

BALANCED VALVE FOR STEAM ENGINE.—David W. Huntington and William A. Hempstead, South Coventry, Conn.—This invention consists in a plate covering a slide valve having a vertical exhaust discharge opening through it, which plate, also having an opening for the exhaust, is provided with a hollow cylinder extending up into another cylinder in the top of the steam chest, in which it fits steam tight, which cylinder prevents the action of the down pressure upon a portion of the plate nearly as large as that under the plate open to the atmosphere, so that there is only a slight preponderating downward pressure, merely sufficient to keep the joint of said plate with the top of the valve tight. As this cylinder on the said plate is liable to bind in the cylinder of the steam chest, in which it must fit steam tight, and thus not always rest on the valve with sufficient pressure, a bar or rod is applied to it, having a slight forward and backward motion to oscillate said plate and prevent it from sticking in the cylinder of the valve chest.

BEE HIVE.—Martin R. Sanders, Cambria Township, Pa.—This hive is of a rectangular form, and provided with a hinged bottom having supports or feet and a side door, with a removable glass panel, to permit easy and safe inspection of the operations of the bees at all times. Ventilating apertures are formed in the bottom and side of the hive, respectively, and closed by pivoted buttons, which are imperforate at one end and provided with wire gauze in the perforation of the other. The gauze affords ventilation, while preventing entrance of vermin into the hive. The door for closing the main bee entrance is attached to the side of the hive by screws working in slots, and notches are formed in the side of the slots to adapt the door to be supported on the screws. The lower edge of the hive is beveled, to allow the bees to work all around the edge, and leave no space for worms or other vermin to find a lodgment. The door is provided with vertical grooves in its side edges corresponding to beads on the hive. Thus a perfectly vermin proof joint is formed, as well as one calculated to keep out moisture, etc. The comb frames have a bottom bar and transverse middle bar, to form supports for the comb, so that it will not be liable to break down when being removed or transported from place to place. They are supported at the back of the hive on fixed cleats or bars, fitting in notches, and at the front by wire hooks. Drawers for surplus honey are arranged to slide into the upper compartments of the hive, and provided with removable glass fronts. When it is desired to remove one of the boxes, it is only necessary to open the glass front, and thus allow the cold air to pass in, which has the effect of immediately driving the bees into the lower part of the hive. Similarly, by removing the glass panel of the door, the bees will be forced into the boxes, and the comb frames may be manipulated with safety. The door is made in two parts—the upper to close the box, and the lower to close the comb frame compartment.

BOTTLE STOPPER.—Wendell Wright, of Phœnicia, New York.—The object of this invention is to provide a stopper for bottles, jars, jugs, etc., which may be inserted and withdrawn an indefinite number of times without injury, and which shall be homogeneous in its texture, and uniform as regards its elasticity. It consists in making the stopper of a block of wood, provided with a deep annular groove, by which the outer bearing surface of the stopper forms a ring, more or less elastic and flexible, according to its thickness and the nature of the wood. These stoppers are very cheaply made, and it is claimed, may be used over and over again without the least injury, besides being superior as stoppers to the ordinary corks used for that purpose.

PISTON PACKING.—Herschel P. McCarroll, of Pittsburgh, Pa.—This invention relates to the use of a continuously self acting expansion spring within the ordinary packing spring of a steam engine or pump piston, and to a new arrangement of interior steady pins. One of the heads has a projecting ring, against which the other head rests. Between this ring and the packing spring is interposed a coiled spring, which bears with constant pressure against the packing spring, and counteracts the contracting efforts of the same. The power of the springs will always be balanced, for the latter becomes weaker as the former is enlarged, and consequently also weakened. In this manner an equal pressure on all points of the packing spring is sustained. To the inner side of the ring is secured a series of springs, which are by jointed links connected with radial steady pins. These pins fit through the ring, and bear, by the power of the springs, against the inner face of the coiled spring. The pins serve to steady the coiled spring and make it act uniformly against the packing spring.

BELL PULL.—Amos L. Swan, of Cherry Valley, N. Y.—This invention relates to a new arrangement of levers constituting a bell pull, and has for its object, by the improved combination, to insure reliable action under a short motion of the pull. By pulling on the knob, levers will be swung so as to carry another lever down, and cause it to pull on the wire that leads to the bell. A short motion of the knob will suffice to produce a complete swing of the latter lever, and insure the desired disturbance of bell or stroke of clapper. On being let go, the knob will, by the power of a spring, be drawn in again and all parts brought back to their normal position.

CONSTRUCTION OF ARCHES.—Frank Alsip, of North McGregor, Iowa.—This invention relates to an important improvement in brick arches, whereby such articles are made to sustain a greater weight, and are more durable than when built in the ordinary manner. It consists in a bearer of metal or other suitable material, supported on the cap piece of the column, and in a cross piece, by which arrangement the wall is sustained by the bearer and column, and the arches are relieved of the greater portion of its weight. The caps may be made in proportion to the size of the column, as the arches may be made much lighter, while the thrust of the arches is much diminished.

CHURN DASHER.—William C. Broyhill and William D. Sperry, of Tremont, Ill.—This invention has for its object to provide farmers and dairymen with an improved churn dasher, which shall be capable of completing the operation of churning more quickly, and also better adapted for use in gathering the butter than others of its class. To this end the under side of the radial dasher blades are grooved, made of wedge form in cross section, and set at an inclination of about thirty degrees to a vertical rotating shaft. The agitation produced by the revolving of the shaft, thus bladed, in the cream soon breaks the globules of butter and completes the process of churning. In churning the dasher is turned so as to raise the cream. In gathering the butter, after the process of churning is completed, the dash is turned in the opposite direction.

PIPE TONGS.—James Stratton, of New Haven, Connecticut.—The gripping levers of the pipe tongs, instead of having a steel face made fast to the short jaw, as now practiced, has a circular plate or disk, (preferably of steel) attached to the bottom of jaw, so that it cannot escape therefrom or change its relative position to the upper jaw; but, also, so that it can move on its axial center, and thus continually present a varying surface for wear. In this manner the whole of the belt of contact surface near the edge will wear down together. The top surface is then simply ground down to a plane face, and this is performed again and again until the whole circular plate or disk is worn out and utilized.

MACHINE FOR CUTTING BOOT AND SHOE COUNTERS.—Sylvanus C. Phinney, of Stoughton, Mass., assignor to S. C. Phinney and J. C. Phinney, of same place.—The object of this invention is to furnish a machine for dividing leather, or for cutting it into counters for boots and shoes without waste. It consists in the mode of adjusting a knife, feed rolls, and gage, and in the arrangement of the same in relation to each other; through which a machine is produced, which, it is claimed, divides leather into counters in a most perfect and satisfactory manner, effecting a very great saving in material as well as in time.

FOUNTAIN.—Henry H. Sawwell, of Randolph, N. Y.—This consists of two inclined chambers and two open pans so connected together by pipes that, when one of the chambers is filled with water, the transfer of the water from the one to the other causes a jet to be projected upwards which will be continued until all the water is thus transferred. The fountain thus constructed is portable and suitable for conservatories, etc.

LIFTING JACK.—Arthur A. Davis, of Clark's Green, Pa.—This invention relates to a new and useful improvement in jacks for lifting carriages, wagons, and other vehicles and articles. When it is desired to drop or lower the lifting bar quickly, a lever is raised higher than is required in lifting, when the end of the lever between cams strikes a lug on an upper catch, and releases the catch from the friction with the bar, and at the same time the toes of the cam strike the outer end of the lower catch plate and release that catch from the bar, when the bar drops by its own gravity.

LAYING TILES.—Manly A. Burnham, of New York city, assignor to himself and Tobias New, of same place, has patented a new and useful improvement in laying tile. This improvement, in laying tile in vestibules, halls, and other apartments, consists in the use of a continuous stone bed or floor above the foundation and "gage mortar," which prevents the tile from being affected by the shrinking, swelling, and warping of the wood foundation beneath. This tile flooring is supported, first, by the foundation timbers or joists, which rest in the walls of the building. On these timbers a flooring of boards or planks is placed. To prevent warping the wood floor is made of narrow pieces, placed so that they may swell without crowding each other. A layer of gaged mortar rests upon the floor, upon which the tile floor is usually placed. This layer of mortar (as tile floors are ordinarily laid) is more or less disturbed by the swelling and warping of the wood floor beneath, and, as a natural consequence, the tile becomes loosened and uneven, and frequent repairs are necessary. As a remedy for these very serious evils, a continuous floor, composed of marble slabs or of stone (either natural or artificial) is embedded in the gaged mortar. Upon this stone floor a layer of plaster of Paris or other suitable cement is spread sufficiently thick to form a level surface. Upon this the tile floor is laid, the tile being bedded down so that the upper surface will present a perfectly level plane. The tile floor supported in this manner will not be affected by the swelling, shrinking, or warping of the wood beneath. The pieces of tile are cemented to the stone floor; and the adhesion of the stone floor to the gaged mortar in which it is embedded being perfect, it is claimed all objection to the floors laid above wood supports is obviated. By the use of the stone floor, a permanent sidewalk or an area may be laid out of doors as well as indoors.

HARROW.—Ellis S. Herrington, of Emmett, Ohio.—This invention has for its object to furnish an improved machine for harrowing the ground, breaking up the lumps and clods and leveling off the ground, leaving it light, smooth, and level; the harrow frame is made triangular in form and in two equal parts, which are hinged to each other at the forward and rear parts of the central short longitudinal or line bars by double jointed hinges. This construction enables the two parts of the frame to be turned into a vertical position, so that it may be drawn upon the central bars when passing from place to place, or whenever it is desired that the harrow should not operate upon the ground. The harrow teeth are attached to the frame in the ordinary manner, except that the two teeth attached to the rear parts of the central or line bars are made longer than the other teeth, to take a firmer hold upon the ground. A box, open upon its upper side, has its ends inclined, so that it may fit into the space between the rear parts of the inclined or outer side bars of the triangular frame. To the forward parts of the ends of this box are pivoted the ends of a bail, the middle part of which is connected with the rear hinge, or with the rear part of the said frame by a short rod or chain. Two boxes placed in the rear of this box, the ends of the forward one being connected with the ends of the first box by short rods or chains, and the ends of the rear one of which are connected with the ends of the other one by short rods. To one of the boxes, preferably the middle one, is attached a seat for the driver. If desired, the boxes may be weighted with stones or other heavy material when additional weight may be required for breaking the clods and leveling the ground.

REIN AND SHAFT SUPPORT.—James P. Crutcher and Thomas Y. Vance, of Connorsville, Tenn.—This invention consists in a new line supporter applied to buggy shafts or carriage poles, so that it will also serve to support the rear ends of such shafts or poles, when detached from their vehicles, on the animals' backs and preserve them from injury.

COMBINED CLOTHES DRYER AND AWNING.—Charles E. Hyde, Oswego, N. Y.—This invention consists in the combination of a frame with an awning which latter can be used either in connection with cords stretched on the frame for the purpose of forming a clothes dryer, protected by the awning from rain, or may be used without the cords, simply as a tent.

FASTENING FOR CORRUGATED ROOFING.—John C. Wands, Nashville, Tenn.—This invention relates to a device for fastening together sheets of corrugated roofing by means of a Z shaped clamp into whose angles the edges of the upper and lower sheets are passed, the same being thereby prevented from springing apart.

CARRIAGE SEAT JOINT.—John A. Hanna, Belair, Md.—The invention consists in forming swells or extensions on each side of the joint so as to produce large planes for bearing surfaces and thus secure the shoulders from being staved up; also in a flap that automatically removes the dress and prevents it from being caught.

CLOTHES WASHER.—David P. Sulouff, Milton, Pa.—This invention relates to a washer intended to go inside a wash boiler and to support the clothes to be washed, holding them above the water, and provided with a pipe having a rose head through which water is forced by the steam pressure, falling from the rose heads in jets on all parts of the clothes.

CLOTHES WASHER.—David B. Sulouff, Milton, Pa.—This invention relates to a washer intended to go inside a wash boiler and to support the clothes to be washed, holding them above the water, and provided with pipes, one at each end, having rose heads through which water is forced by steam pressure, falling from the rose heads in jets on all parts of the clothes.

SASH FASTENER.—John C. Hanna, Rossville, Iowa.—This invention consists of a device formed of two plates pointed together like a butt hinge, one of which plates is to be let into the side of a window sash, the hinge being placed next to the casing; the other plate being free and provided with a right angle flange at its upper or lower end, which flange, when the free plate is turned back against the casing, enters one of several slots, and thus fastens the window.

COTTON PRESS.—Charles J. Beasley, Petersburg, Va.—This invention relates to that class of presses which employ two followers, one moving upwards and the other downwards. The invention consists in the combination of two such followers, in such a manner that the lower one in rising draws down the upper one part of the way, and when descending raises the upper one. It also consists in the construction and arrangement of a lever for operating the shaft on which are mounted the cords for adjusting the followers. And it finally consists in the combination with said shaft of a horse power for drawing the followers together when it is preferable that the other apparatus for doing the same thing should not be used.

STEAM AND WATER INJECTOR.—Samuel S. Jamison, Jr., Saltsburg, Pa.—This invention relates to the steam injector used for filling boilers with water, and it consists in a double conical piece of metal placed within and lengthwise of the conducting pipe of the instrument, in front of the steam and water supply pipes, an annular space being left between said conical piece and its inclosing pipe for the passage of water to the boiler, the object of the conical piece being to more thoroughly commingle the steam and water than would otherwise be done, and, consequently to more rapidly and completely condense the steam.

BUGGY REACH.—John Clinton Hillsbeck, of Montevallo, Mo.—This invention consists in the provision of certain attachments to buggy reaches whereby a degree of flexibility is given to the vehicle which preserves it from damage, and by which the sudden jerks given to the body by rigid running gear are avoided. The improvement allows either wheel to pass through a hole or over an obstruction without, it is claimed, straining either the axle or any other part of the running gear.

APPLICATIONS FOR EXTENSION OF PATENTS.

SPLICE FOR JOINTS FOR RAIL ROAD RAILS.—John H. Norris and Edward W. Scudder, Trenton, N. J., executors of Mark Fisher, deceased, have petitioned for an extension of the above patent. Day of hearing, Feb. 21, 1872.

CONTINUOUS METALLIC LATHING.—Birdsall Cornell, New York city, has petitioned for an extension of the above patent. Day of hearing, Feb. 14, 1872.

COTTON GRN.—Benjamin David Gullett, Amite, La., has petitioned for an extension of the above patent. Day of hearing, Feb. 7, 1872.

SHOVEL PLOW AND CULTIVATOR.—Paul Dennis, Schuylersville, N. Y., has petitioned for an extension of the above patent. Day of hearing, Feb. 7, 1872.

SHOE PEG MACHINE.—Abijah Woodward, Keene, N. H., has petitioned for an extension of the above patent. Day of hearing, February 7, 1872.

SEWING MACHINE.—Charles F. Bosworth, Milford, Conn., has petitioned for an extension of the above patent. Day of hearing, April 4, 1872.

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- 121,226.—IRON.—C. Adams, Phila., Pa.
121,227.—OYSTER DREDGE.—W. C. Baker, Baltimore, Md.
121,228.—CULTIVATOR, ETC.—J. W. Blake, Jefferson, Wis.
121,229.—PIPE ELBOW.—J. P. Brace, Springfield, Ohio.
121,230.—PLANNER.—L. C. Brastow, A. M. Zwiebel, Wilkesbarre, Pa.
121,231.—STUD.—E. Bredt, New York city.
121,232.—CLAMP.—I. Buckman, Jr., Williamsburgh, N. Y.
121,233.—CUP.—S. C. Catlin, Cleveland, Ohio.
121,234.—BURNER.—C. Coppers, Brooklyn, E. D. N. Y.
121,235.—FLUTER.—E. M. Deey, New York city.
121,236.—GRATE.—W. Doyle, Albany, N. Y.
121,237.—SEWING MACHINE.—W. Duchemin, Boston, Mass.
121,238.—COVER.—A. S. Dyckman, South Haven, Mich.
121,239.—PAPER CUTTER.—F. A. Fletcher, Newark, Del.
121,240.—EASEL.—J. C. Forbes, Toronto, Can.
121,241.—LANTERN.—A. French, Phila., Pa.
121,242.—CURTAIN FIXTURE.—J. Gray, Medford, Mass.
121,243.—FLOOR.—F. E. Hall, Bridgewater, Mass.
121,244.—JAY PRESS.—F. F. Hamilton, Green Bay, Wis.
121,245.—MELTING CHIPS.—E. C. Haserick, Lake Village, N. H.
121,246.—ORGAN.—A. K. Hebard, Boston, Mass.
121,247.—RAKE.—J. Heuerman, W. Sternberg, J. Stuhr, Daventport, Iowa.
121,248.—PLANNER.—A. S. Hewlett, Sebastopol, Cal.
121,249.—DREDGE.—E. B. Lake, Mauricetown, N. J.
121,250.—DRAWERS.—K. V. R. Lansing, Jr., Albany, N. Y.
121,251.—SLEIGH.—W. Leslie, Gray, Me.
121,252.—COUPLING.—H. H. Morgan, A. Merry, San Francisco, Cal.
121,253.—LATCH, ETC.—J. H. Morse, Peoria, Ill.
121,254.—CRUTCH.—E. T. Pearl, Milwaukee, Wis.
121,255.—CAR SEAT.—A. Prier, Milwaukee, Wis.
121,256.—PRINTING PRESS.—C. W. Prouty, Charlestown, Mass.
121,257.—RENOVATOR.—S. B. Shoemaker, Willoughby, Ohio.
121,258.—LOOM HARNESS.—J. Sladdin, Lawrence, Mass.
121,259.—HINGE.—W. A. Slaymaker, Atlanta, Ga.
121,260.—WATCH.—H. R. Smith, R. Folsom, Cincinnati, Ohio.
121,261.—GUARD.—J. Edson Sweet, Syracuse, N. Y.
121,262.—SHUTTLE.—F. O. Tucker, Stonington, Conn.
121,263.—CONVERTING IRON.—L. La B. Vigor, Montreal, Can.
121,264.—CUTTING WEDGES.—N. Warner, Jasper, Ind.
121,265.—NOZZLE.—T. Watson, Nevada, Cal.
121,266.—SCREWS.—W. D. Alford, Cuyahoga Falls, Ohio.
121,267.—CULTIVATOR.—J. A., C. W. Ansley, Marengo, Ohio.
121,268.—BIRTH.—S. W. Baker, Providence, R. I.
121,269.—BLOWER.—J. F. Barker, Springfield, Mass.
121,270.—WHEEL, ETC.—J. W. Beal, South Scituate, Mass.
121,271.—BUTTON.—C. F. Beardsley, Binghamton, N. Y.
121,272.—DESTROYER.—J. M. Bennett, Jaynesville, Iowa.
121,273.—HOLDER.—F. Bruns, Cleveland, Ohio.
121,274.—HANDLE.—H. R. Butterfield, Vassalborough, Me.
121,275.—LIFE RAFT.—H. C. Calkin, New York city.
121,276.—STAND PIPE.—M. Coombs, Jr., Youngstown, Ohio.
121,277.—GUN.—L. Christophe, J. Montigny, Brussels, Belgium.
121,278.—DOVETAIL.—A. Davis, Lowell, Mass.
121,279.—BED.—L. L. and A. J. Deming, R. Alden, Erie, Pa.
121,280.—REFRIGERATOR.—J. F. Dick, New Orleans, La.
121,281.—HORSE POWER.—H. C. Drew, Jamestown, Mich.
121,282.—SADDLE TREE.—E. H. Dunn, Portland, Me.
121,283.—LOCOMOTIVE.—R. S. Gillespie, New York city.
121,284.—PAVEMENT, ETC.—C. C. Hallock, Brooklyn, N. Y.
121,285.—WASH BOILER.—A. S. Herr, Bainbridge, Pa.
121,286.—HAND STAMP.—B. B. Hill, Springfield, Mass.
121,287.—DESK, ETC.—W. P. Hood, Winona, Minn.
121,288.—BUCKET.—F. D. Kellogg, N. Ives, New Haven, Conn.
121,289.—DEVELOPER.—H. P. De B. Kops, New York city.
121,290.—RAIN BINDER.—S. D. Locke, Janesville, Wis.
121,291.—COPY HOLDER.—A. B. Manard, Rockford, Ill.
121,292.—COFFEE ROASTER.—D. D. Martin, Cincinnati, Ohio.
121,293.—SEWING MACHINE.—S. O. Matteson, Chicago, Ill.
121,294.—PAVEMENT.—C. H. Moore, Norwich, Conn.
121,295.—CARRIAGE.—E. C. Newton, Batavia, Ill.