

## New Inventions.

### Improved Lifting Jacks.

Three applications for patents for improvements on lifting-jacks have recently been made by Robert W. Genung, of Blooming Grove, John Jenkins, of Monroe, and Dubois & Smith, of Craigsville, all in New York State. The improvement of the first relates to making the lever capable of being adjusted so as to be thrown in and out of contact with the rack-bar, and retaining it securely in its place after being adjusted, by providing the bearings with a curved slot, and two semicircular fulcrum rests, for the purpose of allowing the rack-bar to descend freely after it has been raised to the proper height.

That of the second consists in providing the standard with adjusting notches on its front side and ratchet teeth on its back side, in combination with the adjustable lever having a fulcrum and pawl attached to it, so as to be set for elevating carriages to different heights.

The other relates to a mode of making the fulcrum of the lever adjustable, to suit carriages of different heights, and also making the seat of the lever self-adjusting when the weight of the carriage comes upon it.

### Sawing Machines.

John J. Squire, of St. Louis, Mo., has invented some new improvements for re-sawing stuff which has previously been sawn out of the log, and making it into pickets, &c. A radius-guide is applied to the saw for guiding it as it enters the stuff, ensuring its true movement, and preventing its vibration. The saw is hung in a sliding frame in such a manner that it (the saw) can be adjusted as it wears by use; and it also permits of saws of different sizes being used. Feed rollers are placed within the sliding frame for gauging the stuff to be sawed, presenting it to the saw and guiding it while being sawed. Measures have been taken to secure a patent.

### Reservoirs for Compressed Air.

An improvement in reservoirs for compressed air, has been invented by Gerard Sickles, of Brooklyn, N. Y., who has taken measures to secure a patent for the same. The ultimate object of this invention is to store up in reservoirs and keep constantly on hand—to be used as a motive power—air compressed by pumps operated by wind mills, and thus to employ indirectly wind force as a motive agent, and made constantly available. The air is compressed in small quantities in small reservoirs, a series of which are connected together, and from which the power is taken as required for the purpose named.

### Slide Valves of Steam Engines.

Martin V. B. Darling, of Providence, R. I., has taken measures to secure a patent for an improvement in the slide-valve motion of steam engines, to make the valve cut off the steam at various points of the stroke as may be desired. A cam and an eccentric are applied to work the valve in such a manner that the former moves the valve to open the steam ports while the latter closes them. By this means the ports are opened and closed with sufficient rapidity to enable the steam to be admitted full on the piston and cut-off at any point between about one fourth, or even less, of the stroke and the end of the stroke.

### Baggage Cars.

Measures have been taken to secure a patent, by H. S. Clark, of La Porte, Ind., for an improvement in baggage cars for railroads. The invention consists in a peculiar arrangement of the doors, whereby sparks, rain, or snow are prevented from entering any car to which it is attached.

### Deck Iron for Ships.

An improvement has been made in deck-irons for ships, by D. T. Corwin, of Port Jefferson, N. Y., who has taken measures to secure a patent. The object of this invention is to provide a good safety chamber for the passage of the chimney or smoke-pipe from the cabin through the deck.

### Scythe Snath Fastenings.

John Boley, of Baldwinsville, N. Y., has applied for a patent for an improvement in scythe snath fastenings, the nature of which consists in securing the scythe to the snath by having a plate or collar on the latter, with projections on it fitting into the inner side of the scythe near its end, the scythe being kept firmly against these projections, by a screw bolt passing through the scythe. The nibs or handles of the snath are secured in a peculiar manner by collars and nuts.

### Improved Auger.

Isaac W. Hoagland, of Jersey City, N. J., has taken measures to secure a patent for an improvement in augers, the nature of which consists in having the cutting portion of the auger made detached from the screw portion, and attaching the cutting part to the screw part by means of dovetails and screws. This is a most excellent improvement, for the screw part, by this plan, can be made to answer twenty cutting parts, as they successively wear out.

### Machine for Cutting Shoe Welts.

S. J. & C. H. Trefatter, of Salem, Mass., have invented an improved arrangement of machinery for cutting leather to be used for the welts of boots and shoes. The object effected is the cutting of two welts from the same thickness of leather, at one operation, both being alike in every respect. When welts are cut by hand, only one is obtained—speaking in a general manner—from one thickness of leather. This machine cuts out the welts with great rapidity, is neat, and not expensive. Measures have been taken to secure a patent.

### New Churn.

Ransom Markham, of Caledonia, N. Y., has made an improvement on churns which consists in making the bottom of the dasher with a series of angular recesses for forcing the cream towards the sides of the churn, causing it to rise and roll upon the top of the dasher as it (the dasher) is lowered. The dasher has also two valves which open as it is raised, and allow the cream which was forced through the angular recesses upon the top of the dasher, to escape and pass under the bottom of the dasher ready for the return stroke. Measures have been taken to secure a patent.

### Quartz Crushers and Amalgamators.

Heman Gardiner, of New York City, has applied for an improvement on machines for crushing quartz, and amalgamating the gold. In this machinery, a preparatory grinding operation is performed by balls in a basin, and the quartz is afterwards pulverized finely between horizontal mill stones, and the gold is amalgamated with the mercury in a trough surrounding the stones. The improvements relate to a method of giving motion to the basin, by which much of the frame-work is obviated. In addition to the rolling ball in the basin, another is employed, which is suspended from above the basin and made to revolve round the axis thereof.

### Planing Wood Moldings.

An improvement has been made in planing moldings, which consists in the combination of feed rollers and stationary cutters, by which the moldings are planed much faster than by hand—the method of finishing them at present. The rotary molding machines now in general use, do not finish the moldings smoothly; indeed, the sides are not smoothed at all, consequently neat joints cannot be made of such stuff—but require the hand-plane: this machine is designed to finish the work accurately.

### Mortising Machine.

Hiram & S. H. Plumb, of Honesdale, Pa., have invented an improvement on mortising machines which consists in the employment of two chisels for cutting the ends of the mortise, and a reciprocating planer working horizontally for cutting out the wood between the two end chisels, as the latter are forced gradually into the wood. Measures have been taken to secure a patent.

### Guard Rails.

George P. Sanborn, of Bridgeport, and Willis Mansfield, of New Haven, Conn., have taken measures to secure a patent for an invention which consists of securing the main and guard rails, in such a manner as to prevent the guard rail from being displaced by the cramping of the car wheel flanges.

### Hill-Side Plows.

H. F. Baker, of Centerville, Ind., has applied for a patent for an improvement on hill-side plows, which relates to a new method of adjusting the mold-board and share, so as to turn over furrows of different widths.

### Improved Sausage Stuffer.

John J. Weeks, of Buckram, N. Y., has applied for a patent for an improvement on apparatus for stuffing sausages. It provides for the escape of air from the meat, so as to prevent the bursting of the sausage when filling.

### To take Ink out of Mahogany.

Mix in a teaspoonful of cold water, a few drops of oil of vitriol, touch the spot with a feather dipped in the liquid.—[Ex. [Oxalic acid is better and more convenient for such a purpose than the oil of vitriol.]

## IMPROVEMENT IN HORSE POWERS.—Fig. 1.

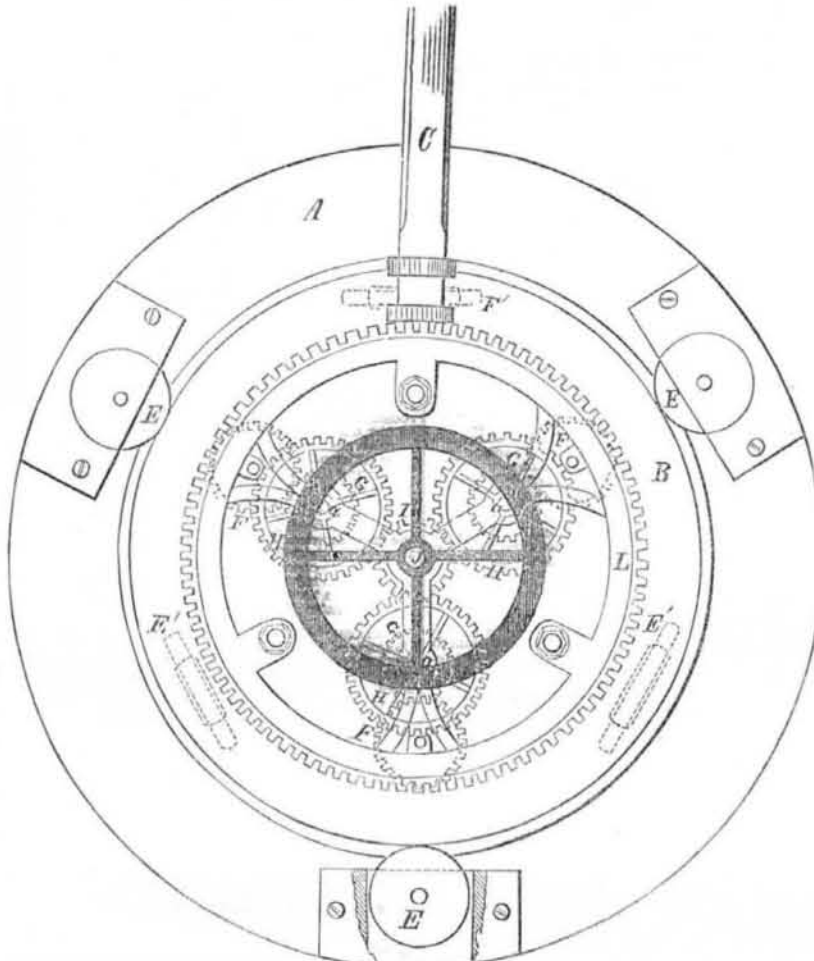
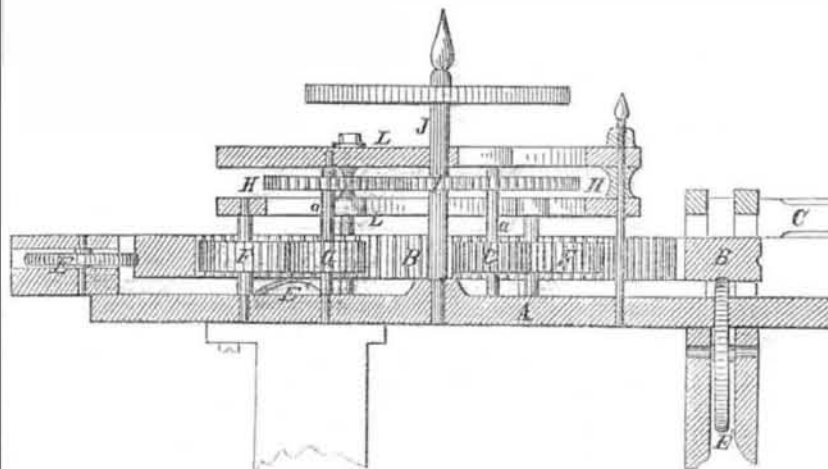


Fig. 1 is a top view and fig. 2 a vertical section of a new Horse Power Machine, by Wm. McCord, of the village of Sing Sing, N. Y., who has taken measures to secure a patent. The nature of the invention consists in transmitting the power to the central shaft by means of an internal annular driving wheel made with out arms, arranged between and upon friction rollers and small gear wheels, in such a manner that the use of a base support shaft—employed on other horse powers—is dispensed with, and a great amount of friction saved.

A is the frame which supports the working

Figure 2.



of the small gear, G, and from it communicated by the larger gear, H, to the small pinion, I, on the main shaft, J. The whole gearing is arranged for the purpose of maintaining a uniform pressure on all parts towards the center, and to support with ease all the various parts so as to equalize and reduce the friction to the least quantity.

Mr. McCord has also applied his method of constructing Horse Powers to operating windlasses,—of course thus forming a different machine, so far as it relates to peculiarity of ar-

mechanism; B is the driving wheel provided with teeth on the inside rim. C is the lever or pole to which the horse is attached; it is connected to the rim of B. E E E are horizontal friction guide rollers, and E' E' E' are vertical friction rollers. Motion is transmitted to the central shaft, J, from which power is taken to work other machines or machinery,—through the train of gearing, F G, H I—the spindles of which gear wheels run in bearings in the frame, A, and are supported in the annular frame, L L. The velocity of the central shaft is increased by the speed given to the shaft, a,

—for this he has also taken measures to secure a patent. The supporting and guiding of the annular wheel, B, by the horizontal and vertical anti-friction rollers, are admirable features in this machine. The construction and arrangement of all the parts, as shown in the figures, with the description of them, will enable any person to understand the same.

More information may be obtained by letter addressed to the patentee at his place of residence above named.