

## New Inventions.

## Drilled Eyed Needles.

We learn by the "Sentinel of Freedom," Newark, N. J., that needles of the above-named kind are made in this country, and by the original inventor, Mr. Wm. Essex, an Englishman. His factory is in a secluded nook of New Jersey, near Newark. The wire used is made in England expressly for the purpose—the manufacturers of this country not having yet accomplished the manufacturing of wire suited to this purpose. It is first cut into suitable lengths, according to the size of the needles to be made, when they are straightened and pointed upon a stone which is required to be turned with great velocity; they are then stamped, or an impression made upon them where the eye is to be made; after which the eye is punched by means of a press invented for the purpose. The burr made by stamping the eye is filed smooth, after which the hardening and tempering is performed, and then they are again straightened so as to make their shape perfect. By means of machinery, they are scoured and brightened, and the closing processes are, the assorting them by placing the heads and points their respective ways; the eyes blued, or the temper at that point taken out, that they may not cut, and the drilling, counter sinking and burnishing the eyes.

This peculiar branch of manufacturing, although not entirely new, is nevertheless of somewhat recent origin in this country.

## Ingenious Machine for the Use of the Blind.

For some years past Mr. Hughes, governor of Henshaw's Asylum for the Blind, Old Trafford, England, has been trying to find out the best mode of enabling blind persons to correspond with their relatives and friends; and when in Paris, lately, that gentleman saw, in an exhibition of arts, three machines designed for the object which he had long and anxiously been seeking to attain. One was by M. Foucourt, and that seemed to him to be the best adapted for the purpose. In the impression he purchased one, with a book of directions, and brought it with him to England.—On trial, however, he found the machine almost utterly useless to the inmates of the Asylum, inasmuch as it was requisite, in order to use it, that 1040 single operations should be performed to make the alphabet and some figures. By the machine in question no fewer than 153 operations were required to form the letter W alone. Mr. Hughes then set to work himself, and the result is that he has succeeded in producing a machine remarkable at once for its ingenuity, simplicity, and utility. The machine consists principally of a circular disc of brass. Close to the edge of the disc is an embossed alphabet, with the usual figures and points used in punctuation. Inside this circle is a disc of common letter-press types, corresponding in number with the raised letters of the outer circle. The disc is moved longitudinally by means of a screw, and any letter that may be wanted is brought under a lever placed at right angles with the screw, which keeps the writing in a straight line. The types act upon carbonized paper, under which is placed a sheet of white paper, placed on a piece of pasteboard, and thus the desired impression is conveyed. The whole of the machine is not greater in size than a foot square, and Mr. Hughes has plans in operation for still further simplifying it, with the view of rendering it still more useful. The inmates of the institution at Old Trafford have already used his ingenious machine with the most happy and successful results.

[The above is from the Manchester Courier, and if we mistake not, there is a similar machine used at the Philadelphia Blind Asylum, which was invented by the superintendent.]

## Great Improvement in Daguerreotyping.

Mr. Chas. J. Anthony, of Pittsburg has invented one of the grandest improvements ever made in the art of Daguerreotyping; in fact we believe it second only to the discovery of Daguerre himself. The improvement consists in what is termed the "Magic Back Ground," which is given by a chemical process, and con-

sists in overcoming one of the greatest difficulties that artists have to contend against. Mr. Anthony, by his process, can give the picture any kind of back ground he pleases—light or dark and imitation of sky, or draped canopy. One sample which we saw, had a back ground in imitation of pearl, with the picture standing out in full relief. The back ground

can be given either before, during, or after the impression is taken. The process is simple and the expense trifling.

Mr. Anthony has applied for a patent, and has assigned his interest of it to Mr. Levi Chapman, of this city, who will no doubt make a grand affair of such a deserving and meritorious discovery.

## IMPROVEMENT IN SADDLES.

Figure 2.

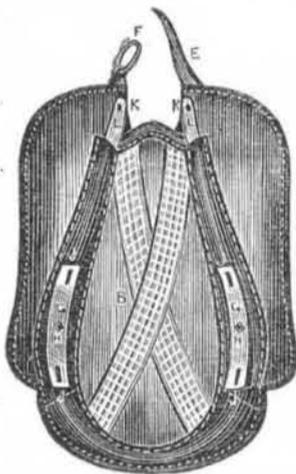
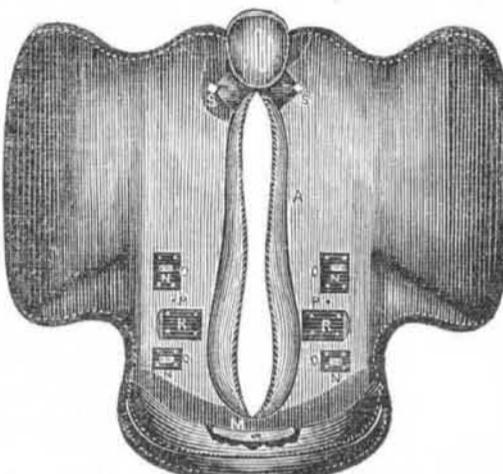


Figure 1.

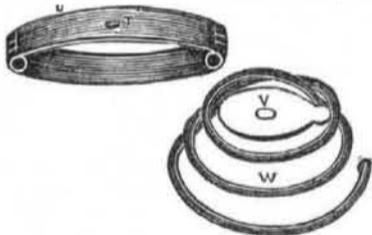


This improvement on saddles we briefly noticed on page 260. It is the invention of Mr. Geo. Fisher, of Raleigh, N. C., who has taken the usual measures to secure a patent for the same. The nature of this improvement is to have a moveable seat to be attached to the pad of the saddle, with springs underneath the same, to give a gentle and easy motion to the rider.

Figure 1 is a top view of the pad of the saddle or tree, and figure 2 is a view of the underside of the moveable seat with curved or arch springs on it. A represents the pad of the saddle, which has an open space in the middle, and which most effectually will prevent the back of the animal from being galled, as the seat sits above the pad with a space between, and thus the saddle is made refrigerative,—something very much wanted. Figures 3 and 4 represent different kinds of springs, which may be used as well as the arched ones, G G. W is a coiled spring, and U is an elliptical one. They can be secured in the openings, T V, on the pad; the nuts, H

FIG. 3.

FIG. 4.



H, secure the arched springs. B B are cross straps; L L are the wooden parts of the frame

of the seat. On the saddle pad fig. 1, R R, are metal plates for the springs of the seat to rest on when the seat is placed on the pad, and N N N N are four heads on metal plates, O O O O, which take into the slots, J J J J, of the seat springs, to retain them and prevent them springing laterally or forward, only allowing them to rise and fall with the motion of the rider. The back part of the seat, fig. 2, fits into a recess indicated by dotted lines in the back part of saddle pad, and E F is a strap and buckle of the seat which pass around the raised crupper, the front of fig. 1, to retain the seat in its place; S S are two screw nuts, which are inserted in the holes, K K, passing into the openings in which they are now represented in the saddle tree, fig. 2, to retain the seat more snugly in its place. M is a back spring, secured on the back of the saddle pad. We have represented the under side of the seat and that part of the saddle tree below it, on which it rests and to which it is secured, so as to show distinctly those parts that are new, and which a careful perusal of the foregoing will enable any person to understand.

The important features on new objects obtained by the improvement, is ease to the rider and the same to the steed. It will be perfectly understood that when the seat is attached to the pad, the springs keep the seat above the pad, hence there is a space between for the springs gently to rise and fall, and the said space, as already mentioned, is a refrigerative arrangement, to prevent the back of the animal from being galled.

More information may be obtained by letters (p. p.) addressed to the inventor.

## Improved Plow.

Mr. Jas. H. Rodgers, of Mount Morris, Livingston Co., N. Y., has invented a new improvement in the manner of operating the beam of the plow, for enlarging or narrowing the cut of the furrow. A moveable beam to alter line of draught is not new, but the manner of operating the beam for that purpose by Mr. Rodgers, appears to be a good improvement. A cast iron box is fitted to the face of the inner stilt of the plow, and it has a flange above and below, to prevent the inner end of the beam from being directed up or down and to hold it firm. The beam is moved endways by a long screw bolt, which is united to the vertical bolt, which passes down through the beam and body of the mould board, and answer for the axis on which the beam is swung, to change the line of its direction. The manner of keeping the beam snug to the stilt, and yet to change it accurately and easily, is something which commends itself at once to favor. Measures have been taken to secure a patent.

## Patent Inkstand.

Messrs. Fife, of Philadelphia, have introduced

an inkstand designed to protect the points of gold pens from the injuries to which they are liable from contact with hard substances. Their improvement consists in the use of a soft, elastic top, so arranged as to secure the points from striking against the porcelain of which the inkstand is made. This promises to be a very useful application of ingenuity.

## Wrought Iron Plow Stock.

Mr. James H. Forman, of this country, exhibited during last week, to a few friends in this place, a plow stock, of wrought iron, which for simplicity of construction and efficiency of worth, surpasses any thing of the sort we have ever seen. Its durability, cheapness, and simplicity will, we think, bring it into general use. Any good plantation smith can make one, and to repair it (if by any possibility it should ever get out of order,) would be an easy job for any one.

The model tried by the inventor, Mr. Foreman, weighed about thirty pounds, including a small colter attached to it. All who saw it in use were satisfied that it was the thing—and every one wondered, as they saw it working, that so simple, convenient, entirely man-

ageable and durable a substitute for the clumsy and fragile wooden affair, should not have been sooner discovered. The superiority of the work done by it and the incomparably greater degree of ease to the laborer—as compared with the ordinary plow—were manifest to all.

Mr. Forman, besides being an excellent practical mechanic, is an enlightened reading planter. He tells us he was driven to invent something of the sort, by ascertaining practically the want of economy of the old sort, both as to time and money. He wanted something which would last—not get out of fix—and do first rate work. Besides, he wanted a stock adapted to receive any sort of plow. The one he has invented combines all these advantages.

Mr. Forman intends patenting this invention. We hope he will exhibit it to our friend Peabody and the rest of the agriculturists who will assemble at Columbus, on the second Monday in next month.—[Chambers Tribune.]

[So far as it respects some new combination of parts, Mr. Forman's invention may be very useful and patentable, but he could not secure a patent for the mere substitution of iron for wood, according to the common decisions of the Patent Office, except to favored applicants for "brass nails, &c., or fly traps." And we must also state, as it may save Mr. Forman some money, if this meets his eye, that stocks of plows made of wrought iron are quite well known here, and have been in use in what is called the "Scotch Plow," for half a century, at least.]

## Improvement in Electric Telegraph Batteries.

In most of the electric telegraph establishments are batteries formed of zinc, copper, and sand, moistened with dilute sulphuric acid,—this sand being strongly pressed between the metallic plates. These batteries, however, much an improvement over those formerly employed, possess the great disadvantage of diminishing in force, requiring the frequent application of the dilute acid, and a complete removal once in every four or six weeks. M. W. Eisenlohr, the superintendent of the electric telegraphs in the Grand Duchy of Baden, has for some time past endeavored to find out some method of rendering the battery more constant in its action, and at the same time, less liable to the carelessness of the workmen, who sometimes put too much acid, and at other times leave the battery quite dry,—thus producing a great interruption in the working of the telegraph. After various experiments on the subject, M. Eisenlohr found that the employment of a solution of bitartrate of potash, in acidulated water, for the zinc couples of a Daniell's battery, and of moderately concentrated solution of sulphate of copper, for the copper element, fully and effectually answered the desired object. This battery was found to possess a most remarkable constancy, M. E. Wartman, in speaking of this new battery in the last number of the *Bibliothèque Universale*, of Geneva, states that he has made use of a Daniell's battery of ten couples, charged on M. Eisenlohr's system, but placing the zinc couples in acidulated water, and the copper in a solution of bitartrate of potash, and that the battery remained in action for three weeks, without any interruption, exhibited the most perfect constancy.

## An American Gas Engine in England.

Mr. Ethan Campbell, of New York, styled a philosophical, practical and experimental engineer, has taken out a patent in England for obtaining an improvement in motive power, by employing the vapor of alcohol as a substitute for steam, and using the same liquid over and over again, alternately generating and condensing the vapor, the apparatus being so constructed and arranged, that no escape of it to the atmosphere is permitted.

## Jersey Marble.

The Morristown Jerseyman says that J. H. Gordon, while digging for lime stone at the foot of Turkey mountain, in Pequamac, struck a vein of beautiful white marble, in some portions of which were pyrites of copper, and seams of asbestos of about an inch in thickness. The extent of the vein of marble cannot yet be ascertained, but appearances indicate it to be very large.