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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

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

VOL. VII.

OTTAWA, (CANADA,) TUESDAY, DECEMBER 30, 1873.

No. 52.

NEWS OF THE WEEK.

The Attorney General of the United States has officially promulgated it as his opinion that the *Virginus* was not entitled to the protection of the American flag. Yet the United States Government has shown no disposition to restore the vessel to the custody of the Spanish authorities.

The Attorney General's last decision regarding the *Virginus* constitutes the leading topic of discussion in the morning Journals. The *Tribune* says if our Government has really reached this decision there should be no hesitation in pressing with the utmost frankness, and promptness, the measure for the condemnation of the compromised vessel.

The *Times* says:—We have no doubt whatever that the *Virginus* carried the American flag fraudulently, that she was not only engaged in a filibustering expedition of the grossest kind, but that she was, to all intents and purposes, an insurgent steamer, belonging to the Cubans, and only using the American flag as a blind to cover an illegal expedition. All this, of course, could not be known at first. The Spanish Government has had time to put in its evidence, and, of course, that evidence would be placed before the Attorney General for examination. The *Virginus* has practiced a cheat upon the United States Government. She had no right to carry the American flag, and was engaged in an enterprise which was in direct violation of the law. Per contra, the *Card's* Washington despatch contains a strong statement to the effect that the right of the *Virginus* to carry the United States flag is fully established, and that such is the judgment of the administration. The *Madrid* report that the Spanish Government will make a demand for the return of the *Virginus* is not credited in Washington.

Saul Wright, aged 81 years, a Waterloo veteran, who fought in the dragon Guards under the Duke of Wellington, died on Sunday from paralysis.

News has been received from San Domingo by way of Santiago de Cuba, that General Ignacio Gonzalez has been elected President of the Republic. The new administration will probably endeavour to annul the lease of Samana Bay.

The foreign trade of Great Britain has not been satisfactory to her merchants this year so far. That nation sold \$32,500,000 less of cotton, linen, silk and woolen fabrics, and had to buy \$50,000,000 more of articles of food in the first nine months of this year than in the corresponding period last year.

David R. Pigot, Lord Chief Baron of the Exchequer, and member of her Majesty's Most Honourable Privy Council in Ireland died here this morning.

Throughout the city Matamoras, on Dec. 22nd the stores and public buildings were generally closed and business suspended, owing to the unsettled state of feeling growing out of the fighting which occurred yesterday. The Government troops patrolled the streets and occupied the Plaza last night and to-day, and maintained strict order and security. It is believed that Cortina will endeavor to be installed as Mayor by the 1st January, by which time the term of the present city officials expire, and, should the efforts now being made to compromise the matter not succeed, serious fighting is likely to follow.

The French Assembly on the 19th, passed the bill increasing President MacMahon's salary.

The King of Dahomey, it is said, has entered into alliance with the King of Ashantee. Dahomey lies on the coast immediately east of Ashantee, and is a populous and fertile country, and the people being, if possible, more barbarous and their institutions more bloody than those of Ashantee. The English Government will now have its hands full with the two nations to manage; and, with the terrible diseases, which destroy a thousand lives where the bullet destroy one, as their allies, they are no contemptible adversaries. But, having undertaken the task, England must go through with it. She must make these dusky potentates understand that the English flag is to be respected, or she must abandon her trading posts and give up her settlements in that part of the world.

The troops engaged in the Ashantee war will be furnished with carbon-respirators to protect them from the malaria of the marshes and swamps of the locality.

The Emperor William is much better. He has been up all day.

The report of Bazaine's flight is unfounded. It is now stated that ex-Marshal is to leave Paris to-night for St. Marguerite, his place of imprisonment.

Marshal Bazaine is still confined in the Palace of the Tridon.

The Chevalier Nigra was well received by President MacMahon yesterday, and the interview was of a most friendly character.

It is definitely ascertained that Ryan had made a contract with the Cuban insurgents, by the terms of which he was to receive \$20,000 in gold if he succeeded in landing his men and arms on Cuban shores.

Ten steamers are at St. Sebastian for the purpose of embarking the force of Republicans under Gen. Moriones, which is surrounded by 30,000 Carlists, and cannot escape capture except by taking refuge on the vessels.

A Havana letter says that the slave owners in the Island are secretly planning a conspiracy in Spain to overthrow Castelar, against whom bitter feeling is felt for his the *Virginus* matter.

They claim at the Cuban headquarters to have news of several minor insurgent successes in Cuba, and that in the latter's recent attack on Mancilla, they destroyed fully half the town, captured \$1,000,000 worth of stores, several million dollars in Spanish bank notes, and a large amount of war material, together with one hundred prisoners. Their loss was thirteen officers and sixty privates killed and wounded. They compute the Cubans loss at three hundred.

A Washington despatch says:—A Bill has been framed, and will be introduced after the Christmas recess, abolishing the office of the Chief Justice, and it is reported to have the endorsement of several Senators. It is contended that the officer should be selected by the Senate.

At 10.30 o'clock the jury in Mayor Hall's case entered the Court room, and, in answer to the usual inquiry of the judge, replied that they had found a verdict of not guilty. At this announcement, the crowd in the Court burst into an immense applause, which the Court did not object to, and after a lapse of about ten minutes the Court was adjourned until Monday morning at 10:10.

The *Post's* Washington special says steps have already been taken by our Government to prevent any more filibustering expeditions being fitted out against Cuba, and all moral support possible will be given to Castelar's Government.

The *Herald's* despatches from Cartagena announce that Fort San Jalean, one of the strongest defenses in the city, has been breached.

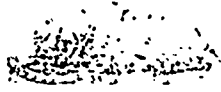
An accidental explosion of an internal battery yesterday killed twenty officers and men of the besiegers.

Another New York politician has been tried in the balance and found guilty. Harry Genet, this time:—Penalty, not less than one nor more than five years' imprisonment. He was a Senator. He subsequently succeeded in making his escape from prison and the last account heard of him is that he sailed on Monday morning, with an intimate friend, ex-Senator Taylor, of New Jersey, and that they departed secretly from Jersey City in the yacht *Wm. Keeney*, chartered for that purpose.

The iron bridge at Dixon Ill., fell with a terrible crash, while crowded with people to witness a baptism. Thirty-two bodies have been recovered and many more are supposed to be under the wreck.

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The Volunteer Review,

AND

MILITARY AND NAVAL GAZETTE.

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

OTTAWA, TUESDAY, DEC. 30, 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 account of a voyage by one of the monitors, the type of *Invincible Annadas* that Mr. CHAMBERS and the ex chief constructor of the British Navy, Mr. REED, were destined to build at an expense of £10,000,000 (ten millions) sterling to the British taxpayer will be perused with interest by such of our readers as have followed the course of our

remarks on the war ships of the future. It was evidently time for England to retrace her steps. The United States in her hour of need, notwithstanding her invincible iron-clads of a *new type* finds she really possessed a lot of unsea-worthy tubs not one of them capable of riding out half a gale, and as a consequence totally inefficient for any purpose except "to drown brave men like rats in a hole."

In the description of the *Manhattan* we have an accurate idea of how the *Devastation* will behave in a gale of wind and the best use she can be put to is to moor her inside Plymouth break water where she may be exhibited as a specimen of Whig Radical imbecility and the folly of the British people in trusting the Government of the country as well as the best interests depending on its army and navy to a schoolmaster, assisted by a set of traders and lawyers. The comforts of the *Monitor* system must be very enticing to seamen.

A correspondent of the *New York Times*, writing from on board the *Powhatan*, Nov. 28, gives the following interesting accounts of the accident to the monitor *Manhattan*, which compelled her to put back to the Delaware breakwater. She will probably return to Philadelphia for repairs. The correspondent says: We are back again within the capes of the Delaware, just outside the breakwater, and in sight of Lewes. At 7:45 p. m., Wednesday, with the monitor *Manhattan* in tow, we dismissed our river pilot and passed out to sea, the weather being fine and the night starlit. The monitor had behaved very well in coming down the Delaware Bay, rolling and pitching little and steering with readiness, and during Wednesday night there was no trouble in getting her along. But yesterday morning a fresh wind sprang up from the southwest, proving quite squally at times, and at 5:15 a. m. the *Manhattan* signalled to the *Powhatan* to slow down, so as to equalize the strain upon the two towing cables. At 8 a. m. the wind from the southwest was stronger and more squally, and the sea could be seen breaking in floods over the bows of the monitor and sweeping her whole deck. Green seas struck square against the turret and dashed over into it. (We learned afterward, indeed, that these hurled the men from the wheel and left her uncontrolled.) Meanwhile she made bad weather, not minding her helm readily, and rolling and plunging very uneasily and heavily. We observed that the men of the *Manhattan* were engaged in clearing her boats, as if preparing for an emergency. We could see, too, that her ventilators had been washed away. The wind was almost dead against the course we were pursuing, and although the *Powhatan* braced it with ease, it was very evident that it was too much for the monitor. At 8:05 a. m. Captain Beaumont signalled to the *Manhattan* the question: "Are you leaking?" "Commander Yates signalled in reply: "We are leaking under the turret chamber, but pumps are going and clear her nearly as fast as she makes." After observing the labored movements of the *Manhattan* for some time further Capt. Beaumont gradually put the *Powhatan* before the wind, to ease the monitor, and at 9:20 changed the course to north, north-east. At 9:50 a. m. the commander of the monitor signalled: "Cannot

go ahead to sea; bilges are not free." The *Powhatan* signalled back. "Inform me when you can continue on passage without danger to yourself." The reply from the monitor was: "I understand; I will let you know as soon as I can." At 10:20 the *Manhattan* signalled: "There will be serious trouble if we go ahead to sea; we take in water." *Powhatan* inquired: "Where would you take in water, going head to sea?" The reply was: "Over and under turret chamber." The *Powhatan* had by this time changed course to due north, off Chincoteague Bay. At eleven o'clock the *Manhattan* signalled, "Think it advisable to return to breakwater." *Powhatan* responded, "We are bound there." About five minutes after the *Manhattan* signalled, "We have found a place where we can see daylight under the turret." There was now no doubt about it that the monitor should be got out of the sea as soon as possible if we wished to save her. Nevertheless, at 12:45 p. m., Captain Beaumont inquired, "If the wind moderates, and hauls to the westward, will you be in condition to proceed on our passage south?" Commander Yates replied: "The condition of our bilges is such as to make it impossible." At 2 p. m. we sighted Cape Henlopen, the weather being overcast and squally, with the wind still from the southwest. At 3:30 p. m. stopped to take a pilot on the *Manhattan*, and at 5:15 p. m. cast anchor just outside the breakwater, within Capes May and Henlopen. We cast off the hawsers by which we towed the monitor, and sent men in boats to assist in taking them aboard; but it was found impossible to take on one of them, which was buoyed and set adrift, to be taken up to-day. The monitor steamed slowly to a position inside the breakwater, and there anchored.

Immediately after we anchored Captain Beaumont took a boat and went aboard the *Manhattan* to learn her condition. He found her leaking badly everywhere. Officers and men were all wet from head to foot, and their bedding, etc., was soaking. The water had flooded everything and was still pouring in. One of the supply engines of the boiler was disabled, and the bilge-pumps were choked with chips and shavings left there by the workmen of Cramp & Son, the contractors who had repaired the vessel. All but one of her ventilators had been washed away, and one immense flood that poured into the turret had carried away the log book. Some of the 450 pound shot in the turret had become loose, and rolled about, to the danger of crushing everything that came in their way, and it was found impossible to secure them. When it was found that the leakage was so bad, Commander Yates, just before the *Powhatan* changed her course before the wind, ordered the boats to be cleared, and distributed life preservers expecting to go down within twenty minutes. But the decision of Captain Beaumont in changing his course, and thus easing the monitor, saved her. While the sea was breaking at its worst over the bow of the *Manhattan* and against her turrets, rushing in both under and over, Assistant Engineer John Lowe, and a seaman, with great daring, ventured down with a cable, which they succeeded in adjusting around the base of the turret on the outside, to aid in keeping out the water. Meanwhile blankets and clothing were packed on the interior of the base of the same purpose. It is not at all likely that the *Manhattan* in her present condition will be ordered to Key West. If she

should, a disaster will surely occur. She must return to Philadelphia for repairs, and will probably go out of commission for awhile. Curses both loud and deep are showered upon the Philadelphia contractors who so imperfectly did the work for which they were so well paid by the Government: while great praise is accorded to Commander Yates, his officers and men, for their gallant conduct. Commander Yates himself speaks in the highest terms of the behaviour of all under him. The *Manhattan* has no breakwater, and the top of her turret is straight up and down, instead of being shaped like an inverted bell. If these defects were remedied, she would labor less in the sea and ship less water, so all authority agrees. But, at best, she is unfitted for rough seas, and brave men ought not to be sent to meet death in her like rats in a hole. The opinion is very generally expressed that monitors should be used exclusively for harbour defences, or at the entrances to bays and rivers, and that they should be constructed where they could reach the points designed for their use, without venturing to sea. They are exceedingly uncomfortable, even if kept dry; but it seems impossible to keep them so, and the pervading dampness renders them very unhealthy. The *Powhatan* has had much experience in towing this class of vessels, and several of her officers have served upon them. Captain Beaumont himself carried the *Miantonomoh* across the Atlantic and back. It is true he speaks in high terms of that vessel, but all the other officers concur that they would prefer to stay out of any monitor. Some of them, however, are much better than others, and where the work of their construction and repair is faithfully and skillfully done, life in them is endurable. But the *Manhattan* seems to be the worst of her class, and has always borne a reputation for ill luck. A later dispatch reports the *Powhatan* and *Manhattan* arrived at Wilmington, Del., December 1. The latter is still leaking badly in the steerage and on the turret. Captain Lee Davis arrived on a tug soon after she anchored, with orders from the Secretary of the Navy for a full re-survey of the monitor. It will probably take several days to repair her.

Our replies to the interrogatories of our correspondent "R." have resulted in arousing discussion on most important points connected with rifle shooting. In the issue of 23rd inst. there are no less than three important letters on the issues raised. We shall answer those objections in the order in which they appear. *Old Soldier* takes exception to our definition of the number of Canadian Volunteers that are capable of judging distances; the question as argued by our correspondent throws no light on the original query; there are no statistics to show what number are really to be found in our ranks. We are quite satisfied that practice is necessary to enable men to judge distance, but as all men are not capable of acquiring the habit, would it not be better to train the officers and non-commissioned officers in that necessary accomplishment; than to endeavour to train the mass of capables and incapables, an art that only one in ten can learn? Our correspondent's arguments

logically followed out would condemn the whole system of target practice as it at present exists. *Royal* is quite right, it is not only our deliberate opinion but that of the first Generals and Strategists of the age that the soldier that can't shoot is as useful as the one who can—the reason is very obvious—other qualifications besides being a marksman are necessary to win a battle or insure the success of a campaign, and if the quantity of lead thrown away in the various actions of the late war compared with the effect in killed and wounded is any criterion, the proportion of marksmen in any army is very small indeed, or they acquire a habit of firing wildly during an action, the result in every case being the same.

A bayonet charge is not an impossibility, if our correspondent had read the events of the actions of the late Franco-Prussian war he would find that it was just as useful a weapon as ever, and always finished the contest.

Royal's experience during the Fenian raid is no argument against the folly of officers doing the duty of rank and file, it will occupy the whole of an officer's time if he commands his men properly. If he undertakes to pick off his opponents he must neglect his duty.

Small bore shooting, as practiced by amateurs, argues nothing against our proposition; it is not a soldier's weapon; the gentlemen who practice it are not likely to figure in the ranks and the small bore has not received the approval of any military commission in Europe or on this continent.

The object which rifle matches are organized to encourage is, to accustom the rank and file of the Canadian Army to the use of the soldiers' weapon and not to make crack shots of every man—and we take it as a fact that as great proficiency has been obtained, as in any other organization, and that it is not possible to improve the present system.

The faults urged against the Martini-Henry have not developed themselves during the rather prolonged trial that weapon underwent before it was adopted by the SMALL ARMS COMMISSION as the weapon for the British Army.

Our correspondent takes this occasion to make an attack on the administration of the Canadian Army disclosing a state of affairs which, if true, is alike disgraceful to all concerned. Our columns are open to fair discussion not to covert attacks, and we see no reason why any officer cognisant of these disgraceful proceedings should not at once bring them to the notice of the proper authorities. The Press is not the proper vehicle for preferring charges affecting the administration of the Army. We cannot coincide with our correspondent's wish respecting the Dominion Rifle Association, it is a most useful institution and only needs to be properly directed to produce results similar to those produced by the world renowned Wimbledon.

An *Enquirer* mistakes a typographical error for a grammatical blunder, and asks a rather foolish question, which only be replied to by asking in return how he would "arrange an advance through a stump field or bit of bush"?

We know that six per cent. of the bullets fired in action are effective by the returns published of the cartridges expended in actual fight, and of the result in killed and wounded.

We publish to day the examination papers of the "Officers' Long Course Gunnery School, Quebec," of which Lieut. Colonel T. B. SPRANOE, R.A., is commandant, and for clearness of details, practical value and scientific attainment they reflect great honor on the gallant Colonel as well as display conspicuously his aptitude for conducting such an important institution and one destined to produce such a powerful effect on the future of the Canadian Army. In order to judge of the value of the questions in these papers we could wish to submit the answers to our readers, but we can only congratulate the gallant Commandant on the admirable system he has organized.

OFFICERS' LONG COURSE.—GUNNERY SCHOOL, QUEBEC.

November. 1873.

GUNNERY.

1. What are the forces that act on a projectile fired from a gun, and in what ratio does the force of gravity increase?
2. Noticing the time which elapses between the flash and report of an enemy's gun to be three seconds, calculate the distance, the elevation, and length of fuze for a common shell required to return the fire from the rifled guns mounted on the citadel. If you found the first shell fell about 20 yards short and five yards to the right, how many minutes deflection would you give, and what increase of elevation, if any?
3. Find the charges and lengths of fuze for mortars at the following ranges:

13 in.....	2,000 yds.
10 in.....	1,300 "
8 in.....	1,150 "
4. Define the terms energy in foot lbs., energy in foot tons, and give the formulae for finding the latter per inch of circumference of projectile?
5. Calculate the striking velocity at a range of 900 yards, of a 9 in. Palliser shell, 250 lbs., fired from a Woolwich rifled gun, with the initial velocity of 1,420 feet per second?
6. Calculate the remaining velocity, at the same range, of a 15 in. S.B.U.E. Rodman shot, 428 lbs., initial velocity 1,070 feet per second?
7. What thickness of iron armour, without taking wood backing into consideration, would the above mentioned projectiles respectively penetrate, striking direct at the range given; calculate also the effect supposing they struck obliquely at an angle of 60°?
8. Draw a comparison between the British and United States systems of gunnery from the above examples?
9. Write what you know about the application of curved fire from rifled guns at the sieges of Paris and Strasburg?

ARTILLERY MATERIAL.—GARRISON.

1. Describe the kinds and classes of gun-powder in the service, and the results dependent on size, shape of grain, density, glazing, &c., distinguishing between quick burning, and quick igniting powder?
2. Supposing Quebec was completely invested, and the supply of cannon powder ran short, could you utilize saw-dust, if so, describe the process, and a rough method of comparing its strength with service powder, so as to regulate the charges. What would be the probable cost compared with service powder?
3. What number of service projectiles per gun, for land and sea fronts, (100 for land fronts 200 for sea fronts) left by the Imperial Government in Quebec, and how long do you calculate they would last in case of active operations?
4. It was formerly thought necessary to replace cast-iron carriages and platforms with wooden ones before a siege. Considering the effects of heavy rifled projectiles, do you think the same objection to cast-iron holds good?
5. State the latest regulations for the safety and ventilation of magazines, and the use of a wet and dry bulb thermometer in connection therewith?
6. Describe the process of examining ordnance, as you have seen it done?

FIELD.

7. What is the construction, system of rifling, weight, calibre, and charge of the 9 Pr. M. L. R. field guns lately sent out?
 8. With the aid of a sketch describe its projectiles and fuzes, and state the instructions for preparing and firing them. Give Shrapnel length of fuze for 2,000 yards?
 9. With the aid of a diagram, show the mode of packing ammunition and stores belonging to the 9 Pr. M. L. R. gun carriage and limber?
 10. How would you produce a lateral dispersion of Shrapnel bullets on impact; what circumstances would render such a dispersion desirable; and would you prefer conical or Shrapnel shell for dislodging troops from woods?
 11. Supposing a 12 lbs. projectile had been substituted for that of 9lbs. with the 9 pr. M. L. R. equipment, the charge of powder being the same, what would be the effect on initial velocity, flatness of trajectory, accuracy, length of range, effect of shell fire, and convenience of carriage in the limbers? Give reasons in full for your opinions.
 12. A 9 pr. of 6 cwt. is being constructed for the Royal Horse Artillery, supposing the same charge is used, can it be put on a lighter carriage than that of the 9 pr M. L. R. of 8 cwt?
- What will be the probable gain on the whole equipment?

SHIFTING ORDNANCE.

1. What are the various tackles used in shifting ordnance, and what is the power given by each, and what relation does the gain in power bear to the time required?
2. Give a rough rule to find the size of rope to suit a given block?
3. Detail the general duties in shifting ordnance, without a gun? What is the object of detaching numbers for special duties, and having recourse to various methods laid down, instead of using the triangle gun on all occasions?
4. A 50 cwt. gun on a garrison carriage 12 cwt. has to be run up by four six feet handspikes, applied under the axletree arms giving a counter lever of six inches, what power has to be applied at each handspike,

supposing the action of well greased trucks on a smooth platform requires only a fourth the power necessary to lift the dead weight?

5. A 50 cwt. gun on a standing carriage was dismantled by recoil at practice last winter, describe how it was remounted by means of a single spar 15 feet long, and two ropes, calculate the pull exerted by each of a detachment of 15 in mounting the gun on a carriage of two feet six inches high?

6. A 25 ton gun has to be lifted from the bottom of the ditch of a fort, (full revolment 30 feet), and placed on the parapet; calculate the length of back guy required when the sheers are inclined towards 15° from the perpendicular, bringing the fall over the gun—the height of fork from gun being 60 feet, distance from gun to holdfast of back guy on the same level as bottom of ditch 120 feet?

7. By constructing a parallelogram of forces from the above data, calculate the strain on the back guy, the fall and shoor logs; what thickness of rope will be required for fall and guy respectively?

The trunnions of the new 9 pr M. L. R. field guns are relatively lower, compared to the axle of the piece, than those of the S. E. 9 pr. With the aid of diagrams explain the effect on the upsetting angle and the difference between unstable and stable equilibrium in the cases of guns carried by sling and platform wagons respectively, along the side of hill sloping in the direction of their axletrees?

FORTIFICATION.

1. Define the terms, silent, and re-entering angle, dead angle, enfilade, defilade.
2. Draw a section through a face of Number 2 Fort at Point Lewis, from memory; put in the dimensions, and give the names of the various slopes of the profile. What are the advantages of the Chemin de Ronde, and what was the object of closing the gorge with a bastioned trace?
3. Would the complete investment of Quebec be difficult? What alterations and additions are required in the works and armaments, bearing in mind the report of Col. Jervis, R.E.?
4. Give your ideas on the advantages and disadvantages of the Moncrieff system of fortification; compare it with the old system of Vauban, and the modern granite structures with their iron shields.
5. Draw a trace and profile of a pair of Moncrieff gun pits on the summit of a gently rising ground. They are to form part of a system of detached forts and will require a magazine as well as a portion of bomb-proof cover for a small garrison. Substitute as far as practicable forest timber for masonry, taking into consideration the destructive effects of a Canadian climate, and the cheapest materials at hand. You will also provide for the drainage, and the accommodation of a few caretakers in time of peace.

TACTICS.

1. Define the following terms for Infantry, Cavalry and Artillery formations: A rank, file, fours, section, sub division, division of artillery and what relation it bears to the battery, compared with that of the squadron and company to the larger unit of the other arms.
- For parade purposes what is the extent of front of a squadron, a battery in line at full intervals, a company of 40 files; what intervals should be left between battalion in line of contiguous columns, squadrons, artillery, and other troops, and how is the dressing of artillery regulated with reference to infantry?

3. State the most important points for consideration by a battery Commander in the choice of a position, and the principles which govern the notion of divisional, as well as of reserve or corps artillery in masses giving instances of the latter from the Franco-Prussian war.

4. Arrange the following corps of Military Districts, Nos. 5, 6, and 7, into a small corps d'armée according to the principle laid down by Sir G. Wolsley, supposing each battalion mustered 800 men in 10 companies, each troop 80 sabres, and each battery six guns. If you consider it necessary, increase cavalry, artillery, and engineers to the proportions required in a fair open country, with good roads.

Cavalry No. 5 District.	...	9 Troops.
" " 7 " "	...	3 " "
Artillery " 5 " "	...	2 Batteries.
" " 7 " "	...	2 " "
Engin'rs " 5 " "	...	2 companies.
Infantry " 5 " "	...	12 Battalions.
" " 6 " "	...	9 " "
" " 7 " "	...	13 " "

Transport and commissariat to be furnished by Civil contract.

5. Show by a diagram your disposition for an advance of the above corps d'armée in fighting order of march towards the frontier, by two parallel roads, sufficiently close together.

6. Suppose the advanced cavalry feeling the enemy falls gradually back on the advance guard, which seizing a good position, with open ground in front, holds its own until the main body comes up, and the enemy draws off for the night. Show with the aid of a sketch your arrangement of the corps d'armée, and the covering pickets, (supports and reserves not thrown out). State the strength of the pickets for a front of 1600 yards for each division: double the sentries with an average beat of 50 yards are required?

7. At daybreak the force must be drawn up for battle, with the aid of a sketch show the general outline you would adopt the sort of ground you would prefer, You are facing south perpendicular to your communications, those of the enemy running south west; in what direction would you expect the real attack; how, when and where would you prepare to use your corps artillery and endeavour to develop a counter attack; with what special object? With a second sketch detail the formation for attack of one of your divisions on a front of 2000 yards, skirmishers, supports, flank battalion, brigade, and division reserves, according to the plan proposed by Captain Hume. Supposing in this case no strong features of ground break the general idea.

Give your reasons for everything.

T. B. STRANGE, Lieut. Col.
Commandant S.G., Quebec.

REVIEWS.

Blackwood for December has been received, it contains:—The Parisians, Book XII; International Vanities, No. I.; Phidias the Elgin marbles; A Story of the Rock; The Conservative Party and National Education; The Count de Chambard and Conservatism. The Leonard Scott Publishing Company, 143 Fulton Street, New York.

It is reported that Eng'nd proposes to take the Peninsula of Yucatan from Mexico as an equivalent for the debt due by Mexico to Great Britain.

DOMINION OF CANADA.



MILITIA GENERAL ORDERS.

HEAD QUARTERS.

Ottawa, 26th December, 1873.

GENERAL ORDERS (29).

No. 1.

MILITIA STAFF.

To be Deputy Adjutant General for Military District, No. 4.

Brigade Major Lieutenant Colonel William Hayes Jackson, vice Atcherley resigned.

To be Brigade Major for the 8th Brigade Division, Province of Ontario, with the rank of Major in the Militia.

Captain Gregor Mattice, M.S., from No. 2 Company 59th Battalion, vice Jackson promoted.

Memo.—The Headquarters of both the above officers to be at Brockville, until further orders.

ACTIVE MILITIA.

PROVINCE OF ONTARIO.

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

Memo.—Adverting to No. 1 of General Orders 26th June, 1868, Capt in Francis Collier Draper, M.S., 1st Class, having served five years as a Captain on 10th April 1868, the rank of Brevet Major to which he was then entitled is hereby granted to him from that date and the General Order adverted to is amended so as to read "vice Captain and Brevet Major Francis Collier Draper, who is hereby permitted as a special case, to retire retaining his Brevet rank," instead of "vice F. C. Draper."

10th Battalion of Infantry or "Royals," Toronto.

To be Major: Captain and Brevet Major Arthur Coleman, V.B., vice J. W. Hetherington.

12th Battalion of Infantry or "York Rangers."

The Head Quarters of this Battalion are hereby changed from from Newmarket to Aurora.

20th "Hallow" Battalion of Rifles.

No. 1 Company, Oakville.

To be Captain: Lieutenant Ranson Byron Albertson, V.B., M.S., vice William B. Chisholm, who is hereby permitted to retire retaining rank.

To be Lieutenant:

Sergeant Thomas William Fox, M.S., vice Albertson, promoted, promoted.

Ensign Donald C. Shane, having left limits, his name is hereby removed from the list of officers of the Active Militia.

No. 2 Company, Stewart-town.

To be Captain:

Lieutenant William Philip Appelbe, M.S., vice John Johnson, who is hereby permitted to retire retaining his rank.

To be Lieutenant:

Private James Newton, M.S., vice Appelbe, promoted.

To be Ensign, provisionally:

Sergeant John Wasby Reed, vice Robert G. Bescoby, left limits.

27th "Lambton" Battalion of Infantry.

Ensign and Adjutant Charles Edward H. Fisher, V.B., to have the rank of lieutenant.

33rd "Huron" Battalion of Infantry

No. 2 Company, Wingham.

Memo.—Adverting to No. 1 of General Orders (22) 19th September 1873, read "vice Joseph Beck who is hereby permitted to retire with the rank of Ensign," instead of "vice Joseph Beck out of limits"; and "vice Benjamin Hazellhurst deceased," instead of "vice Benjamin Hazellhurst out of limits."

35th Battalion of Infantry "The Simcoe Foresters."

The resignation of Major Thomas Ferguson is hereby accepted.

44th "Welland" Battalion of Infantry.

No. 7 Company, Ridge-way.

To be Ensign, provisionally:

Morris J. Beam, gentleman, vice Laur, resigned.

BREVET.

To be Major:

Captain L. N. Fitzroy Crozier, V.B., No. 5 Company, 15th Battalion, from 18th December, 1873.

PROVINCE OF QUEBEC.

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

Memo.—Adverting to No. 1 of General Orders (18) 18th July, 1873, the paragraph in which 2nd Lieutenant H. C. Sheppard is authorized for the "Long Course," is hereby cancelled, and the following substituted; "2nd Lieutenant Henry Colling Sheppard, No. 1 Battery, Quebec Provisional Brigade of G. A., is authorized to join the School of Gunnery, Quebec, on probation, for a three months' course of instruction."

65th Battalion or "Mount Royal Rifles"

No. 5 Company, Montreal.

To be Captain:

Lieutenant Pierre Bélanger, M.S., from No. 4 Company vice Arthur Renaud, whose resignation is hereby accepted.

No. 6 Company, Montreal.

To be Lieutenant, provisionally:

François Corbeillo, gentleman, vice Edmond Barsolou, whose resignation is hereby accepted.

To be Ensign provisionally:

Edmond McMahon, gentleman, vice Gadoua, transferred to No. 5 Company.

County of Quebec Provisional Battalion of Infantry.

To be Assistant Surgeon.

Joseph Etienne Grondin, Esquire, vice Jules Robitaille, deceased.

CONFIRMATION OF RANK.

Captain Sévère Gagnon, M.S., No. 3 Company, Three Rivers Provisional Battalion, from 31st March 1871.

PROVINCE OF NOVA SCOTIA.

Victoria Provisional Battalion of Infantry.

No. 1 Company Baddeck.

To be Lieutenant from 24th October, 1873: Ensign Donald McRae, Q.F.O. vice Cairn promoted.

To be Ensign, from 24th October, 1873: Color Sergeant Farquhar McRae, M.S. vice D. McRae promoted.

To be Major:

Captain George H. Sutherland, Q.F.O. No. 6 Company, 78th Battalion.

GRAND TRUNK RAILWAY BRIGADE.

1st Brigade Garrison Artillery.

The resignation of Major Samuel Hamilton Wallis is hereby accepted.

2nd Battalion Rifles.

To be Lieutenant Colonel specially and provisionally:

Captain Edmund Phillips Hannaford, from Engineer Company attached to 1st Brigade Garrison Artillery, vice John Shedden deceased.

To be Major:

Major Thomas Patterson, V.B., formerly of the 3rd Battalion Rifles and 2nd Brigade Garrison Artillery, vice Henry Shakell left limits.

3rd Battalion Rifles.

To be Captains:

Lieutenant John Fitzgerald O'Neil, V.B., vice Walter George Jones left limits.

William M. Dow, Esquire, (Provisionally) vice Henry Nutall left limits.

To be Lieutenants:

Ensign William R. Wilson, M.S., vice David Turnbull left limits.

(Continued on page 620.)

THE RIVER OF TIME.

On a wonderful stream is the River Time,
 And it flows through the realm of Tears;
 With a faultless rhythm and a musical rhyme,
 And a broadening sweep and a surge sublime,
 As it blends with the Ocean of years.

How the winters are drifting like flakes of snow,
 And the summer like butts between;
 And the years and the shovels how they come
 and go.

On the river's breast with its ebb and flow,
 As they glide in the shadow and shoon.

There's a magic Isle up the River of Time,
 Where the softest of airs are playing;
 There's a cloudless sky and a tropical clime,
 And a voice as sweet as a vesper chime,
 And the June with the roses are staying.

And the name of that Isle is the 'Long Ago,'
 And we bury our treasures there;
 There are bows of beauty and bosoms of snow,
 (There are heaps of dust but we loved them so.)
 There are trinkets and treasures of hair.

There are fragments of songs that nobody sing,
 And a part of an infant's prayer,
 There's a harp unwept and a lute without string,
 There are broken vows and pieces of rings,
 And the garments she used to wear.

There are hands that are waved when that faty
 shore,
 By the mirages lifted in air,
 And sometimes we hear through the turbulent
 war,
 Sweet voices we've heard in the days gone before,
 When the wind down the river is fair.

Oh remembered for aye be that blessed Isle,
 All the days of life till night;
 And when evening comes with a beautiful smile,
 And our eyes are closed to slumber while,
 May that greenwood of soul be in sight.

THE COMTE DE CHAMBORD.

THE EXILE OF FORTY YEARS.

(From the London Telegraph.)

Innumerable appointments and promotions in the Legion of Honour, the revived order of the Saint Esprit, and the newly created one of St. Michael took place in honour of the birth of Henri de France. Royal munificence, amnesties, favours of every kind were showered down on the people. The young mother had only to ask, and her every request was granted by the delighted old King. The child's cradle—a miracle in itself of rare woods, ivory, and mother o' pearl—was the most sumptuous ever seen in France since—well, since when? Since that day, perchance when, with Kings and Kaisers for sponsors, and with consecrated water from the river Jordan, an Archbishop of Paris baptised the Son of Napoleon the Great. As a mark of Royal gratitude and high condescension towards the noble city of the Garonne—which had, in 1814, shown her loyalty to the House of Bourbon (not without some encouragement and assistance from a certain Arthur Wellesley, Duke of Wellington) by welcoming within her walls Monseigneur le Duc d'Angouleme and had again earned distinction in 1815 by protesting against the return from Elba of the Corsican Usurper, while offering an asylum to Madame la Duchesse d'Angouleme—the infant Henri was created Duc de Bordeaux. Just fifty years afterwards, in that same city of the Garonne, the legislative compromise known as the "Pacte de Bordeaux" was concluded. The outcome of the Pact is the imminent conversion of the Comte de Chambord, Duc de Bordeaux, into Henri Cinq, King of France and Navarre. As for his comital title, that designation he derived from the castle and estate of Chambord, a very ancient Royal demesne near Blois. It had become national property, and being for sale in 1520, was in danger of falling into the hands of a knot of speculators called "La Bande Noire," who were in the habit of purchasing historic mansions for the Vandalic purpose of pulling them down, selling the land in small lots to

farmers, and disposing of the valuable debris of the antique castle, such as sculptures, carvings, painted windows, ceilings, and oak panelling, to the old curiosity dealers. A public subscription rescued the Chateau de Chambord from the Iconoclasts of the Black Band; and the mansion and estate were presented, as a testimonial of the affection of the French people, to the baby Duke. When he came to man's estate, in the tenth year of his dreary exile, he assumed the *quasi incognito* title of Comte de Chambord, just as Peter the Great in his travels was called "Comte de Nord," Louis XVIII. in exile, "Comte de Lille," the Duchesse d'Angouleme, "Comtesse Marnes," and the ex King Joseph Bonaparte, "Comte de Survilliers." The estate of Chambord was not confiscated when Louis Philippe, by the cleverest of "flukes," ascended the throne; nor was the exiled Prince forced to sell the testimonial of French affection; and throughout the duration of the July Monarchy, together with that of the Second Empire, the Chateau de Chambord remained untenanted but intact, under the care of a few ancient servitors clad in the Bourbon livery.

The first ten years of the little Duke's life were passed as those of heirs presumptive to great thrones generally have been passed. He was of, course, lapped in luxury, swaddled in obsequious homage, and weaned on adulation. His great uncle, King Louis, died; his grandfather, King Charles X., ascended the throne, and notwithstanding his splendid coronation and consecration in the Cathedral of Rheims—did somewhat badly as a Monarch; so badly, indeed, that by the end of July, 1830, the mob were in the Tuilleries, the army was disorganized, the crown in the kennel, and the Monarchy nowhere. In the midst of the last spasms of expiring Royalty a knot of fanatical Legitimists hastened to the palace of St. Cloud, where the Duchesse de Berri was residing with the young Prince, for the purpose of persuading her to waylay the Duke of Orleans—soon to be appointed Lieutenant-General of the kingdom—on his way from Neuilly, to extort from him a promise of fidelity; or, if necessary, to have him seized by force and detained as a hostage. Then the Duchess was to enter Paris, and traverse the boulevards with her son in her arms, imploring the compassion of the people for "the child of a martyr and the victim of an old man's imbecility." The brave young Duchess highly approved of this plan; a number of plucky Legitimist gentlemen were ready to aid her with their swords; and there is no saying but that the madcap enterprise might have succeeded had it not been for the veto of the impracticable Charles X., conveyed through the Baron de Damas. The unhappy King was utterly discouraged, and had lost all hope of regaining the crown sacrificed by his consummate obstinacy and folly. It may be said almost literally that the Bourbon Monarchy in July, 1830, tumbled over like a house of cards; for when all was lost, and the raging mob were on their way to St. Cloud, Charles X., quietly sat down to a game of whist with the Duchesse de Berri, the Duc de Luxembourg, and the Duc de Duras. Monsieur de Mortemart came to tell him that the troops were mutinying, but that there was some chance of their returning to their allegiance if the Duc d'Angouleme were permitted to place himself at their head. "Wait till to-morrow," announced, Charles Dix, scoring, it may be presumed, the odd trick. Then his Majesty went to bed, and on the morrow the Modes and Persians were at the gate, and his kingdom has given to another.

Flying from St. Cloud to Trianon, and thence to Rambouillet, a wretched reunion took place of these bankrupt Bourbons. The gray disrowned King, the Duchesse de Berri, the little Duc de Bordeaux, and she the—heiress of unending woe—the Duchesse de Angouleme, all met together. At Rambouillet Charles X. wrote a solemn letter to the Duc d'Orleans, formally abdicating the crown in favour of his grandson Henri. The Dauphin, he continued, alluding to the Duc d'Angouleme, had likewise resigned his rights in favour of his nephew. Upon this, the infatuated Charles commanded Louis-Phillippo, on his allegiance as Lieutenant-General of the Kingdom—he was already *de facto* King of France—to proclaim the accession to the throne of Henry Cinq; to take all the necessary measures pertaining to his office in order to settle the form of government during the now King's minority; and to communicate the gracious intentions of himself, Charles X., to the diplomatic body. And so his late Majesty concluded, "I renew to you, my cousin, the assurance of the sentiments with which I am your affectionate cousin, CHARLES." An archdeacon could not have more gracefully fulfilled archidiaconal functions. The poor old gentleman shortly afterwards faded away from Rambouillet to Maintenon, a chateau belonging to the Noailles family. This was on the 4th of August, 1830. On the 5th the Royal family took their departure for the coast, the Duchesse de Berri leading her son by the hand. The Royal widow had by this time recovered some things of her old petulance and vivacity; for contemporary chronicles tell us that when she left the Chateau of Maintenon she was dressed *in male attire*, and as she lifted her son into the travelling carriage she exclaimed cheerfully, "Il no faut plus songer au depart, mais au retour"—"Never mind the going away; let's think of coming back." Everybody can come back, so it would appear—save the dead. The exiles were so poor that, when they arrived at Dreux, they were forced to sell some of the plate they had with them to defray their travelling expenses. Reaching Cherbourg, after a long and dolorous journey, the luckless group embarked on board a vessel which had been provided for their conveyance to England. A few officers and privates of his old Garde Royale accompanied the King to the place of embarkation. They handed him the regimental flags. "I receive your standards," he replied in a voice choked with sobs, "but this child shall one day return them to you," and he touched with a trembling hand the forehead of the Duc de Bordeaux. It was a parody—a respectable and affecting one but still a parody—of the adieux of Napoleon to his Old Guard in the courtyard at Fontainebleau.

With that dismal scene on the quay at Cherbourg commenced the forty years' exile of Henri de France. Forty years! The story of his life, so far as his public acts and deeds during that period are concerned, might be summarised in forty lines of print; yet what an immensity of sorrow must not the banished Prince have endured in the wide span of two score summers! It is only recently that the veil which for so long a time has screened the individuality of the Comte de Chambord from public view has been even partially lifted; but day by day the sum of facts will increase and accumulate, and the world will be put into full possession of all the circumstances connected with the career of the last "Son of St. Louis." The ascertained points in his history since August, 1830, may be very briefly stated. From Cherbourg the Royal Family

of France crossed the Channel to Weymouth, whence they proceeded to Lulworth Castle, in Dorsetshire. Their next resting place was at the Royal Palace of Holyrood, at Edinburgh; but at the end of 1832 Charles X. and his doleful train of kindred and dependents again became wanderers, and took up their quarters in the Castle of the Uradschin, at Prague, the rambling old Bohemian *schloss* now inhabited by the abdicated Austrian Kaiser, Ferdinand. For three years and seven months did they abide in the Hardschin; after that they established themselves at Goritz, in Illyria, where Charles X. died, on the 6th of November, 1835. The Duc de Bordeaux, after his grandfather's death, continued to reside at Goritz with his uncle Louis Antoine de France, whom bigoted Legitimists persisted notwithstanding the renunciation of Rambouillet, in styling "Louis XIX."—with his aunt, Marie Thereso, and his sister Louise. On the 23th July, 1841, the young Prince, who had been passing some time at the Castle of Kirchberg, near Vienna, nearly lost his life by a fall from his horse. He escaped with a broken hip-bone. It may here be stated his early education had been conducted mainly by the Comte de Barante, the Duc de Levis, and General de Latour-Foissac. Accompanied by his preceptors, he traveled in succession through England, Germany, and Italy, settling for some months in Rome, where he devoted himself, it is stated, very sedulously to artistic study. He abode, in the Eternal City, at the Palazzo Conti. At the Palazzo Madama, not far from him, there was then dwelling another Exile—an old, a very old lady, whose maiden name was Letizia Lamolini, but who is better known as "Madame Mere"—the mother of Napoleon. It would be strange to inquire whether the grandmamma of the little King of Rome ever crossed carriages with the grandson of Charles X. on the Pincian Hill. The sojourn of the Duc de Bordeaux in Rome was eminently distasteful to the French Government; and the Ambassador of France at the Vatican, M. Chabaud-Latour, went so far as to hold threatening language to Pope Gregory XVI., hinting at the possibility of a French squadron appearing off Civita Vecchia if the Holy Father persisted in receiving the exiled Bourbon. In 1842 the Duc de Bordeaux came to England—to London, where a residence in Belgrave-square had been prepared for him—and his modest mansion soon became the shrine of a numerous and influential pilgrimage of Legitimists from France. Conspicuously among those devotees of the Right Divine came the Baron de Larcy, with four other members of the Chamber of Deputies—MM. de Valmy, Berryer, Chateaubriand, and the Duc de Fitz-James. The visit of these gentlemen to Belgrave Square was regarded by the French Ministry in the light of a political and anti-Orleanist demonstration. M. Guizot, then at the head of Louis Philippe's Cabinet, was furious, and, on their return to France, the five Legitimist deputies had no option but to resign their seats in the Chamber. Their constituents forthwith re-elected them, and the "incident" terminated fortunately without anybody being sent to prison. M. de Larcy, it may be mentioned, is the same gentleman who not long since accepted, under the presidency of M. Thiels, the portfolio of Minister of Commerce.

In 1845 died the uncle of Henri de France, the Duc d'Angouleme. Shortly after this event, the Prince—to be Duc de Bordeaux no larger—notified the Great Powers that, as Head of the House of Bourbon, he pro-

tested against the dynastic changes which had taken place since 1830 in France, and against the usurpation of the crown on the part of Louis Philippe d'Orleans. He very gravely and amply formulated his own inalienable rights to the throne; but added that he was unwilling to insist upon the vindication of his claims until, according to his conscience and conviction, the moment had arrived when his presence in his native country was imperatively demanded and might become veritably useful. Thus, he signified his intention to assume for the present the title of Comte de Chambord in his relations with foreign Courts. Having launched this manifesto—of which neither Europe in general nor France in particular took the slightest notice—the Comte de Chambord, his aunt, and his sister removed from Goritz to the Castle of Frohsdorf, an estate heretofore belonging to the ancient French family of De Blacas. In 1845 the Comte married, at Gratz, in Styria, the Archduchess Marie Thereso of Austria and Este, Princess Ducal of Modena. No offspring has been the fruit of this union. The Comte's sister "Mademoiselle," Louise de France, was married to the Infante of Spain, Hereditary Prince and Duke of Parma and Piacenza, a Sovereign of tendencies somewhat too mediæval—he was an atrocious miscreant—and who was very mediævally and completely assassinated one Sunday morning in Parma by a countryman, to a member of whose family he had done a foul wrong. His widow governed the Duchy as Regent during the minority of her son, Duke Robert, until the Duchies of Parma and Piacenza were swallowed up by the "Sub-Alpine King" Victor Emmanuel of Sardinia. Let it be likewise borne in mind, as another of the odd points of contact between the Bourbons and the Bonapartes, that these Duchies of Parma and Piacenza, with the Principality of Guastalla, formed the appanage allotted by the Congress of Vienna, to Maria Louisa, ex Empress of the French, and Archduchess of Austria, when Napoleon was sent to Ebba. As for the spouse of the Comte de Chambord, her father, the Duke of Modena, was another of the potty Italian potentates dispossessed in 1860 by the omnivorous "Re Sabando." The confidential friends of the Comte, the Duke of Levis in particular, have frequently been blamed for having favoured the marriage of Henri de France with the Modenese Princess, who is two years older than her Consort.

The personal appearance of the Comte de Chambord is comely, dignified and agreeable. As we have before hinted, his profile resembles that of his grand uncle Louis XVIII—a moustache and whiskers of a slightly Austrian cavalry cut being allowed for. His demeanour is easy, graceful, and unstudied. He is slightly above the middle height, and more than slightly given to *embonpoint* the family failing—if it be not the family favour—of the Elder Branch. His forehead is remarkably high and smooth. His voice is sonorous and peculiarly attractive. His acquirements as a linguist—especially in English—are, it is reported, remarkable; he is in every respect accomplished, and is a very brilliant conversationalist. The Prince is an early riser, seldom quitting his apartment latter than six in the morning. The day commences with the examination and rectification of an exceedingly voluminous correspondence, to which he gives his personal attention, answering a large number of letters with his own hand. The remainder of the epistolary duties fall to the share of M. de Blacas. Next the French and other

newspapers, of which weighty packets are every day received at Frohsdorf, are glanced through and sorted; the Prince again personally superintending their perusal, making numerous extracts and clippings with his own hands, and fitting the journals for future reference, with extraordinary patience and exactitude. Nor is this systematised method, perhaps, to be marvelled at. The time must have hung so heavily on our hands these forty years past! From journalism the Prince proceeds to equitation. He is passionately fond of horsemanship—his broken hip-bone notwithstanding—and his stables are magnificently stocked. Towards nine in the morning he starts for an airing on horseback, accompanied by a single servant, or by some gentleman on a visit to Frohsdorf. At half past ten he returns to breakfast—a very simple meal, the Prince being neither "gourmand" nor "gourmet." The repast never lasts longer than half an hour; the Comte taking the head of the table, Madame la Comtesse sitting on his right; and the *vis à vis* being occupied by one of his confidential friends. The seat to the left is reserved for any visitor who may be staying at the Chateau. The meal over, the Prince adjourns to the smoking room, there to sup a cup of coffee. He talks freely upon ordinary topics, receives visitors, and gives audience to persons coming on business. During the remainder of the day he usually devotes two or three hours to writing, after which, accompanied by the Princess he takes a ride in the park or in the environs of Frohsdorf, returning to dinner, which is served at seven o'clock, and lasts precisely one hour. Beyond the rules of exalted etiquette, which are, of course, rigidly observed, there is no restraint on the conversation that concludes the evening; and by ten o'clock all is quiet in the Castle of Frohsdorf. What a life! The days pass, and do resemble each other, and so they have done, with but very few intervals of variation, for more than a quarter of a century. Let it be also mentioned that the Comte and Comtesse are both passing wealthy; but that a large portion of their revenues annually expended in pensions, annuities, and donations to the neighbouring poor, and to indigent French people of all ranks and classes in society. Such as we have been enabled to sketch his story and that of his belongings, is the Man Henri Dieudonne de France, of whom his heroic mother, the Duchesse de Berry, wrote twenty years since to an old and faithful adherent—"If he were known, as he is, I have not the slightest doubt that his name would become once and universally popular—as popular as that of Henri Quatre, even with these who are now most prejudiced against him. It is what all who see him feel, and you will not wonder at his mother acknowledging and being proud of it."

Kingston, Jam., Dec. 13.—News from Hayti is unsatisfactory. President Nissage Saget will not vacate the Presidency except to establish Gen. Dominique therein, and as there is the party in the House of Representatives determined not to have Dominique at all, trouble is therefore imminent. Dominique is ready for any emergency that may arise. He was heard to say, "Ah, they do not want me for President, but they shall have me." Nissage Saget keeps the peace with a firm hand.

Black troops have been shipped for service in the Ashantee war.

(Continued from Page 617)

Sergeant James McIntyre (Provisionally vice O'Neill promoted.

To be Ensign.

Segeant James Jack, (formerly of Her Majesty's 17th Regiment) vice Thomas Yates left limits.

Robert Wenfer, gentleman, (provisionally) vice Wilson promoted.

By Command of His Excellency the Governor General.

WALKER E. POWELL, Lieut. Col.
Acting Adjt. General of Militia.
Canada.

COMPETITIVE TRIALS OF HEAVY ORDNANCES.

(From the New York Herald)

Boston, Dec. 1, 1873.—“In time of peace prepare for war.” This is a trite saying, but the events of the last few weeks have demonstrated that it is a maxim which the United States, as well as other nations, should observe most attentively. If, happily, perhaps, the prospects and dangers of a Spanish war are for the moment postponed on account of intervening diplomacy, but the suddenness with which hostilities were seriously threatened only a few days ago, should be a warning which the government should profit by. Improvements and experiments in heavy ordnance were conceived more than a year ago by the proper governmental authorities, and Congress made necessary preliminary appropriations for the experiments.

Competitive trials of heavy ordnances and tests took place upon the obscure territory of Nut Island, in Boston Harbor. In brief, it may be stated that the experiments were such as to demonstrate that all the smoothbore guns on hand and belonging to the government can be increased in precision and power to an extent which will enable them to hit and destroy, with a single shot, any iron clad or other war vessel that ever floated. The experiments took place under the observation of Capt. Truxton, Captain of Ordnance of the Navy Department, and under the supervision of Norman Ward, agent of the department and inventor of the rifling improvement, which adds such remarkable force and efficiency to the heavy armament of our forts and ships-of-war. For the purposes of the experimental test there were provided two guns of 23 tons each and of 16 inch calibre. One of them was the common smoothbore, and the other was rifled in accordance with Mr. Ward's invention, but in other respects there was no difference whatever. One hundred and forty pounds of powder—the largest quantity of ammunition ever used in a gun—was fired from each, and the projectiles were respectively of 460 pounds weight. The targets consisted of wrought iron plates of 15 inches in thickness, and they were erected side by side, 150 feet distant. The rifled projectile fired from the Ward gun was of conical shape, the one fired from the common smoothbore piece was necessarily round. The one first named went clear through the fifteen inch plates, and out of sight into a sand bank in the rear. The demolition of the almost invulnerable target was complete, and so great was the force with which it was struck that a fragment of 300 or 400 pounds was thrown

clear across the island, a distance of not less than a quarter of a mile. The projectile from the smooth bore gun penetrated the target only about six and a half inches, and as the advantages were precisely equal, the superiority of the rifled arm was at once established by the experiment, and admitted by the Government authorities of observation. Compared with other comparative tests, this style of gun is the most destructive ever yet produced. A 35 ton gun of 12-inch calibre was once fired in England through an iron plate of 12 inches in thickness, showing the comparative penetrating power of that arm to be about 141 against 226 of the gun at Nut Island. This improvement, as the Government understands it, does not involve the manufacture of new guns to secure it. Take the present armament of our forts, just as they are, and they can be rifled at one-tenth the cost that new guns can be manufactured, and at the same time their efficiency as smooth bore ordnance is not in the least impaired; and including the cost of rifling, the arms will be cheaper by one-tenth than the best English guns, and for destructive powers their efficiency can hardly ever be equalled.

Under the improvement it is claimed that the rifled guns belonging to the United States Government may be made to have greatly increased efficiency, endurance, penetration of iron plates, higher initial velocity to the shot, much longer range and improved precision; while the guns of the smooth bore will remain as essentially as good or be better smooth bore gun than they now are, and, if rifled, they may be, after the improvement is applied, used effectively as smooth bore guns if desired. By this means all the spherical projectiles now on hands may be utilized, and all carriages, implements, platforms, ordnance stores and service of the gun may be made available. The improvement consists in rifling each gun with two grooves, having for a 16-inch gun a twist of about one full turn in 50 feet and so stationing the grooves at the side of the bore that neither groove will intersect, or cross the bottom or top of the bore, thus leaving it smooth at the bottom and top where the shot will strike in “ballotting,” should the gun be used as a smooth bore for spherical projectiles after being rifled. After the gun is rifled, however, it is proposed to improve the spherical projectiles now on hand by drilling three small holes in each, a little distance from the point of contact the shot or shell would have with the bore of the gun when inserted as if for firing. The holes to be equidistant from each other in the form of a regular triangle. Into these holes insert three brass pins, each to be cut, after the insertion of such, the exact length necessary to support the projectile up and out of contact with the bottom of the bore, so that the windage shall be equal all round. By supporting the projectile in the centre of the bore previous to its receiving its impulse from the powder the windage all round alike, an achievement is arrived at by most simple means, often attempted in this country and Europe without success.

Great interest in the experiments. Notwithstanding, the Spanish war cloud has blown over, the experiments, with the guns described are still regarded with great interest by the government, and especially by the Navy Department. Other tests are to be made in a few days with a view to obtaining an idea of the comparative distance and rapidity with which a projectile can be thrown from a rifled and a smoothbored gun.

Our Naval Bureau of Ordnance has just issued a translation from the French, of a description of the Reffye gun, adopted by the French Government after an extended series of trials at Calais and Bourges, in competition with the Woolwich, Vavasseur and Krupp systems. It is of interest to the Navy, says the preface, “as the Bureau purposes introducing a bronze breech-loading 3 inch rifled howitzer, using a metallic cartridge case. Several important modifications have been made in the details of the screw breech, by increasing the length of the screw, adopting a better form of thread, and the insertion of a steel thimble, containing the screw-box, in the rear of the gun. Also, by diminishing the excessive twist, and substituting two leadon rings (one in front to guide, the rear one to take the grooves and close off the windage), for the leadon jackets of the projectile.”

The gun introduced into the French service is a bronze breech-loading field piece of the calibre 7. It will throw a shell weighing seven kilogrammes 5,000 metres. It combines the lightness and facility of manipulation of a field piece, with the accuracy and range of siege artillery of medium calibre. Although bronze has been chosen as the regulation material, as a metal more easily worked, than steel, the manufacturers who prefer steel have been allowed to use it, and several guns of this metal have been produced at Rive de Gier on the plans of M. de Reffye. The standard for the bronze is 100 parts of copper to 11 of tin. The new gun has the advantage over the old calibre 12 gun of a flatter trajectory—the angle of fall in the former, at short range, being but 9 deg., and in the latter 17 deg. 2 min. This result is due (1) to the suppression of windage; (2) the complete and constant grip of the projectile; (3) the elongation of the charge; and as a sequence, loading at the breech, and enclosing the charge in a metallic case. The rifling is the polygroove, having a twist of one turn in one metre 85 cen. When any defect is shown in the bronze at the proof firing, a tube, cold drawn, of hammer hardened yellow brass, is inserted in the bore, the breech of the gun being first heated so as to grasp the tube tightly as it shrinks in cooling. The breech is closed by a slotted screw method known as the French closure—*fermeture Française*—which the translator of this description of the Reffye gun shows in an American device, and was first applied to a 12 pounder gun at the Washington Navy-yard in 1851. In its first conception it was however too imperfect to be used, and it owes its successful development to the preserving efforts of the French. For fuller description of the gun, and of its ammunition and projectiles, we refer our artillery readers to the ordnance pamphlet.

The Ordnance Department are busied, among other things, in changing the 15-inch carriages from the old pattern to the new. The Engineers are at work putting our forts in defensive order. Lieutenant General Sheridan has been called to Washington in consultation in regard to Cuban affairs. All these signs are warlike; but the latest news, at the time we go to press, is to the effect that Spain has decided to yield to the demands of our Government, and it is to restore the *Virginius*. What reparation is to be made for the slaughter of her crew is not stated, nor what guarantee that the orders of the home Government will be carried out in Cuba.—U. S. Army and Navy Journal, 29th Nov.