The lever, Gg, with or without adjustable fulcrum, and having an adjustable weight. L, as set forth, in combination with rocking-shaft roll, F, all ar-

able weight; I, as set forth, in combination with rocking-shaft roll, F, all arranged substantially as described.

4th, The combination of lever, G g, weight, L, arm, a, levers, F I J K, and escapement wheel, E, all arranged and operating substantially as and for the purposes set forth.

5th, The rod, o, and brake, p P, arranged in combination with and in relation to the yarn beam and whip roll, substantially as and for the purposes described.

tion to the yarn beam and whip roll, substantially as and to the yarn beam and whip roll, substantially as and to the yarn, substantially as described.

The rod, o, and brake, p. P. in combination with a let-off mechanism operated by the strain of the yarn, substantially as described.

The The mechanism for throwing back the rod, p, or rod, o, to free the yarn beam, substantially as described.

73,400.—WATER WHEEL.—William Snodgrass, Cold Spring,

Wis.

1 claim the float, D, with its valves, a' and c, the scroll, B, and the segment f, with the sliding piece, g, the spring, h, and screw, i, when arranged and combined substantially as described, and for the purposes set forth.

73,401.—MRCHANICAL MOVEMENT.—E. Soper, N. Y. city.

1 claim a crank, when composed of the gene whee's Band D, or their equivalents, and of the plates, C, and pin, a, a' made substantially as described, and operating so that the velocity of the shaft is increased without increasing the number of revolutions of the crank.

ing the number of revolutions of the crank.
78,402.—Combined Catheter and Syringe.—Dr. N. B.

Soraborger, Northampton. Mass.

I claim the slide or collar on the body to a syringe, in combination with a collar in the discharge tube, when the two are connected together and arranged for operation substantially as and for the purpose described.

Also, the loops applied to the cylinder of a syringe for receiving fastening straps, substantially as described.

73,403.—Horse Hay Fork.—Isaac C. Spear, New Wilming-

ton, Pa.

I claim, in connection with the curved lines of a hay elevator, a locking device, consisting of arms, b.c., link, d, and detaching lever, f, or its mechanical equivalent, constructed and arranged substantially as and for the purposes hereinbefore settorth.

ereindefore set forth. ..—Wash Board.—Edgar M. Stevens, Boston, Mass. I claim a corrugated wash board, when made of India-rubber mixed with fibrous material, and shaped and vulcanized in the mold, substantially as described. scribed. 73,405.—Skate.—W. X. Stevens, Waterford, N. Y.

I claim 1st, Forming the sole and blaze of a skate from one continuous piece or sheet of metal by first slitting or cutting, and then bending the sais metal sheet, substantially in the manner and for the purposes herein shown

metal sheet, substantially in the manner and for the purposes herein shown and described.

2d, A combined skate sole and blade, formed from a continuous sheet of metal as described, and corrugated or indented at the angle formed by the sole, with the blade, so as to form braces for stiffening the said parts, substantially as shown and set forth.

3d. The combination with a skate of ordinary or suitable construction, of the herein described spring clutch for grasping the boot sole, the same being pivoted to the forward part of the skate, so as to extend diagonally across the sole of the same, under the arrangement and for operation as shown and set forth.

set forth.

4th, The combination with a skate of ordinary or suitable construction, having a stationary jaw or equivalent bearing for the rear of the boot heel of the pivoted catch and adjustable set screw, for holding the said boot heel to the skate under the arrangement and for operation as herein shown and set

73,406.—Check-Rein Hook.—F. U. Stokes, Cincinnati, Ohio. Antedated January 2, 1868.

I claim the grop piece, C, secured to the point of the check hook, as shown it c, for the purpose of closing the check hook and preventing the rein get

ting out. 73.407.—Annealing Furnace.—W. R.Thomas, Catasauqua

Pa.
I claim the rings, E. placed between and supporting the car wheels, and fitting study within the furnace, A, whereov the heat is prevented from reaching the chilled treat of the wheel, while the center is being annealed by intense heat, the whole supported upon the offset, s, in the Laplace, as herein set forth for the purpose specified.

73,408.—MACHINE FOR SOFTENING LEATHER AND HIDES.—
Locather Tidd Wodern, Mass.

15,405.—MACHINE FOR SOFTENING LEATHER AND INDES.—
Jonathan Tidd, Woburn, Mass.
I claim, 1st, A leather softening machine, constructed and arranged to operate substantially as described for the purpose specified.
2d. The perforated bed, B, or its equivalent, and the pins, c, or their equivalents, with the yielding cross head, G, and the supporting beam, K, for the purpose and substantially as described.
3d, The shaft, H, wheels or cranks, I, pitmen k and rods m, combined with the cross head, G, in the manner and for the purpose substantially as described.

with the cross head, G, in the manner and for the purpose substantially accessibled.

4th, The nuts, d and e, and springs, g, combined with the rods, m, and the cross head, G, for the purpose and substantially as described.

73,409.—LAMP.—Howard Tilden, Boston, Mass.

I claim, 1st, The openings, ii, in the flange, C, arranged in relation to the cap, B, in the manner and for the purposes specified.

2d, The ring, D, when provided with the sustaining wires, e, e, and combined with the base, A, substantially as and to operate as set forth.

2d, The base, A, the ring, D, and the cap, B, when arranged with relation to each other substantially as described.

4th. The ring. 1, arranged upon and used to liftthe cap, B, by, as described

ring, J, arranged upon and used to liftthe cap, B, by, as described

72.410.—Sausage Stuffer.—John P. Troxell, Hancock, Md. I claim the sausage stuffing machine herein described consisting of the higher devileders, C.C. rack bars, H.P. provided with alsks, I.I. situated as described, and open ten by wheels, E.P. G. a., so that while one cylinder is filling the other cylinder may be filled with meat, and prepared to fill its casing as soon as the 'rst cylinder has done its work, and viceversa, substantially as described. 73,411.—Machine for Sizing Hat Bodies.—Henry Warner,

Newark, N. J.

I claim, 1st, The combination of the reciprocating rocking platen or board, C, blaten or board, D, and connecting rods, zy, with the crank shaft, B, as and or the purpose described.

2d, The injectors, G and H, and the distributor, w, when used in combination with the boards, C and D, substantially as shown.

3d, The expressing rollers, F, and the weights, I, when combined with the described sizing machine, in the manner and for the purpose specifies.

73,412.—CRANK PLANER.—William H. Warren, Worcester

73,412.—URANK FLANER.—William H. Warren, Worcester, Mass.

1 claim, 1st, The combination, with a crank planer or like machine, of mechanism substantially as herein described, for regulating the throw of the crank without stopping or interrupting the continuous operation of the machine, as shown and set forth.

2d, The combination, with gear, F. and face plate, E. of the tubular shaft, g, central shaft, 3, serew shaft, 8, and gears, 4 h 6, and 7, substantially as and for the purposes set forth.

3d, The combination, with the shaft 2, and gear, 1, of the loose gear, 5, and pulley, 12, or its uncontarional equivalent, operating substantially in the manner and for the purposes herein shown and described.

4th, The combination, with gears, 1 and 5, and pulley, 12, mounted on the shaft, 2, as described, of gears, 4 and h, and their respective shafts, arraspected.

5th, The combination, with the friction pulley, 12, and beveled pin, 13, of

5th. The combination, with the friction pulley, 12, and beveled pin, 13, o the lever, H, and shoulder, 15, substantially as and for the purposes set forth -Mode of Straining Wood Saws.-Joseph R. Web

73,415.—MODE OF STRAIGHTON OF STRAIGHTON SER, Boston, Mass.

1 claim, in combination with a hand sawframe, the lever, i, and mechanism by which it is connected with the frame, and is operated to strain the saw blaie, substantially as set forth.

73,414.—Tube Well.—Rollin C. Welch and Joseph B. Mil-

blaie, substantially as set letth.

73,414.—Tube Well.—Rollin C. Welch and Joseph B. Miller, Buffalo, N. Y.

We claim the imperforated external tube, D. connected with the perforated internal tube, A, by means of the inner collar, c, and the outer collar, b, so that the tube, D, comes in contact with an external shoulder of a conical plug, B, of the tube, A, during the operation of forming the enlarged water chamber, a, and rests upon a spring catch when the tube well is adjusted for operation, substantially in the manner and for the purpose described.

73,415.—Lantein.—George Wheeler, Chicago, Ill.

I claim, 1st, The arrangement of the conical tube or chimney, D, with the globe of a lantern, substantially as and for the purposes specified.

2d, Also, providing said chimney, D, with one or more diaphragms, E, arranged and operating substantially as and for the purposes steforts.

3d, Also, In combination with the said chimney, D, and the openings, b, in the lantern top, the arrangement of the perforated sisk, c, in the manner and for the purposes described.

4th, Also, the arrangement of the draft openings, a b, in the lantern top, with the chimney, D, operating substantially as described.

73,416.—Desk AND Seat.—Hiram W. White, Olney, Ill.

1 claim, 1st, The folding legs, C C C C', in combination with the notches.

1 2 3 4, and locking plates, F F, or their equivalents, as a means for adjusting desks, tables, and chairs, vertically, substantially as a described.

73,417.—Cider Mill.—W. N. Whiteley, Jerome Fassler,

chair, DCC, substantially as and for the purpose specified.

73,417.—CIDER MILL.—W. N. Whiteley, Jerome Fassler, and O. S. Kelly, Springfield, Ohlo.
We ciaim, 1st, Constructing the grinding box in two parts, substantially as set forth, and attaching the bearings of the crushing rollers to the upper part, as and for the purpose set forth.

2d, Mounting the journals of the grinding rollers, VV. in boxes, which are attached to the lower side of the sidewise projecting flange, by screw bolts, and so that the said boxes may be slightly adjustable as to their distance from each other, as set forth and described.

3d, The construction of the press frame with the press beam, L, the stay rods, JJ, the frontposts, AA, the girder, B, the tie rods, HH, and the angle irons, II, as set forth.

4th, The two ribbed crushing vollers, SS, and the two grinding rollers, VV, directly beneath them, and running at different speeds, combined and arranged in a metallic grinding box constructed in two parts, and the bearings of the other set connected to the other of said parts, and the bearings of the other set connected to the other of said parts.

78,418.—ANIMAL TRAP.—James P. Wigal, Henderson, Ky. I claim, 1st, the combination of the ooil spring, H, crank, G, lever catches, I and J, spiral spring, L, or its equivalent, connecting rods, E and F, and arm, D, with each other and with the wings, B and C, substantially as herein shown and deserted, and for the purpose set tortin, M, arm, N, connecting rod or wire, O, elbow lever, P, and bar, R, with each other and with the lever catch, J, for the purpose of springing the trap, substantially as herein shown nd described.

satch. J. for the purpose of springing the trap, substantially as herein shown and described.

3d. The comb nation of the arm, T, and connecting rod or wire, U, with the drop gate, S, and lever catch, I, for the purpose of resetting the trap, substantially as herein shown and described.

3th, The combination of the curved arm, W, with the wing, B, and drop gate, V, substantially as herein shown and described, and for the purpose set

73,419.—Manufacture of Pens.—Edwin Wiley, Brooklyn,

73,420.—WORM FENCE AND PEN.—John Will, Bryan, Ohio. I claim, 1st, the worm fence, constructed as described, whereby pens or yards can be formed by interlocking from either side, as herein shown and described.

I claim, ist, the worm fence, constructed as described, whereby pens or yards can be for med by interlocking from either side, as herein shown and described.

21, The sections, provided with notches at one end in the under part of each board, and, at the other end, in the top part of each board, the notches in the under side of one section engaging with the upper notches of the other section, and held in position by means of the cleats upon each side of the boards, near each end, all constructed and arranged as herein set forth, for the purpose specified.

73.421.—VENDER—Julin B. Wilson, New York, N. Y.

I claim the veneer produced by a corrugated or zigzag cut, substantially in the manner as described.

73.422.—PIPE COUPLING.—Lewis Wilson, Ovid, N. Y.

I claim the double convex metal ring, b, interposed between the ends of the pipes, A A, and fitted into receases, c. formed therein, and retained in position by external pressure, applied through serew bolts, a a, or their equivalents, substantially in the manner and for the purpose described.

73.423.—WOOD TURNING LATHR.—E. K. Wisell, Warren, O.

I claim the receiprocating and vibrating frame, H. pivoted to the adjustable rod, K, and carrying the adjustable live and dead centers, M M, arranged concentrically with the axis of the revolving cutter-head, B, and operating substantially as and for the purpose described.

73.424.—HARVESTER.—William F. Goodwin, East New Yotk, assignor to Samuel Johnston, Syracuse, N, Y.

I claim, 1st, The arrangement of pinions, H H, and the transmitting wheels on arms, F F, on and around the axle and within the drum, E, whereby the required number of revolutions is obtained, substantially as described.

34, The spur and bevel pnions, H H, and I, mounted on the tubular sleeve or axle, and operated by means of the drum and transmitting wheels, substantially as described.

36, The secondary arm, F, carrying the transmitting wheel gearing with the drum and secondary pinion, H, for the purpose set forth.

75.425.—CONSTRUCTING ARTESIAN WEL

Cortland, N.Y.

The herein described process of sinking wells, where no rock is to be penetrated, viz., by driving or forcing down a rod to and into the water under ground, and withdrawing it, and inserting a tube in its place to draw the water through, substantially as herein described.

73,426.—COMBINED TROUGH AND DOUBLE RACK FOR FEEDING SHEEP, CATTLE AND HORSES.—James Douglass McBride, Mansfield, Ohio.

Ohio.
I claim, let. The box trough, A. constructed substantially as described, and provided with the rack, T and the subplementary troughs formed by the hingel boards, B B, as and for the purpose herein set forth.

2d. The rack, composed of the bars, D D and D', and bars, E, forming a double rack, and hinged cover for the box, A, when used in combination with the said box, substantially as set forth.

3d. The graduating end bars, PP, used in combination with the bar, D; for enlarging or contracting the upper and lower racks, as and for the purpose set forth.

REISSUES.

2,830.— CAR STARTING APPARATUS.—Joseph Steger, New York city. Dated July 9, 1867.

1 claim. 1st, The multiplying gear, consisting of the traction bar, T, lever requivalent, L, pivoted pawl, R. ratchet wheel, W, spiral spring, S, and pring, PS, constructed and operating substantially as and for the purpose peculica.

the purpose set forth. 2,831.—Nursing Bottle.—Milo S. Burr, Boston, Mass., as-

2,031.—INURSING BOTTLE.—MINO S. BUIT, BOSTOH, Mass., assignee by mesne assignment of Francis J. La Forme.
I claim my said improved nursing bottle, having its body, A. composed of
glass or other suitable material, and provided with an elastic hipple, or
mouth piece, f, and a flexible or pendulous tube, C, applied thereto, substantially in manner and so as to operate as and for the purpose set forth.
Also, in a nursing bottle, otherwise properly organized, the use or application of a flexible or pendulous tube, substantially as and for the purpose set
forth.

forths. A headine of pelunduous cube, substantiarly as and to the purpose set forth.

Also, the application of a gravitating tip or tube, e, to the lower end of the flexible tube, c, substantially as an I for the purpose set forth.

2,832.— HEATING APPARATUS.— Thomas S. Clogston, Boston, Mass. Dated Dec. 13, 1864.

I claim the application and use, for heating purposes, of one or more tubes having a corrugated or annular ribbed surface, in combination with a boller or other suitable steam generator, and pipes for conducting the steam or hot water from said generator to the corrugated tubes, essentially as herein shown and described.

-Pegging Machine.—Wm. N. Ely, Stratford, Conn.

2,833.—PEGGING MACHINE.—Wm. N. Ely, Stratford, Conn., assignee of Edgar M. Stevens. Dated May 33,13;7.
I claim, 1st, The combination of a vibrating moving awl with a sliding or vertically moving, or a swinging head, substantially as described.
2d, The combination of a feeding awl, with a sliding and swinginghead, or with a sliding head, or with a swinging head, substantially as described.
3d, Raising and driving the awl bar and peg driving bar, or either of them, positively and directly, by means substantially as described, in combination with a laterally moving of feeding awl.
4th, So constructing the parts that the awl bar, moving up and down perpendicularly to its Carriage, shall also move laterally, substantially as and for the pnrposes described.
5th, In combination with the foregoing, the laterally and vertically moving peg driving bar, substantially as and for the pnrposes described.
6th, Constructing and arranging the knife in relation to the driver and peg tube, substantially as described.
7th. Cutting the peg from the strip, substantially as described.
2,834.—Scythe Fastening.—Pinckney Frost, Springfield, Vt. Dated Jan. 11, 1853. Reissue 524, dated Feb. 9, 1858; extended seven years.

years.
I claim the loop bolt, provided with the groove, b, and the hook or loop, e, in combination with the set-ring, also provided with a groove, b', all constructed and arranged substantially as and for the purpose set forth.

2,835.—Steam Boiler Furnace.—John T. Hancock, Bos-

ton, Mass. Dated March 1, 1884.

I claim the method of supplying air and steam to ignited fuel in furnaces, by commingling and then introducing them into an enclosed space under the trate bar, by means substantially as above described.

or, by means substantially as above described.

—HAND STAMP.—B. B. Hill, Chicopee, Mass. Patented

November 6, 1866.
I claim, 1st, The employment of an indicator index or calendar, R R', to represent the period of time, in combination with stamp-canceling wheels. I J. arranged and operating substantially as described.
2d, Also, the wheel case, G, stud or axis pin, a, with the ribbon cylinder when made in one piece of metal, substantially as and for the purpose de-

scribed.

3d. Also, the calendar wheels, R.R., arranged upon the same axie with the wheels, I.J. in combination with the hand stamp, arranged and operating substantially as described.

4th, Also, the bracket, H, made on or secured to the case, G, having a step, c, or its equivalent, to enter the lower end of the spindle, and orifice for the screw, e, for attaching and detaching said case to the spindle, E, substantially as and for the purpose described.

5th, Also, in a hand stamp, the employment of the flanch, K, on the chase, L, in combination with the case, C, and bed, C, for the purpose of easily and quickly attaching and etac sing said chase on or off of subcase.

2,837.—STRAW CUTTER.—Franklin Benjamin Hunt, Richmond, Ind. Patented January 5, 1864. Reissue 2,368, dated October 2, 1866.

Lelam, 1st. The par. x, cast in one piece, with the hearings, h.b., of cutter

mond, Ind. Patented January 5. 1864. Reissue 2,368, dated October 2, 1866.

I clam, 1st, The bar, x, cast in one piece, with the bearings, b b, of cutter shaft, c, and extending across from one to the other, substantially as shown.

2d, Also, connecting the feed rollers, G and H, by means of the pinions, a', b', d', and e', the pinions, b' and d', being p'accd on strus on the swinging plate, c', attached to the shaft, n, the pinions, d' and e', being kept in gear by the link, f, or its equivalent.

3d, Also, the swinging plate, c', connected to the shaft, n, and carrying the pinions, b' and d', substantially as and for the purpose shown and set forth.

4th, Also, inonating the upper iced roller, H, in a frame, with sling extending below the lower feed roller, and acced upon by a spring, or its equivalent, substantially as shown andfor the purpose set forth.

5th, Also, the hooked slings, q, q, in combination with the yielding feed roller, H, and spring, I, or its equivalent, whereby the said feed roller. H, is limited in its npward movements, as set forth.

6th, Also, the hubs or bearings, u'', statached to the slings, q, and surrounding the shaft, p, of the feed roller, H, said hubs moving in slots, b b, in plates, w, and relieving the shaft from friction against the plates, as set forth.

in plates, w, and relieving the shaft from irlction against the plates, as set forth.

Tth, Also, the guide board or plate, u, connected to and moving with the frame, t, of the upper feed roller, II, and extending downward at the bak of the said roller to near a level with its axis, substantially as and for the purposes exterior.

8th, I claim the slots, v v, in the plates, w, when made eccentric with shaft, C, in combination with pinions, a, b, d, and e, said pinions connecting feed rollers. H and G, so that the adjustable roller can move up and down concentric with shaft, C, and the pinious remain in gear, substantially as set forth.

9th, Also, in combination with the bar, x, and adjustable bar, E, a revolving knife. D, with its axis placed above the plane of the adjustable cutter bar, E, to act with a slanting and shearing cut, substantially as set forth.

2,838.—STRAW CUTTER.—Franklin B. Hunt, Richmond, Ind., assignee by mesne assignments of himself. Patented December 27, 1859.
I claim, 1st, Combining in one piece the bed piece, R, upon which the adjustable bar, T, rests, and the side pieces, VV, substantially as shown and

justable bar, T, rests, and the side pieces, V V, substantially as shown and described.

2d, The adjustable bar, T, against which the knife cuts, when secured, by vertical bolls, U, to an inmovable bearing within the limits of the width of the cutting knife, as shown.

3d, The plate, Y, for the purpose of covering the joint between the adjustable bar, T, against which the knife cuts, and the best piece, R, in manner substantially as set forth.

4th. The link bearings, M, attached to the shatt, D, and carrying the feed roll, Q, in combination with the springs, W, in such manner that, as the roll rises, it shortens the operative length of the springs, and the reby gives the greatest pressure to the roll when most needed, in manner substantially as shown.

5th. Attaching the fly wheel of a feed cutter to its shaft in such manner as to constitute a yielding device between said wheel and the cutting knife, for the purpose described.

6th. Attaching the knife cylinder of a feed cutter to its shaft in manner shown, or in an equivalent way, to constitue a yielding device between the knife and other parts of the machine, for the purpose herein shown and set forth.

2,839.—FIRE ANNIHILATOR.—Chas. T. Jerome, Minneapolis,

2,009.—FIRE ANNIHLATOR.—Chas. T. Jerome, Munneapolis, Mnn. Patented July 9, 1867.
I claim, 18t. The application of a quick match, or its equivalent, which will take fire at a low temperature, to an apparatus for extinguishing fires by an injection upon the same of a gaseous or a liquid non-supporter of combustion, substantially as described.

24. Preparing the ends of the quick matches with a composition composed of the within described ingredients mixed together in about the proportious set forth.

set forth.

2,840.—CLOTHES WRINGER.—C. H. Knox, Mount Pleasant, Iowa. Patented July 2, 1887.

I claim, 1st, The do uble cog wheel, P, and doubleptaion, S, substantially as set forth.

2d, The combination of cog wheel, P, and pinion, S, with rollers, D D, substantially as and for the purpose set forth.

3d, The arrangement and combination of lever, M, hinged to box, A, roller L, rods, K, levers, I, and plate, C, arranged to operate upper roller, D, as set forth.

2,841.—Machine for Making Drain Pipe.—Bradford S.

2,841.—MACHINE FOR MAKING DRAIN PIPE.—Bradford S. Pierce, New Bedford, Mass, and Mason R. Pierce, Woodstock, N.Y. Patented April 19, 1859. Reissue 1,897. Dated Feb. 28, 1865.

We claim, 1st, A mold consisting of a case capable of being properly secured around the material while the pipe is being mo ded, and of being freed from the pipe when the molding is completed, in combination with a core, and also with a core socket, having a provision for freeing the socket, or pipe, or both, from the core, the whole operating substantially as set forth.

2d, A mold in which the core socket is made separate and distinct from the other parts, and so formed, and so combined with such other parts, that its capable of being connected with them when the mold is ready for use, and of being continuously kept connected with them during the entire process of molding and sinishing the pipe, substantially as and for the purpose desorthed.

3d, The arrangement of the mixing apparatus and of the core relieving do-

cess of molding and finishing the pipe, substantially as and for the purposes described.

3d. The arrangement of the mixing apparatus and of the core relieving devives above the platform, which conveys the molds in the manner and for

vives above the platform, which conveys the molds in the manner and for the purpose substantially as specified.

4th. The combination of the corescoke, with the revolving disk, which receives the core and the mold, when the disk contains a provision for enabling the socket or pipe, or both, to be freed from the core, the whole operating substantially as described.

2,842.—Hoop Skirk.—Wm. T. Ryerson, Philadelphia, Pa.

2,842.—Hoop Skirt.—Wm. T. Kyerjon, Philadelphia, Pa. PatentedAue, 27,1837.

I claim a skeleton skirt provided with buckles, or their equivalents, near the waiet band, for adjusting the vertical tapes or connections at the sides of the skirt, to accommodate the size and shape of the hips, or vary the length of the skirt, substantially as setfortn.

2,843.—W EAVING.—William Smith, New York city. Dated April 5, 1833. Extended seven years. Reissue 2,656. Dated June 18, 1867. I claim the process herein specified of weaving consisting in the use of stationary warps in combination with moving warps and filling that inclose such stationary warps. substantially as set forth.

stationary warps in combination with moving warps and filing that inclose such stationary warps, substantially as set forth.

2,844.—WEAVING.—William Smith, New York city. Dated April 5,1853. Extended seven years. Reissue2,656. Dated June 18,1867.

I claim the heddle, or its equivalent, for supporting the stationary central warps in combination with mechanism, substantially as set forth for performing the weaving.

2,845.—CENTRIFUGAL MACHINE FOR DRAINING SUGAR AND OTHER SUBSTANCES.—David M. Weston, Boston, Mass. Dated April 9, 1867.

other Substances.—David M. Weston, Boston, Mass. Dated April 9, 1867.

I claim, 1st, In the construction of centrifugal machines for separating liquids from other substances suspending such machines at the top by flexible connections, operating substantially as described.

2d. The combination of the spindle, D. and its accessories with the socket, B, and its india-rubber bushing. C, or other equivalent spring connection to form a flexible and elastic bearing for the shaft, E, by which the cylinder may be suspended, substantially as described.

3d. The employment in a centrifugal machine of a hollow shaft and a spindle or axle on which it runsto support the cylinder or basket, substantially as described.

4th, So forming and arranging the driving pulley, F, upon the shaft, E, that it shall surround the spring-bearing, substantially in the manner and for the purpose described.

5th, The construction of the openings, I, in the bottom of the cylinder in such machines and the valve, J, for the purpose of c'osing the same, substantially as described.

6th, The combination of the cylinder, G, the hollow shaft, E, the driving pulley, F, the spindle, D, its elastic bushing, C, and socket, B, to form the operative part of a centrifugal machine, substantially as described.

2, \$45.—Printtens' Chase.—Richard Yeomans, Cincinnati, Ohio. Dated October 24, 1865.

DESIGNS.

DESIGNS.

-Chair.—Levi Heywood (assignor to Heywood, Broth-

ers & Co.), Gardner, Mass.

2,859.—FLOOR OIL CLOTH PATTERN.—John T. Webster, New York city, assignor to Edward Harvey, Brooklyn, N. Y.

PENDING APPLICATIONS FOR REISSUES.

Application has been made to the Commissioner of Patents for the Reissue of the following Patents, with new claims as subjoined. Parties who destre to oppose the grant of any of these reissues should immediately address MUNN & Co., S: Park Row, N. Y.

47,753. — PLOW CASTING. — Francis F. Smith, Collinsville, Conn. Dated May 16th, 1865. Application for relssue received and filed January 2d, 1868.

I claim, as a new article of manufacture, plow plates made of scemic steel, faced with cast steel.

9,540.—OPERATING THE TREADLES OF LOOMS.—Robert M. Andrews Stafford Conn. Dated January 18th, 1879. Stafford Conn.

Raced with cast steel.

9,540.—OPERATING THE TREADLES OF LOOMS.—Robert M. Andrews, Stafford, Conn. Dated January 18th, 1853. Extended January 17th, 1867. Application for reissue received and filed January 8th, 1868. Italian operating each treadle by means of a mover having two outwardly acting cam surfaces of unequal lengths combined in one piece, and producing the movements and retentions substantially as herein set forth.

I also claim such a relative form and arrangement of the treadles and the movers and cams, that the cams can be reversed upon the shaft, and thereby cause a reversal of the movements and retentions of the said treadles, substantially as herein set forth.

I also claim, in a cam loom, having upright treadles or harness levers, actuated by a single set of cam wheels arranging the fulcrum shaft of the harness levers directly over or within the vertical plane of the cam wheels, substantially as described.

53,389.—GERKNO.—Metropolitan Washing Machine Compant, Middlefeld, Conn., assignees of S. Wand, J. F. Palmer, Auburn N. T. Dated May 8th, 1866. Application for reissue received and filed January 3d, 1868.

I claim, 1st, Forming upon either or both faces of a disk or circular plate, cogs or teeth, so as to project from the faces of said disk in contradistinction to forming said teeth upon a hub so as to project radially therefrom, substantially as and for the purposes herein shown and described.

2d. The combination of toothed or cog wheels of ordinary or suitable construction, when used in pairs upon the same shaft, with a plate or plates arranged upon the interior opposite or exterior opposite faces of either pair in the manner described, whereby the wheels on the other shaft, and thus prevent the lateral play of the one shaft with respect to the other as ectorits.

3d, In a machine having shafts arranged to operate, at varying distances from each other as described, the combination with a circular plate or plates or one shaft of a hub upon the other shaft, under such an arrangement that when

66,044.—AUTOMATIC APPARATUS FOR LIGHTING AND EXTINGUISHING GAS.—E. P. Russell and P. Tremain (assignees of E. P. Russell),
Manlius, N. Y. Dated June 25th, 1867. Application for reissue received
and filed January 4th, 1868.
I claim, 1st, The screws, F. F., the bolts, J. J., the disk, H, and the arms, H',
each separately and in combination with each other, made and operated substantially as and or the purposes set forth.
2d. The combination and arrangement substantially as described, of the
main spring, K, gas cock, N, and arms, H', for the purposes set forth.
3d. The step shaft, E, and thumb screw, I, each separately and in combination with the bollow shaft, F, and the hands, D D', arranged and operated
substantially as and for the purposes described.
4th, I claim the springs, ij' separately and also in combination with the
bolts, J J,' when made and operated as above described.
70,272.—MODE OF LIGHTING STREET GAS BURNERS.—E. P.
Enssell, and Porter Tremain (assignees of E. P. Russell), Manlins, N. Y.

70,272.—MODE OF LIGHTING STREET GAS BURNERS.—E. P. Russell, and Porter Tremain (assignees of E. P. Russell), Manitus, N. Y. Dated et. 29th, 1867. Application for reissue received and filed January 4th, 1868.

I claim a smallsupplemental burner, A, to be kept burning constantly, and the pipe leading thereto when operating in connection with a main burner, substantially as and for the purposes set forth.

I also claim the same parts, in combination with a main pipe and burner, to beused in connection with any initial and apparatus for lighting and extinguishing gas, substantially as above described.

13,197.—MACHINE FOR MITERING PRINTERS' RULES.—R. Hoe & Co. (assignees of William McDonald), New York city. Dated July 3d, 1855. Application for reissue received and filed January 6th, 1868, I claim the combination with a movable cutter of a sector, guide, plate, a rule holding bed and adjusting mechanism, constructed and operating substantially as described and for the purposes specified.

NOTE.--The above claims for Reissue are now pending before the Patent Office and will not be officially passed upon until the expiration of 30 days from the date of filing the application. All persons who desire to oppose the Grantof any of these claims should make immediate application.

MUNN & CO., Solicitors of Patents, 37 Park Row, N. Y.

Inventions Patented in England by Americans. [Condensed from the "Journal of the Commissioners of Patents."]

PROVISIONAL PROTECTION FOR SIX MONTHS.

3,451.—LIGHTING, HRATING, AND COOKING APPARATUS.—Zoeth Burfee, Philadelphia, Pa. Dec. 4, 1867.
3,484.—DPERATING CHAIR FOR DENTISTS.—James B. Morrison, St. Louis, Mo. Dec. 7, 1867.
3,494.—Weighing Apparatus.—Joseph A. Munn, New York City. Dec. 7, 1867.
1867.
3,500.—Machine For Excatating Dirches and Drains.—Henry C. Ingraham, Technisch, Mich. Dec. 9, 1867.