a despatch to Metz from Marshal MacMahon, but was unable to pass through the German lines. He consequently returned to Verdun on the following day.

M. Guillemin, another forest ranger, and some witnesses were examined, but nothing important was elicited.

Commissary General Ulrich deposed that up to the 22nd of August Marshal MacMahon did not intend going to Paris; he was not made aware of the Marshal's new intention of going to Rheims until the evening of the 22nd. Other witnesses gave evidence to the effect that they were sent to Metz by Commandant Magnan after the 22nd, but were unable to enter the town.

M. Renou stated that he succeeded in getting into Metz on the evening of the 20th. The court then adjourned.

NINETEENTH DAY.—OCT. 29TH: MISSION OF LIEUT.-COLONEL MAGNAN.

On the resumption of the sitting of the court to-day, several witnesses were examined who had been entrusted with despatches on the 19th of August and subsequently, but none of them succeeded in entering Metz after the 20th.

MM. Scalabrino, Fissabre, and another forest-ranger were recalled, and the President congratulated them upon their conduct and the devotion and manly courage shown by them—conduct which, he said, was all the more to be admired as they had not made any parade of it.

Lieutenant Colonel Magnan gave an account of his mission to the Emperor on the 18th of August. He expressed himself warmly, but with moderation, and not without eloquence, and challenged the accuracy of the statements made in the report of General Bivière, adding that Marshal MacMahon himself would not contradict him in his assertions with regard to his mission, the objects of which he had already indicated.

He insisted upon the fact that he urgently desired and made every effort to re-enter Metz immediately, and he explained that he retired towards Charleville in consequence of the uncertainty of the position and the absence of information. He relied upon being able to start again on following day with the convey entrusted to his care; but at the same time he said he was willing to assume entire responsibility for the steps he had taken, and with regard to which he completely exonerated Marshal Bazaine. He added that he went, in company with General Dejean, to Carignan, whence he hoped to be able to send emissaries forward more easily—an object which he throughout energetically sought to attain. He concluded by declaring that he had earned his epaulettes with the Army of the Loire, and would not permit them to be tarnished. The president, amid much excitement, replied that his evidence was his best justification. The Government commissary, however, insisted upon the views put forward by the prosecution, and said that after Lieutenant-Colonel Magnan's departure from Thionville the roads to Metz were still open. The witness replied that the roads were not entirely open but were intercepted by the enemy's scouts. For him, entrusted as he was with a convoy, the Uhlans were to be considered as the vanguard of a hostile army. He, moreover, stated that he several times attempted to get through alone and was once stopped by two of the enemy's cavalry.

After some other witnesses had been examined with regard to the efforts to open communication with Metz, M. Flahaut was called, and his entrance caused considerable excitement, he being the witness who passed through the German lines more frequently than any other. On his second journey, on the 25th of August, he started from Thionville after having swallowed his despatch in an india rubber tube. He reached Metz the same evening, and was presented to Marshal Bazaine. He took the despatch the following morning to headquarters, where they, however, refused to accept it, and the despatch was burnt without being read. The Duc d'Aumale praised the witness for his conduct.

Some excitement was also caused by the evidence of Lieutenant Noguez and M. Serot, Imperial Procurator. Lieutenant Noguez was entrusted with a mission to Metz on the 23rd of August, but was not able to enter. On his return he was arrested by M. Serot. He now alleged that he only had one letter from the Empress to Marshal Bazaine, but M. Serot proved that he was entrusted also with a letter to General Bourbaki. This admitted point led to a very warm discussion, and Lieutenant Noguez ultimately that he had the note addressed to General Bourbaki.

It is said that the Duc d'Aumale devotes every morning to the study and co-ordination of the documents and questions to be asked of the witnesses who are to appear during the day, so that he may be able to direct the examination and prevent it from wandering into useless details.

(To be continued.)

GIANTIC CUTTLE-FISHES IN NEW-FOUNDLAND.

At the last meeting of the Natural History Society, held in Montreal Nov. 24th, the President, Principal Dawson, read the following communication from Rev. M. Harvey, of St. John's Newfoundland:—

He (the President) stated that, in addi-

tion to many ancient accounts, some of them evidently exaggerated, Prof. Steenstrup, Dr. Morch and Prof. Allman had recorded the appearance of similar gigantic cuttle-fishes on the Coasts of Denmark and Scotland. Steenstrup has described two species under the names of Archlitow—this monachus, and A. dux, and it seems not improbable that the specimens spoken of by Mr. Harvey may be referred to one of these. One of the Danish specimens is stated to have had the arms 18 feet long, and the body 21 feet, so that it may have been as large as the Newfoundland specimens. Dr. Packard has directed attention to these monsters in the February number of the "American Naturalist" and has described a specimen found by a Gloucester fisherman on the Grand Bank of Newfoundland. Mr. Harvey's communication gives us the clearest evidence of the occurrence of these creatures on the shores of Newfoundland.

His letters runs as follows:—

"St. John's, Nfld., Nov. 12, 1873.

My Dear Doctor,

"I take the liberty of bringing under your notice some account of a gigantic cuttle-fish which was seen a few days ago in Conception Bay. The circumstances under which it was seen were as follows:—Two fishermen were out in a small punt, on Oct. 26th, off Portugal Cove, Conception Bay, about 9 miles from St. John's. Observing some object floating on the water at a short distance, they rowed towards it, supposing it to be a large sail or the debris of a wreck. On reaching it, one of the men struck it with his "gaff," when immediately it showed signs of life, reared a parrot like beak, which they declare was "as big as a six gallon keg" with which it struck the bottom of the boat violently. It then shot out from about its head two huge livid arms and began to twine them around the boat. One of the men seized a small axe and severed both arms as they lay over the gunwale of the boat; whereupon the fish moved off and ejected an immense quantity of inky fluid, which darkened the water for two or three hundred yards. The men saw it for a short time afterwards, and observed its tail in the air, which they declare was ten feet across. They estimate the body to have been sixty feet in length, five feet in diameter, of the same shape and colour as the common squid; and they observed that it moved in the same way as the squid, both backwards and forwards.

One of the arms which they brought ashore was unfortunately destroyed, as they were ignorant of its importance; but the clergyman of the village assures me it was ten inches in diameter and six feet in length. The other arm was brought to St. John's, but not before six feet of it were destroyed. Fortunately I heard of it, and took measures to have it preserved. M. Murray, of the Geological Survey, and I afterwards examined it carefully, had it photographed, and immersed in alcohol; it is now in our Museum. It measured nineteen feet, is of a pale pink color, entirely cartilaginous, tough and pliant as leather, and very strong. It is but three inches and a half in circumference, except towards the extremity where it broadens like an oar to six inches in circumference, and then tapers to a pretty fine point. The under surface of the extremity is covered with suckers to the very point. At the extreme end there is a cluster of small suckers, with fine sharp teeth round their edges, and having a membrane stretched across each. Of these there are about

seventy. Then come two rows of very large suckers, the moveable disk of each an inch and a quarter in diameter, the cartilaginous ring not being denticulated. These are twenty-four in number. After these there is another group of suckers, with denticulated edges (similar to the first), and about fifty in number. Along the under surface about forty more small suckers are distributed at intervals, making in all about 180 suckers on the arm.

The men estimate that they left about ten feet of the arm attached to the body of the fish, so that its original length must have been thirty-five feet.

A clergyman here assures me that when he resided at Lymaline, on the Southern Coast, in the winter of 1870, the bodies of two cuttles were cast ashore, measuring 40 and 45 feet respectively.

More than once we have had accounts of gigantic cuttles cast ashore in different localities; but not until now have any portions of them been preserved.

By this mail I send you a photograph of the arm, it is one fourth the original in size. You will readily see the suckers at the extremity of the arm. The disks of several of the larger ones have been torn off by carelessness on the part of the captors. A few of them, however, are perfect, and the smaller ones are not injured. I shall send you also, by this mail, three or four of these suckers which I cut off, the smallest being from the very tip of the extremity and not much larger than a pin's head.

I shall be glad to hear your opinion of this fish at your earliest convenience.

It is a great pity one arm was destroyed, and it is still more to be regretted that we did not get the head of the monster.

Yours very sincerely,

M. HARVEY.

The photograph and specimens of the suckers of the creature, both forwarded by Mr. Harvey, were exhibited at the meeting. The Kraken, or Scandinavian superstition, is an exaggerated representation of one of these colossal cuttles. It existed as a cause of the occasional disappearance of islands. Denys de Montfort, who evidently disbelieved in their existence, having represented a "kraken octopod" in the act of scuttling a three-masted (by way of caricature), told Mr. DeFrance that if this were "swallowed," he would, in his next edition, represent the monster embracing the Straits of Gibraltar, or capturing a whole squadron of ships. Truth is however, at all times, stranger than fiction, as any one may see, in the present instance, who takes the trouble to compare Victor Hugo's fanciful and inaccurate description of the "devil fish," in *Les Travailleurs de Mer*, with the careful notes on a number of the same group of animals, as given above by Mr. Harvey. The cuttle-fishes are by far the most highly organized members of the great division Mollusca. By many writers they are considered as forming almost a link, as it were, between the vertebrate and invertebrate animals. The glassy internal pen of the squid, and the calcareous internal "bone" of the true cuttles, are held to foreshadow the spinal column of the higher animals. The eyes of the cuttles are large, brilliant, and more complicated in their structure than are those of some fishes. The late Mrs. Barrett Browning, probably unconscious of this circumstance, however, commences a short poem, entitled *Lord Walter's Wife*, with the following couplet:

"But why do you go? said the lady, while both sat under the yew;
And her eyes were alive in their depth, as the kraken
beneath the sea drew."
J.F.W.

TACTICAL KNOWLEDGE OF THE NAVY.

Writing of the new "Naval War Game," devised in imitation of the *Krieg Spiel* *Frazer's Magazine* points out that the usual adoption of steam as the motive power has revolutionized the tactics of battle, and so little has been done towards the establishment of new principles, that we are much in the same position as before Clerk of Eldie's twenty years of "mappery, closet wars." So long as the wind was the governing element, manœuvring generally ended when the battle began. The fight was waged with the ships in a quiescent state, but now, according to one of Commander Cyprian Bridge's excellent maxims, whilst within fighting distance, the ships must "not remain still." So that we have not only to determine what is the best tactical formation in which to approach the foe, but what are the tactical manœuvres which might naturally be expected to grow out of an onset made in a given initial formation. Even as to the smaller question of the preliminary formation, much divergence of opinion and no experience whatever exist in the British service.

The very terminology of navy tactics is unsettled. No fixed meaning attaches to the commonest terms. Seamen cannot define what is "a fleet," "a squadron," "a division;" what is the meaning of "strategy," "tactics," "manœuvres," "evolutions," etc. Whilst two or three terms are sometimes employed to express the same "formation," and nobody knows whether a "formation" is or is not the same as an "order," our latest system of grouping ships in "threes" or "fours" receiving a French name betraying alike its origin and continued forwardness of France in this subject. There are at least forty three distinct fleet evolutions, differing in character, and which requires diagrams in the general signal book for their explanation, besides collateral movements. Yet no means are adopted to familiarize young officers with all this nomenclature and warlike training. A naval college has been opened at Greenwich with much éclat, in which no place is found for the art of naval war. A professorship of field fortification has indeed been provided at that institution, but naval tactics, naval history, naval artillery, and other branches of the science of naval war find no place in our so-called naval college. No wonder that when the committee on designs of ships of war questioned twenty five distinguished officers as to the manner in which they would take a fleet into action, ten of the most experienced had no decided opinion, and five different plans were suggested by the remaining fifteen officers. Nine of these officers adopted, as their mode of attack, a formation which had no existence in the official evolutions of 1866, and which is even now tabulated only as a simple formation, unaccompanied by any directions for the alterations of course, conversion to other formations, etc., etc., which are essential to its development and practice. The uniform character of naval opinion on the question is pointedly evidenced by the reticence shown at the professional discussions held from time to time at the Royal United Service Institution. On a recent occasion, when a officer of the sister service of the

corresponding rank to Lieutenant Castle, R.N., read a paper on the tactics of three (military) arms, generals and colonels, no less known to fame than esteemed by their professional brethren, vied with one another in discussing, before a crowded audience, though from very opposite points, the subject proposed; but when a week or two later, the "Naval War Game" was brought forward in the same theatre, it was to well nigh empty benches, admirals and captains (on the active list) being as conspicuous for their absence as on previous similar occasions they have each been for their reticence. A dense fog obscures the subject, and admirals and senior captains are unwilling to acknowledge, in professional debates, that they have no knowledge to impart, no data on which to found reliable opinion. If too closely questioned, unlimited confidence in headlong bravery is courageously avowed to be their sole hope in battle. But suppose the foe to be equally brave, with a dash of tactical skill to boot? As captain P. H. Colomb, R.E., one of the first of living tacticians, puts it, "The bravest man had better be intelligently brave while he is about it."

MANUFACTURE OF 35 TON GUNS.—The manufacture of the seventeen land service "Woolwich Infant," or 35 ton guns, which were ordered from the Royal gun factories some months ago, is progressing rapidly at the Arsenal, Woolwich. Several enormous series of coils, weighing each some twenty two tons, and which are intended for these guns, have been lately removed from the reverberatory furnaces in the coiling shed, and lie outside ready for welding. The tubes of cast steel, three feet longer than any hitherto manufactured, have been received from Messrs Firth & Co., Sheffield, and will shortly be turned to receive the superincumbent coils. The appearance of the new guns when completed will be an immense improvement upon that of the present naval 25-ton gun. The addition of three feet to the chase, making it in all 19 feet from breech to muzzle, takes away from the stumpy, unwieldy look of the original weapon. But the improvement is not only in appearance. It is an established fact that a calibre of 12 inches with pebble powder requires a greater length of bore than 13 feet—the length given to the "infant"—for the expansion of the powder gases when such charges as 110lb and a 10lb or 130lb of powder are employed. And the new gun meets this requirement exactly, for the elongation of the powder gas waves is fully provided for by the excess of three feet given to the bore. Experiments with the 10 inch rifled gun show that the entire force of these waves is not exerted until the projectile has started several feet; hence it is necessary in order to obtain the full effect of the powder, to give a considerable length of bore, and with every increase made in the charge of powder to increase correspondingly that length. It is anticipated that no more of the earlier pattern of 35 ton gun will be constructed.

The Spanish steamship *Murillo*, which was seized at Dover for running into and sinking the British emigrant ship *Northfleet* when about to leave for Australia, and recklessly sacrificing several hundred lives, has been condemned, and sold November 5.