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of Canada and Nova Scotia pay \$500 on application.

### 72,152.—BOLT M KING MACHINE.—Abram Alexander, Pitts-

72,152.—Bolt M KING MACHINE.—A Dram Alexander, Fittsburg, Pa.

1 claim the combination of the piece, D. gildes, d.d., and frame, A, with the pieces, H, H, bolts, G. G., and gripping dies. J. J., guides, G. G. G. G., arranged and operating substantially in the manner and for the purpose set forth.

The compound cam. F, and block, F, in combination with the drop piece, D. to obtain a vertical upward motion of said piece, D, in the manner specified and for the purpose stated.

The hollow screw, 1, bolt, 3, and nut, 18, in combination with the hammer f, or its equivalent, and the gripping dies of a bolt making machine, substantially in the manner and for the purpose specified.

72,153.—MACHINE FOR MAKING BOLTS.—Abram Alexander, Pittsburg, Pa.

1 claim the combination and arrangement of the cam, C, levers, G and M. bar, D, and pin, T, with the weight, W, or a spring, acting substantially in the same manner, when used and applied to operate the gripping dies closing machinery described in my improved bolt making machiner, or any other substantially the same.

machinery described in my improved bolt making machine, or any other substantially the same.

72.154.—CHURN DASHER.—Andrew E. Banks, Detroit, Mich. I claim, 1st, The use of the dowel pins, B B B B, for the purpose described, when arr angedeubstantially as set forth.

2d, The combination of the disks A A, etc., with holes through them, F F, etc., the upper disk or collar, G, with the hollow handle, C, provided with the valve, S, and the dowel mins B B, etc., when arranged substantially as described and for the purpose destribed substantially as escribed and for the purpose destribed.

72.155.—SAW MILL.—Ashbel P. Barlow, Claremont, N. H. I claim, 1st, The ways or guides, b, constructed with the double inclines and parallel sides, substantially as shown and described.

2d, The cross head, cut away as shown at s, and provided with the lips having the convex faces, rr. constructed and operating substantially as and for the purpose set forth.

3d, The saw buckle perforated and slotted as described, in combination with the gib or key bolts, o, as set forth.

4th, The hollow pitman, slotted at m, and provided with adjusting keys for varying the distance of the saw pivot from the pitman falcrum, in the manner and for the purpose set forth.

72,156.—Device for Accumulating Power.—George H.

-Device for Accumulating Power.—George H. Becker (assignor to himself and John C. Lanier), Memphis, Tenn.

I claim the construction and combination of the levers. E G J M O R and X with the pitmen, D H L P and U, the connecting arm, T. and the, wheel, W, and weight, Y, when arranged as herein described and for the purpose

ret forth,
72,157.—DRYING AND SEASONING LUMBER.—E. C. Bender,
York, and Wm. Steffe. Philadelphia, Pa.
We claim the within described process of seasoning lumber, consisting in
subjecting the lumber to the action of a gradually increased temperature, in
an air tight chamber, until all or nearly all the moisture has been extracted
from it; in retaining all the beat and watery vapor about the lumber until a
temperature of about 170° Fah. has been attained in said air-tight chamber;
and, finally, in compelling the heated moistened air to eacape slowly from
said chamber, while the temperature, is reduced therein substantially in the
manner herein set forth. 72,158.—Preserving Eggs and other Substances.—Chas.

72,158.—PRESERVING EGGS AND OTHER SUBSTANCES.—Chas. Boize, New York city, assignor to himself and Peter M. Devos.
I claim the use of argillite, substantially as and for the purpose described.
72,159.—PLUMB AND LEVEL.—S. A. Bostwick, Laconia, N. H. I claim the semicircular spirit block, B., fitting and adjusting in the semicircular space in the stock, A., arranged and operating substantially as and for the purpose herein specified.
Also the Krooves, gand. and stops, h and l, combined and arranged substantially as and for the purpose self-orth.
72,160.—SHOVEL AND SIFTER.—D. Boynton, St. Johnsbury, Vt., assignor to himself, H. G. O. Burrows, and Arthur E. Whitney. I claim a fire shovel, A, provided with a supplemental bottom, e, containing a screen, f, and also provided with a cover or lid, B, all arranged in the manner substantially as and for the purpose set forth.
72.161.—MACHINE FOR SEPARATING ROOTS FROM PEAT.—

manner substantially as and for the purpose set forth.

72,161.—Machine for Separating Roots from Peat.—
Sewall Brackett, Jamaica Plain, Mass.
I claim the combination and arrangement of the carriage, B, the main and supplementary grates, DG, the series of pins, e, mechanism for raising the supplementary grates to the pins and mechanism for imparting to the main and supplementary grates returnocating longitudical movements as set forth, these mechanisms being the lever, t, the bar, H, and the uprights, f, and the crank shaft, E, and connecting rod, F.

I also claim the combination and arrangement of the whole and the peat receiver, A, as set forth, the said peat receiver and the carriage, B, being connected by means substantially as explained.

72,162.—Manufacture of Steel.—James R. Bradley and Moses D. Brown, Chicago, III.

Moses D. Brown, Chicago, III.
Ye claim the improved processes for making steel of different kinds herein cribed, by mixing the several ingredients in the proportions, and melting same with malleable or scrap iron, as specified

the same with malicable or scrap iron, as specified.

72,163.—IHARVESTER RAKE.—Isaac P. Cadman (assignor to himselt and James Aiken), Mendota, Ill.

I claim so combining a circular reciprocating rake with the cam wheel which gives it its rising and falling motion as that the rake shall move said wheel when it clears the Platform, and without it when it returns for the next sweeping or clearing operation, substantially as described.

I also claim, in combination with the sweep rake, the pivotech holding arm. 4, acting in conjunction withit, as and for the purpose described.

72,164.—DEVICE FOR ATTACHING OVERSOLES 'TO BOOTS AND SHOES.—B. H. Camp, Washington, D. C., assignor to himself and Rutus Prentice.

I claim in combination with the oversale as the conversal.

Prentice.
I claim in combination with the oversole, a, the corrugated elastic clasp, b, when constructed, arranged and operating in the manner herein described.
72,165.— HYDRAULIC ELEVATOR.— Thomas Chambers, St.

Louis, Mo. claim, 1st, The reservoir, A2, the car. B, the chamber. B1, the pump, D, the pipes, D1 and D2, when combined and arranged as described and so

n. , The indicator, cc1c2c3c4, when arranged in relation to the dumb

2d, the indicator, which was a state of the state of the

72,166.—PADLOCK.—Charles J. Clements, New York city. I claim the guard plate, B, arrauged and operating in combination with the tumblers, a a, substantially as and for the purpose herein specified.
72,167.—MECHANISM FOR CONNECTING A HORSE WITH A CARRIAGE.—Alvin Colburn, Lynn, and Elbridge G, Stanley, Fitchburg, assignors to Alvin Colburn and John Raddin, Lynn, Mass We claim the arrangement of the connecting bar-case, B, with its bar, C, and spring against the side instead of on the end of the shaft, the same rendering no reduction of the shaft necessary in the application of their worth of the combination and arrangement of the spring bolt with the socket piece and the bar, C, its case and spring, arranged with the shaft as set forth. Also the combination of the double eye piece, F, thaving a tooth, as described, with its spring bolt, its case and socket piece, to be used with the slide bar, C, made and applied, or to be applied to a shaft substantially as described. 72,168.—Lubricating Cup.—J. B. Collin [assignor to him-

self and R. E. Ricker]. Altoona, Pa.
Self and R. E. Ricker]. Altoona, Pa.
It free from contact with the sides of anorifice communicating with and the free from discharge passage, x, so as to form a regulating drip or life for goveying the oil from the cup to the said passage, all substantially

72,169.—WATER WHEEL.—Gilbert M. Conner, Cohoes, N. Y I claim, 1st, The combination of the circular receiving chamber and the helical floor, or its equivalent, with the radial guide chutes, sut stantially as described.

The combination of the central hub, and its inclined and twisted back-with the conical wheel case, all constructed and operating substantially

as described.

31, The combination of the deflecting floats with the controlling rim, for the purpose specified, arranged and operating substantially as described. 72,170.—BOAT LOWERING APPARATUS.—Robert Creuzbaur,

New York city.

I claim, 1st, Davits which are hinged in such manner as to swing freely in vertical or nearly vertical planes toward and from the water, and to vibrate above and below a horizontal plane intersecting their axes of motion, substantially as described.

2d, The application of curved sections to the upper ends of davits which are blinged at their lower ends, so that said sections can be turned around in-

dependently of the standards or lower sections of the davits, substantially as described. The application of a ladder to a davit, operating substantially as de-

3d, The application of a fadder to a dayle, operating special scribed.

4th, The combination of a folding hand rail and ladder to a hinged dayle, operating substantially as described.

5th, Boats' dayles hinged substantially (as described, when counterpoised by a force sufficient to raise them without the boat, but easily overcome by the weight of the boat.

the weight of the boat.

72,171.—Boat Lowering Apparatus.—Robert Creuzbaur, New York city.

I claim, 1st, The application of elastic cushions, t't', between the handwheel hub, Q, and the ratchet wheel, U, for the purpose and in the manner substantially as described.

2d, The longitudinally traveling drums, K, applied to the shatt, L, substantially in the manner and for the purposes described.

3d, I ne combination with the pivoted ships' davits, the pivoted shield or guard, S, constructed so as to keep the ropes, R, in place upon their pulleys during the raising and lowering of a boat, substantially as described.

4th, The combination of clastic pressure roller, hi, with the roller or pulley h, for preventing the slack of rope, R, from extending back to its drum, K, substantially as described.

-Boat Detaching Apparatus.—Robert Creuzbaur.

72,172.—BOAT DETACHING APPARATUS.—Robert Creuzbaur, New York city.

I claim, 1st, Spring bolts, d d, or their equivalents constructed as described, and anplied to sheaths, so as to catch and hold the suspension tongues, C c, when thrust into said sheath, substantially as described.

2d, The employment of eccentrics or cams, b b, in combination with the rods, c c, and spring bolts, d d, substantially as described.

3d, The feathered coupling tengues, C, in combination with grooved and faring sheaths, substantially as described.

4th, The attachment of the coupling tongues to springs or spring boxes, substantially as described.

72,173.—CORN POPPER.—Daniel A. Denison, Troy, Mich.

I claim the arrangement and combination of the wire cloth das, A, with the pieces of strap iron, B B, and the tin pan orcover, D, all arranged substantially as described for the purpose designed.

72,174.—STICK FOR TRUNDLING HOOPS.—Agnes Doisy, Cin-

72,174.—Stick for Trundling Hoops.—Agnes Doisy, Cin-(2), 1(4.—Bitch for the control of t

72,175.—Washing Machine.—H. C. Dorman, North Bridge-

72,175.—WASHING MACHINE.—H. C. Dorman, North Bridgewater, Mass.

I claim, 1st, The combination and arrangement of the wheels, W.W., the tub, S, the knob, K. with the springs, H.H., substantially as described and for the nurpose set forth.

2d, The holding disk, T, when slotted at V.V., in combination with the reinrocating tub, S, substantially as described and for the purpose set forth.

72,176.—FIRE-PROOF SAFE.—Ebenezer D. Draper, Hopedale, and Edward W. Glover, Medford, Mass.
We claim the concave can, c, in combination with the case, A, and the fursible metal sealing of solder, d, of the kind described, such cap being arranged with the mouth of the case in the manner as set forth.

72,177.—DEVICE FOR SECURING AND FEEDING SOFT CRABS.—Constantio Drexler, Washington, D.C.

I claim a marine inclosure constructed and arranged as shown, and provided with the guards or fenders, f, and the movable floats, g g h h, or their optivalents. Forming artificial hiding places, arranged as shown and for the purposes substantially as described.

72,178.—ROCKER FOR CHAIR OR CRADLE.—Chas. S. Dunback,

73,178.—ROCKEN FOR CHAIR OR CRADLE.—CHAS. S. Dundack, Swampscot, Mass.

I claim the arrangement of the guard or cushion, B, against or about the end of the rocker, in manner and for the nurpose specified, meaning also to claim as an improved manufacture, a rocker as made with an elastic cushion applied to its rear end, as set forth.

72,179.—Stove Back Plate.—Giles F. Filley, St. Louis, Mo. I claim the method of forming the draught fine projection in the back plate of stoves with a curvature, in the manner substantially as shown and specified.

specified. 72,180.—SEWING MACHINE.—William Fiske, Lowell, Mass. I claim, 1st. The combination of a sewing machine with a movable table, by means of cord. H, and puller I, and shaft, F. worm and worm gears on shafts, E and F, and orod, J J, with shaft, C, substantially as herein set forth

and described. P, and cord, 9 J, with shart, C, substantiarly as hereinset form and described. 2d, The band, P, on bulleys. R and Q, with tightener, Q2, fig. 1, for transmitting power from shaft, E, to shaft, O, substantially as set forth and for the purpose described. 3d, Also the shipper, M, tightener, N, belt, D, shafts, E F, and cord, H, for the purpose herein set forth. 4th, Also the brake, S, on shipper, M2, in connection with detent, T, and balance wheel, U, as fully set forth and for the purposes described.

72,181.—M CHINE BELTING.—Vincent Fountain, Jr., Castle ton, N.Y.

I claim forming machine belting by combining leather with metal riveted thereto, as herein described.

thereto, as never described.
72,182.—Ore Concentrator and Amalgamator.—Stephen 72,102.—ORE CONCENTRATOR AND AMALGAMATOR.—Stephen Fountain, Silver City, Nevada, I claim the box, D, having the valve, b, stems, n, or an equivalent device, together with their operating levers, d, and the rods, g, the whole construct ed and arranged sub stantially as and for the purposes herein described.

72,183.—DRIVEN WELLS.—Oscar C. Fox, Georgetown, D. C.

72,183.—DRIVEN WELLS.—OSCAT C. FOX, Georgetown, D. C. Claim a well tube constructed wholly of woven wire of different textures, as shown, combined and arranged with a drill point, having a drip through its body, all substantially as and for the purposes described.

72,184.—PORTABLE SWITCH.—B. C. Galvin, New York city. I claim, 1st. The single-switch constructed and arranged as described with bar, D, plate, E, teeth, F, clip of the rail, A. A. rail plate, G., wheel guide, C, and leveling lug and casting, L. L, and vertical acting hinge, H, in bar, D, as and for the purpose set forth.

2d, The double portable switch, when constructed with vertically hinged arms, A. A, attached to plate. O, with frog, F, and movable arm, S. working in notches, R, with movable and sliding side lugs, L. L. and parts, B and W, all constructed and combined as and for the purpose set forth.

3a, Also, in the car replacer or switch, above described, the three inclines

3d. Also, in the car replacer or switch above described, the three inclines combined and constructed substantially as described, and for the purposes

set forth. 72,185.—RAILWAY SWITCH.—B. C. Galvin, New York city. (2)100.—INAILWAY SWITCH.—D. C. GAIVIII, NEW TOTK CITY.
I claim, Ist, In railroad switches, as shown in sheet No. 1, figure I, the construction and arrangement of fixed and movable rails with curved extremities, the movable rails and extremities being hinged to the fixed rails, and the movable rails locking therein by the straight insertion self-connecting rail end joint shown in figs. 2, 3 and 4, and by the dovertall joint in the ends of such rails, fixed and movable, all substantially as described for the purpose set forth.

set forth.

2d, in railroad switches as shown in sheet No. 2, fig. 5, the construction and arrangement of fixed rails connected by curved extremities, and straight track-crossers, made with hollow ends, all substantially as described, for the purpose set forth.

72,186.—Twine Holder and Cutter.—Thomas Garrick,

Providence, R. i.
I claim the combination of a cutting blade with a spiral convoluted shield, constructed substantially as and for the purpose specified.

Also, the spring clamp, in combination with the metallic shell for holding the ball of twine, substantially as specified.

72,187.—Argand Burners.—Elliott P. Gleason, N. Y. city. 72.187.-I'claim, 1st, In argand burners, the regulating screw, for the purp

described.
2d, In combination with the same, the lever, for the purposes fully indicated, 72,188.—Burner for Heating Gas, etc.—Elliott P. Gleason,

New York city.
I claim the use or employment of the tube, C, within the tube, A, in combination with the burner, B, when the same shall be combined, constructed and operated substantially as shown, for the purposes set forth.
72,189.—PRESSURE SAFETY VALVE.—Henry A. Goll, Chica-

go, Hi.
I than, ist, The combination of valves, O, N and H, with cylinder, G, and pipe, F, shistantially as set forth.
2d. The valve, H, arranged to operate in cylinder, G, and having a shoulder on the top of it corresponding with the diameter of the valve seat, T, in combination with said cylinder pipe, F, and valves, O N, substantially as herein described.

herein described.

3d. The rombination of cock, C. pipe, E, double valve, O.N., and cylinder, E, as and for the purpose set forth.

4th. The valve, O, having the opening, d.in its stem, for the escape of steam above said valve, in combination with a lower valve, N, arranged to receive pressure directly from boiler, A, as set forth.

72,190.—LETTER BOX.—Charles P. Gorley, Boston, Mass.

72,190.—LETTER BOX.—Charles P. Gottey, Boston, Mass. I claim, ist, The combination of the lid, B, and springs, D D', in the manner and for the purpose described.

2d, The combination of the lid, B, springs, D D', catch, e, and lever, E, in the manner and for the purpose specified.

72,191.—NAPHTH BURNER.—L. A. Gouch, Yonkers, N. Y. I claim the detachable conductor, in combination with a burner constructed and operating substantially as described.

72,192.—STEAM SAFETY VALVE.—Virgil D. Green (assignor to himself and E. M. Halb, Watertown, Wis. I claim the cylinder, A, the drum, B, the spring, G, the ratchet and pawi, Dp, in combination with the cam, m, and the chain, H, substantially as de-

72,193.—MEDICAL COMPOUND.—John Greenwald, Cincinnati,

Ohio. I Claim the compound as specified, for the purposes set forth.

72, 194.—REEL OVENS FOR BAKERS.—Emily S. Greffet, St. Lours, Mo., administratrix of the estate of Joseph A. Greffet, deceased. I claim, 1st. The combination of a drum with the revolving pans of an oven, when constructed and arranged substantially as shown and specified.

2d, The arrangement of the regulating flues, p 'p' p'' of an oven, with their respective dampers and operating rods, when constructed and arranged substantially as shown and specified.

72,195.—BAIL FOR KETTLES.—Wm. Hailes, Albany, N. Y. Iolaim constructing the metal sections, B.B., with sockets formed within the enlargements, b. b. of said sections, such sockets having the ends of a wooden famile fitted into them, and such handle being held in said sockets by a rod, c, which passes through the handle and through the enlargements b, and is fastened to the latter, all substantially in the manner shown and wooden handle fitted into them, and such handle heing held in said sockets by a rod, G, which passes through the handle heing held in said sockets by a rod, G, which passes through the handle and through the enlargements, by a rod, G, which passes through the handle and through the enlargements, by a rod, G, which passes through the handle and through the enlargements, by a rod, G, which passes through the handle and through the enlargements, by a rod, G, which passes through the handle and through the enlargements, and the partial of the purpose set for the purposes set for the purposes set for the combination with the dome or deflector and the arm projecting from its base, of the dome-supporting disk and slot formed in the same for receiving and holding said arm, substantially in the manner and for the purposes set for the.

72,196.—Lock Fastener for Lamp.—John Harding, War-

or other compressible plug, as a fastening for safety lamps, instead of locks, screws, or other mechanical contrivances now employed.

72,197.—M CHINE FOR CUTTING OUT GLOVES.—Jesse H. Har-

lan and Thomas Pomeroy, Denver City, Col., assignors to themselves and Wm. H. Harlan.
We claim the adjustable knives of a glove cutter, when constructed and rranged substantially as shown and specified. 72,198.—H RVESTER RAKE.—H. A. M. Harris, Philadelphia,

va. 1 claim, 1st. The combination as described of the rake arm with the guide.

1 claim, 1st. The combination as described of the rake arm with the guide, F', both rotating on a common axis.
2d, The combination, substantially as described, of the beater arms, revolving in a fixed relation to a common axis, with the rake having a rotating, a circumferential, and an axial movement around said axis.
3d. The combination, substantially as described, of a stationary collar, to support the raking mechanism, a tubular axle, revolving within said collar, and carrying rake and reel arms, and counterbalance rock, shaft, turning axially within said axle, to regulate the movement of the rake.
72,199.—H RVESTER RAKE.—H. A. M. Harris, Philadelphia,

Pa. I claim, 1st, The combination, substantially as described, of a rake rotating I claim, 1st, The combination, substantially as described, of a rake rotating on attubular axis, with a crank shaft, link and counterbalance, to hold the rake down when raking off, to lift it quickly at the end of its backward movement, and to draw it inward when passing forward.

2d, The combination, substantially in the manner described, of a continuously revolving rake, with a counterbalance, and latching and unlatching device.

3d, The combination, substantially as described, of a continuously revolving rake—having a pivot movement in its support—with a cam and compound lever, for the purposes both of turning the rake axially and of holding it in a line radial with its axis while raking off, as set for th.

lever, for the purposes both of turning the rake axially and of holding it in a line radial with its axis while raking off, as set forth.

72,200.—CAR COUPLING.—A. Hillman, Devonshire, England, assignor to Thomas R. Fuller, Samuel Fuller, and James S. McMurray. Iclaim, 1st, The coupling boxes, D. constructed as described, and secured to the draught bar or bars, C, by the flanged I, and braces, E, substantially as and for the porpose herein set forth.

20, The coupling link, K. constructed as herein shown and described, and having two downward projecting pins, k', attached to its lower side in combination with the coupling box, having perforations for the reception of the pins, k', of the link, K, substantially as and for the purpose horein set forth.

31, The combination of the slotted, wedge-shaped, adjusting block, L, with the coupling link, K, substantially as herein shown and described, and for the purpose set forth.

4th, The combination and arrangement of the coupling box. D, spring, J, pivoted coupling bar, G, uncoupling rod. H, and lever handles, I, with each other and with the draught bar, C, substantially as herein shown and described, and for the purpose set forth.

72,201.—FURNACE: FOR SMELTING PRECIOUS METALS.—H.

Gengembre Herbert, New York city.

Gengembre Herbert, New York city.

I claim, 1st, The combination of the boxes, D D'D" D'", etc., the pistons, E E' E", etc., and screws, f' t' f', etc., or their equivalents, with a cupola, or hlast furnace, A, the whole arranged and operating in the manner set

forth.

2d, In blast and curola furnaces, making the lining of a composition of ore and flux, and renewing said lining from the outside by means and with the arrangement herein described.

3d, The combination of the box, M or M', the piston. N or N', and press, P or P', with a reverberatory furnace, arranged and operating in the manner pacified.

specified.

4th, Forming the hearth of a reverberatory furnace of a concrete of ore ore and flux, and renewing the same from the outside, without stopping the operation of the furnace, by means and with the use of the herein described arrangement.

72,202.—Spring Bed Bottom.—Frank A. Huntington, San

72,202.—String Bed Bottom.
Francisco, Cal.
I claim the standard, A, with caps or tops, a, and the elastic bands or springs, B, arranged and attached to frames or bars, substantially as and for the purpose sherein described.
72,203.—RAILROAD CAR VENTILATOR.—Martin G. Imbach

assignor to James L. Howard, Hartford, Conn.
I claim the combination of areversible deflector, with a spring for moving the same, substantial; as before set forth.
72,204.—Steam Figure Governor.—Oliver A. Kelley, Sla-

72,204.—STEAM FIGURE GOVERNOR.—Oliver A. Kelley, Slatersville, assignor to Lamb, Cook and Co. Forestville, R. I. I claim, ist, The valve, M, constructed as described, with the triangular recesses, b b, and downward projecting pm, h, arranged in relation with the pin, 1, and screw valve rod. L, as herein described for the purpose specified.

24. The arrangement of the valve, M, pins. h 1, valve-rod, L, sliding rod, K, and pins, 1k, as herein described for the purpose specified.

72,205.—APPARATUS FOR SAVING PRECIOUS METALS.—Wm. Chase Knight, Yankee Jim's, Cal.

Iclaim the V-shaped apparatus. with an adjustable partition, B, substantially as and for the purpose described.

72,206.—Jewel Case.—G. F. Kolb, Philadelphia, Pa.

Iclaim the within described lewel case, composed of the lower portion, A, and the upper portion, A', hinged together by a double hinge, the whole being constructed and operating substantially as and for the purpose hereinset for the purpose described.

forth. 72,207.—Summer Furnace.—Ezekiel C. Little and Jas. W.

Bell. St. Louis, Mo.
We claim the construction of a charcoal furnace, having a hunged plate, d, t the back thereof, which, shutting off the draught from beneath, causes it o pass up through the basket.

o pass up through the basket.

[2.208.—HARVESTER RAKE.—Rufus Little and Lewis Gibbs (assignors to themselves and John R. Bucher), Canton, Ohio.

We claim, 1st. The dropper, composed of two blades that are moved in corrary directions by the rocking of a shaft, and which alternately hold and leliver the grain that has fallen against them, substantially in the manner

deliver the grain that has fallen against them, substantially in the manner described.

2d. The rake in combination with the hinged runners or frame, and which moves back and forth on said hinged runners or frame, conforming to the undulations of the ground, to rake the grain upon the ground out of the way and into a gavel for binding, substantially as described.

72,209.—LAMP BURNER.—John C. Love (assignor to W. H. Love, Philadelphia, Pa., and W. H. Love to himself, R. H. Childs and W. H. Childs,

I claim the plate, d, with its flange, i, and opening, w. in combination with the casing, A, of a lamp burner, when the edges of the said opening, w, are parallel to the upper edge of the wick tube, for the nurpose specified.

72,21Q.—REGISTERING YARD STICKS.—Wm. P. Lupton and C. M. Talbot. Cadiz. Ohio.

(3), 210.—REGISTERING TARD STICKS.—WIII. F. Lupton and C. M. Talbot, Cadig., Ohio.

We claim, 1st. The sliding graduated plate, D. in combination with the yard strength, substantially as and for the Durpose described.

2d, The combination of the sliding graduated plate, D. with the knob, k, rod, i, ratchet, r, and spring, g, substantially as and for the purpose specifical.

rod, 1, ratchet, r, and spring, g, substantially as and for the purpose specified.

3d. The combination of lever. I. ratchet, r, rod, i, piu, e, and pin, o, for the purpose of disconnecting the actuating rod and ratchet, and replacing the plate. D, substantially as described.

72,211.—Animal Trap.—C. C. Lyman, Edinboro, Pa.

I claim, 1st, The arrangement of the lever, M, spring check, J, in combination with the slide, C, and box, A, for the purpose and in the manner substantially as set forth.

2d. The lever, M, spring check, J, as arranged in combination with the slide, C, and operated in the manner as and for the purpose described.

tion with the slide, C, and box, A, for the purpose and in the manner substantially as set forth.

2d, The lever, M, spring check, J, as arranged in combination with the slide,
C, and operated in the manner as and for the purpose described.

3d, The arrangement of the block, S, strip, S, in combination with the spring check, J, in the manner and for the purposes efforth.

72,212.—STOVEPIPE DAMPER.—David Manuel (assignor to

himself and Willard Manuel), Boston, Mass I claim a stovepine dampertormed of two tlatcast iron.disks, A A. united solidly in the middle. and interlocked by loops, b b. upon the suspension rod, a, with concave radiating edges, cc, arranged and operating as herein de-

a, with concave radiating euges, e., arranged and operating as noticed 72,213.—GATE.—John M. May, Janesville, Wis.
I claim, ist, Pendulum lever, M, and bar, N, operated by suitable mechan ism, and combined with a gate that is moved longitudinally in opening and closing substantially as described.

24. A gate latch combined with rod, L, or its equivalent, when both are so constructed and connected together that the latch may be operated by hand or form a carriage, substantially as and for the purposes described.

3d. Fendantro 8s, S. S. levers, R.R. connecting bars, F. arm. O, pendulum lever. M, and bar, N, when connected together and combined with a gate that is moved longitudinally in opening and closing, substantially as and for the purposes described.

is moved longitudinally in opening and closing, substantially as and for the purposes described.

72,214.—HAIR CUTTING MACHINE.—Robert Maynard, Whittesford, Cambridge, and Jabez James Purkiss, London, Great Britain. We claim, ist, The employment of one or more revolving knives, I, in combination with a fixed knife. A, for the Durpose specified.

2d, The employment in combination with the knives, A I, of the comb, M, for the purpose specified.

2d, The employment of the inner comb, M, in combination with the onter comb, H, the latch of which is made adjustable for the Durpose specified.

4th, Adjusting the comb, H, by means of the rack, L, springs, N, and paw 0. or equivalent devices.

72.215.—Apparatus for Treating Fractures and Dis-

72,215.—APPARATUS FOR TREATING FRACTURES AND DISPLACEMENTS.—James S. McClelland. Crawfordsville, Ind.

I claim the device of a fracture adjusting appararus herein described, constitution of the use of rubber counter extension, C C', fig. 1, extension screw, E, hoard, H, with cross bar, A. the peculiar shape and design of thigh splint (fig. 2, A.) A A', and (fig. 2 B) B B', subtratifully as herein set forth.

72,216.—STEAM GENERATOR.—Geo. Miller, Melbourne, Victoria, executor of the estate of James F. McKenzie, deceased.

I claim, ist, The generating and super-heating tube, 3, constructed as describe in sections, the points of connection of each section provided with an inner disk, having a central opening, as herein set forth.

2d, The tubes, B, constructed as described, in combination with the thermostart, one or more, and arranged in the furnace, as herein set forth and represented.

72,217.—DRY GAS METER.—Edmund Meredith (assignor to

DRY GAS METER.—Edmund Meredith (assignor to

himself and J. S. Sellers), Philadelphia, Pa. talam the application of the inclined planes, c", either to the carrier, C, I to the rotary disk, B, so as to operate substantially 22 and for the purpose SLOTTING MACHINE.—Joseph W. Moore, Cambridge-

port, Mass.

port, Mass.

casim the combination of mechanism as described, for the purpose set lorth, and for the object specified.

3d. The combination with the dome-supporting disk, of a ring of leather or other suitable material which is a non-conductor of heat, secured upon the periphery of sald disk, substantially as and for the purposes set forth.

4th, The base or chimney rest, constructed substantially as herein described, that is to say, provided with a series of radial corrugations, which, when the chimney isin place, allow the external air to pass into the burner between the base of the chimney and the said rest, substantially as set forth.

5th, The combination of the radially corrugated base or chimney-rest, with the dome-supporting disk and dome or deflector hinged to said disk, under the arrangement and for the operation as set forth.

72,220.—BRICK MACHINE.—John North, New York city.

I claim, ist, A mold wheel or frame made of annular or ring shape, and suspended upon rollers, substantially as and for the nurpose described. 2d, The combins tion of the mold wheel or frame, K, arranged to have an intermittent rotary motion, with the follower, Z, or its equivalent, within the feed hopper X, and box, Y, when such follower is arranged for operation with regard to the mold wheel, substantially as and for the purpose described.

with regard to the mold wheel, substantially as and for the purpose described in the combination with a mold wheel or frame, K, arranged to have an intermittent rotary motion, and the frame, B2, so disposed and arranged about such wheel as to exert a pressure upon the clay within its molds, substantially as and for the purpose specified.

4th, The mold-weel of frame, K, arranged to have an intermittent rotary motion, the stems, M2, the presser frame, B2, and the molds, O O O O, so combined and arranged as to operate simultaneously, substantially as and for the purpose et forth.

5th purpose et forth of the purpose of the purpose

72,221.—HAY PRESS.—Geo. Noyes, Pownal, Me., assignor to Andrew Leighton and M. L. Whitney.
I claim, 1st, The combination of the springs, 4, and levers, r, as and for the specified purposes.
2d, The combination of the ears, u, springs, 4, and levers, r, as and for the specified purposes.
3d, The admirable Accounts

the adjustable doors, m, with trucks, o, as and for the purposes de-

3d, The admistable doors, m, who theres, v, as an expectation of the clamps or came, x z, levers, y and 2, and lever, 3, all as and for the purposes described.

72,222.—RAILROAD RAIL.—Clark Osgood, Cape Elizabeth, Me. assignor to himself and Frederick A. Prince.

I claim the railcomposed of the support, A, and cap rail, C, when the two parts are placed together as shown by 12, and when the several cap rails are also united by the horizontal pintle, d, substantially as and for the purpose described.

described.

72,323.—NUTMEG GRATER.—W. W. Owen and Daniel Kelly, Muskegon, Mich.

We claim the nutmeg grater, constructed as described, consisting of the T-shaped tube, A. whose short section is at right angles with the longer section, and has upon one end the flat circular box, G, placed parallel with the longer tube, and containing the revolving grater wheel, F, said short tube receiving the plate, B, spring and rod, D, all arranged and operating as herein shown and described.

72,224.—MANUFACTURE OF JEWELRY.—John S. Palmer, Providence, B, I.

72,324.—MIANUFACTURE OF JEWELRY.—John S. Palmer, Providence, R. I.

I claim, 1st, Forming the raised metal shell merely of the general outline of the shape in which it is finally to be produced, substantially as and for the purpose specified.

2d, Forming the allow filling of a shape to fit the interior of the said shell, in one piece or shape, substantially as and for the purpose specified.

3d, Reducing the said outline shell and the filling, after the same have been nused into one piece, as described, to its perfect finished shame, and ornamenting the same by rolling or other suitable means, substantially in the manner described.

72, 2925. MACHINE FOR FOLDING, ENVELORES.—Robert Parks

72,225.—Machine for Folding Envelopes.—Robert Parks

72,325.—MACHINE FOR FOLDING ENVELOPES.—RODER PARK (assignor to E. J. Spangler), Phila'elphia, Pa. I claim, 1st, The blade, F, the recessed or grooved block. J, rods, h, and receiver. D, the whole being combined and arranged for joint action, substantially as and for the purpose herein set forth.

The sliding bar, E, its blade, F, and plate, d, with curved slot, c, in combination with the crank, M the whole being arranged and operated substantially as and for the purpose described.

72,236.—STAKE HOLDER IN CARS.—O. R. Parmele, Aurora III.

72,236.—STAKE HOUDER IN CARS.—.

rora. II.

1 claim the socket or stake holder constructed with the right angular slots.

1, and notches, L. H., in combination with the pins, FF in the lower end of
the stake, substantially as and for the purpose described.

72,227.—CULTIVATOR.—C. B. Petengill, Hebron, assignor to

72,227.—CULTIVATOR.—C. B. Petengill, Hebron, assignor to Freeman C. Merrill, Paris, Me.
I claim, 1st, The circular draw beam, A. having the wheel straps, a1, draft bars, a2, socket, a3, and ears, a4, cast solid therewith, substantially as herein shown and described.
2d, The combination of the bent adjusting rod, F, with the front tooth, E, and with the central beam. C, of the cultivator frame, substantially as herein shown and described and for the purpose set forth.
3d, The combination of the ring bolt, Lourved adjusting bars. H, and beams. C and D. with each other, substantially as herein shown and described, and for the purpose set forth.
4th, The combination of the bent adjusting rods, F, circular draw beam. A, and D, of the Onlity ator frame, substantially as herein shown and described, and for the purposes torth.
72,228.—SKIRT-IRONING TABLE.—Alfred S. Phillips, Boston, Mass.

Mass.
I claim the skirt-ironing table, as composed of the top or board, the pair of legs hinged thereto, and the pair of separable legs, and the dovetailed connections, as described, for connecting the separable legs to the board or top, in manuface as specified.

in manner as specified. 72,229.—Heating Furnace.—Chas. R. Rand, St. Louis, Mo.

72,229.—HEATING FURNACE.—Chas. R. Rand, St. Louis, Mo. I claim, 1st, The shaker grate, C provided with the points, a, and pivot, b arranged to rest upon the grate, A, and operate substantially as described and for the purpose set forth.

2d, The smoke fines, 1 m n, and air flues, a', in connection with the hot and cold air chambers, and the dampers, 1j and r. and pipes, p, when arranged to operate substantially as described.

3d, The water-vessel, W, in connection with the crane, S, when arranged to operate substantially as described.

4th, The ashpan, M, with its sliding bottom, N, in connection with the pipe, O, when arranged to operate as shown and described.

5th, The openings, R V t, for obtaining access to the chimney, and the opening, Z, in the hearth plate, ir connection with the opening in the partition, J, with the sile covers, when arranged as described and for the purpose et forth.

with their movable covers, when arranged as described and to the et forth.

6th, The half-conical form of the fireplace, with the globe top, having the divisions therein for the air flues, as shown, as well as the arrangement for dividing the smoke, with the shutter, E. provided with the door, g, and damper, h, when arranged as described and for the purposes set forth.

72,230.—MACHINE FOR MAKING NAILS.—Benjamin Robinson, Boston, Mass.

I claim let in combination with a feeding device, so arranged as to feed the

72,230.—MACHINE FOR MAKING NAILS.—Benjamin Robinson, Boston, Mass.
I claim, 1st, in combination with a feeding device, so arranged as to feed the forward edge of the nail sheet past the foremost edge of the upper die by the width of one nail at each stroke of the cutter head, and a pressure bar. 7, slotted as a shown, the arrangement of the male dies, C, and female dies, K, placed in transvers series, heads to points, substantially as and for the purpose described.
2d. The arrangement of lever, W, spring, U, standard, V, and nut, X, in combination with the journal of roil, N, as and for the purpose described.
3d. The arrangement of female dies, K, K, made in halves, in crossbars, J, as held by bolts, L, and adjusted by set screws, E and F, as and for the purpose described.

The arrangement of levers, S S2, connecting rods, R R2, substantially d for the purpose described.

as and for the purpose described.
72,231.—Locomofive Link for Trucks.—Thos. J. Rowley
and William Poland, Chillicothe, Ohio.
I claim the link of radius ber, 4, combined with the slide box, B, and the
stiffening ber, 0, constructed as and for the purpose herein described.
72,232.—HORSE HAY FORK.—George W. Shade, Shippensburg. Pa.

burg, Pa. fork, constructed in the manner substantially as described, with one or more palis of prongs, in combination with bars, B B', toggle joints, spring, U, hand L, D, and trip catch, E, all operating in the manner as and or the pi rpose set forth.

Action a hay lots, otherwise, in combination with bars, BB, toggle joints the due or more pairs of prongs, in combination with bars, BB, toggle joints, spring, C, handle, D, and trip catch, E, all operating in the manner as and if the pi pose set forth.

2,233.—WHEEL FOR WAGONS AND CARRIAGES.—Fred. G. Simmons, Lansingburg, N. 7.

I claim, ist, The employment of the socket cylinders, C and D. one cast on lee hub, A, the other disconnected therefrom and working freely thereon, and in combination with the said hub, A, substagtially as herein described not set forth.

2d. Also, in a wagon hub, the socket cylinders, C and D, the hub, A, and the nut or cap, B, constructed and arranged in the manner and for the purposes substantially as herem fully described and set forth.

72,234.—INHALING TUBE.—Samuel W. Sine, Easton, Pa. Islam, ist, The metallic valves. D and E. the diaphragme, c. top, e, and the spring, d, in combination with an inhaling tube, substantially as and for the purposes described.

the combination with an innaming cuts, satisfied, set described, metallic valve, either with or without a stop or spring, in combination inhaling tube, substantially as described.

LET-OFF MOTION FOR LOOMS.—George Smith, Cum-

22.236.—TRUNK.—Thomas Smith, Brooklyn, N. Y.
1 claim, 1st, The tray, B, of a trunk, when provided with a hinged bottom, b, substantially as herein shown and described.

2d, The location of the footboards, ff', on each side of the receptacle, R, which permits the binder to face the receptacle, substantially as set forth.

which bermits the binder to face the recentacle, substantially as set forth.

3d The raised footboard, t. which admits the grain beneath it, substantially as and for the object specified.

4th, The delivery of the grain into the receptacle at its bottom or base, substantially as and for the purpose set forth.

5th, The employment of metallic strips, S S S, and belts, b b, as apron or carrier, substantially as and for the purpose herein shown.

6th, The securing of the said metallic strips, S S S, at their forward edges, substantially as herein shown, so that in passing over the roller they will assume a vertical position and thrust the grain into the receptacle, all as set forth.

forth.

7th, The employment of a receptacle, R, for the grain, which admits of the binding of the bundles upon the loose grain in it without removing the bundle till completed, substantially as and for the purpose hereinbefore mentioned.

72,239.—Marine Engine Governor.—Jas. Sullivan, South

72,239.—MARINE ENGINE GOVERNOR.—Jas. Sullivan, South Boston, Mass.

I claim the arrangement of valve, B, lever, E, weight, I, and counter weight K, operating substantially as and for the purpose described.

72,240.—STEAM GENERATOR SAFETY VALVE.—Henry Taylor and Joseph M. Cole, Baltimore, Md.

We claim, 1st, The combination of the weight and valve, when connected by a flexible joint, substantially as and for the purpose described.

2d, Also, in combination with the closed self-acting safety valve, the valve, J, which is held shut by the steam in the boiler whenat or below its regulated pressure, and opened by the steam in the boiler whenat or below its resulted which it is designed to carry, substantially as described.

3d, Also, in combination with the passage, H, the projecting ton piece, L, to prevent said passages from being stopped up, but at the same time allow the steam to escape through them when blown off through the safety valve, as described.

4th, Also, the combination of the crank shaft and lifter with the weight, D, and valve, C, so that the attendant can at any time open the safety vale, and allow the steam from the boiler to pass through, but cannot close said valve to prevent the escape of steam when its pressure exceeds that for which the safety valve is computed, as set forth.

72,241.—STILLS.—Isaac P. Tice, New York city.

safety valve is computed, as set forth.
72,241.—STILLS.—Isaac P. Tice, New York city.

72,241.—STILLS.—Isaac P. Tice, New York city.

I claim, 1-t, The arrangement of the filling and discharging orifice of a still below the surface of the wash, for the purposes herein described.

2d. Also, the valve opening inward upon the main pipe.

3d. Also, the valve attached to the overflow pipe in such a manner as to be opened when the still ils operating. and closed when it is not working.

4th, Also, connecting the two valves, c and d, so that they will act simultaneously, as hereing described.

5th, Also, the combination of these valves with the still and its necessary working apparatus.

6th, Also, inclosing the collapse and blow-off valves of a still, and connect ing thern, by means of a pipe, with the doubler, worm, or any other part of the enclosed circuit.

72,242.—Stone for Heating Sadirons.—John P. Troxell Hancock, Md.

I claim, ist. The horizontal recesses, M, in the top part of the stove, provided with slots, O, formed by the partitions. N, and the chamber, E, at the sides and rear of the recesses, M, substantially as and for the purposes described.

scribed. 2d, The chamber, E, formed as described, connecting with the freplace by means of the openings, D, and provided with holes, P, for cooking purposes in combination with the recesses, M, substantially as and for the purposes de

72,243.—Bookbinder's Beveling Machine.—H. L. Tumy Cincinnati, Ohio.

I claim, lst, The roughened beveling leaf, C, for the purpose above speci

ed. 2d, The bedplate, B, beveling leat. C, gaging bar. D, and pawl, g, arranged and operating substantially as and for the purpose he reindescribed and se

72,244.—Argand Burner.—E. R. Walker, New York city

72,244.—ARGAND BURNER.—E. R. Walker, New York city, ssignor to E. P. Gleason.

I claim the combination of a disk or plate of metal with a regulating screw, for the purposes fully described 72,245.—ATTACHING PICKS TO THEIR HANDLES.—J. P.Walsh, Halena, Montana.

I claim the attachment of a tool to its handle, a dovetail projection, a, from the tool, interlocking with a corresponding slot, e, ir the head of the handle, and retained therein by an encircling band, E, a transverse pin, or other equivalent device, substantially in the manner set forth.

Also, the independent metallic side pieces, D, when formed substantially as herein described, and united to a handle, B, so as as to receive and retain a dovetail projection, a, of a tool, substantially as and for the purpose herein specified.

specified.
72.246.—Mode of Preparing Faggots for Manufacturing WROUGHT BRAMS OR GIRDERS.—George Walters and Fnomas Shaffer Phoenixville, Pa.

Pheenixville. Pa.
We claim a pile or fagot for wrought-iron beams, composed in part of a olid bar or bars, with a rib or ribs, e, and in part of a number of bars riveted ogether and weageat to the said rib or ribs, all as set forth for the purpose control of the said rib or ribs, all as set forth for the purpose control.

speci ed.
72,247.—Cork Extractor.—William G. Waterman, Middletown, Conn.
1 claim the combination of the corkscrew, B, and the spring, E, both being attached to the handle, A, in the manner herein set forth and described.
72,248.—WHIFFLETREE.—Geo. Watt, Richmond, Va.
1 claim, 1st, The whiffletrees A A', formed of bent metal, with three straight sides, one of which is enlarged in the center, to sustain endwise pressure, as described.

lescribed.
2d, in bent metal whiffietrees the replaceable rings or thimbles, B, substan laily as and for the purposes set forth.

and the state of the purposes set forth.

2d, in bent metal whiffletrees the replaceable rings or thimbles, B, substantially as and for the purposes set forth.

72,249.—STRAW CUTTER.—J. Weichart, San Francisco, Cal.

1 claim, 1st. The manner of operating the feed roller, B, by the toothed wheel C, and cam, D, substantially as and for the purposes described.

2d. The cam, E in combination with the arms, dd', jointed to the knife, and thesping, H, for throwing it back, substantially as described; and 3d. The movable pressure plate, b, spiral springs, c, so that the material to be cut will be held firmly in place, substantially as described and shown.

72,250.—MARBLE-CUTTING MACHINE.—G. W. Wheeler, New Fairfield, and H. I. Stevens, Bethel, Conn.

We claim the frame, B, constructed as described, so that the roller guides may be adjusted as described.

72,251.—RAILROAD SWITCH.—James M. Whiting, Providence, R. I.

72,251.—RAILROAD SWITCH.—James M. White, 1 claim the construction and arrangement of the switch, S, in such a manner as that it may be properly shifted by the rail car in the act of passing over the same, substantially as described.
72,252.—SOAP REST.—J. Whittemore, South Reading, Mass. I claim, as a new article of manufacture, a soap rest, consisting of the shelt A, and bracket and spring, D C E, made substantially as described and for the purpose set forth.
72,253.—LAMP CHIMNEY.—J. D. Willoughby, Shippensburg, Pa.

burg, Pa.
I claim, 1st. A lamp chimney with the flange, I, or its equivalent, as and for the purpose set forth.
2d, A lamp top with the catches, o, or their equivalents, as and for the purpose set forth.
3d. The lamp chimney with the flange, I, and the lamp top with the catches, o, in combination with thespring, U, or its equivalent, as and for the purpose set forth.

79.25A APPARATIS FOR MELTING AND STRAINING CRUDE 72.254.—Apparatus for Melting and Straining Crude

TURPENTINE.—Josiah E. Winants, Brooklyn, N. Y., assignor to himseli and John F. Griffin.
I claim the employment of a rotary heating and straining cylinder, sabstan-tially in the manner and for the purposes set forth.

72,255.—Buckle.—E. L. Woods, Alliance, Ohio, assignor to himself, Joshua H. Woods, Benjamin F. Woods and James L. Woods, I claim the plate and clips, B.B. projection. a. in combination with hinge holder, D, and tongue, d, constructed substantially as described and operat-

holder, D. and tongue, d. constructed substantially as described and operating as set forth.

72,255.—MILLSTONE DRESS.—Notley W. Wortham (assignor to himself, S.C. Hendry, M. L. Watson and P. W. P. intup), Union Point, Ga.

I claim the improved millstone dress consisting of the four furrowed sections at right angles to each other, in the manner described andfor the purpose specified.

72,257.—STALL FOR CATTLE AND HORSES.—Louis B. F. Sitkov, Portland, Me.

I claim the improved stall substantially as described combining the secondary floor and bedding box, as andfor the purposes set forth.

72,258.—STEAM PIPE FOR CONNECTING HEATING PIPES IN RAILEAD CARS.—Charles R. Abbot, Elmira, N. Y.

I claim the combination and arrangement of pipes, A and B, ball and socket joints, C and D, and pipes, E and F, substantially as and for the purposes described.

72,259.—Coffee Mill.—John R. Adams, New York city.

I claim the pivoted lid of the mill attached by an arm to the grinder shaft, for the purpose of turning the grinding cone, as described.

72,360.—HARROW.—John Aiken, Warner, N. H.
I claim connecting the rollers, B, to each other in pairs by chains, C, or equivalent flexible or jointed connection, substantially as herein shown and described and for the purpose set torth.

72,361.—Combined Damper and Ventilator.—Alexander Anderson, London, Province of Onta-io. Canada.

Anderson, London, Province of Ontario, Canada.

I claim, 1st, The slotted damper, B, with depressions or pockets, b, to provide an indirect passage for the smoke when closed and with a weight, bi, to retain thin its open position.

while an indirect passage for the smoke when closed and with a weight, and to retain that its open position.

2d. The sliding lever D. constructed and applied substantially as shown and described in combination with a notched plate, E, by which the lever and damper are held in any destred position.

3d. The combination with the joint of stovenipe, A, provided with apertures, a a, and horizontal slots, al. of the damper, B, and perforated ventures, a a, and horizontal slots, al. of the damper, B, and perforated ventures, a an and horizontal slots, al. of the damper, B, and perforated ventures, a seminative of the same handle, substantially as set forth.

72,262.—SIGNAL LANTERN.—L. V. Badger, Chicago, Ill.

I claim a signal lantern for street railroad ca's composed of a box inserted in the roof and provided with a lamp, reflectors and slaas or transparent sides, substantially in the manner as herein shown and described. 72,263.—RAILROAD WEED CUTTER.—J. S. Boicourt, Boons

boro', Iowa. I'claim the arrangement of the circular cutters, d, and the straight cutter bar, F, or either of them, in combination, with a railroad truck, A, substan bar, F, or either of them, in combination with tially as and for the purpose herein described.

72,264.—SHAFT CCUPLING.—M. C. Boyer, Norristown, Pa. I claim the within-described coupling composes of the two clamps, B and

B', adapted to the shafts and nuts, D and D', adapted to tanering screws, a a on the clamps, all as set forth and for the purpose specified.

72,265.—Animal Poke.—G. W. Carpender, Jarvis, Ind.
I claim the bow, A, rounds, B and C, bar, D, rod. E, and collar. F, with its points, the several parts being constructed and used as and for the purpose set forth.

set forth.

72,366.—TRACE CLAMP.—D. H. Clock, Monroeville, Ohio.

I claim the construction of a clamp in the manner substantially as described as a new article of manufacture when applied to the purpose specified. 72,267.—Sorghum Evaporator.—Noah Clouse, Buffalo Vil-

lare, Pa.

I claim, 1st, The manner hereins hown and described of hanging the vesels, A, in the carriages, B, by means of plates, C, having pins, a, and screws,

seis, A, in the carriages, B, by means of plates, C, having pins, a, and screws, b, and by means of steadying pins, c, as described.

2d, The carriages, E, E, when provided with adjustable casters having plates, e, on their inpright axles and secured by pins, d, in any desired position, as described.

3d, The arrangement of the frame, F, divided into sections to allow the easy transportation of the vessels, A, from one section to the other, as described.

easy transportation of the vessels, A. from one section to the other, as a seribed.

4th, A sorghum evaporator consisting of a series of separate vessels, A. A, hung in carriages, B B, and moved in succession from the filling place over the furnaces, F and G, to the cooling pan or discharge, substantially as described.

72,268.—Boat Lowering Apparatus.—A. F. Crosman, Steamer Ostipes, U.S.N. Irakans.—A. I. Closman, Steamer Ostipes, U.S.N. I claim the notched spring catch. G. in combination with the weighted hains, b, and jointed davits, E. as herein described for the purpose speci-

nea. 72,269.—Stump Extractor.—Alonzo Crowner, Wellsville,

N.Y. I claim, ist, The screw shate, A, applied to transporting trucks and provided with means for rotating it for the purpose of extracting stumps and stones, substantially as described.

2d, Providing a screw shaft, A, which is applied to two trucks substantially as described with drums, G.G., connected together by sour wheels so as to rotate in opposite directions, in combination with right and left pawis, h', and ratchet wheels, e A: pushestantially as and for the purpose described.

3d. The pendent guides, J.J., for supporting pullers, i, over which the ropes, kky, of drums, G.G., pass in combination with a machine operating substantially as described.

4th. Sustaining the frontend of the screw shaft upon or by means of a

ropes, kk', of drums, G G', pass in combination with a machine operating substantially as described.

4th, Sustaining the front end of the screw shaft upon or by mears of a head block, D. which is attached to a bolster, D', by a staple, E, so that it can rise and fall, substantially as described.

5th, The combination of the screw, A. mt, a', and prop, P, substantially in the manner and for the purpose herein described.

6th, The combination of rods, F F, with a right and left screw shaft, A, which is supnorted upon trucks, and operated substantially as described.

72,270.—Horse Hay Fork.—Fred Culver, Elkland, Pa.

I claim the combination of upright shaft, C, rivets or bins, B B, arms, D D, with slots, a, at their upper end and barb at their lower end, the whole arranged substantially as and for the purpose specified.

72,271.—NEEDLE CASE.—P. D. Cummins, Portland, Me.

I claim the combination of the cylinder, a, rod, b, tube, d, and cushion, k, substantially as and for the purpose set forth.

72,272.—DeodoRIZING INDIA-RUBBER, GUTTA-PERCHA, ETC.

Edward de la Granja, Boston, Mass.

Edward de la Granja, Boston, Mass. I claim, 1st. The solution abovedescribed, when used as and for the purpose specified.
2d, The process of deodorizing and perfuming india-rubber and gutta-percha, above described.

2d, The process of deodorizing and perfuming india-rubber and guttapercha, above described.

72.273.—Wood-Turning Lathe.—David Dick, Corning, N. Y.

I claim, 1st, The two sliding tool beds, M. O, provided with adjustable cutting tools and operated simultaneously toward and from each other at onposite sides of the lathe bed by means of the cam. E, arm, J. rock shaft, H,
and double crank, I, all constructed and arranged to operate substantially
as shown and described.

2d. The slotted arm, J, with the pin, b', of the cam, E, applied to the cam,
F, and rock shaft, H, substantially as shown for the nurpose of moving the
slides, M. O, slowly toward each other and with a quick movement outward
from each other, as set forth.

3d. The rising and falling hopper, W, operated automatically from the
sliding bar, D. through the medium of the arms, Z C', and pin, u, all constructed to operate substantially as and for the purpose set forth.

4th, The lubricating chamber. Y, in the hopper, W, arranged in relation
with the center point, a', operating substantially as and for the purpose.

with the center point, a', operating substantially as and for the purpose specified.

5th, The flanged center point, b, on the mandrel, C, with the eye, r, working over said point and operated automatically from the sliding bar, D, constructed and operating substantially as and for the purpose set fortb.

72,274 — RAILROAD CAR VENTILATOR.—William B. Dunning, Geneva, N. Y.

I claim a window sash or other framemade of two frames one within the other and hinged or otherwise hung the inner to the outer and the outer to any suitable frame, so as to be susceptible of the operation substantially as and or the purpose described.

72,275.—LAMP CHIMNEY TONGS.—Jacob Euteneur, Peoria,

Ill.
I claim the grasping claws and handle of chimney tongs, when constructed and arranged substantially as shown and specified.
72,276.—RAILROAD SPIKES.—Morrison Foster, Cleveland,

Ohio.

I claim, in combination withhook headed railroad spikes the so enlarging of the head and continuing it as that there will be formed in conjunction with the head a shoulder at the rear of the spike, on a line below the under side of the hook of the spike, so that said shoulder shall come in contact with the wood into which the spike is driven a little before the hook comes in metal contact with the flange of the rail it is to hold and thus prevent any liability to fracture or over strain the head of the spike, substantially as described.

Also, in combination with the shoulder at the rear of the spike, when formed with a continuation of the head and located with regard to the under side of the hook, as above described, the shoulders at the sides of the spike and on a line with the shoulder, and anxiliary thereto for the purpose of shedding the rain or other water from the hole made by driving in the spike and thus preventing the rotting of the cross tie and consequent loosening of the spike, substantially as described.

Also curving the lower portion of the shank of the spike backward in combination with the rear inclination to form the point for the purpose of causing it to hug the edge of the flange of the rail as it is driven in alongside of it, substantially as described.

72,277.—JACK FOR PULLING HOP POLES.—O. S. Foster, Durhamylle, N.Y.

hamville, N. Y.

I claim the metallic head, D, having trunnions and claws, E. E, all formed fone piece and connected to L-shaped standards, B. B, which are secured o ablock, A, and provided with a suitable handle, C, all constructed and used for the purpose specied. to a nicek, A, and provided was used for the purpose speci ed. 72,278.—FURNACE FOR STEAM BOILER.—Charles Fownes,

Pittsburg, Pa.

I claim, 1st, The smoke consumer composed of the diaphragm, T, with its set of burners, U U' U''' U''' etc., and burner, V V, channel, J J, openings, K K, and blowers, M M, or their equivalent, arranged and operating as

specified.

2d, The diaphragm, TT, curved or corrugated so as to obtain more heating surface and to form channels for collecting the dust, as described.

72,279.—HINGING TEA KETTLE COVERS.—Charles Fownes,

ing surface and to form channels for collecting the dust, as described.

72,279.—HINGING TEA KETTLE COVERS.—Charles Fownes, Pittsburg, Pa.

I claim, 1st, Swinging the lidof a tea kettle around a center placed or located to the right or to lett of the bail ear. D. out of the center line of the spout and nearer to the spout than to the back of the tea kettle so that the lidin pivoling around that center will swing clear of the bail lug, G, without being elevated to pass over it, as set forth.

2d. The combination of the pin, M, or pins, N N, with the knob, G, or its entry elevated to pass over it, as set forth.

3d. The combination of the split piece, P, or pieces, P P, with the knob, G, 4th, The combination of the screw, Y cast or chilled in with the piece, C, 5th, The combination of the washer, W, with the pieces, M N N P P' V, and the knob, G, and rim, H, used for the purpose set forth.

4th, Securing the lids of tea kettles by means and with the use of the screw, F, bolt, V, pin, M, pins, N N, or pieces, P P', as described.

72,280.—SADIRON HEATER.—S. C. Frink, Indianapolis, Ind. I claim, 1st, The peculiar formed base piece, L, as represented in Fig. 3, with the sir, gas and cotton chambers atta chest separated by ganze wire or perforated metal, substantially as set forth.

2d, Also the metallic ring or band, K, Fig. 4, when used to bind or make fast the gauze wire or perforated metal, P, on the gas, air or cotton chambers, I i, as represented in Fig. 3 of drawings, substantially as herein set forth.

3d. Also the peculiar-shaped shell or cover, F, with the inclined plane, A,

pers, 1., as represented in Fig. 3 of drawings, substantially as herein set forth.

3a, Also the peculiar-shaped shell or cover, F, with the inclined plane, A, lug, O, and bevelled sides, C, to receive the flat or tailor's iron, as represented in Figs. 1 and 2, substantially as herein set forth.

4th, Also the whole device, when constructed and operated substantially as set forth.

72,281.—Washing Machine.—Thomas Q. Frost, Indian

12,201.—WASHING MACHINE.—Holmas Q. Frost, Indian River, N.Y.
1 claim the combination of the dashers, C, rods, D, gear wheel. E, pinion, F, crank shafts, G d. pitman, K, grooved rollers, O, and adjustable rollers, L, as herein described for the purpose specified.

72,282.—HORSE HAY FORK.—William B. Gabel, East Cocali-

72,282.—HORSE HAY FORK.—William B. Gabel, East Cocalico Township, Pa.

I claim the vertical bolt, D, entering the eyes of a flattened hook. C, which terminates a single arm, A, forked at the other end and connected to a similar forked arm, B, by a central rivet all arranged as above described and in combination with the lever. E, ring, I, and one or two pulleys, K J, all arranged and operating in the manner and for the purposes specified.

72,283.—IRON SAFES.—William Gardner, New York city.

I claim, 1st, The Z-shaped frames, c and e, in combination with the pins, f, substantially as and for the purpose here in shown and described.

2d, The Z-shaped frames, c and e, in combination with the pins, g, on the door, A, substantially as set forth.

3d, The removable pirs, g, and plate, i, in combination with the Z-shapet frames c and e, substantially as set forth.

4th, The grooved bottom, K, of the sare in combination with the false bottom, m, the latter being provided with a dovetail or other projection, I, substantially as Reny A Taracy Welleys. M A Gatas Troy Pa.

—CHECK REIN ATTACHMENT.—M. A. Gates, Troy, Pa.

72,284.—CHECK REIN ATTACHMENT.—M. A. Gates, Troy, Pa. I claim the combination of the check rein hook, B. strap, C. turretring, A. stop ring, D. hook ring, E. strap, F. end ring, G. and hook, H., with each other when used in connection with the check rein, saddle or pad, and back strap of a harness, substantially as herein shown and described and for the purpose set forth.

72,285.—Lubricating Spindle.—A. H. Gilman, Hopedale,

Mass.
I claim the combination of the chambered nut, E, provided with an absorbent material as set forth with the bolster or with the same and the bushing to extend down from such bolster, as explained.

Also the combination of the chambered nut, E. provided with an absorbent as set forth with the bolster and its chamber, e. furnished with an absorbent material, arranged so as to lie against the spindle, as specified. Also the combination of the chambered nut, E. the chambered bolster and bushing provided with a passage and an absorbent material to extend through such passage and an absorbent material to extend through such passage and an absorbent material to extend through such passage and an absorbent material to extend through such passage, and the combination of the instruction of the instruction of the spindle, as described.

Also the combination of the instruction of the conductive, or its equivalent, arranged in the bolster and to open against the spindle, as specified.

72,286.—HORSE HAY FORK.—J. S. Gochmauer, York, Pa. I claim, ist, Operating the movable toes by means of an oscillating roller, C. substantially asherein shown and described. 2d, Strengthening and bracing the tines by means of the roller which operates the toes, in the manner substantially as herein shown and described.

3d, The combination of the spring lever, F. with the oscillating roller, C, and the tines, A, substantially as herein shown and described.

4th, The locking recess, b, when used in combination with the said locking recess and the spring lever, as set forth.

72,287.—VALVE FOR BOILER FEEDER.—Richard Gornall, Baltimore, Md.

72.257.—VALVE FOR DOHLER PEEDER.—Richard Goffland, Baltimore, Md.

1 claim the combination of the float, F, and valve, v, seating upward, with the chambers, U and C', the pipes, D S W, and the cylinder, A, the valve being attached directly to the float, F, by the valve stem, f, and the parts operating without levers or gear of any description, but substantially in the manner and for the purposes specified.

72,289.—POTATO DIGGER.—E. V. W. Griffith, Utica, N. Y. I claim, 1st, The fork, D, the bent lever, Dl, and the pits, Gl, or their continuous, in combination, for the uses and purposes mentioned.
2d. The fork, D, operated by the lever, Dl, and pin, Gl, in combination with the screen, H, substantially as described and for the uses and purposes men-

ed.
The fork, D, and the bent axle, A1, and lever, D1, in combination, for ses and purposes mentioned. Operating the fork automatically by means of the gearing, E and F, ne pin, G1, substantially as described and for the uses and purposes

72,290.—Ash House.—Moses Hall, Jr., Osborn, Ohio.

I claim, ist, A fire-proofash houseand leach tub combined, substantially as shown and described and for the purposes set forth.

2d, The irre-proof box, A in combination with the hopper, B, and screen, C, substantially as shown and described and for the purpose set forth.

3d. The fire-proof leach tub, D, in combination with the parts, K, and screen, S', substantially as shown and described and for the purposes set forth.

forth. A fire-proof box, C, in combination with the fire-proof leach-tub, D substantially as shown and described, and for the purposes set forth. 72,291.—MACHINE FOR SPLITTING RATTAN.—Levi Heywood.

Gardner, Mass.
I claim an independent tube or quill, E, which may be adjusted more or less in advance of the cutters, substantially as and for the purpose set forth. 72,292.—MACHINE FOR BENDING WOOD.—Levi Heywood,

Gardner, Mass.
I claim the molds, A and B, in combination with the lever, D, or its equiva-ent, all constructed to operate in the manner substantially as and for the urpose set forth. 72.293.—MACHINE FOR BENDING WOOD.—Levi Heywood.

72.293.—MACHINE FOR BENDING WOOD.—Levi Indywood, Gardner, Mass.
Idaim connecting the links, A. of a chain for bending wood by one or more flexible ropes, B, substantially as set forth.
72.294.—CINDER SHOVEL.—J. E. Highlutt, Denton, Md.
I claim the cinder shovel herein described, constructed with a vertical handle, A. and a horizontal or nearly horizontal toothed scoop, UD, substantially as and for the purpose set forth.
72.295.—BURIAL CASE.—Robert F. Hill, Philadelphia, Pa.

I claim the body, A, provided upon its upper edge with the flause, d, projecting within and without the case, having in its under side, within the case, the countersunk nuts, i, the corresponding flange, h, upon the lower edge of the cover, B, said flanges, secured together by the thumb screw, C, passing through both and into the countersunk nut, i, the head of said screw being without the cover, and the end within the body. A, as herein described, for the purpose specified.

72,296.—KNITTING MACHINE.—Wm. H. H. Hollen, Fastoria, Pa.

72,296.—KNITTING MACHINE.—Wm. H. H. Hollen, Fastoria, Pa.
1 claim, 1st, The combination and arrangement of the wheel, B, having a grove, b", with the arm, G, of the rock shaft, H, as described and shown, for the purpose of giving the necessary movements to the situch lifter, C, thread carrier, D, and the pressers, E and F F, as described.
20, In combination with the elements of the preceding first clause, the studs, b'b'b', in the disk-wheel, B, and the teeth, a", in the needle carrier, A, when arranged to move the said carrier, A, at he periods required by the said stitch lifter, C, thread carrier, D, and pressers, E and F F, as described.
3d, Also, the grooved and bent needle, a', in combination with the stitch lifter, C, both constructed as described, for the purpose specified.
4th, Also, the stroved and bent needle, a', in combination with the stitch lifter, G, both constructed as described, for the purpose specified.
4th, Also, the strotch lifter, C, made in the form shown, i.e., with the three projections, 123, for the purpose of causing the stitch lifter of the machine to sperate, in combination with the grooved and bent needles, a', in the manner and for the purpose described.
5th, Also, the thread carrier, D, made with curved sides and edged ends, substantially as and for the purpose described.
6th, Also, the vibrating stitus preser, E, formed as described, at its lower end, for the purpose of causing it to pass more closely along the lower sides of the needles in forcing back the stitches, as described.
72,297.—CULTIVATOR.—Henry Howe, Unconta, N. Y.
I claim, 1st, Extending therear end of the central beam, C, back to receive and support the rear or central plow standard, D, substantially as herein shown and described.
2d, The 2age-wheel crame, J, constructed substantially as herein shown and described, and pivoted to the central beam, C, or to some other support at the central part of the cultivator frame, as and for the purpose herein set forth.
3d, The combination of the leverlatch, N, with the beam,

iorth.
3d, The combination of the lever latch, N, with the beam, C, and gage wheelframe, J, substantially as herein shown and described, and for the pu

wheel rame, σ, as a suppose set forth.

4th, Pivoting or hinging the standards, D and F, to the cultivator frame, by means of the brace-ears, d' and f', substantially in the manner herein shown and described, and for the ρυγροse set forth. and described, and for the purpose set forth.

—AUTOMATIC RAIN CONDUCTOR.—James B. Hudson,

72,298.—AUTOMATIC TAIN COMPOSITION Fayetteville, Pa.

Fayetteville, Pa.

Iclaimthe cylinder, A, having a removable cover, B, and provided with a hopper, n, strainer, a, partition, E, plyoteet disk, D, operated by float, F, and rod, R, and pipes, C P m and W, all constructed, arrangeet, and operating substantially as and for the purpose described.

72,299.—MACHINE FOR TRIMMING HEDGES AND CUTTING

72,299.—Machine for Trimming Hedges and Cutting Corn.—John W. Hull, Connersville, Ind.

I claim, 1st, The combination of the frame, A. the hinged wheel, B. the cog-driving wheel, C, connected with gearing to move the horizontal shaft, c, and the vertical shaft, e, the rotating disk, G, with the hedge-cutting knives, hh, the forked guide, H, and the treadle, E, arranged and operating substantially as and for the purpose herein described.

2d, The combination of the mainframe, A, the sideframe, II, the forked cornstalk cutter, K, the fixed arms, m m, the pivoted arms, m m', and the treadle, E, arranged and operating as and for the purpose herein set forth.

72,300.—Foot POWER.—Ezra Hutson, Brockport, N. Y. I claim the rollers, d and e, ratchet, g, and pawls, m and n, the whole combined substantially as and forthe purpose herein set forth,

72,301.—Vegetable Cutter.—Enos B. Ives, Bristol, Conn. I claim the wheel, E, provided with knives, g g g and e e e, substantially as described.

72,302.—Door Bolt.—C. C. Jones, Portland, Me.

claim the combination of bolt, c, knob, e, and spring, f, in the case, the plate, g, substantially as and for the purposes herein described. 808.—SLED.—George F. Krollpfeiffer, New York city. I claim the attachment to sleds, sleighs, and other land conveyances, consisting of a pivoted frame, B, rod, E, and handles, F, substantially as and for

-Horse Hay Fork.—Mary Jane Laird, Middletown, Pa., administratrix of the estate of Andrew J. Laird, deceased. I claim the guard, D. when applied to hay forks for the protection or the lever or arm, substantially as described and set forth.

72,305.—Plow.—S. J. Leach, Tuscaloosa, Ala.
1 claim, 1st, Facing the mold-board of a plow with a thin detachable sheet or plate of wood, steel, or other suitable material, substantially as herein shown and described, and for the purpose set forth.
2d, Formiuz the mold-board, B, of a plow with a shoulder, b', and wisholst or sockets, C, to receive the forward edge and tongues of the facing plate, D, substantially as herein shown and described, and for the purpose set forth.

92,306.—Lamp Chimney Cleaner.—George Leas, Shirleys

Durg, Pa.
Colaim the lamp chimney cleaner, as described, the disk, B, of which is provided with a serrated metallic flange, as herein set forth.
72,307.—SEAT FOR VEHICLES.—John R. D. V. Linton, New

which is provided on itsen dswith supporting disks, said pile being employed substantially in the manner and for the purposes described.

72,310.—Churn.—James Maxey, Kewanna, Ind.

Iclaim the arrangement of the churn-body, A, standards, H, H, shaft, I, wheels, G and F, and staff, B, provided with the wheel, D, and the paddles, C, as and for the purpose set forth.

72,311.—Trace Fastener.—Jra C. McAllaster, Milo, Mich. 72,311.—TRACE FASTENER.—Jra C. MCAHASSET, MIIO, MICH. I claim the buckle constructed as described, consisting of the frame, be having parallel side guards, F, and ear pleces, G, through which the rivets, H, pass, and slotted upon its upper side to receive the lever, M, hung by a slot, a, on a cross pin, b, ubon which it slides, and provided with the tongue, L at one end, its other end fitting upon the surface, P, of the buckle frame, as herein described, for the purpose specified.
72,312.—BACK-BAND FASTENER.—David L. McGregor, Charlestown Mass

72,312.—BACK-BAND FASTENER.—David L. McGregor, Charlestown, Mass.
1 claim the metallicband-fastener,e, in combination with a saddle, substantially as described, and for the purpose set forth.
72,313.—SASH STOPPER.—J. N. McIntire. New York city.
I claim the catch or cam-like hook, so constructed and arranged as to interlock with and disengage from suitable pins or projecting stops in substantially the manner described, for the purposes set jorth.
72,314.—WINDOW-SASH SUPPORTER.—John S. Merrill, New-

wwn, Md.
I daim the use of theself acting metallic roller, D, in combination with the inclined metallic box, C, in the one side of the sash, and two friction rollers, E E, attached to the opposite side of the sash, when arranged, combined, and operaving with the sash, as herein described and for the purposes

set forth.

72,315.—HORSE RAKE.—Myron Miles, Middlesex, N. Y.

1 claim the combination and arrangement of the hinged draw-bars, D D, guidestandard, G, connecting rod, H, brace bars, M M, and step, L, substantially as herein specified.

Also, the slots, m m, in the brace-bars, and the springs, c, in combination with the stop, L, for the purpose herein specified.

Also, the arrangement of the caster or carrier-wheels, N N, in combination with the rake, and with the draw-bars, D D, substantially as and for the purpose herein set forth.

72,316.—WASHING MACHINE.—Jehu Mitchell, Newark, O.

72.316.—WASHING MACHINE.—Jehu Mitchell, Newark, O. I claim the frame, L, hung by arms, H H, to bar, T, when provided with rlbs, I I, and weight, F, in combination with the box, A, having standards, D, inclined bottom, O, and stationary ribs, M, all constructed, arranged, and operating as and for the purpose described.
72.317.—VENTILATOR FOR FLOUR MILLS.—Christopher Moegling, Milwauke, Wis.
I claim, 1st. In connection with an ordinary open-top curb, the stops, i m, or n, or their equivalent, as and for the purposes set forth.
24. The educting pipe, D, when provided with the water stops, k k. or k', whether said pipe leads off from the curb, B, or from the receptacle, C, for the purposes specified. either with or without the aid of the wings, E.
3d, The vertically-adjustable frame, F, when used as and for the purposes specified.

specified. 72,318.—Seed Planter.—William R. Mozier, Higginsville,

Ill.
I claim the combination of the trigger or hand lever, J, spring, L, lever, I, connecting bars, K and H, crank, G, recessed cylinder, F, and seed box. E, with each other and with the forward plow standard, B, plow beam, A, and hande, D, substantially as herein shown and described, and for the purpose

72.319.—Propeller.—Nioholas Nolan, New York city. I claim the blades or paddles, D. D. fitted in the rock frame, B, and operated from the driving shaft, K, through the medium of the crank wheel, J. and tached to Inc crank, L, on the driving shaft, and provided with the rod, M, attached to Inc crank, L, on the driving shaft, and provided with the hook, ix, and shoulder, J, to catch o ver pins, h h', the bevel segment, H, and the bevel wheel, G, on shaft, F, connected with the bar, E, allbeing arranged to operate in the manner substantially as and for the purpose set forth. 72,320.—Sail-Releasing Apparatus.—Ferd. Gust Ochme,

72,320.—SAIL-RELEASING APPARATUS.—Ferm. Gust Comme, M.D., Plymouth, Mass.
I claim, 1st, Connecting the sail to the boat by means of an apparatus formed by the combination of inclined planes, spiral springs, and double-acting hooks, substantially as herein shown and described, and for the purpose set forth.

2d, The combination of the perforated grooved and slotted block, A, adjustable flanged blocks, E, and G, springs, H, coiled spring or springs, B, pin, D, block, J, and hooks K, with each other, substantially as herein shown and described, and for the purpose set forth.

72,321.—HORSE HAY-FORK.—Saml. Page, McAlisterville, Pa. I claim the bar, C, having a slot at its upper end, through which is passed the lever, D, said bar being provided with the curved teetn, G G, and used in combination with the bars, B B, having pointed head, H, and tines, A A, all operating as specified.

operating as specified.
72,322.—Mode of Treating Sponge for Producing Tex-

TILE FABRICS.—Alfred Paraf, Mulhouse, France.
I claim the herein described method of treating sponge to convert the same into fiber capable of being felted, spun, &c.
72,323.—LIFTING APPARATUS FOR GRAIN DRILL.—C. E.

72,525.—LIFTING APPARATUS FOR GRAIN DRILL.—C. E. Patric, Macadon, N. Y.

I claim, 1st. The employment of the racks, R, and pluions, w, in connection with the hand-lever, F, and shaft, H, for the purposes set forth, whether the lifting-chains are made to wind upon the shaft or not.

2d, The arrangement of the lockine-latch, D, with the shaft, H, when it is also made to act as a support, substantially as and for the purposes set forth.

3d, The arrangement of the guards, G, with the racks, R, and pinions, w, substantially in the manner herein shown and described, and for the purposes set forth.

poses set form.

72,324.—Comb.—William Pauly, College Point, N. Y.

Iclaim the combination of the two side-combs with the spring by which
they are connected substantially as described.

Iclaim the combination of the two side-combs with the spring by which they are connected substantially as described.

72,325—BELT-FASTENER.—C. O. Pike, North Leverett, Mass. I claim, 1st. The half-collar, a, and the clamping-wedge, c, for fastening the ends of a bolt, constructed and operating substantially as described.

2d. The double levers, d. d., constructed and operating as described, in combination with the above fastening device.

72,326.—PORTABLE EVAPORATOR.—H. L. Plumb, Hamer, O. I claim the lengitudinal partition, F, over the fire-chamber, as and for the purpose set forth.

The grate, J, constructed and operating in the manner shown and described. Surrounding the fire-box of a portable evaporator with a jacket of sand or earth, substantially in the manner and for the purpose set forth.

In combination with the fire-box and evaporating pan of a portable evaporator, the cover, I, secured in place by screws or clamps, and provided with pipes, b b, or their equivalents, for the purpose set forth.

72,327.—VISE.—H. K. Porter and T. W. Porter, Boston, Mass. We claim, 1st, Controlling the sliding levers of vises by means of a spring, whose pressure may be varied at will by a screw inserted in the head of the vise-screw, substantially as set forth.

2d, The combination of the plunger, the spring, and set-screw, substantially as and for the purpose described.

72,328.—Washing-Machine.—G. Reneky and J. Keiss, Cederal and the stream of the purpose described.

72,328.—Washing-Machine.—G. Reneky and J. Keiss, Ce-

72,328.—WASHING-MACHINE.—G. Reneky and J. Keiss, Cedar Falls, Iowa.

We claim, 1st, The vertical shaft, D, having vertical wings or flanges, E, risily attached to it, and perforated disk, C, ha ving radial flanges, F, rigidly attached to it, said shaft and disk being rigidly connected together, in combination with the corrusated tub, A, substantially as herein shown and described, and for the purpose set forth.

2d, The combination of the crank, M, shaft, K, bevel-gear wheels, N and I, and cover, G with each other, with the winged or flanged shaft, D, and flanged disk, C, and with the cerrugated tub, A, substantially as herein shown and described, and for the purpose set forth.

72,329.—HOISTING-JACK.—S. B. Rittenhouse, Plymouth, Ind.

1 claim, Ist. The spring, g, secured between the sides of the box. A, and

12,529.—HOISTING-OACK.—S. D. KILLEHHOUSE, Fly MOULH, HIG. I claim, Ist, The soring, g, secured between the sides of the box, A, and forming its front side arranged in relation therewith, and with the pawl, f, as herein shown and described.

2d, The construction and arrangement of the box, A, spring, g, pawl, f, projection, B, upon hoisting-bar wheels, b, coe-shatt, C, shaft, D, and pinion, E, as herein set forth and for the purpose specified.

72,330.—Brick Machine.—Wm. F. Shanks, Louisville, Ky I claim, let, The combination of the parts, H H Q Q, R R. uprights, P P, thumbscrews, N N, cross-pieces, J J, uprights, K K, and sliding plate, Q substantially as described, and for the purpose specified.

24. In combination with the above, the rod, m, attached to the crank, B, 2d, S, cogs, b, and rod, E, substantially as described, for the purpose specifies, S, cogs, b, and rod, E, substantially as described, for the purpose specifies.

belt, S, cogs, D, and rod, E, substantiany as uestrieth, or the purpose specified.

3d, The sliding plate, G, operated by means of the cogs, D, and rod, E, substantially as described, for the purpose specified.

4th, The rollers, A A, adjusted by means of the cogs, b, and crank-wheel, B, whereby the thickness of the stream or column of mud is regulated, substantially as herein snown and described.

72,331.—WATER-WHEEL.—FL W. Shipley, Portland, Oregon. I claim the combination and arrangement of the conical hub, F, and radial buckets, C C, when arranged at the bottom of the shait, A, with the upper ring, F, constructed with exterior and interior flanges of the shape described, the lower ring, r, and the exterior buckets, D E E, forming a water-wheel which operates in the manner and for the purposes specified.

72,332.—Inside Window-Blind.—S. W. Shorey, Galesburg,

Ill.
I claim, ist, An inside window-blind, constructed, arranged, and operating substantially as herein shown and described.
2d. The combination of the frame, A, having the grooves, a, webbing, costats, D, frame, B, and hinges, C as berein described, for the purpose specified.
3d, The combination of the adjustable frame B, with the grooved frame A, for closing and holding in a closed or partially closed position, the stats of a window blind, as herein shown and described.

72,333.—SEED PLANTER.—John Stark, Thomasville, Ga.

rovided with a servated metallic flange, as herein set torth.

72,307.—SEAT FOR VEHICLES.—John R. D. V. Linton, New Bedford, Mass.

I craim, as a new article of manufacture, a cast-metal seat riser, made substantially as herein shown and described.

72,308.—BEE HIVE.—Joel R. Martin, Martinsburg, Ind.

I claim, 1st, The block, G, connected to the end of the hive, A, and provided with its cleats, dd, pivoted as set torth, and for the purposes described.

2d, The combination of the hive, A, as constructed, with block, G, having cleats, dd, not supported by the standards, H. H., above the pyramidal-shaped block, K, all constructed and used for the purposes set forth.

72,309.—PROTECTINE STEAM BOILERS FROM CORROSION.—David Matthew, Prairie du Chien, Wis.

I claim a galvanic pite, which is composed of copper and zinc plates, or other metals equivalent in galvanic properties, applicat upon a metal rod, other metals equivalent in galvanic properties, applicat upon a metal rod, other metals equivalent in galvanic properties, applicated and used for operating substantially as herein shown and described.

The diving wheel C, of a seed planter, when connected by means of supported by the standards, H. H., above the pyramidal-shaped lower part I, of the seed box, when secured to the frame F, in combination with the hopper J, secured to the frame F, in combination with the hopper J, secured to the frame F, all made and operating substantially as herein shown and described.

The diving wheel C, of a seed planter, when connected by means of supporting frame A and operating substantially as herein shown and described.

The diving wheel C, of a seed planter, when connected by means of supporting frame A and operating substantially as herein shown and described.

The diving wheel C, of a seed planter, when connected by means of supporting frame A and operating substantially as herein shown and described.

The diving wheel C, of a seed planter, when connected by means of supporting frame A and operating substantially as herein sho

72,334.—HARROW.—Nicholas Starr, Jr., Homer, N. Y.

1. A. Obet.—II ARROW.—INICHOIAS Starr, Jr., Homer, N. Y.
I claim, 1st, Constructing a harrow of four sides, in two sections or divisions, and each division composed of two sides hinged together, and said divisions connected at the diagonal corners to form a single squarc harrow.

2. Also, the connecting or coupling rod c, with its bolts at either end, to some such divisions together and keep the sides expanded.

72.335.— MANUFACTÜRE OF IRON.—David Stewart, Kittanning, Pa.
I claim purifying the pig-iron or blast-furnace metal from its carbon and other impurities by passing it in a stream through ozone, atmospheric air, or other oxygen-bearing gas or vapor, substantially as and for the purposes hereinbefore described.

72.336.—Excavator.—R T Stowell Opings III

72,336.—Excavator.—B. T. Stowell, Quincy, Ill.

12.336.—EXCAVATOR.—B. T. Stowell, Quincy, Ill.
I claim an excavating or ditching machine, constructed substantially as herein described, with cutters at each end, arranged to cut in either direction as the machine moves backward and forward, and which delivers the earth on to a common carrier or revolving apron, substantially as described.
12.337.—TIRE HEATER.—Harry Stroud, Jr., Clinton, Ill., assignor to himself and R.W. Robinson.
I claim the flues E E, and damper D, in combination with the lile B, and chamber A, the whole combined and operated substantially as and for the purpose set forth.

72,338.—Churn.—Clark M. Terrall and Nathan W. Hussey,

72,338.—Churn.—Clark M. Terrall and Nathan W. Hussey, 'Oskaloosa, Iowa. We claim the combination of the grooved base A, churnG, standard B, with button B', and lever C, provided with an adjustable metal plate D, for connecting the dasher E, the whole constructed, arranged, and operating in the manner as specified.
72,339.—BASE-BURNING STOVE.—Joel Tiffany, Albany, N. Y. I claim the use or employment of downward streams or jets of hot air upon the surface of the burning fuel, in combination with lateral streams or jets of cold air, taken over the top, through the sides, or oth rwise, of the fire pot, and specially directed or conducted, by means of tubes, projecting plates or other equivalent means, so as to meet the streams or jets of hot air, at the point of impigement upon the surface of the burning fuel, substantially as forth.

72,340.—Piston-rod Packing—Sidney S. Turner, West-

boro, Mass.

I claim the tubular elastic packing, confined rigidly by its ends, so arranged as to be compressed laterally against the rod by the direct action of the steam or other medium of pressure, substantially as and for the purpose set forth.

72,341.—CLOTHES DRYER.—Joshua Walker, Kansas City, Mo. I claim the frames A A' and B, the cord C, and sheave c, when combined and arranged as set forth.

72,342.—COOKING STOVE.—Geo. W. Walker, Boston, Mass. I claim, in combination with a flame and smoke fine at the back of the oven, an oven-ventilating flue or flues, arranged to operate substantially asset forth.

Also a provision upon the oven door for swinging articles into and from the oven, and arranged to be folded out of the way when not in use, substantially as set forth.

tially as set forth.

Also, in combination with the fire pot and ash pit, the sifting chamber, provided with a sliding grate, substantially as set forth.

Also, in combination with such sliding grate, the opening at the end of the sifting chamber for obtaining access to the grate, in connection with a protecting wail or plate, substantially as described.

Also, in combination with such sitting grate, the scraper bar, to dislodge the coal when the grate is drawn out, substantially as set forth.

Also, the construction of the sifting grate with diagonal bars, substantially as and for the purpose set forth.

as and for the purpose set forth.
72,343.—Tidal-water Elevator.—Philip Weck, Brooklyn,
N. Y.

2d. The pendant S. attached to the pawl L. in connection with the rols M. R. which connect the pawls LL'P. to insure a simultaneous detachment of said pawls from their ratchets K. F. d, and a simultaneous application there-to-substantially as an dor the purpose specified.

3d, The float V, connected with the valve lever T, in box F, and arranged to operate in the manner substantially as and for the purpose set forth.

4th, The supplemental chain Ux, applied to the chain E, and buoy J, substantially as and for the purpose specified.

72,344.—PTIMAN.—Thos. Welch, Church ville, N. Y.
LClaim, 1st. A skeleton or shell nitmen for harvesters, made of suitable cast.

12,044.—ITMAN.—I HOS. WEIGH, CHUTCHVIIIC, N. Y.
I claim, 1st, A skeleton or shell pitman for harvesters, made of suitable cast metal, the skeleton or shell head to receive the crank-pin box being cast to and with the pitman, for the purposes set forth.

2d, The crank-pin boxes with spherical bearings, in combination with a pitman head having a suitable concavity, as an for the purpose specified.

3d, A set screw having a concaved end, when used with the pitman head and crank-pin box in harvesters, for the purposes set forth.

pitman headh aving a suitable concavity, as and for the purpose specified.

34. A set screw having a concaved end, when used with the pitman head art crank-pin box in harvesters, for the purposes set forth.

72,345.—Mode of Protecting Likenesses in Monuments.

—Isaach. Wells, Pagetown, ohio.

I claim, 1st, The elastic packing C c c1c2 c3, applied and compressed between the several parts of the irame and the frame and stone, substantially as and for the purpose specified.

2d, The combination of the bars D, holes b4, screw d, back E, and flange b3, substantially as described.

3d, In combination with the frame B, the removable door or shutter F, for excluding light from the surface of the picture, when the same is constructed and applied substantial, as set forth.

72,346.—Box for Preserving Corpses.—Peter Wendhiser, Rockville, Conn.

I claim the corpsetable C, with the removable metallic cover E having the opening F, when said table is supported upon legs, D and placed within the woode box A, lined with the metallic lining B, and provided with the water-outle pipes H, all constructed a described for the purpose specified.

72,347.—Locking-knob Latch for Doors.—Jacob Wertsbaugher, La Grange, Ind.

I claim, 1st, The curved dog G, constructed substantially as herein shown and described, in combination with the slidling frame D, a sand for the purpose set forth.

2d, The combination of the plate L, with its adjustable ward or wards, with the hollow stem J, and slotted arm K, substantially as herein shown and described, and for the purpose set forth.

72,348.—Steam Jet for Cleaning Boiler Tubes—Joel M. Wheeler, Oxford, Conn.

M. Wheeler, Oxford, Conn.
I claim the head A, constructed with inclined slots or openings, substantially as herein shown and described, and for the purpose set forth. 72,349.—HARVESTER.—William N. Whiteley and Andrew

72,349.—HARVESTER.—William N. Whiteley and Andrew Whiteley, Springfield, Ohio.
We claim, 1st, The combination of the spring t, or its equivalent, with a harvester's clutch lever, for the purpose specified.
2d, The combination of the adjustable piece p, with the rear end of thehar, vester's tongue, substantially as set forth.
3d, Attaching the draught bolt R. Fig. 3, by which the team draws the machine, to the outer side of the tongue (that next the uncut crop), to obtain the advantages stated.
4th, The combination of an adjustable draught point, by which the team draws the machine, and an adjustable draught point, by which the team draws the machine, and an adjustable criver's seat, and a detachable grain platform, in a harvester.

5th, The construction and connection of the main frame and driver's seat of a harvester in such a manner that this seat can be shifted from one to another of the her cin-described places upon the frame, for the purpose estated, 6th, The platform B, or an equivalent thereof, constructed and connected to the finger bar and divider, in the manner and for the purpose set forth.
7th, The following arrangement of parts in a harvesting machine: The finger bar, substantially at right angles to its line of forward movement: the grain wheel, located so that is some portion of its hub shall be in the same vertical plane with the finger bar; the finger bar further backward than the axie of the cutter's diriving wheel; the grain wheel, placed so that its tread shall be as far inward as the point of the divider; a supporting metal plate, which always has a portion lower than the finger bar, and firmly secured thereto, while the divider and part of this plate are firmly connected by screw bolts.

8th, The adjustable guiding boars K, constructed and connected to the divider, as showl and descended and the the manner and force the cutter's as showl and descended and the the manner and connected to the

shall be as far inward as the point of the divider; a supporting metal plate, which always has a portion lower than the finger bar, and firmly secured thereto, while the divider and part of this plate are firmly connected by screw bolts.

8th, The adjustable guiding board K, constructed and connected to the divider, as shown and described, and for the purposes specified.

9th, Constructing and connecting a journal of a harvester's reel shaft to said shaft, substantially as described for the purposes specified, whether the reel pulley be made a part of this journal or not.

10th, In a harvester rake, the outer tooth of which moves over the platform faster than the inner tooth, and the points of the teeth faster than their other emis, connecting the inner end of the rake head to the main frame by means of a ball-and-socket joint, or its equivalent, the moving parts of which can always be kept in Snig working order, as set forth.

18th, Making the post 1', provided with a ball at its upper end, or an equivalent thereof, laterally adjustable, as and for the purpose set forth.

18th, Placing the cenier of motion of a harvester's automatic rake at the fruit degree of the thead of sait rake, as and for the purposes set forth.

18th, Placing the pitman by which a harvester's automatic rake at the fruit degree of the thead of sait rake, as and for the purposes set forth.

18th, Naking the pitman by which a harvester's automatic rake which has the outer tooth moved over the platform faster than the inner tooth, and removes the gavels heads foremost, a guiding areh X, which is above the rake head, and further inward than the inner tooth, and by which said rake is raised up anove the platform during its inoward stroke.

18th, The combination of a guiding arch X, and the rake carrier 3, or an equivalent hereof, with a harvester's automatic rake, which has the outer tooth moved over the platform faster than the inner tooth, and removes the gavels heads foremost, an arch, to carry the rake forward over the next gavel, when sa

connected to the maiu frame, substantially as shown and described, for the purposes specified.

25th, The adjustable raker's seat or stand 8', constructed and connected to the machine as shown and described, for the purposes specified.

72,350.—SPRING-BED BOTTOM.—George Widdicomb, Grand

Rapus, Mich.
I claim the combination of the slats or long sprites C, short springs, G, and blocks D, hinged to the blocks or bars E, by clastic binges F, with each other and with the frame A B, substantially as herein shown and described, and for the purpose set forth.

the purpose set forth.
72,351.—Boot Tree.—F. S. Wilt, Allentown, Pa.
Iclaim, ist, The bar E, the plates e f and g, constructed and arranged as described, in combination with the curved or convex surfaces c and d, for the purposes set forth.

24. The slide J, and the lever h, arranged and operating as shown and described, in combination with the bar E, and plates I and g.

72,352.—Brick for Pavements, etc.—Robt. Wright, Phil-

72,352.—BRICK FOR PAVEMENTS, ETC.—ROUG. WITGHE, I III-adelphia, Pa.
I claim a clay brick, having pieces of metal set into it, and coming to its surface, substantially as and for the purposes nerein set forth.
72,353.—Coffee Por.—John Zimmerman, Royalton Center,

N.Y.
I claim the coffee pot above described, consisting of the boiler A, chamber D, strainer E, cover F, and tube G, bearing the chambers H and I, all arranged and combined substantially as and for the purpose specified.
72.354.—CULINARY BOILERS.—John Zimmerman, Royalton

72.354.—CULINARY BOILERS.—GUIN ZHIBITATION, AND CENTER, N.Y.
I claim, 1st, The boiler A, having the central cone C, with perforated top, mubstantially as and for the purpose described.
2d. The detachable and foraminated bottomless vessels E G, substantially as and for the purpose described.
3d, The vessels S, substantially as described.
4th, The arrangement and combination of the boiler A, having the central cone C, with the cylinders D and F, or either of them, containing the bottom-less vessels E G, and the inclosed cooking vessels, substantially as and for the purpose described.

72,855.—MANUFACTURE OF BASE BALLS.—Henry A. Alden

Matteawan, N. Y., assignor to New York Rubber Company.

I claim, 1st, a compound, formed of rubber mixed with the ingredients herein named, or their coulvalents, in the proportion substantially as specified, which, when vulcaolzed, will have the hardness and elasticity required for base balls or other like articles, substantially as set for th.

2d, A base ball or other like article, made of the compound herein specified, the said compound being molded to the form required, and vulcanized, substantially as set forth.

72,356.—MANUFACTURE OF SMOKING TOBACCO.—Jonathan

2,350.—MANOT ACCUME Ball, Elmira, N. Y. I claim the mode herein specified of preparing stucking tobacco. 12,357.—APPARATUS FOR PREPARING PEAT.—Cyrus W. Bald-

win, Boston Mass.

I claim, 1st, The method herein described of effecting simultaneously the desiccation of peat, and its formation into bars or blocks, by subjecting the said peat to the action of centrifugal force, within a vessel constructed and operating substantially as shown and specified.

2d, The peat receiving vessel and diaphragm or partitions within the same, in combination with the bell, B, substantially as and for the purposes shown and specified.

72,358 — TRIPOD FOR SURVEYING INSTRUMENTS.—J. W. Barlow, U. S. Army.

I claim producing lateral adjustment on the tripod by means of the clamping plates or surfaces, B B, and the tightening screw, C, substantially as and tor the purpose herein specified.

Also the central vertical aperture, d, through the adjusting screw and nut, and through the adjusting plate, for applying a plumbandline, substantially as set forth.

72.359.—Well Tube.—M. L. Bassett (assignor to himself

72,359.—Well Tube.—M. L. Bassett (assignor to himself and Egbert E. Pardee), West Haven, Conn.

I claim the arrangement described of the drip tube, F, and well tube, A, with the tube, B, when the said tube, B, is provided with a conical strainer or filter, E, substantially as herein set forth.

72,360.—Dredge Boat for Excavating Rivers.—Edwin L. Brady, New Orleans, La.

I claim, 1st. A dredging boat constructed with a series of water-tight compartments so proportioned and arranged that as they are filled with water the boat shall preserve an even keel, and the dredging mechanism be brought into action without any adjusting devices, substantially as set forth, 2d, The combination of the mudfan, A, attached to a rigid shaft, and a boat containing a series of water-tight compartments, E, so adjusted as to cause the boat to settle on an evenkeel, as the compartments are filled with water, and a pump, B, for exhausting the water from ail the compartments, substantially as set forth.

72,361.—Combined Low Water Indicator and Safety Valve—Charles Burley, Cincinnati, Ohio.

VALUE — Charles Burley, Cincinnati, Ohio.
I claim, 1st, The safety valve, C", affixed to a gravitating pipe, C C', which communicates with the water space, and is provided with a graduating lever F, in the manner and for the purpose set forth.

2d, the arrangement of bent tube, C C', and valve, C', globe, D, bar, F, and adjustable weights, K, substantially as herein set forth.

72,362.—LOOM FOR CIRCULAR WEAVING.—John Buser, New York-city

York city.

I claim, 1st, A series of warp movers acting radially and moved by the mechanism shown, in combination with a shuttle revolved between the warp threads by the gearing, arranged and operating as set forth.

2d, The arms, e, in combination with the shafts, g1 g2, and disengaging mechanism for stopping the machine if a warp thread breaks, substantially as set forth.

"2d, The arms, a in combination with the shafts, gl e2, and disengaging mechanism for stopping the machine if a warp thread breaks, substantially as set forth.

3d, The bow, 19, applied in the sbuttles, in combination with the disengaging mechanism, substantially as set forth.

72,363.—STEAM PUMP.—A. S. Cameron, New York city.

I claim, 1st, The guide rod, D, resting in a socket, F, in the iseat of one valve, and extending through the seat of the other valve, and operating in combination with the valves, B B, substantially as set forth.

2d, The-projection, H, on the inner surface of the lock nut, G, in combination with the case, A, guide rod, D, valves, B B, and valve seats, CC', substantially as and for the purpose described.

73,364.—BINDER FOR PAINT BRUSHS.—J. F. Canning, Boston, Mass.

Mass.
I claim the binder, D, as made and applied, when coated with a mixture omnosed of shellac and mastic dissolved in alcohol, in the manner and for

composed of shelfactand massive disserved a scott the purposes set forth.

72,365.—KNIFE.—N. W. Caughy, Baltimore, Ma.

12,360.—RNIFE.—N. W. Caugny, Daithmore, Ma.
I claim as a new article of manufacture a knife constructed and arranged to operate substantially as herein shown and described.

72,366.—FINISHING WOOD.—Geo. Chambers, Ithaca, N. Y.
I claim the preparation made of the ingredients and colors and used substrutially in the manner and for the purposes specified.

72,367.—SCHOOL DESK AND SEAT.—C.T. Chase, Albany, N.Y.
I claim the combination and arrangement of the standard, D, with the hinged seats, C., horizontal bar, o, and desk, A, substantially as and for the purposes set forth.

72,368.—Glass Bottle Mold.—James. J. Christie, Baltimore, Md.

I claim, 1st, The movable panel or slide, E, used in combination with the mold, either uponits sides or bottom, and provided with suitable inscriptions, substantially as set forth.

2d, The bed plate, B, provided with the openings, a a, to allow of the escape of small particles of glass, substantially as herein set forth.

72,369.—Improvement in Organs, etc.—B. O. Church and

Hervey Smith, Brattleboro, Vt.
We claim the beveled piece, E, in combination with the levers, C, frame, B, and screw pins, a, forming a fulcrum for the levers, C, and holding them in place be means of the pins, k, substantially as shown and described.

72,370.—WAGON BRAKE.—B. R. Codwise, Montrose, Md.
1 claim the combination and arrangement of the lever, K, with the tongue
of a wagon, a ratchet or catch plate thereon, a sliding brake bar and brakes,
operating against the front weeds of the wagon, and an intermediate crank,
having suitable connecting rods, all substantially as and for the purpose
herein set touth.

herein set torth.

72,371.—Machine for Rounding Corners of Slate
Frames.—Eleazar Coffin, Flicksville, Pa.
I claim, 1st, The pulley frame, B, belt, K, and spring, O, or equivalent, in
combination with the mandrel, M, mounted on a swinging frame, N, and the
operating key, R, or its equivalent, substantially as and for the purpose described.

2d, The swinging frame, N, carrying the cutter head, P, for the purpose
substantially as described.

substantially as described.
72,372.—Nozzle for Hose.—Mosely S. Curtis and Geo. W. Harris. New York city.

Harris. New York city.

We claim the tongues, e, stems, b', and toothed sectors, c, in combination with the body. A, and the amular rack, m, of the shell, D, substantially as and for the purpose specified. 72,373.—BINDING BOOKS.—William Daniels, Brooklyn, N. Y.

Telaim the strip of cloth applied to the fold of the central sheet of the section of a box, in combination with a long slot or opening in said sheet of paper at the fold, for the reception of the thread used in sewing the book, as specified.

72,374.—Grain and Straw Separator.—Levis H. Davis,

Newark, Del., assignor to Castro & Co.

I claim the combination, substantially in the manner described, of the screens having a rectiprocating, longitudinal, undulating motion, with the interposed center bar, having a rectilinear movement, for the purpose of thoroughly sgita ting and rapinly discharging the straw.

Also the notched reciprocating center bar, ar ranged and operating as described.

scribed. 72,375.—Sulky Plow.—Ireneus Donaldson, Toledo, Iowa.

I claim, let, In combination with the plow and carriage frame, the compound levers, I I', and casters. H H', placed in front and rear of the plow for regulating the cut, substantially in the manner set forth.

2d, In combination with the driver's seat, G, the oscillating arm, L, cord, K, and adjusting levers, I I'. arranged substantially as and for the purpose set forth.

72,376.—Lamp.—Levi F. Drake and Enoch Egginton, Port-

land, Me.
We claim, 1st, Making the cone with the ribs and small projections at the bottom, as and for the specified purposes.
2d, The chimney fitting over the cone when held on the same, as specified, and constructed with the grooves, as and for the purposes set forth.

72,377.—FRUIT DRYER.—Delectus Durfee, Fort Seneca, O. I claim, 1st, The drawers, L L, arranged together within dovetailed grooves in the partition boards, C C, and connected by the pins, a, in their rear rails, as and for the purpose set forth.

2d, The grooved and hinged supporters, H, the drawers, L L, the stays, J, and arms, I L, arranged and used as and for the purpose set forth.

72,378.—PADLOCK.—Herman Eiffler, New York city.
I claim the lever stop, D, in combination with a series of loose tumblers, B. provided with hooks, c, and forming the bolt of a padlock, and loose false tumblers, B, situated as described, the tumblers being operated by a key through the opening a, in the side of the padlock, to open or lock the same, substantially as and for the purpose set forth.

73,379.—WARP FEEDING MECHANISM FOR LOOM.—Alfred B.

Ely, Newton, Mass.

I claim, 1st, The feed rolls, EF, arranged as described, and operated directly from the lay, for the purpose set forth.

2d, The combination, substantially as described, of the yarn beam and lay with the rubber feed rolls actuated directly from the lay, for the purposes

72,380.—Head Block for Saw Mill.—Charles R. Ely,

Northfield, Vt. I claim, ist. In combination with the transverse gages of a saw mill, the ostition of which determines the thickness of the material cut from the tock, the pawls, k and k', when arranged to operate substantially as decrined

stock, the pawis, k and k', when arranged to operate substantially as described.

2d, Also a rack bar carrying two or more inclines rigidly secured thereto, substantially as and for the purpose set forth.

3d, Also the plates constructed substantially as described, having a flange turned up in one direction on the inclined side, and a flange turned parallel with the rack bar on the straight side, and applied substantially as and for the purpose set forth.

4th, Also in combination with the pawis, k', the detaining pawls, p, when constructed and arranged to operate in connection with inclines and gages, substantially as described.

5th, Also the combination of the pawls, k' k, their traversing bar, and their supporting lever, with the lever, h, and its indicating segment and pins, constructed and operating substantially as described.

6th, Also in combination with the transverse gages, the index finger and rotary scale, constructed and operating substantially as set for th.

72,381.—MACHINERY FOR TANNING.—Charles N. Farnam, Nor wich, Conn.

72,381.—MACHINERY FOR TANNING.—Onaries 1. 1 and 1. Norwich, Conn.
Iclaim, 1st, The winding of ropes, F.F., on drums, N.N., one side winding over and the opposite side winding under the drums, thereby raising both sides of the frame, 6. equally, substantially as shown and described.
2d, Arranging the shaft to which the motive power is applied, by the combination of wheel, L, and pinion, P, having a ratchet, p, and pawl, p', worked by a windlass N, all arranged so as to pass the posts, thereby avoiding interference in transition from vat to vat, as specified.
3d, The construction of the frame, G I l', having a shoulder to rest on sides of vat, with lower edge or ends, I, and movable bars, I', of the frame immersed in the liquor in the vat, when the frame is down, substantially as shown.

mersed in the liquor in the vat, when the traine is uoun, successfully as shown.

4th, Also the two forms of hooks, J J', one for ends of frame and one for movable bars, keeping the hides or skins at a suitable distance from each other, so that they will increase in thickness on exposure to the air when raised, and during the process of tanning; also allowing the hides or skins to drain when raised from the vats, thereby facilitating absorption, substantially as herein described and for the purpose specified.

72,382.—PEN HOLDER.—D. D. Foley, Washington, D. C. I claim two pens so united or fastened together, back to back, in a holder socket, as to form a fountain or reservoir between the nibs or points, substantially as set forth.

72,383.—STEAM PUMP.—J. B. Gardiner and Edward H. Hyde, Springfield, Mass.

(2,385.—STEAM IUMI.—). L. Guerral Hyde, Springfield, Mass. We claim, 1st. The arrangement of the valves, E and H. pistons, G G', ports, and e, e' and i', y and z y', and z', substantially asherein set forth. 2d, The arrangement in connection with the said valve gear, of the valve od, c, steam piston, A, plunger, E, and reservoir, C, substantially as set

72,384.—OIL CAN.—J. B. Gayle, Raleigh, N. C.

72,504.—OID CAN.—J. D. Gayle, maleigh, N. C.
I claim the rods, D.P. with the packing as described, and used with the can A, and handle'C', said rods being provided with cone-shaped top and coil spring, x, respective y, and operated in the manner substantially as and for the purposes described.

72,385.—STRAP FASTENING.—Rodmond Gibbons, San Francisco

cisco, Cal.

I claim the band fastening composed of the two plates or portions of plate onfined together, one plate having a tooth or long spur, which projects fown into or toward a groove in the opposite plate, substantially as shown and described. and described. 72.386.—Plow.—Andrew Gilmore, Phœnixville, Pa.

(2,350.—F-DOW.—Anathew Children of the constructed of two bleens, i.g., attached together in such a manner as to render the blade adjustable in 12.2 th. 2d, The adjustable frame, F. in combination with the wheel, W, and eccentric, G, when used in connection with a plow, substantially in the manner and for the purposes specified.

3d, The combination of the adjustable frame, F, wheel, W, eccetric, G, arm F, lever, H, pitman, I, and pivoted cleaning blade, J, when the latter is arranged to work on the left side of the coulter, C, substantially as and for the nurpose specified.

ranged to work on the left side of the counter, C, substantially as and for the purpose specified.

4th, The adjustable handles, DD, when used in connection with a plow, substantially as and for the purpose specified.

72,387.—MACHINE FOR SQUEEZING PUDDLED BALLS OF IRON.
—Samuel Gissinger, Lawrenceville, Pa.
I claim the corrugated jaws, A and B, constructed, arranged, and operating substantially as acrelic described and for the purpose set forth.

72,388.—MACHINE FOR SQUEEZING PUDDLED BALLS OF IRON.
—Samuel Gissinger, Lawrenceville, Pa.

16,900.—MACHINE FOR SQUEEZING I OF TRON.—Samuel Gissinger, Lawrenceyille, Pa.

I claim squeezers constructed, arranged, and operating substantially as hereindescribed and for the purpose set forth.

72,389.—COAL BORING BIT.—Samuel Gissinger, Manchester,

Painthe bit or cutter, A, provided with the entering point, B, scoring and cutting points, e and f, and guide, d, substantially as herein described and for the purposesset forth.

72,390.—Coal Minning Machine Drill Carriage.—Samuel Gissinger, Allegheny City, Pa.
I claim the drill carriage constructed as herein described, and provided with drill bars made operative through the medium of the wheels, w w1 w2 in and g, arranged and operating in the manner and for the purpose set forth.

In and g, arranged and operating forth.

Also in combination with the above the screw, e, and the clamp screw nut, x, constructed, farranged, and operating substantially as herein described and for the nurrouseset forth.

72,391.— RAM FOR VESSEL.— William Hagerty, Monon-

72,591.— While FOR VESSEL—William Registy, should gabela. Pa. I claim the releasing ram. D. provided with sharts, i. furnished with screw threads, o, said ram being made operative through the medium of the revolving nuts, e, the whole being constructed and arranged substantially as herein described, and for the purpose set forth.
72,392.—MACHINE FOR FEEDING NAIL PLATES.—Franz Hain, Gescondactonity, Mo.

(2,392.—It ACHINE FOR FEBRUARY GRACON AND ACTION OF THE CONTROLL OF THE CONTROL OF T

I claim, ist, The support block, E. and adjusting piece, F, constructed and combined substantially as and for the purposes set forth.

2d, The holder, D, its boss, i, combined with the block, E, links, Ki K, arm, y, and lever, Y, when acting substantially as and for the purposes set forth.

3d, The combination of the adjusting piece, F, with the main frame at f, and with the guide-bar, fi, and set screw, f2, when acting substantially as and for the purposes set forth.

4th, The combination of the pawl, y, the wheel, y1, and lever, Y, substantially as and for the purposes set forth.

5th, The combination of the disk, G, pins, g, and arms, g1, and vertical shaft, g2, substantially as set forth.

72,393.—MACHINE FOR CUTTING AND WORKING FIBROUS

(2), 395.—MACHINE FOR CUITING AND WORKING FIBROUS SUBSTANCES.—Albert W. Hale, New York city.

I claim, 1st, The making the flanges on the rolls thicker and of greater diameter at the feeding end of the machine than they are at the delivery end thereof, and the making of such flanges to gear into or lap by each other more deeply at the feeding-end of the machine than they do at the delivery end.

2d, In combination with a machine for cutting or working soft and adhesive materials, operating substantially as described, the arrangement of a water champer and distributing orifices, ft, substantially as and for the purposes set forth.

et forth.

2,394.—Trace Fastener.—Benjamin J. Hartman, Wooster, assignor to himself and George Liegett, Jr., WayneCounty, Ohio.

I claim the plate, D, as constructed, when used in combination with the
ucs, A and C, and the keeper, F, substantially as and for the purpose get

72,395. — Rocking Chair. — Edson Hartwell, Hubbards-

ton, Mass.

I ton, Mass.

I tolaim, ist, The combination with the frames into which the chair is divided, of the spiral springs, H, and toothed arms, D, arranged for operation in somection with the racks, G, as and for the purposes set forth.

2d, The combination with the springs, H, and cross pieces, I and J, of the

72,396.—Animal Trap.—Wm. Huntington, Howell, Mass. I claim the arrangement and combination of the gated apertures, FG, and tilting platform, H, with the box compartments, C and D, the latter being lighted, and containing brine or other antiseptic liquid, substantially in the manner and for the purpose herein specified.

72.397.—ROAD LOCOMOTIVE.—E. C. James, Baltimore, Md I'claim the combination of the open wheels, with a road wagon, to be driven by steam, or other equivalent motive power, when operating substanfially as required. 72,893.—Spring Bed Slats.—Platt C. Ingersoll, Green-

point, N. Y.

Icalim the springs, f and g, in combination with the sheet metal slat bars,

B, and arranged in relation to the end and horizontal portions of said slat

bars, substantially as and for the purposes specified.

72,399.—DITCHING MACHINE.—Henry C. Ingraham, Tecum-

seh, Mc. The wheel, K, when constructed with parallel flanges, united sclivly bars, K', substantially as set forth.
2d, So connecting the driver's seat, Q, with the plough and frame, by means of therods, O', that the weight of the driver, and mechanism behind the axle, shall counterbalance that placed in front of the axle, substantially in the manner set forth.

axle, shall counterbalance that placed in front of the axle, substantially in the manner set forth.

3d, The combination of the flanged wheel, K, with the belts, M and N, between which the earth is elevated, substantially as set forth.

4th, The combination of the plough, L, wings, L2, belts, M and N, and wheel, K, substantially as set forth.

5th, The combination of a flanged wheel, K, with bars, K', and intermediate open spaces, with the carrying belt, N, substantially as set forth.

6th, The combination of a flanged wheel, K, wheel, K', plough, L, lever, T, and rod, T', substantially as and for the purpose set forth.

7th, The combination of the plough with the guides, R2, substantially as set forth.

8th, Incombination with the wheel, K, the adjustable extension slide, P, substantially asset forth.

9th, The combination of the notched frame, O, lever, O', pawl. S2, rod, S1 and foot lever, S, substantially as set forth.

10th The combination of the lever, H, axle, G, ratchet wheel, I, and pawl, P, said parts being constructed substantially as and for the purpose set forth.

forth.

11th, In combination with the plough, L, the adjustable shoe, L1, substantially as and for the purpose set forth.

12th, The combination of the flunged wheel, K, belt, M, hinged arm, M2 pulley, M1, and spring, M4, arranged in operate substantially as set forth.

13th, So constructing the main frame that the wheels may, by folding the parts of the frame, be adjusted to a wider or narrower tread, shift stantially in the manner set forth.

72,400.—CUTTING TOOL.—Gustav L. Jaeger, New York city claim the combination of the slotted and shanked stock, A, guide frame in cutter, B, bearing, C, and screws, b c, all arranged substantially as set

forth.

72,401.—SLED.—John Johnson. Boston, Mass.

I claim a sled, in which the top or seat, B, is secured, at or near its forward end, to the front cross bar by hinges, b and b, while its rear end is supported by means of a spring, c, when such is coundment with a steering upperatus, as described, the whole being constructed, arranged, and operated in the manner and for the PATPOSTS set forth.

72,402.—FENCE.—John B. Johnson, Laurel, Ind.

I claim the mode of constructing the fence and systating, it by ning C. a.

I claim the mode of constructing the fence, and sustaining it by pins, C, a the top of the braces, so arranged, in relation to the other parts, that they will first yield to force of currents of water, and permit the panels and braces to swing freely in the stream on the pins by which they are attached to the ground posts, substantially as set torth.

72,403.—FASTENING WEARING APPAREL, SHOES, ETC.—Rosewell Ludgon and William H. Lynch.

72,403.—FASTENING WEARING APPAREL, SHOES, ETC.—Roswell Judson and William H. Lynch, Matteawan, N. Y. We claim the herein described device for instening wearing appared and other like articles, the same consisting of a double lawed slide, Cast or otherwise formed in one piece, an provided with perforations, c. c., in the manner specified, so as to admit of two or more of said slides being connected together, as and for the purposes set for the.

72,404.—HORSE RAKE.—J. E. Kendall, Plymouth, Ind., assign to J. E. Kendall, and Charles Whitmere.

1 Claim the hinger rake head, G. G. G., provided with teeth, J.J., and connected to the bar, K., by the springs, M., as described, said rake head being connected to the bulky radue, Aud Edulation the tothed bar, R., and cord. N. passing over the pulley at the Griver's seat, the whole constructed and operating substantially as described.

72,405.—CONSTRUCTING CAR WHEELS.—Cornelius Kingsland, McKueuport, I.a., assignot to himself and I. K. Morange. I claim the winthod herein described for constructing car wheels.

72,406.—SCAFFOLD.—A. S. Skinner, Volga, Ind.

1 claim the construction and arrangement of the frame, B. B, diagons

72,406.—Scaffold.—A. S. Skinner, Volga, Ind.

1 claim the construction and arrangement of the frame, B B, diagona braces, C C, plates, D proflers, d d, together with the sliding beams, E E, thimbles, e e, sheaves, fg c k, cord, a, gearing, h, pawl, n, ratchet, o, cranks, m x, and metallicshoes, w w, or their equivalents, when in combination, substantially as and for the purposes specified.

72,407.—Clothes W RINGER.—David Lyman, Middlefield, Conn.

1 claim, 1st, Inwringing or otherlike machines, having cog wheels on each end of the roller shafts, providing said cog wheels with fianges or circular plates upon their exterior faces, as herein described, so that while preventing themeshing of the cogs beyond a certain limit, they shall afford additional support and strength to said cogs, substantially as set forth.

2d, in wringing or other like machines, having fanged or disked cog wheels upon each end of the roller shaft, making all said disks or flanges with equal diameters, so that when the disks or flanges of the continuous cogwheels are in contact, they shall move with a rolling in contradistinction to a sliding friction, as and for the purposes set torth.

72,408.—Permutation Lock.—Isaac W. Lamb, Salem, Mich.

72,408. — PERMUTATION LOCK. — Isaac W. Lamb, Salem, Mich.

I claim, 1st, The combination of the spindle, D, the pin or pins, e.e., and key, n', with the wheels, C, when constructed and operated substantially upon the principle described.

2d, Also, producing the various combinations. by placing the wheels, C, in the lock in different order, substantially as specified.

3d, Also, the combination of the spring, F, with the pin wheel, E, as and for the purpowtheren explained.

4th, A. Mol. split: Be the serew, g, at g', for the purpose specified.

72, 400.— MIODE OF COUPLING SHELLS TO ROLLERS.—J. M. Mason, New Albany, Ind., assignor to himself, Oscar T. Higgins, Charles E. Wilson, and Samuel Adlam, Jr.

I claim, 1st. The shell, B, coupled to the roller, A, by means of the dovertailed tongue, z, litting into the groove, x, all being constructed substantially in the manner and used as and for the purposes set forth.

2d, Utilizing the old roller by means of the shell, when connected together substantially as specified.

substantially as specified.

72,410.—Instrument for Expanding Finger Rings.—

1 Lewellyn Mason, Rochester, N. Y.

1 Claim, 1st, The improved instrument for stretching finger rings, constructed, arranged, and operating substantially as herein set forth.

2d, The combination, with the expanding shaft, R, and the core, C, of the scale, 12 3, etc, arranged substantially as described.

72,411.—Grading and Ditching Machine.—Arthur A.

Maywell Pratt Onio

2d, The combination, with the scale, 12 3, etc, arranged substantially as described.

72,411. — GRADING AND DITCHING MACHINE. — Arthur A. Maxwell, Pratt, Ohio.

I claim the frames, A.E., ploughs, B. B., inclined plane, C, belts, D.F., wheels, R.S., band, T, and Grack, N, with crank shaft, W, the whole arranged and combined with their respective devices for operating in the manner substantially as and for the purposes specified.

72,412. — MANUFACTURE OF ARTIFICIAL STONE. — David McCaine and William McCaine (assignors to themselves and Daniel McCaine), Groton, Mass.

We claim an artificial stone, made of materials and in the manner substantially as described.

72,413.— Holler Feed Regul, Ator.—William McCormick, Philadelphia, Pa.

12,415.—150ILER FEED REGULATOR.—William McCormick, Philadelphia, Pa.

I claim, 1st, The combination of the rod, H, with the whistle, K, supply 20tk, D, float, G, and index, F, substantially as described.

2d, Tlustot, c, of the rod, H, in combination with the pin, f, arm, d, of the whistle, K, and arm, G, of the cock, D, substantially as described.

12,414.—BURNER FOR HYDROCARBON FLUIDS.—Rufus S. Merrill, Boston, assignor to himself and William Carleton, Charlestown, Mass.

72,414.—BURNER FOR HYDROCARBON F'LUIDS.—Kutus S.
Merrill, Boston, assignor to himself and William Carleton, Charlestown,
Mass.
I claim, 1st, A burner for hydrocarbon fluids, in which the base or lower
portion, when provided with a cap which covers or incloses the apertures
leading; to the duid reservoir, is combined with the deflector and chimney
holder of the sa d burner mounted upon the with the deflector and chimney
holder of the sa d burner mounted upon the with the elector and chimney
holder of the sa d burner mounted upon the with the substantially in the
manner herein set forth, and for the purpose specified.

2d, The combination with the wick proven and capped or covered base of the
burner, of the chimney holder, deflector, and sleeve, fitting upon said wick
tube at a point above said covered base, under the arrangement herein
shown and described.

3d, The combination with the wick tube, and the sleeve which carries the
deflector and chimney holder, of the friction spring, for holding said sleeve
upon the tube, substantially as set forth.

72,415.—GAS BURNER.—George Mooney, Providence, R. I.
I claim the combination of screw, C, with the base or prikar of a common
argand, or other burner, with the cup, E, arranged with theopening, D, for
the purpose specified.

72,416.—FAN BLOWER.—Nathan Parrish, Kalamazoo, Mich.
I claim; ist, The pendulum fran, C, vibrating with the rock shaft, B, in close
proximity with the stationary sides and bottom of the triangular case, A, in
combination with the inlet and outlet valves, c and d, arranged and operating levers, and the air-box or receiver, D, the whole constructed and arranged in the manner and for the purpose set forth.

72,417.—STIRRUP.—Elizur Pond, New Haven, Conn.
I claim a strrup, consisting of the metal shell, a, provided with an eye, A
and the lining b, the whole constructed substantially as herein set forth.

72,418.—Bone And Plaster Mill.—Samuel W. Powell,
Brookville, Md.
I claim, ist, The clearers of discharging devices, f, applied within a space
the

s, enclosed by the shells, C B, of a crushing machine, substantially as and for the Durpose described.

2d, Applying the clearers if, to a toothed ring, C', which is supported within the annular space, S, and driven by means substantially as described.

3d The reversible perforated case, or division, C, applied to a machine operating substantially as described.

4h, The construction of the cover, A, with a central, elevated, hollow enargement, A1, forming a chair for receiving a vertically adjustable journal-box, which, supports the upper end of the spindle, D, substantially as described.

5th. The arrangement, within a perforated case, C, of one or more revolv

scribed.

5th, The arrangement, within a perforated case, C, of one or more revolving arms, carrying removable and reversible square-faced hammers, d, substantially in the manner and for the purpose described.

6th, The vertically adjustable journal box, bf, supported upon a chair formed on cover, Al, and adapted for receiving the tapering end, C, of the spindle, D, substantially in the manner and for the purpose described.

7th, The step, h, constructed with perforations in it, substantially as described.

7th, 'The step, n, constructed with per language in the step, h, and with sth, The construction of the oil cup, L, for receiving the step, h, and with a journal box, L', for receiving the foot piece, g, substantially as described.

72,419.—Apparatus for Fumigating Plants.—C. C. Pres-

72,419.—APPARATUS FOR FUMIGATING FLANTS.—C. C. Freston, Bayland, Texas.
I claim, 1st, A combination of the retort, A, with the flexible tube, F, substantially as described.
2d, The combination of the retort, A, tube, F, and bellows, C, substantially as and for the purpose described.
3d, The combination of the retort, A, tube, F, bellows, C, and carriage, substantially as described.
72,420.—DEVICE FOR EJECTING HOT WATER ON WAR VES-

72, 420.—176VICEFOR EJECTING HOT WATER ON WAR VESsels.—Abbott Q. Ross, Cleves, Ohio.

I claim, 1st, The combination of the boiler, A. condensing pipe, b', and the
leavible hose pipes, c and c', connected therewith, arranged in a war vessel
substantially as and for the purpose described.
2d, in combination with the boiler A, and the pipe, b', the revolving
lipe, d, with nozzle capable of being elevated and depressed by the means
and for the purpose substantially as described.
3d, In combination with the boilers and revolving pipe, as described, the
evolving turret, substantially as and for the purpose set forth.

4th, In combination with therevolving, swivel jointed pipe, d, the spreader,
swithlever, l, for operating the same, substantially as and for the purpose
ter forth.

set forth.
72,421.—BRICK MACHINE.—Wm. Sangster, Joliet, Ill., assignor to himself, James Floyd Michael Kero, Wm. P. Dellman, John Smith and George Stuffer.
Iclaima brick machine, consisting of the case, A, having shaft, B, arms, a

and slotted bottom, D. arranged with the slotted plates, E, with their rollers, H, for the vertical adjustment of the mold frame, F, provided with its knives, II, all constructed and operating as and for the purposes set forth. MANUFACTURE OF CORRUGATED BELLS.—George S.

Saxion St. Louis, Mo.

I claim the bell, A, when it is formed in corrugations, substantially in the marker and for the purpose set toth.

HOPER COLLARS.—August

1 cain the bell, A, when it is formed in corrugations, substantially in the mather and for the purpose set touth.

72,423.—MACHINE FOR FILLING HORSE COLLARS.—August schrick and Henry Hidenbrand (assignors to themselves, F. C. Krayer and C. R. Schrick), St. Louis, Mo.

We claim, 1.t., the scraper or scrapers, f. fl., and their combination with the rock shaft, 4, snbstantially as and for the purpose set forth.

2d, The combination of the rotating shaft, H, and its prongs, h, with the rock shaft, I, and its prong, i, substantially as set forth.

3d, The eccentric bar, G, the shaft, 14, and the shaft, H, when combined and acting substantially as and for the purposes set forth.

4th, The combination of the eccentric bar, G, with the shaft, substantially as and for the purposes set forth.

5th, The arrangement of the partition piece, K, in the hopper, F, substantially as and for the purposes set forth.

72,424.—Wagon SEAT.—Jacob Sebastian, New York city.

1 claim the spring arms, B, links, a. and spring slides, D, in combination with the seat, A, and uprights, C, substantially as and for the purpose described.

Also, the loops, b, and screws, e. in combination with the warrights. C service.

with the seat. A, and uprights, C, Substantian, as a scribed.
Also, the loops, b, and screws, c, incombination with the uprights, C, spring slides, D, arms, B, and seat, A, constructed and operating substantially as and for the purpose set forth.
72,425. — W AGON SPRING.—Jacob Sebastian (assignor to himself and Lewis Saal), New York city.
I claim, Ist, A clamp, A, composed of cross bars, a b, keys, c, and wedges, to act in combination with the clips, D, substantially as and for the purpose described.

pose described.

'd. Providing the edges of the leaves of the spring with grooves or notches, to admit the edges of the keys, c, substantially as and for the purpose de-

to admit the edges of the keys, c, substantially as and for the purpose described.

31, Providing the spring, at one or both ends, with an oblong eye, substantially as and for the purpose described.

72, 426. —STEAM BLOWER.—L. F. Smith, Philadelphia, Pa. I claim, 1st, The spreader, E, constructed and arranged within the pipe, A, with its particlions, B B, in the manner and for the purpose set forth.

2d, In combination with the spreader, E, in the pipe, A, with its partitions, the solid pipe or casting, D, having orifices, e'e', and screw thread, all constructed and operating as specified.

72, 427.—GAGE FOR SETTING WAGON AXLES.—David F. Stratton, Christiansburg, Ohio.

I claim a reversible gage for the purpose set forth having on one side the adjustable standard, B, fixed standard, C, and adjustable swing, D, and on the other the longitudinally adjustable standard, B, ince substantially as desarried.

72, 428.—ARTIFICIAL PLATE FOR TEETH.—Leander R. Streeter, Chelsea, assignor to Alfred B. Ely, Newton, Mass, trustee.

er, Chelsea, assignor to Alfred B. Ely, Newton, Mass., trustee.
I claim, ist, The use of hard resins, or resinous bodies, mixed with fibrous rextilematerials, and shaped by means of heat and pressure, substantially is describe.

or extuemateriais, and snaped by means of heat and pressure, substantially as described.

2d, The use of thin plates of metal, horn, shell, gutta percha, wood, or other suitable material, canable of being pressed into shape, between or in combination with layers of resinous and fibrous compound, as and for the purposes abhistantially as described.

3d. Also, as a base for artificial teeth or gums, the use of fibre or fibrous material, saturated or mixed with lac, or other suitable substance, which, when heated and pressed, will assume the proper shape, and possess or acquire the proper nardness and elasticity, substantially as described.

72,429.—COFFEE MAKER.—J. Warren Thyng, Salem, Mass. I claim the conical distributing chamber, f, arranged under the condenser, substantially as and for the purpose herein specified.

Also, the inverted perforated cone, i, in the bottom of the receptacle, B, in combination with the distributing chamber, f, substantially as and for the purpose specified.

combination with the distributing unature, 1, 2 more purpose specified. Also, the extended flange, m, on the receptacle, for the purpose specified. Also, the combination of the condenser, A, constructed substantially as described, with the receptacle, B, constructed substantially as set forth.

Also, the combination of the condenser, A, constructed substantially as described, with the receptacle, B, constructed substantially as set forth. 72,430.—TONGUE-SUPPORT FOR RAILROAD STREET CARS.—John M. riernan, Pittsburg Pa.

I claim the mode of supporting the tongues of street-cars and other vehicles or machines, while the same are being moved from place to place, or changed from one end of a car to the other, by the use of a curved or bent metallic bar or rod, attached to or swung under the tongue, together with the mode of operating the said bar by a lever fastened thereto acting against a bolt fixed to the tongue over the said bar, as the same is herein above described.

scided.
72,431.— MANUFACTURE OF LIQUIDS FOR MAKING ICE, AND

72,451.— 3JANDFACTURE OF LIQUIDS FOR MAKING ICE, AND FOR OTHER PURPOSES.—Pieter Hend. Vander Weyde, Philadelphia, Pa. I claim, 1st, The manulacture of hydride of propyle or chimogene, from the so-called non-condensable gases escaping from any petroleum-still, by condensing them in a coil exposed to a freezing mixture, or by submitting them to a powerful pressure of a pump, or by both.

2d. The holling of crude or refined petroleum at the common temperature by the suction of a vacuum, agitating it, and condensing the vapors produced by cold or pressure, or by both, thus producing a highly volatile liquid, boiling at about 30 Fahrenhet, and corresponding with hydride of ethyle.

3d, Thie application of these liquefied gases, or of gasoline, or any other very volatile product of petroleum, to the making of ice and of cooling in general.

very volatile product of perroleum, to the making of ice and of cooling in general.

4th. The temporary preservation of dead bodies by the perfectly dry cold produced by placing in the coffin one or more long, narrow cylinders filled with the above described liquefied hydrocarbon gases, or with liquefied sulphinous soid, carbonic acid, or nitrous oxide, or their equivalents, from which cylinders the gas is slowly escaping, regulated by a stop-cock, and thus maintaining any desired low temperature, the escaping gas at the same time serving as a preservative and disidrectant.

5. The use of the above described or other products of petroleum, or the use of true petroleum, when escaping, either by their own pressure, or projected, as a spray, by the atomizing action of a blast of air, oxygen or nitrous oxide, for an illuminating and heating agent, either under a steam boiler using petroleum, in combination with a blast of air or steam, or both, as above described, or for a lime-light or blow-pipe, requiring only two very small vessels, each containing one of the liquefied gases—petroleum gas and nitrous oxide gas—as substitutes for the non-condensable hydrogen and oxygen.

72.432.—TAKING THE FORM AND MEASURE OF GENTLEMEN

72,432.—TAKING THE FORM AND MEASURE OF GENTLEMEN 72,432.—TAKING THE FORM AND MEASURE OF GENTLEMEN TO CUT COATS AND VESTS.—Theodore Vandoren, Sr., Washington, D. C. I claim the use of a series of jackets, with the seams thereof formed as herein described, in combination with the patterns, to correspond with said jackets, when said jackets and patterns are use together in the manner described, as a system for cutting gentlemen's coats and vests, herein fully set forth. 72,433.—Divider.—O. E. Weatherhead, Winchendon, Mass. I claim the device for holding a pencil, point, or pen upon the dividers, consisting of the chow, C, piece, E, with grove, c, and clamp, F, with serserew, b, arranged and combined substantially as described.
72,434.—Breech-Loading Fire-Arms.—D. B. Wesson, Springfield, Mass., assignor to the Wesson Fire-Arms Company.
I claim the slife, D, pushing-bar or bars, m, and studs, b' arranged in relation with each other, and with the extractor, C, and pivote, bar, E, substantially as and for the purpose specimed.

tially as and for the purpose specified.

72,435.— PEN-HOLDER.—H. F. Wheeler, Boston, Mass.

I claim a pen.holder, having sockets for two pens, substantially as described.

Application has been made to the Commissioner of Patents for the Reissue of

72,436.—Boring-Tool.—Albert Wippo, Chicago, Ill.
I'claim the above described tool for shaping the ends of the legs of furniture, constructed to operate substantially in the manner and for the purpose set forth.

72,437.—Stove-Pipe Damper.—G.B.Wiseman, Sycamore,Ill

the constructed to operate substantially as the manner and for the purpose serior for the constructed to operate substantially as and operate for the constructed substantially as and operate when arranged upon the frame, A in the manner and operating substantially as and for the purposes herein specified.

26,808.—MANUFACTURE OF BOOTS AND SHOES.—William N. Elystratford, Conn., assignee by mesne assignments of Francis D. Ballou and the purposes herein specified.

27,438.—It also the purposes herein specified.

38,879, dated August 7, 1866; reissue 2,811.—Tweer.—John Balyiss, New York citr.

28,879, dated August 7, 1866; reissue 2,811.—Tweer.—John Balyiss, New York citr.

39,989, dated August 7, 1866; reissue 2,812.—Horse Hold and the purpose sheet in specified.

30,836, dated August 7, 1866; reissue 2,812.—Horse Hold and the purpose of the connecting water and steam pipes. D after an operating substantially as described.

30,836, dated August 7, 1866; reissue 2,812.—Horse Hold and the purpose of the start of the same and operating substantially as described.

30,836, dated August 8, 1865; reissue 2,812.—Horse Hold and the purpose of the start of the same and operating substantially as described.

31, Foroiding a wing or black and the post of the same and the proporting the article at the point of the purpose described.

32, The spring, I, riveted to the arm, a substantially as described.

33, House For I and the purpose of described.

34, The spring, I, riveted to the arm, a substantially as and for the purposes described.

35, 1866; reissue 2,813.—Chimner Horse and for the purpose described.

36, 1866; reissue 2,814.—Rore Horse and the purpose described.

37, The spring, I, riveted to the arm, a substantially as selectibed.

38, 1866; reissue 2,814.—Rore Horse and t as set forth.

20,959, dated July 20, 1858; reissue 2,814.—RAILWAY SWITCH.—Mariette Smith, Ithaca, N. Y., assignee by mesne assignment of George R. Smith.

I claim, 1st, The described rack and pinion at the base of a perpendicular rotating or partially rotating shart, when combined with a spring lever and a circle or segment of a choic, said ever being fixed at right angles to the said shart, and playing on said of cover being fixed at right angles to the said shart, and playing on the said shart and playing on the said shart of said lantern, which lantern revolves wholly or in part when adjusted to the top of said shaft, said lantern having different-colored glasses, and revolving on an axis drawn perpendicularly through the center of said lantern and said said shart of the said shart of t

tern.

3d, Also, when in connection with a railroad switch and adapted thereunto, the construction and arrangement of the shaft, a a, the hand lever, h, and the segment or circle. E. s. a described

3d, Also, when in connection with a railroad switch and adapted thereunto, the construction and arrangement of the shaft, a, the hand lever, b, and the segment or circle, g, g, as described.

4th. The arrangement and adaptation of the segment or circle, hand lever and shaft just named, to its frame, holding up the shaft, a a, so that the shaft and hand lever shall revolve together, and the segment or circle be fixed or stationary about the shaft, as described.

5th. The construction of the segment, g, with slots to receive the lever, h, at the places or points requisite for the switch changes, as described.

6th. The construction of the hand lever, h, so as to be self or readily operated by its spring at the just named places or points of switch changes in the said segment, as described.

7th, The combination, with the shaft, a, hand lever, h, and segment or circle, g, of the rack and pinion, b, c, and rod, e, and changeable track or tracks, as described.

tracks, as described.

57,006, dated August 7, 1836; reissue 2,815.—Hydraulic Mains of Gas Works.—I. N. Stanley, Brooklyn, N. Y.
I claim as an improvement in hydraulic mains for gas works, the combination with the main, C, of the external supply tubes, D, cast with or made separately from and attached to the main, and communicating with the same below the water or fluid therein, substantially as and for the purpose herem

set forth.
62,084, dated February 12, 1867; reissue 2,816.—Wash Boilber.—M. W. Staples, Catiskiil, N. Y.
1 claim, 1st, in combination with a portable wash boiler, having a perforated partition or diaphragm, E., made as described, one or more tubes or
conduits, D, arranged and operating substantially as hereinbeforeset forth.
2d, Also, the water space or chamber, B, in a portable wash boiler, provioled with a perforated partition. E, made as described, and conduits, D,
made and operating in the manner and for the purposes hereinbefore set
forth.

forth.

64,163, dated April 23, 1867; reissue 2,817.—Florse IIAY
FORK.—A.R. Sprout, Hughesville, Pa.
1 claim, 1st. Providing the extreme penetrating point or points of a horse
hay fork with a cutting edge or edges to reutting its way into the hay, said
points being so constructed that they can be operated so as to catch and
fold in the hay for elevating it and be released at will from the hay for discharging it.

2d, The coniform points, f and g, provided with cutting edges, and shoulders and hooks, 6 and 7, constructed, arranged, and operating substantially
as herein desortice and for the purpose set forth.

54.431 dated May 1, 1868; willows 2, 140, Honey H.

as herein described and for the purpose set to th.

54,431, dated May 1, 1866; reissue 2,818.—Horse Hay
Fork.—Ariel B. Sprout, Picture Rocks, Pa.
Iclaim, 1st. Combining in one implement a hay elevator and hay cutter, so
constructed that, when used as an elevator, it will cut its way into the hay,
and so operating that it will catch in the hay for elevating it, and then may
be released at will from its hold in the hay for discharging it, substantially
see described.

as described.

2d. The combination and arrangement of the bars, A and B, provided with barbs and cutting edges at their lower extremities, and levers, n and w, substantially as herein described, and for the purpose set forth.

# DESIGNS.

2,848.—WINDOW FASTENER.—G. B. Kirkham, N. Y. city. 2,849.—Paper Collar.—Wm. F. Moseley, Brooklyn, N. Y. 2,850.—OIL-Cloth Pattern.—James Patterson, Elizabeth City, N. J., assignor to W. W. Gearn & Co., Newburg, N. Y.

# PENDING APPLICATIONS FOR REISSUES.

the following Patents, with new claims as subjoined. Parties who desire to oppose the grant of any of these reissues should immediately address MUNN & Co., 37 Park Row, N. 1.

3d, An annular lamp body in combination when the sair coming as described.

4th, Constructing and arranging the parts so as to deflect the air coming up from outside the lamp body toward the flame. Substantially a described.

5th, Supplying air to the flame by means of the channel formed between the body of the lamp and the ontside shell or case, substantially as described. 6th, Arranging and using the rod owire, K, in relation to the flame and hollow pedestal and case, substantially as and for the purposes described and for the purpose described.

AND BAGGING GRAIN.

and for the purpose described. 28,568.—MACHINE FOR WEIGHING AND BAGGING GRAIN.— 28,568.—MACHINE FOR WEIGHING AND BAGGING GRAIN.—
Harriet M. Fish, New York city, assignee of L. K. Plimpton and Wm.
Fowt, Buffalo, N. Y., executors of James M. Fish, deceased. Dated June
5, 1860. A pulication for reissue received and filed Nov. 7, 1867.
What is claimed as the invention of said James Fish is, 1st, in combination
wich a weighing scale a grain bin fitted with a sloping bottom or sides, a
bagging spout and gate to regulate the flow of grain, substantially as described.
2d, The use of a grain bin fitted with a sloping bottom or sides a bagging
spout and gate to regulate the flow of grain substantially as described for
the purpose of facilitating the bagging and weighing thereof, substantially
as described.
3d. The arrangement of the bin. A. doubly-inclined floor. O. vertical gates.

2d, The use of a grain bin fitted with a sloping bottom or sides a bagging spout and gate to regulate the flow of grain substantially as described for the purpose of facilitating the bagging and weighing thereof, substantially as described.

3d, The arrangement of the bin. A, doubly-inclined floor, O, vertical gates, D, spouts, L, frame, B, and scale, M, the whole being constructed and combined substantially in the manner and for the purposes explained.

59,466.—SCHOOL DESK AND SEAT.—Calvin W. Sherwood, Chicago, Ill. Dated Nov, 6, 1866. Application for reissue received and fledDec. 9, 1867. Div. A.

1st, I claim the joint composed of the nave, C', and axle, B', constructed and operating substantially as set forth.

2d, The arrangement and combination of the arms, C, nave, C', and axle, B', with the seat, D, and standard, A, substantially as specified.

3d, The double-acting stop, k, constructed and operating substantially as specified.

4th, Solocating and arranging the stop, k, and axle, B', on the head, B, that with the nave, C', a covered and compact joint is provided, substantially as and for the purposes specified.

5th, The double-acting stop, k, in combination with the shoulder, l, operating in the slot or space, substantially as specified.

5th, The double-acting stop, k, in combination with the shoulder, l, operating in the slot or space, substantially as specified.

5th, The double-acting stop, k, b, philication for reissue received and filed Dec. 9, 1867. Div. B.

1st, I claim the jointed braces, F, when provided with lips, a, and ledges, b, substantially as and for the purposes specified.

2d, The combination and arrangement of the ledges, b, lips, a, and pins, d, with the braces, F, andhinged shelf, K, substantially as specified.

3d, The arrangement and combination of the hinged arms, H, jointed braces, F, andhinged arms, G, with the standards, A, and desk top. I J, substantially as and for the purpose specified.

2d, The arrangement and combination of the hinged arms, H, jointed braces, F, andhin

NOTE.—The above claims for Reissue are now pending before the Patent Officeand will not be officially passed upon until the expiration of 30 days from the date of fling the application. All persons who desire to oppose the grant of any of these claims should make immediate appli-MUNN & CO., Solicitors of Patente, 37 Park Row, N. Y.

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