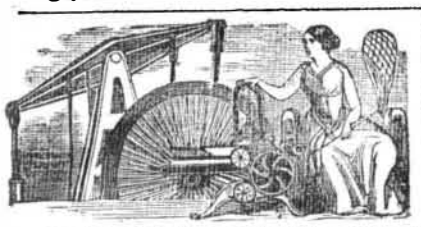


New Inventions.

Sawing Irregular Shapes.

Mr. Thomas C. Merrill, of Newbury, Mass. has very recently secured a patent for a new and useful improvement in machinery for sawing irregular shapes in timber, &c. He uses a circular revolving frame in combination and operating together with a reciprocating moveable saw frame; and in combination with the latter he uses parallel feed rollers having a horizontal motion. These combinations along with two vertical parallel frames he claims "for the purpose of sawing any material at variable inclinations to the horizon and in irregular lines across it during the up and down movements of the saw. About four months ago, a gentleman from Newark, N. J. called upon us and described an invention which he desired to patent, identical in principle with Mr. Merrill's. He will now see that it will be imprudent to be at any more expense in getting up a model and making application for a patent.

New Last Machine.

Mr. Abner Lane, of Killingworth, Conn., has invented a new and useful improvement on a machine for turning lasts and other irregular shapes on wood, &c. The cutter moves on the principle of the slide lathe and the wood to be turned revolves on spindles, set, as it were, on the periphery of a drum.—Twenty or thirty lasts can be turned out at one operation without changing the spindles. An engraving of this machine will appear in our next, and we defer further remarks for the present.

Book Backing Machine.

Mr. Chauncey L. Derby, of this State, has invented a machine for backing books, whereby a great saving of time will be made. In a letter to the publishers of the Scientific American, the inventor says: "My machine will back *one hundred* 12mo. books in the short space of *fifteen minutes*." Bookbinders, we are certain, will highly appreciate Mr. Derby's invention.

Improved Bellows.

Mr. John C. Shepherd of this city, has recently completed a substitute for the common Bellows for household use, which is simple, neat and superior to the old article. By turning a small crank a steady current of air is thrown out, by means of which a fire may be kindled in "less than no time." We shall give an engraving of it soon.

New Boot Heel.

Mr. P. S. Devlan, of Reading, Penn., the inventor of the *oil saver*, or the apparatus to use water as a substitute for oil in the lucubration of shafts, &c., has invented a new and beautiful metallic spring heel, which is far superior to india rubber and gutta percha springs. It consists of a metal spring fitted into the inside of a metallic cup, of the shape of the heel exactly, and attaching the spring to a moveable heel or that part which touches the ground so that when the foot presses on the ground, the moveable heel is gently forced upwards into the cup, thus giving elasticity to the boot, ease to the foot, and what is of nearly as much importance, such heels can be made much cheaper, look neater and endure longer than the common leather heels. A new one can be substituted for an old one without waiting for the shoemaker, as any one can heel his own boot by the use of a few screws.

New Marine Ventillator.

Mr. Bulkly, of this city, has invented a new Ventillator for vessels which has been very highly commended. It can be applied to any vessel as a permanent fixture, to operate without any attendance night and day, and as well during the most severe storms as in fair weather and calms; and with safety to vessel and cargo.

Smoke Consumers.

Many improvements have been made to consume the smoke of furnaces and employ the smoke at the same time as a combustive material. To our knowledge a number of schemes have been lately brought forth as new to accomplish this object in the best possible manner. As all inventors should, as far as possible, know the ground upon which they tread, we call their attention to a patent lately granted to Mr. F. P. Dimpfel, of Philadelphia, for this purpose. Mr. Dimpfel claims the method of impeding the escape of the products of combustion, by means of a bed of gravel in combination with a blast in a closed ash pit, whereby the gaseous products of combustion are maintained under pressure in the furnace and escape therefrom by reason of pressure in the furnace, instead of exhaustion in the chimney. He also claims the returning and forcing through the fire a portion of the products of combustion together with atmospheric air, that the inflammable or combustible matter may be more thoroughly consumed. (Supplying it with oxygen is a good plan, but it is the same as that employed in the German furnaces.)

Mr. Dimpfel claims also the placing of the fan blower within an enlargement of the chimney flue that it may be surrounded or acted upon by the heated products of combustion for the purpose of heating the atmospheric air as it passes through for the blast. The damper of this smoke consumer placed in the pipe through which the blast passes from the fan blower to the furnace, is connected with the furnace door in such a manner, that the opening of the one shall close the other, and vice versa.

This invention is a very important one, and these claims will be beacons to other inventors. They are so plain as to give a clear idea of the improvements.

HOT AIR FURNACE.

Fig. 1.

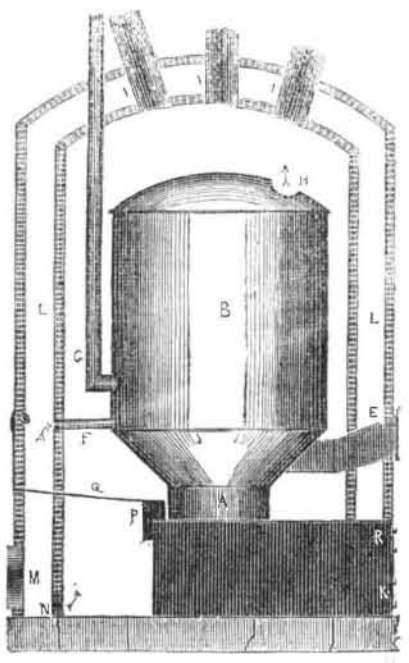
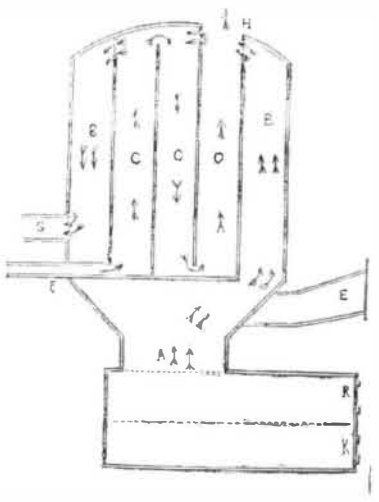


Fig. 2.



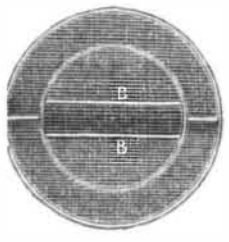
This is a very excellent Hot Air Furnace, the invention of Mr. Wm. G. Wing of New Bedford, Mass., and for which he has taken measures to secure a patent.

Figure 1, represents the Furnace as set within its brick chamber, and Figures 2 and 3 are section views. The following description will render the nature of the invention clear to the understanding and its merits will at ot once be appreciated.

Fig. 1.—A, Fire Pot. B B, space between the outer and inner cylinders, through which the smoke passes to reach the smoke pipe.—E, door for supplying fuel. F, pipe for the admission of cold air to the inner drum. G, smoke pipe, H, opening in the top through which the air when heated, passes from the inner drum into the common chamber. I I I, conducting pipes leading to the different rooms. K, ash-pit door. L, space between the brick walls for the circulation of cold air. M, cold air supply pipe. N, opening for the admission of cold air to the outside surface of furnace. Q, door for entering, supplying water, &c. P, evaporating pan. R, door for clearing grate, sifting ashes, &c. In Fig. 2 the course of the smoke is shown by the double arrows, up the front side of the furnace over the partition B B, and down the back side to the smoke pipe. The course of the cold air is through the inner drum, which is divided into three spaces as seen in Fig. 3.—One of these is tight at the bottom, allowing the air to pass over it, the other tight at the top but allowing the air to pass under it.

Fig. 2.—A, Fire pot. B B, space between the outer and inner drums. C C C, inner cylinders. E, pipe for the admission of cold air to the inner drum. G, smoke pipe. F, door for supplying fuel. H, opening in the top through which the air passes from the inner drum into the common chamber. R, door for clearing the grate and sifting the ashes. K, ash pit, and the coal and ashes fall from the fire pot on the grate, indicated by the dotted lines above the ash pit.

Fig. 3.



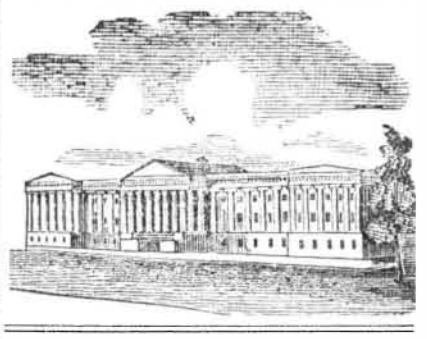
This shows the two drums as they appear in looking into them from above. The partitions which divide the space between the drums are seen on the outer ring, and those which divide the inner drum are seen by the light lines B B.

Substitute for oil in Woolen Manufactures.

It is well known that a considerable quantity of oil is used in carding of wool to render it unctious. This is expensive in a high degree to the manufacturer and has been objected to, also, as being injurious to the woven fabric. To remedy this evil both in regard to expense and to make a stronger fabric, letters patent were granted last year for the use of steam as a substitute for oil and it is said to present all the advantages without the inconvenience of oil. That steam is a good substitute for oil we are not prepared to gainsay. We only hope that it is.

Magnet Ore Separator.

Mr. Arthur Wall, of London, who secured a patent a few years ago for throwing a current of electricity among pig iron in a molten state, to make it malleable iron, has secured another English Patent for the separation of oxides of iron from other oxides by means of permanent magnets fixed on to a drum covered with leather The plan is altogether inferior to that of Mr. Cook's, an engraving of which appeared in No. 39 of this vol. Scientific American, and Mr. Cook's was in operation and that very successfully, at the mines in Plattsburg, in this State, long before Mr. Wall's was sealed.



LIST OF PATENTS

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending August 1, 1848.

To Cheney Reed, of Cambridge, Mass., for improvement in Hinges and Fastenings for Window Blinds. Patented August 1, 1848.

To Edwin B. Horu, of Boston, Mass, for improvement in Moulds for making Argand lamp fountains of glass Patented August 1, 1848.

To Edward Kershaw, of Boston, Mass., for improvement in Powder-proof Locks. Patented August 1, 1848.

To William Hall, of Boston, Mass., for improvement in Powder-proof Locks. Patented August 1, 1848

To Benjamin F. Shelabarger, of Mifflintown, Penn., for improvement in Harrows.—Patented August 1, 1848.

To Andrew Hartman, of Clappville, Mass. for improvement in Printing Yarns for the manufacture of Tapestry. Patented August 1, 1848.

To John A. and Alfred F. Jones, of Lexington, Ky., for improvement in Bedstead Fastenings. Patented August 1, 1848.

To James Cummings, Sr., of Cannonsburg, Penn., for improvement in Spark Arresters. Patented August 1, 1848.

To John Benson and James Day, of Brooklyn, N. Y., for improvement in Sugar Pans — Patented August 1, 1848.

To T. H. Parker, of York, Penn., for improvement in heating Apartments. Patented August 1, 1848.

To John W. Batson, of Baltimore, Md., for improvement in Window Catches. Patented August 1, 1848.

To George F. Muntz, of Birmingham, England, for composition for Sheathing Metal.—Patented in the United States August 1, 1848. In England Oct. 15, 1846.

To Joseph C. Vaughan, of Greenbush, and John F. Winslow, of Troy, N. Y. for improvement in machinery for welding Iron Pipe.—Patented August 1, 1848.

To Fowler M. Ray, of New York City, for improvement in India Rubber and Pneumatic Springs. Patented August 1, 1848.

To Leonard Powers, of Edmiston, N. Y., for improvement in Claw Hammers. Patented August 1, 1848.

DESIGN.

To Samuel H. Ransom, of Albany, N. Y., for Design for Stoves. Patented August 1, 1848.

INVENTOR'S CLAIMS.

Spoons.

To William Mix, of Prospect Conn., for improvement in the manufacture of Spoons.—Patented 23d May, 1848. Claim.—I do not claim as my invention simply strengthening spoon handles by wire—that has long been known and done; but I do claim as my invention and improvement a new and improved method of strengthening the handles of spoons by wire, casting the handles hollow, by means of a drop tap, and placing the wire therein, and by means of a drop with suitable dies condensing and closing the metal around the wire, with a smooth surface for the last finish, in the manner substantially as above specified, and therefor I solicit Letters Patent.

Locks.

To William Reynolds, of Greenbriar Co. Va., for improvement in Locks for Doors. Patented 9th May, 1848. Claim.—What I claim as my invention, and desire to secure by Letters Patent, is the arrangement of the inside works of the lock as herein described, so that it cannot be unlocked by its own key or any lock pitch whatever, and can be only unlocked at the extreme end of the wire or cord.