Correspondence

LETTER FROM OUR WASHINGTON HOUSE.

WASHINGTON, June 24, 1861.

MESSRS. EDITORS:—In connection with the ordnance cartridge to which I referred last week, I should have stated that it gives practical value to an invention of three years' standing, which would otherwise have been of much less importance. This is a muzzle-loading cannon patented in 1858, which performs the successive operations of loading, capping, firing and swabbing without requiring the attendant to approach the muzzle, or otherwise expose himself to the enemy's fire. The cartridges are fed into a hopper, much as apples are fed into a grinding mill. What this invention particularly lacked was some de vice to remove the metal cartridge case, which want is now supplied.

I notice, among the patents granted this year, one issued on the 26th of March, to C. A. McEvoy, of Richmond, Va., for an improvement in loading fire-arms. It consists in the use of a flanged metallic casing, formed to slip into the muzzle of the piece, and so constructed that the entire charge may be driven through the casing into the barrel by the simple application of the ramrod. It is cheap and effective, entirely waterproof, and very quickly and conveniently applied, requiring no previous manipulation to open the cartridge. It is generally understood here that the inventor of this improvement is at the present time in open and active rebellion against the government which granted him a patent, and also that the invention has been brought into successful use in the ranks of the rebel army. It certainly facilitates the loading of both large and small arms to a great degree, and many loyal men desire to see it introduced among our troops, holding that the government would be justified in using the invention of any man who has outlawed himself by aiding her enemies.

The following regiments have arrived here during the last week:—Michigan 3d, Massachusetts 1st, Pennsylvania 24th, 26th, New York 21st, 14th, 18th, 38th, 26th, 29th and 17th; Maine 4th, Rhode Island 2d, and New Hampshire 2d, numbering upwards of thirteen thousand men, rank and file. At no time since the commencement of the war have troops arrived as rapidly as now, and they are passing forward into Virginia in great numbers; but all is now done without unnecessary stir or excitement, nothing being known of such movements until they are actually accomplished.

Professor Lowe has made several largely successful experiments with his balloon, which is designed for reconnoitring the enemy's forces and works. It has now been removed across the river, and would have been brought into use yesterday but a high wind prevented.

Two pieces of "contraband property" entered the lines of the Second Michigan regiment on the Virginia side of the Little Falls yesterday, saying that their masters having left home to join the secession army, they had concluded to link their forces with that of the United States. They were allowed to remain, and went cheerfully to work. Such incidents as this are constantly occurring in those parts of the enemy's country occupied by our troops, but the most scrupulous respect is paid to the ownership of all loyal citizens in this species of property, and no such escapes are permitted excepting in localities in open rebellion against the government.

Invention of the Baltimore Steam Gun.

MESSRS. EDITORS:—Allow me, as an inventor, to set the public right, through your paper, as to the centrifugal gun called the "Winans" or "Dickinson gun."

I am its inventor. I have been to work at it for more than twelve years past, and obtained Letters Patent for it May 17, 1859, which you will find noticed on page 385 of the report of that year. Dickinson, who claims to be the inventor of this gun, derived the invention from me.

As much has been said in relation to this gun, it is due to the public and myself to give my views and correct false impressions in relation to it. I wish first to make a few remarks upon an article in your paper of June 15th, headed "Absurdity of Steam and Centrifugal Guns." I never intended to use steam in field operations. The estimated power required to throw balls, as stated, is not correct in relation to my centrifugal gun, but is correct in relation to powder guns. With my invention, the balls start with a very slow motion, and increase until they reach the end of the barrel; this requires but little more power to project 300 balls per minute than it requires to keep up the motion of the machine. But not so with guns for powder. The ignition and expansion of powder is almost instantaneous, and must of necessity require very many more times the power than an accelerated motion. I can apply my own strength to a machine by means of a crank, and, by degrees, get up a motion equal to the best rifled balls; but to get up this motion instantaneously would require the power of several hundred men. With an imperfect machine, I have thrown, with my own strength, an ounce ball through an inch pine board at a few yards distance; and to apply the powers of ten men, balls can be thrown equal to gunpowder, at the rate of 500 per minute.

I have been acquainted for twenty-five years past with most of the plans of centrifugal guns, but my invention is upon a different plan from them all; and to apply steam to the McCarty gun, it would not be like my invention, or the Baltimore gun, as described by the New York *Tribune* of May 1st. I can, without fear of failure, build a machine that will do more execution with the aid of twenty men, without steam, than a thousand men can do with rifles or muskets; and when centrifugal force is successfully applied to war, it will be upon the plan of my invention.

The difficulty with centrifugal guns is an inaccurate discharge or great waste of balls; this was the case with the Reynolds gun, the Potts gun, and also with the Baltimore gun. After the issue of my patent, Dickinson obtained a patent for what he called an improvement, which is an absolute damage to the machine, and balls can never be discharged correctly with it. My invention for discharging will put all the balls in a very small space, the discharge being instantaneous at the same point every time. I am not foolish enough to think my gun will take the place of all others; but, introduced in the proper place with the other great engines of war, it would be of very great service to the government in the present crisis.

WM. JOSLIN.

Cleveland, Ohio, June 17, 1861.

[An engine of 60 horse-power is one that can exert this amount of power every minute, and not one that may exert 60 horse-power at intervals of five or ten minutes. In comparing steam with gunpowder, in discharging shot, the rapidity with which each can be discharged for several hours (not minutes) should always be taken into consideration. A 10-horse power engine, as usually constructed, would break down by attempting to work it up to 60 horse-power, because the parts are always proportioned in strength to the work which the engine has to perform.—EDS.

Protecting Ships with Iron Rails.

MESSRS. EDITORS:—I am disposed to think that a better protection for ships against cannon shot than plates of steel or iron would be railroad bars of considerable depth, spiked lengthwise at such distance apart as to not permit a ball to enter between them, and braced at intervals to prevent tilting.

The advantages would be the saving of metal and weight, as not more than one-third of the surface would be covered, the ease of application and renewal, and the diminished resistance to the water.

I merely submit the idea as one that may be of service in that line. Yours, respectfully, A.

Lambertville, N. J., June 4, 1861.

Rifling Smooth Cannon.

MESSRS. EDITORS:—In your issue of June 1st, I saw an article on rifling old smooth bore cannon—such as are in good condition. Guns that are not in the most perfect condition may be made so at any ordinary machine shop where there is water or steam power, and at very moderate expense. I think any 8 or 9-pound gun may be reamed out within six hours after it is in position, and the diameter of the bore will not be increased to exceed one-eighth of an inch, so that the strength of the gun will be reduced but little.

There is at this time no work to be done in any of the shops where cotton and woolen machinery is built, and there is any number of good workmen ready to go to work immediately, and, with the railroad facilities we have for transportation, we can ream and rifle every gun in possession of the government in 90 days.

H. H. P.

Port Jervis, N. J., June 7, 1861.

Grand National Exhibition and Test of Firearms.

ROOMS OF THE ILLINOIS STATE AGRICULTURAL SOCIETY, Springfield, June, 1861.

The Executive Committee of the Illinois States Agricultural Society have determined to add the following to their regular list of premiums, to be competed for during their annual exhibition for 1861, at Chicago, September 9th, 10th, 11th, 12th, 13th and 14th:—

For the best breech-loading rifle cannon, 12-pounder	Grand gold medal.
For the best breech-loading rifle cannon, 6-pounder	Grand gold medal.
For the best muzzle-loading rifle cannon, 12-pounder	Grand gold medal.
For the best muzzle-loading rifle cannon, 6-pounder	Grand gold medal.
For the best breech-loading rifle for infantry service	Gold medal.
For the best rifle musket for infantry service	Gold medal.
For the best breech-loading carbine for cavalry service	Gold medal.
For the best revolving pistol for cavalry service	Gold medal.
For the best target rifle	Silver medal.
For the best fowling piece, two barrels	Silver medal.
For the best fowling piece, one barrel	Silver medal.
For the best and most valuable new invention, which is an improvement on any of the firearms now in use	Gold metal.
For the best solid shot for rifled cannon in use	Silver medal.
For the best shells for rifled cannon use	Silver medal.
For the best powder for cannon use	Silver medal.
For the best powder for rifle or musket use	Silver medal.
For the best gun carriage	Silver medal.
For the best ambulance for hospital use, with the necessary appliances	Silver medal.

Competition for the foregoing will be limited to American manufacturers.

For the following, competition is open to the world:—

For the best and greatest display of firearms, of all descriptions, and all varieties of weapons, with the trappings and accouterments for serving them	Grand gold medal.
For the best and greatest display of military goods, including uniforms, banners, &c.	Grand gold medal.

No premiums will be awarded to any firearm except upon thorough trial before, and under the direction of a competent committee, and the society will spare no pains nor expense to render these trials fair, impartial and decisive.

Accuracy, range and ease and rapidity of loading and firing will be especially considered.

Every piece upon trial will be served by the manufacturer, his agents or employés, and the fullest opportunity will be allowed to complete each test. Each competitor will select and furnish his own ammunition.

The trials will be conducted under the superintendence of Colonel Samuel A. Buckmaster, of Alton, Ill., who will station guards along the line of firing, abundantly numerous to keep it free from transient objects, and insure safety.

JOHN P. REYNOLDS,
Corresponding Secretary of the Illinois State Agricultural Society.

Prices of Cotton and Hemp.

Considerable attention is at present directed to improvements in treating various plants in order to obtain a cheap substitute for cotton and other fibrous substances now used. In order to assist those who are engaged in experiments and investigations in this direction, we publish the following present market prices of hemp and cotton.

COTTON.

	Upland.	*Florida.*	*Mobile.*	*N.-Orleans & Texas.*
Ordinary, per lb	11¼	11¼	11¼	11¼
Good Ordinary	12½	12⅝	12⅝	12⅝
Middling	14	14⅛	14⅛	14⅛
Good Middling	14⅝	14¾	15⅛	15¼
Middling Fair	15	15	15⅛	15½

HEMP.

American, Undressed, per tun	120	—	a130	—
American, Dressed	170	—	a190	—
Russia, Clean	—	—	a	—
Russia, Outshot	—	—	a	—
Jute	82	50	a 87	50
Italian	—	—	a250	—
Manilla, per lb	—	5	a —	5¼
Sisal	—	4½	a —	4⅝

The duty on Russian and Italian hemp is $35 per tun; on Manilla, $15; on Sisal and Jute $10.

Jute is not quite 4 cents per lb., and it can be obtained in any quantity. It is now manufactured into various fabrics, and is frequently mixed with cotton in certain classes of goods manufactured in Scotland. It requires special machinery for spinning, and although it is very low in price, the expense of working it is so great that it cannot compete with coarse cotton in producing cheap cloth.

Six hundred thousand men are deemed necessary by the French government for the defence of that empire.