

## Recent American and Foreign Patents.

**Improved Fence Post.**

Myron W. Colwell, Dunlap, Iowa.—This invention consists in a tapered fence post made of wrought sheet iron, bent longitudinally into angular form, and having angular slots formed in its side edges, and holes formed in its angle. When the post is used for a wire fence, the wires are placed in the angular slots and tightened in the usual way; for a board fence, the boards are secured to it by wire bands, which are passed through the holes and twisted.

**Improved Pantaloon Block.**

James McCurdy, Lock Haven, Pa.—This invention relates to an improved pantaloon block for forming and ironing pants, and it consists of a forming block made of a front intermediate wedge and a back part, and provided with a locking bolt at the broader end, and a bottom-stretching clamping device at the narrower end.

**Improved Horseshoeing Harness.**

Isaac P. Pickering, Table Grove, Ill.—This consists in a harness so constructed that the foot on which the shoe is to be placed is held up and in proper position by drawing upon a draft strap, thus avoiding the necessity of holding up the horse's foot in the usual manner.

**Improved Railway Switch.**

Minter H. Davidson, Pruntytown, W. Va.—This rail is made with a broad base piece, designed to keep it in place when it is moved back and forth. The operating lever plays longitudinally through a clip in which are two oblique holes, which the rounded end of the lever enters, and is locked by a pin. A rod connects the lever with the rail. To change the rail, the locking pin is withdrawn, and the lever is pulled back from the hole it now occupies, and is turned on its fulcrum pin. This, while shifting the rail, brings the end of the lever to the other hole in the clip, into which it is pushed and locked by means of the pin, as before. By this arrangement the adjustable rail cannot be changed or moved until the lever is unlocked and changed to the other hole in the clip, and so on for each change made.

**Improved Spring Bed Bottom.**

Alva P. Brown, Texas, O.—This invention consists of arched slats resting at the ends on cross bars, which yield to the end pressure of the slats by means of rubber springs. Over the arched slats are horizontal slats fastened at the middle, and resting at the ends on cross bars supported by coiled springs on the movable rests of the arched slats.

**Improved Sand and Gravel Separator.**

Nicholas J. Koller, Pittsburgh, Pa.—This invention improves the construction of the sand and gravel separator for which letters patent were issued to same inventor May 21, 1872. An elevator discharges the sand and gravel upon a concave wire screen. The screen is set at an inclination of fifty degrees, and is agitated from the driving mechanism of the elevator. Another elevator serves as an endless chain pump to raise water and discharge it through upon the screen. The finer parts of the material pass through the screen into a trough, while the coarser parts slide down the screen board, and the finer parts of said refuse drop through the holes in the lower part of the said screen board. The lumps of coal and other coarse refuse drop from the lower end of the screen board into a flat or other suitable receptacle. The sand and finer gravel, that pass through the screen, slide down the inclined spout into a box, whence they are taken by another elevator, and discharged upon an inclined slide, down which they slide into a convenient receptacle. The elevators last mentioned may be stopped without stopping the sand elevator and screen.

**Improved Plant Protector.**

Mrs. Martha E. Slocum, Hornellsville, N. Y.—This is a device by which flowers and other plants may be protected against freezing in cold weather. It consists of a hollow tapering standard placed on legs with side openings and shelves at different heights, on which the plants are placed to be heated by a lamp under the standard. A top cross piece supports a covering thrown over the whole to prevent escape of heat and moisture.

**Improved Door Mat.**

Orrin Rice, Adrian, Ill.—The invention relates to a mat formed of corn husks or analogous material, and a back plate having screw-threaded holes into which the tufts or bunches of husks are screwed.

**Improved Blank for Corrugated Paper Boxes.**

Albert L. Jones, Brooklyn, N. Y.—The invention consists in the formation of blanks of corrugated paper, by cutting the paper to the size of the designed box, and then creasing the blank across the corrugations, on one or both sides, wherever the blank is to be turned or bent to form the angles of the box. The blanks thus prepared may be packed or transported from place to place, and form an article of commerce, and allow the boxes or canisters to be made where they are used.

**Improved Portable Lighter.**

John A. Watson, Lexington, Miss.—The invention contemplates the introduction to the public of a very simple and useful device by which a person may quickly strike a light in the dark. It consists in a matchbox having three cells which receive respectively a folding candlestick, a lot of matches, and a spare candle.

**Improved Washing Machine.**

George S. Jones and Benjamin F. Kidd, Russellville, Ky.—This invention relates to certain improvements in washing machines; and it consists in the peculiar construction of the rollers, which are formed of end plates connected by small detachable metallic rods that are passed through sections of rubber tubing, which series of rubber-covered rods forms the periphery of the rollers. When the periphery of the roller becomes worn, the rods are turned and a new face of rubber presented to constitute a new periphery for the roller.

**Improved Fertilizer Distributor.**

Clemon Bailey, Kinston, N. C.—The invention consists in a hand sower consisting of a hopper having a bottom slot, and a crank shaft having blades and a long tube, whereby the fertilizer or a ground or powdered substance may be discharged close to the bottom of furrow or surface of ground, and with perfect regularity in the most windy weather.

**Improved Washing Machine.**

Thomas Addison and James T. Yates, Ellicott City, Md.—This invention relates to certain improvements in washing machines which are designed to simplify the construction of the same, and lessen the wear and tear of the clothes. It consists of a receptacle for the water, having inside, and resting upon its bottom, a false bottom, upon which are disposed the clothes. Upon the inner sides of the machine are partitions which form lateral chambers that open into the main compartment both above and below the clothes. Fitting in this main compartment and moving vertically in the same, above the clothes, is a large plunger which is pivoted to and operated by a vertically moving lever. In the center of the plunger is a downwardly opening valve of large size. As the lever is operated the water is forced violently through the clothes, down the false bottom, up the lateral chambers, and falls over the top of the partitions into the main compartment, and through the valve upon the clothes for a repetition of the same action upon the next stroke of the lever.

**Improved Low Water Indicator.**

James Harding Brown, Porter's Mills, Wis.—This is an improved water gage for steam boilers, which is provided with a governor for regulating the supply of water and thus keeping the water always at the same level. It also has an alarm whistle, to give an alarm when the water rises to high water mark or sinks to low water mark. It is free from gearing upon the inside, and thus is not liable to stick or work hard.

**Improved Carriage Clip.**

Alfred W. Doty, Windham Center, N. Y.—Simple and inexpensive springs may with this arrangement be used, the springs being in some form or other interposed between the bars and the body or fittings attached thereto. The invention includes an improvement of the metallic fittings, by making them in malleable iron to economize in the cost of them, and consists essentially of the contrivance of them to be applied or assembled with the other parts without special fitting, except in the shaping of the woodwork and the preparing of it as to size, also in the fitting of a few rivets or bolts.

**Improved Machine for Washing Printers' Rollers.**

Thomas Muir, Glasgow, Scotland.—This is an improved machine for cleaning, in a rapid and reliable manner, printers' rollers from all adhering ink and other impurities; and it consists of a cylinder that rotates in a trough, with lye or other washing material, transferring the same by its rotary and simultaneous laterally vibrating motion to the rollers hung to quadrantal arms that are fixed to a shaft, and thus may be swung on or off the cleaning cylinder, as required. Fixed to the shaft from below is a lateral plate, whose outer edge assumes a downwardly inclined position on raising the arms from the cylinder, and whose inner edge comes in contact with the same. The arms are held to the cylinder by a notched lever secured to their shaft and resting on a cross bar of the framework of the machine, and these are kept in an upright position by a hook that drops into a notch in the lever. Perforated water pipes are arranged vertically above the rollers to throw a spray of water on them, the drip water being prevented by the inclined plane from running into the lye trough.

**Improved Folding Table.**

Franklin C. Wheeler, St. Joseph, Mo.—By suitable construction, enabling the four legs to be brought into the same plane, the table top may be turned down against and parallel with the said legs, folding the table into a very compact form for storage or transportation.

**Improved Step Ladder.**

Henry P. Stichter, Pottsville, Pa.—This ladder has the upper ends of its brace legs held by hooks in groove seats of the body, to prevent the brace from slipping or folding up.

**Improved Log Sled.**

Hiram S. Bartlett, Midland, Mich.—Suitable construction allows the runner to adjust itself to uneven ground, while the beam is held in place by a reach passing from the forward beam to the hind one. A saddle also strengthens the runner, and renders it less liable to split or break.

**Improved Harness Knife.**

Alexis Friderick, O'Fallon, Ill.—This invention relates to edge splitting and beveling knives for beveling both edges of a strap; and it consists of a straight blade fastened obliquely to the guide roller for splitting one edge at a time, so that straps of different widths may be split. It is also provided with two cutting edges, contrived so that, when one end of the blade is dull, the other may be used by shifting the blade upside down.

**Improved Step Ladder.**

Jacob Blauvelt, Blauveltville, N. Y.—This invention consists of connecting or jointing plates or hinges for jointing the ladder and the braces together at the top, so contrived that they will lock when the braces are adjusted to hold the ladder in the position for use. The invention also allows the braces to fold up to the ladder for storing away, and will lock them in that position. The device further consists of plates contrived to allow the braces to swing up into line, or nearly so, and to lock them in that position, so as to utilize said braces for an extension ladder.

**Improved Apparatus for Capsuling Bottles.**

Antoine Bosquet, Paris, France.—This invention relates to improved apparatus for fixing metallic capsules on bottles and other necked vessels, the apparatus belonging to that class in which the necessary pressure is applied to the capsule through the medium of water or other fluid acting on an elastic diaphragm or chamber of india rubber brought in contact with the capsule.

**Improved Lamp Extinguisher.**

J. O. Soderstrom, Pepin, Wis.—The invention consists in two oppositely concaved, but differently sized jaws, one folding within the other, a spring arranged in a curve behind and attached to the jaws so as to slide them forward, and in arms that move on the inside of jaws in order to spread them apart.

**Improved Water Filter.**

Charles B. Cooper, Nashville, Tenn.—As the water to be filtered is admitted into and rises in an upper vessel, it flows through a siphon, a perforated cone on the short arm of which prevents the coarser impurities from entering the said siphon. The water is further filtered as it flows from the siphon through a sponge and perforated cone on the long arm into an inner cylindrical vessel. Thence the water passes through a large perforated cone at the bottom into the space between the vessels, rises through the sand and gravel in said space, and overflows into a concave ring through the holes, in which it flows into the middle part of the space between other inner vessels, percolates through the gravel and charcoal in said space, and flows out through the holes in the bottom of the lower vessel into a receiver placed beneath it.

**Improved Harrow.**

Addison H. Whiteside, Onarga, Ill.—This is a right-angle-shaped tooth, one end of which is let into the harrow frame obliquely to the cross section, and confined by a staple. The latter holds the tooth perpendicular when the harrow is drawn by one end, and allows it to swing outward and backward obliquely to the line of the beam, and also to the horizon when drawn by the other end, thus combining two different harrows in one. The staple is secured, so as to be readily detached, by a nut on one of the prongs, which goes through the beam, to allow of taking out the tooth readily.

**Improved Nut Lock.**

Horace L. Heaton, Lilly Chapel, assignor of one half his right to Benjamin F. Roberts, of West Jefferson, O.—This consists of a nut with a grooved shank, in connection with a double spring entering into grooves at opposite sides of the shank. Said spring is readily detached for removing or applying the nut by an intermediate pivoted cam piece with handle part and drop pin acting thereon for spreading and retaining the same.

**Improved Whiffletree.**

James Harding Brown, Porter's Mills, Wis.—Clevises are placed upon the end parts of the doubletree and pivoted to said ends by bolts passing through slots in said clevises, so that they may move forward to take up the wear. The rear ends of the clevises project in the rear of half-round end projections, and have rollers pivoted or blocks attached to them, which bear against said half-round projections. The whiffletrees are pivoted to the forward part or bow, or are rigidly attached to the upper arm of said clevises.

**Improved Lumber Dryer.**

Philipp Pfeffer, New York city.—This invention relates to an improved apparatus for drying lumber of varying thickness within short time by the influence of pressure and heat; and it consists in introducing the boards between press plates heated by steam, and provided with a perforated face lining, with connecting grooves at the inner side, for admitting the escape of the moisture in the lumber.

**Improved Corn Sheller.**

Frelinghuysen H. Hunter, Heltonville, Ind.—The invention is an improvement in the class of corn shellers having a ribbed surface, over which the ears are drawn by hand to free them of the kernels. A chaff box, which is formed of a sheet metal plate, is applied beneath the ribs of the sheller to catch the kernel husks or chaff that becomes separated from the cob.

**Improved Coffee Pot.**

Richard Law Date, Adrian, Mich.—The coffee pot is seated by a bottom extension in the open top of the kettle. A central tube extends vertically from a bottom aperture to about the height of the coffee pot, and is provided with a detachable strainer, having a perforated bottom for the ground coffee. A detachable cap is attached to the central tube of the strainer, and serves to throw the steam on the ground coffee. A vessel with cold water is placed on the top of the strainer for condensing the steam passing from the kettle through the tube to the strainer. The condensed steam drops on the coffee, and passes through the perforated bottom of the strainer into the body of the pot below the same.

**Improved Washing Machine.**

Solomon Wells, Brownsville, Ky.—This improvement relates to the combination of a series of vertically adjustable rollers, the journals of which work in slots formed in the sides of the suds box, and a series of lower fixed rollers supporting the series of adjustable rollers, and provided with crank mechanism, whereby both series or sets are rotated together.

**Improved Beer Cooler.**

Wenzel Toepfer, Milwaukee, Wis.—This invention consists of a fan having a hollow and perforated shaft with pipe connections at the ends for receiving cold air from other blowers arranged over the vat containing the beer on trucks, which are caused, by suitable machinery, to reciprocate the fan and rotate it at the same time, so as to agitate the beer and cool it by the air delivered from the shaft. A bent tube is mounted on the trucks, with pipe connections for conducting cold water through the beer as a further means of cooling it, the pipe being contrived to move along in the beer or over it. There is also a new mode of fastening the bottom sheets of the vat together by key clamps and a couple of strips of metal fastened together, between which the edges of the bottom plates are wedged by the clamps.

**Improved Plow.**

Francis R. Bell, Marshall, Texas.—The object of this invention is to furnish plow mold boards to which the black land of Texas, and other similar soils, will not adhere, so that a furrow can be turned, however sticky and waxy the soil may be. The invention consists in a wooden mold board for plows, saturated with oil, and provided with a number of oil-receiving holes or reservoirs in its edges to keep it saturated.

**Improved Truck for Brick Yards.**

Edward Noonan, La Salle, Ill.—This is an improved truck for bearing off bricks in a brick yard, so constructed that the shafts may be readily detached from one truck and attached to another without unhitching the horse from the said shafts.

**Improved Portable Medicated Hot Vapor Bath.**

Robert R. Roberts, Hot Springs, Ark.—This is a box which encloses the body of the patient, containing an adjustable seat and foot rest, and also devices for warming an incoming current of air before the same reaches the person of the bather.

**Improved Miner's Lamp.**

James Sawyer, Freeburg, Ill.—The lamp is filled with sponge, except a well in the middle, from which the sponge is held by a spiral wire, to allow the wick to extend down into the lamp. The lower end of the wick tube is funnel-shaped, and the wick is flared out thereat to the sides of the well, to touch the sponge, so as to draw the oil held in it. The flame regulator consists of a tubular sleeve on the upper end of the wick tube, to slide up and down along the flame, and has a rubber-spring ring to hold it fast. There is a hook for connecting the lamp to the hat of the miner, and a spring for securing it. With this improved lamp, miners can safely burn gasoline and other light products of petroleum, which are much cheaper, and give better light, than the lard oil commonly used.

**Improved Hames.**

John G. Eberhard, Akron, Ohio.—This invention consists of a new manufacture of hames for harness, the same being a hollow hame of cast metal of ductile character, or iron malleable, the object being to obtain the requisite size for strength in such material without too much weight.

**Improved Crib.**

Henry Buttenberg and William R. Hodges, Memphis, Tenn.—The improvement relates to the arrangement of a sliding block and a clamping-screw hook with the slatted front rail of a crib, whereby said hook may be adjusted toward or from one which is stationary, thus adapting the crib for attachment to bedstead rails of irregular form.

**Improved Clothes Dryer.**

George Bent, Seneca, Kan.—This consists in a drying frame which will freely revolve with the wind, or may be placed or adjusted to take advantage of the sun in drying clothes. The dryer can readily be detached from the post with the clothes furled and carried under shelter in case of storm.

**Improved Gas Burner.**

Coleman D. Payne, Moselle, Mo.—The gas passes through fire chambers and intermediate perforations and passages, so arranged and constructed as to counteract the pressure from the gas reservoir and to admit a gentle and steady current to the burner.

**Improved Implement for Loading Fire Arms.**

Orson D. Phillips, Lisle, N. Y.—This is a gun-loading device for sportsmen, by which muzzle-loading guns may be charged with great rapidity; and it consists of a muzzle cap, with revolving cylinder, and a sliding rod, by which the charge is carried into the muzzle for being rammed down.

**Improved Gas Purifier.**

Joseph D. Patton, Trevorton, Pa.—This device consists of one or more scrubbers located outside of a gasometer tank, in connection with condensing chambers beneath the surface of the water within the tank, for removing condensable matter and cleansing the gas.

**Improved Saw Guard.**

Dwight Graves and Charles O. Howes, North Amherst, Mass.—The guard has its under side made circular to correspond with the diameter of the saw. The foot, which is hinged to the stationary stand on the guard, is serrated and rests upon the piece being sawn for preventing the rising of said piece, and to hold it firmly in position. When this foot is not required, it can be thrown back on the guard out of the way. Any other suitable devices may be employed to render the saw guard adjustable as to height, according to the diameter of the saw or height of the room.