



## New Inventions.

### New Boring Machine.

Mr. D. Mathews, superintendant of Messrs. Murray & Co.'s machine shop Baltimore, Md. has invented a new Boring Machine which our valuable exchange the Baltimore Sun, says "will doubtless be of great advantage to machinists, since its susceptibility of application to boring generally is guaranteed by the peculiar principles contained in its construction. Some idea of its advantages may be inferred from the fact that it will accomplish the execution of a work in one-sixth of the time ordinarily required by the common process, and will bore out more than fifteen hundred pounds of heavy metal in twenty hours. Another great advantage derivable from its construction is proven by the mode of operation, creating the eyes by the extraction of the metal in one piece, whereas the plan generally used, chisels the substance in such a manner as to produce shavings, thereby occasioning further loss."

### New Piano Attachment.

Messrs. Boardman and Gray, Piano Forte manufacturers, Albany, N. Y. have lately invented a new attachment which is styled the Dolce Compana, and produces, when attached to the Piano, a sound not unlike the rich music of the "bells" of the Swiss ringers, lately among us.

Those who have heard it pronounce it to be more beautiful and soft than what was called Coleman's Æolian Attachment, (but which turned out to be Cooper's of Savannah, Georgia.

### Improvement in Pumps.

Thomas E. Shull, of Lewistown, has invented an improved Double acting force and lift Pump.

### New process to Color Stone and to make it hard and impermeable.

This is a recent French invention to make porous stone impermeable to moisture and also to color it—any color. Whether this is the stone used in Paris for printing on the common press, or not, we cannot tell, although it is somewhat reasonable to suppose that if a figure is drawn upon porous stone with a tallow crayon, and then the rest of the stone bit down with sulphuric acid to leave the lines clear, then hardened as follows, it would print well on the common press.

When the stone is wanted a dark color, a solution is made of 85 parts tar, 10 parts bitumen and 3 parts tallow with a small portion of linseed oil. These ingredients are put in a suitable vessel, and boiled; the patentee prefers using a boiler with a cover, in which a pipe is inserted, by which the spirit and gases liberated in the boiling can be carried off and condensed. When the solution boils, the stone is placed on a suitable frame, and lowered by a small crane into the boiling solution. The stone is placed in a frame for the greater convenience of removing it from the solution.

When the stone has to be soaked through, it will require to be left in the boiling solution for from 8 to 48 hours, according to the size of the stone; but if it is required that the solution should penetrate one inch, two hours immersion will be sufficient; or for two inches, four hours; or for four inches, eight hours; but the time required will vary with different kinds of stone—some stone is of that porous nature, that the pores at the surface will not become filled up even after long continued boiling; in this case mix with a portion of the above-mentioned solution, a mixture of carbonate of lime, rust of iron, granite, and potter's clay, in fine powder. The stone is allowed to cool, and then this compound is applied to the surface with a hot iron or other convenient means.

When it is required that the stone should

be of a light color, instead of employing tar as the base of the solution, employ resin of the slightest color that can be obtained, together with turpentine and other oils, and all kinds of gum, in the proportion of 80 parts turpentine, 15 per cent. resin, and the proportions of gums according to the nature; this solution is applied to the stone in the same manner as the above. When the stone is required to have a clear white color, add to the above last mentioned solution, white lead, and zinc, and carbonate of lime. In all cases when the stone is to be colored, this last-mentioned compound is always to be used as a ground, to which may be added for a red—red lead, oxide of iron, Chinese red, Chinese vermilion, dragon's blood; for green—acetate of copper,

Brunswick green; for blue—cobalt, Prussian blue; for yellow—ochre.

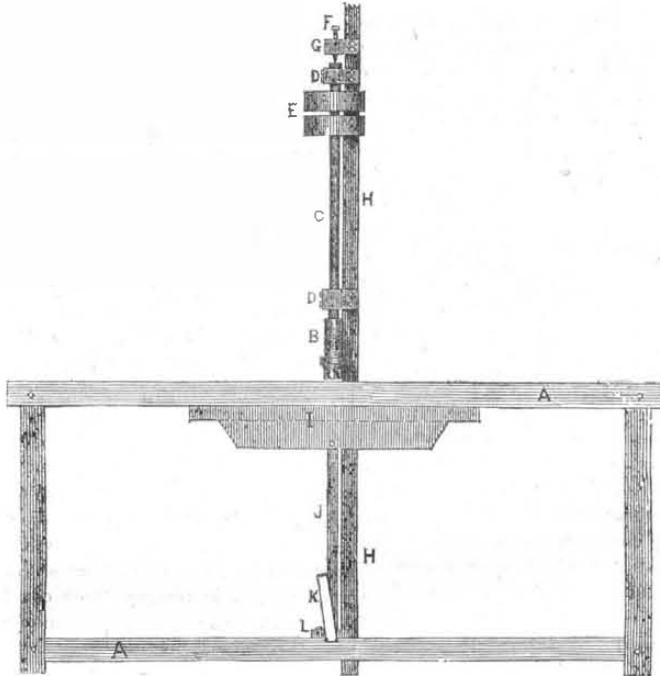
This is the subject of a foreign patent to Francois Teychene, now of London.—Ed.

### Yankee Music in London.

The London Atheneum for August announces the arrival at 142 Strand, of one of the "best specimens of pianofortes, manufactured by Chickering, of Boston; price seventy five guineas."

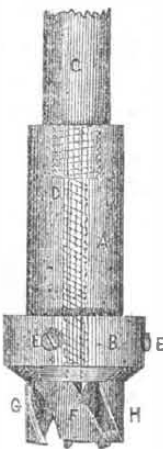
Aye, Mrs. Atheneum, Brother Jonathan is not only bound to cool all the wine in England with his jumper, but is bound to make all the Dutchesses, Countesses and all the other "s's" trip the light fantastic *toe* to Chickering's Piano.

## BUNG CUTTING MACHINE.—Figure 1.



We here present two views of a machine invented by Messrs. Dowdy & Sweet, No. 35 Cross st. this city. Fig 1 is a side elevation and fig. 2 a view of the cutter stock and cutters. A, is a stout table. H, is a strong upright post in the middle of the table. To this post the cutter shaft C, is secured by proper bearings D D, to allow it to revolve. F, is a screw which passes through a bearing G, into an opening in the head of N. J, is an elevating bed or rest for the plank that is to be cut into bungs. It is fixed on a treadle J, which is by a foot spring K, which when pressed upon towards L, the bung bed is elevated through an opening in the middle of the table, and as the foot presses K, so is the plank fed up to the cutter till the bung is cut, when the foot being released the bung is driven out by a spiral spring which will be better understood by fig. 2.

FIG. 2.



A, is the cutter stock. It is of a cylindrical

form with an opening through the centre and a thread a short distance at the upper end to screw in the shaft C. In the centre of the cutter stock is a spindle with a spiral spring on it represented by D. The spring does not reach to the ends of the spindle. The spindle by an opening in C, the shaft, is allowed to pass into it when the plank is fed into the cutters, but when this bung is cut this spiral spring in the centre of the cutter stock recoils as the feed table is lowered and throws out the cut bung. This is the object and use of the interior spiral spring and spindle. G F H, are the cutters. Each is a distinct piece and each performs a different office. They are all set on to the cutter stock which is turned on the outside, leaving them to sit around it like a ring, where they are covered with a snug collar B, and a screw E E, for each cutter secures them to the cutter stock. The inside of the cutters is like a cup and they are arranged almost like screws of different pitch. F, has two little spurs on it one on the inner side and the other on the outer. These cut the creases of the groove in the plank for the bung; when H follows after and scoops it out, cutting on the outside of the bung—both of these cut straight without any taper—G, is the taper cutter. It is graduated in the edge to the bottom of the cutter stock, therefore it gradually planes the taper of the bung, after the other two cutters have done the rough work. This makes the work easy on the machine, which cuts out about 20 bungs per minute, hand fed, with great ease. On the bottom of the stock in the inside of the cutters, there is a small knife that rims off the edge of the bung. This machine has been in operation successfully for some time, and measures have been taken to secure a patent.

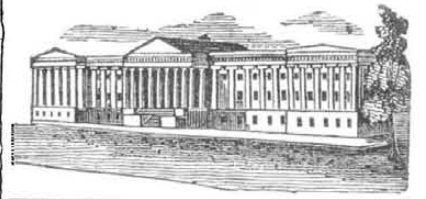
### Iron Ore.

Prof. Ehrenberg has discovered that bog iron ore, from which the beautiful Berlin castings are made, originates from an animalcule that once had life, the whole mass being composed of the bodies of myriads of these animals; and that the Tripoli or polishing powder, so extensively used in the arts and in Berlin to form the castings of moulds in the iron-foundries, is entirely composed of the shells of similar animalcule, capable of

bearing a red heat without destroying their outer casing or shells. Our moulders are practically acquainted with this fact already.

### Gunshot Wounds.

At a recent meeting of the Academy of Medicine, Paris, M. Blandin argued that, contrary to general opinion, in gunshot wounds the ball caused a larger wound at its point of entrance than it did at the point of its exit.



## LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending Oct. 3, 1848.

To James E. Ellen, of Granville Co. N. C. for improvement in machines for cleaning Tobacco leaves. Patented Oct. 3, 1848.

To Cornelius L. Goodrich, of Ann Arbor, Michigan, for improved machine for planishing and hammering metal. Patented Oct. 3, 1848.

To Jos. M. Marsh, of New York City, for improvement in Printing Presses. Patented Oct. 3, 1848.

To John Robertson, of Brooklyn, N. Y., for improved method of manufacturing Sheet Lead. Patented Oct. 3, 1848.

To E. C. Sherman, of Philadelphia, Pa., for improvement in Cream Freezers. Patented Oct. 3, 1848.

To A. D. Brown, of New York City, for improvement in Harness Saddles. Patented Oct. 3, 1848.

To E. J. Mallet, of New York City, for improved Bell Telegraph. Patented Oct. 3, 1848.

To Edwin Butterfield, joint inventor with and assignee of G. W. Clark, of Lowell, Mass. for improvement in Mills for Grinding. Patented Oct. 3, 1848.

To E. Sampson and C. S. Collier, of Weathersfield, Vt., for improvement in Scales for Weighing. Patented Oct. 3, 1848.

To Lewis Norton, of Madison, Conn., for improvement in Mills for Grinding. Patented Oct. 3, 1848.

To Marvin Smith, of Meriden, Conn., for improved Table Cutlery. Patented Oct. 3, 1848.

To J. W. Wilson, of Syracuse, N. Y., for improvement in machines for Hoisting. Patented Oct. 3, 1848.

To Zachariah Griffin, of Montgomery, Ala. for improvement in Mills for Grinding. Patented Oct. 3, 1848.

To Levi Hall, of Adrian, Michigan, for improved Saddle Frame. Patented Oct. 3, 1848.

To William B. North, of Jersey City, N. J. for improvement in Mills for Grinding. Patented Oct. 3, 1848.

To Edward Rouse, of Augusta, Maine, for improved method of Steering Vessels. Patented Oct. 3, 1848.

To R. B. and A. C. Jennings, of Livermore, Maine, for improvement in Horse Rakes. Patented Oct. 3, 1848.

To J. Yoder, J. Gillford, and E. Gruver, of Juniata, Pa., for improvement in Corn Planters. Patented Oct. 3, 1848.

## INVENTOR'S CLAIMS.

### Horse Power.

To James Bogardus, of New York City, for Sun and Planet Horse Power. Patented August 29, 1848. Claim.—What he claims is making the central standard in which the central shafts turns and on which the main sleeve of the travelling wing turns a part of, and projecting upwards from the base frame of which the master wheel makes part, when this is combined with the wing, to which the horse level or beam is attached, and made with two sleeves, one fitting to and turning on the central standard, and the other forming the box for the arbor or shaft of the planet wheel.

### Mill Stones.

To Frances Kelsey, of New York City, for improvement in mill stones. Patented Aug. 29th, 1848. What he claims is the mode of constructing mill stones by means of the face plate, groove strips, and partition boards, and the mode of arranging and securing the grinding fragments.

### Coal.

To Wm. Easby, of Washington, D. C., for method of converting fine coal into solid lumps. Patented Aug. 29th, 1848. What he claims is the formation of small particles of any variety of coal into solid lumps by pressure.